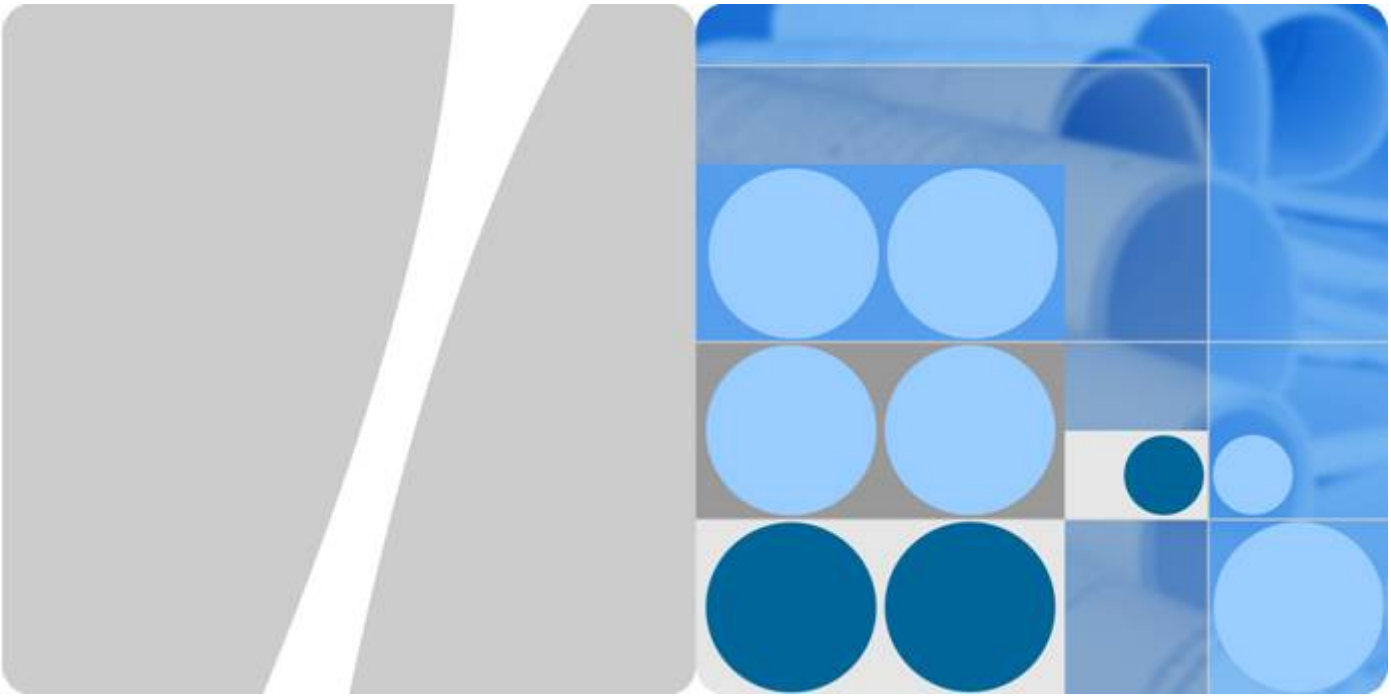

Server Migration Service

API Reference

Issue 03

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HUAWEI

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Contents

1 Before You Start 1
1.1 Overview 1
1.2 API Calling 1
1.3 Endpoints 1
1.4 Concepts 2
2 API Overview 4
3 Calling APIs 5
3.1 Making an API Request 5
3.2 Authentication 9
3.3 Response 10
4 Getting Started 12
5 APIs 15
5.1 Source Server Management 15
5.1.1 Reporting the Basic Information About the Source Server 15
5.1.2 Querying the List of Source Servers 25
5.1.3 Querying a Source Server by Server ID 29
5.1.4 Deleting the Source Server Information by Server ID 43
5.1.5 Modifying the Name of the Source Server with a Specified ID 44
5.1.6 Deleting Information About Source Servers in Batches 45
5.2 Task Management 46
5.2.1 Reporting Data Migration Progress 46
5.2.2 Creating a Migration Task 47
5.2.3 Starting a Migration Task 54
5.2.4 Stopping a Migration Task 55
5.2.5 Uploading Migration Logs 56
5.2.6 Querying the List of Migration Tasks 57
5.2.7 Querying a Migration Task by Task ID 64
5.2.8 Deleting a Migration Task by Task ID 73
5.2.9 Deleting Migration Tasks in Batches 74
5.2.10 Setting the Migration Rate 75
5.2.11 Querying the Migration Rate 76
5.3 Certificate Management 78

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5.3.1 Downloading the SSL Socket Certificate and Private Key 78
5.3.2 Downloading the RSA Public and Private Keys 80
5.4 Command Management 81
5.4.1 Obtaining Commands from SMS 81
5.4.2 Reporting the Migration Instruction Execution Result to the SMS Server 83
5.5 Template Management 85
5.5.1 Querying the Template List 85
5.5.2 Querying Information About a Template with a Specified ID 88
5.5.3 Adding Template Information 93
5.5.4 Modifying Template Information 97
5.5.5 Deleting a Template with a Specified ID 101
5.5.6 Deleting Templates with Specified IDs in Batches 102
6 Appendix 103
6.1 Status Code 103
6.2 Error Code 106
6.3 Obtaining a Project ID 107
A Change History 109

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1 Before You Start

1.1 Overview

Welcome to Server Migration Service API Reference. Server Migration Service (SMS) provides P2V and V2V migration services to help you migrate applications and data from on-premises x86 physical servers or VMs on private or public clouds to HUAWEI CLOUD Elastic Cloud Servers (ECSs).

This document describes how to use application programming interfaces (APIs) to perform operations such as creating, deleting, and querying host migration services. 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 **What Is Server Migration Service**.

1.2 API Calling

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

1.3 Endpoints

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

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

Table 1-1 SMS endpoints

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

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1.4 Concepts

- Account

  An account is created upon successful registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity, which should not be used directly to perform routine management. To ensure account security, create Identity and Access Management (IAM) users and grant them permissions for routine management.

- User

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

  An IAM user can view the account ID and user ID on the **My Credentials** page of the management console. API authentication requires information such as the account name, username, and password.

- Region

  A region is a geographic area in which cloud resources are deployed. Availability zones (AZs) in the same region can communicate with each other over an intranet, while AZs in different regions are isolated from each other. Deploying cloud resources in different regions can better suit certain user requirements or comply with local laws or regulations.

- AZ

  An AZ comprises of one or more physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Computing, 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.

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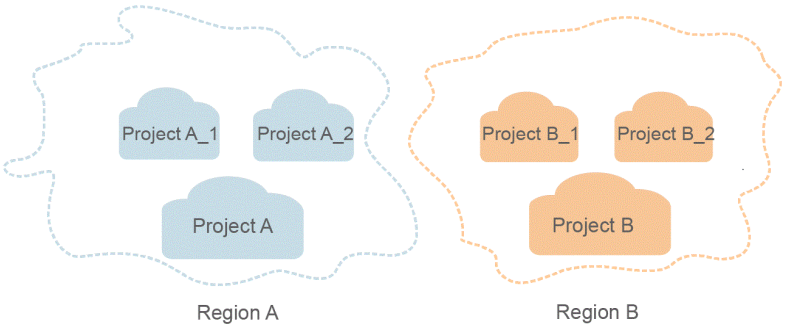
Figure 1-1 Project isolation model



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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.
Certificate management	APIs used for downloading the SSLSocket certificates and private keys and downloading RSA public and private keys
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 REST API request, and uses the IAM API for **obtaining a user token** as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

Request URI

A request URI is in the following format:

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

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

Table 3-1 URI parameter description

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

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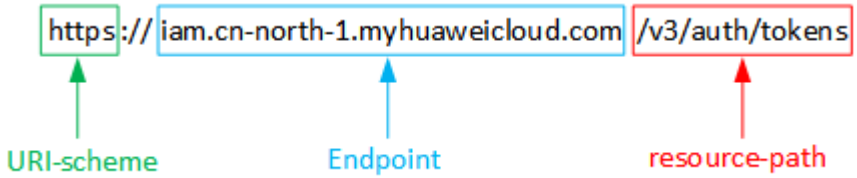
Parameter	Description
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "*Parameter name=Parameter value*". For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

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

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

Figure 3-1 Example URI



NOTE

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

Request Methods

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

Table 3-2 HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.
DELETE	Requests the server to delete specified resources, for example, an object.
HEAD	Same as GET except that the server must return only the response header.

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

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

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

Request Header

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

Common request header fields are as follows.

Table 3-3 Common request header fields

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

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

NOTE

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

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

The API for **obtaining a user token** does not require authentication. Therefore, this API only requires adding the **Content-Type** field. The request with the added **Content-Type** header is as follows:

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

(Optional) Request Body

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

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

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

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

NOTE

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

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

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

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

3.2 Authentication

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

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

Token-based Authentication

NOTE

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

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

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In **Making an API Request**, the process of calling the API used to **obtain a user token** is described. 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:

```
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

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

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

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

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

NOTICE

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

3.3 Response

Status Code

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

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

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

Response Header

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

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

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



(Optional) Response Body

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

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

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

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

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

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

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4 Getting Started

Overview

This section uses an example to describe how to make calls to SMS APIs.

The procedure of creating a migration task is as follows:

1. Call the **Token-based Authentication** API to obtain the user token, which will be put into the request header for authentication in a subsequent request.
2. Install the migration agent on a prepared server that can access the Internet. For details, see **How Can I Install the Migration Agent on Source Servers?**
3. Obtain the ID of the source server to be migrated from the queried source server list. For details about how to query source server list, see **Querying the List of Source Servers**.
4. Select an ECS as the target server to obtain its ID.
5. Make a call to the API for creating a migration task to create a migration task.

   After creating the migration tasks, you can view it on the SMS console.

Prerequisites

- You have obtained the endpoint of IAM. For details, see **Regions and Endpoints**.
- You have obtained the endpoint of SMS. For details, see **Regions and Endpoints**.
- You have obtained the project ID. For details, see **Obtaining a Project ID**.
- You have obtained the ID of the region where the target ECS is located, which is also the default project name of the region where the target ECS is located.

Procedure

1. Call the **Token-based Authentication** API to obtain a user token. Set the user token as an environment variable to call other APIs for authentication.

   a. Run the following command to obtain a user token:

```
curl -X POST https://{iam_endpoint}/v3/auth/tokens -H 'content-type: application/json' -d '{
    "auth": {
        "identity": {
            "methods": [
```

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```
            "password"
        ],
        "password": {
            "user": {
            "name": "{user_name}",
                "domain": {
                    "name": "{user_name}"
                },
            "password": "{password}"
            }
        }
    },
    "scope": {
        "project": {
            "id": "{project_id}"
        }
    }
}
}' -vk
```

Modify the command parameters as follows (for details, see the *Identity and Access Management API Reference*):

- *{iam_endpoint}*: Replace it with the obtained IAM endpoint.
- *{project_id}*: Replace it with the obtained project ID.
- *{user_name}* and *{password}*: Replace them respectively with the username and password of the IAM server.

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

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

b. Run the following command to set the token as an environment variable:

export Token=*{X-Subject-Token}*

Replace value of **X-Subject-Token** with the token obtained in the previous step. An example command is as follows:

```
export Token=MIIDkgYJKoZIhvcNAQcCoIIDgzCCA38CAQExDTALBglghkgBZQMEAgEwgXXXXX...
```

2. Install the migration Agent of the Linux version. For details, see **Installing the Linux Agent**.
3. Query the ID of the source server. For details, see **Querying the List of Source Servers**. Obtain the ID of the source server to be migrated from the queried source server list.
4. Obtain the project ID based on the ID of the target ECS. For details, see **Obtaining a Project ID**.
5. Make a call to **Creating a Migration Task** API to create a migration task.

   The following uses the Linux OS as an example to describe how to create a migration task.

```
curl -X POST https://{sms_endpoint}/v1.0/tasks -H 'content-type: application/json' -H "x-auth-token: $Token" -d '
{
"name": "Linux Migration",
"type": "MIGRATE_FILE",
"priority": "1",
"speed_limit": "0",
"start_target_server": "true",
"os_type": "LINUX",
"float_ip": "x.x.x.x",
"region_name": "north-china",
"region_id": "{region_id}",
"project_name": "cn-north-1",
```

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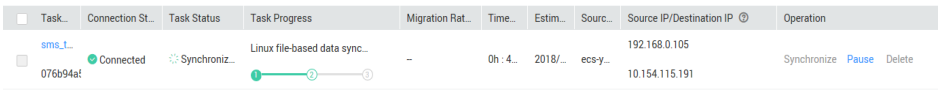
```
"project_id": "{project_id}",
"source_server": {
"id": "{id}"
},
"target_server": {
"vm_id": "{vm_id}",
"disks": [{
"name": "Disk 0",
"disk_id": "e198f4cc-e51a-43df-1234-79bd41e00bed",
"size": "85897247744",
"physical_volumes": [{
"name": "xvda1",
"size": "104857088"
}, {
"name": "xvda2",
"size": "85792390656"
}
]
}, {
"name": "Disk 1",
"disk_id": "e198f4cc-1234-43df-1234-79bd41e00bed",
"size": "214745218048",
"physical_volumes": [{
"name": "xvdb1",
"size": "109888667136"
}, {
"name": "xvdb2",
"size": "104856550912"
}
]
}
]
}
}
-vk
```

Modify the command parameters as follows (for details on how to set other parameters, see **Creating a Migration Task**):

- Replace *{region_id}* with the default project name of the region where the target ECS is located.
- Replace *{project_id}* with the project ID obtained in step **4**.
- Replace *{id}* with the ID of the source server to be migrated queried in **3**.
- Replace *{vm_id}* with the ID of the target ECS.

6. After the migration task is created, you can view the migration task on the **Task Management** page on the SMS console.

Figure 4-1 Viewing the migration task



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5 APIs

5.1 Source Server Management

5.1.1 Reporting the Basic Information About the Source Server

Function

After the migration Agent installed on the source server collects basic information about the source server, it automatically makes a call to this API to report basic information to SMS.

NOTE

This API is automatically called by the migration Agent to report source server information to SMS. You do not need to make calls to this API.

URI

POST /v1/sms/sources

Request

Request parameters

For details about the request parameters, see **Table 5-1**.

Table 5-1 Request parameters

Parameter	Mandatory	Type	Description
ip	Yes	String	Specifies the IP address of the source server.
os_type	Yes	String	Specifies the OS type of the source server. The value can be **WINDOWS** or **LINUX**.

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Parameter	Mandatory	Type	Description
os_version	Yes	String	Specifies the OS version in the SMS style. For example, WINDOWS2008_64BIT and REDHAT_5_3_32BIT.
name	Yes	String	Specifies the name of the source server.
hostname	Yes	String	Specifies the name displayed after you log in to the source server.
firmware	Yes	String	Specifies the boot type of the source server. The value can be **BIOS** or **UEFI**.
boot_loader	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **LINUX**.	String	Specifies the OS boot type, for example, GRUB or LILO.
system_dir	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **WINDOWS**.	String	Specifies the home directory of the OS, for example, C:\\Windows\\System32.
raw_device	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **LINUX**.	String	Lists the raw devices on the source server that runs a Linux OS.

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Parameter	Mandatory	Type	Description
has_rsync	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **LINUX**.	Boolean	Specifies whether rsync is contained on the source server that runs a Linux OS. The data synchronization task cannot be created when no rsync is available.
paravirtualization	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **LINUX**.	Boolean	SMS does not support migrating the para-virtualized source server.
cpu_quantity	Yes	Integer	Specifies the number of CPUs on the source server.
memory	Yes	long	Specifies the memory size of the source server.
oem_system	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **WINDOWS**.	Boolean	Specifies whether the OS is an Original Equipment Manufacture (OEM) OS. • **true**: indicates that the OS is an OEM system. • **false**: indicates that the OS is not an OEM OS.
driver_files	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **WINDOWS**.	Boolean	Specifies whether the disk drive file is available. • **true**: indicates that the disk drive file is available. • **false**: indicates that no disk drive file is available.

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Parameter	Mandatory	Type	Description
system_services	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **WINDOWS**.	Boolean	Specifies whether the snapshot service is available. • **true**: indicates that the snapshot service is available. • **false**: indicates that no snapshot service is available.
account_rights	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **WINDOWS**.	Boolean	Specifies whether the administrator right is obtained. • **true**: indicates that the account has the administrator permissions. • **false**: indicates that the account does not have administrator permissions.
disks	Yes	JSON array	Specifies the disk information of the source server. For details, see **Table 5-2**.
volume_groups	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **LINUX**.	JSON array	Specifies the volume group information about the source server that runs a Linux OS. If no volume group exists on the source server, the value is []. For details, see **Table 5-4**.
btrfs_list	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **LINUX**.	JSON array	Specifies the Btrfs information on the source server that runs a Linux OS. If no Btrfs exists on the source server, the value is []. For details, see **Table 5-6**.
networks	Yes	JSON array	Specifies the network information of the source server. For details, see **Table 5-8**.

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Table 5-2 Data structure of **disks**

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the disk name. For example: Disk 0, Disk 1
partition_style	Yes	String	Specifies the disk partition type. For example, the partition type can be **MBR** or **GPT**.
device_use	Yes	String	Specifies the disk function. • **BOOT**: indicates that the boot partition is on the disk. • **OS**: indicates that the system partition is on the disk.
size	Yes	long	Specifies the total disk capacity (byte).
used_size	Yes	long	Specifies the size of the used disk space (byte).
physical_volumes	Yes	JSON array	Specifies the physical partition information on the disk. For details, see **Table 5-3**.

Table 5-3 physical_volumes data structure

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the partition name, for example, **C** in the Windows OS and **/dev/vda1** in a Linux OS.
uuid	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **WINDOWS**.	String	Specifies the partition universally unique identifier (UUID).
device_use	Yes	String	Specifies the partition user. The value can be **OS** or **BOOT**.
file_system	Yes	String	Specifies the file system type of the partition.

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Parameter	Mandatory	Type	Description
mount_point	Mandatory under certain conditions This parameter is mandatory when **os_type** is set to **LINUX**.	String	Specifies the mount point of the file system in a Linux OS.
size	Yes	long	Specifies the total partition size.
used_size	Yes	long	Specifies the used partition size.

Table 5-4 volume_groups data structure

Parameter	Mandatory	Type	Description
id	Yes	String	ID
name	Yes	String	Specifies the volume group name.
size	Yes	long	Specifies the total volume group size.
used_size	Yes	long	Specifies the used partition size (byte).
components	Yes	String array	Specifies the volume group information, including disk or partition name
logic_volumes	Yes	JSON array	For details about the logical volumes, see **Table 5-5**.

Table 5-5 logic_volumes data structure

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the logical volume name.
size	Yes	long	Specifies the logical volume capacity.
used_size	No	long	Specifies the used logical volume space (byte).
free_size	No	long	Specifies the free logical volume size (byte)
file_system	Yes	String	Specifies the logical volume file system type.

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Parameter	Mandatory	Type	Description
mount_point	Yes	String	Specifies the mount point of the logical volume.
uuid	No	String	Specifies the UUID of the logical volume.
inode_size	Yes	int	Specifies the Inode size (byte).

Table 5-6 btrfs_list data structure

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the file system name, for example, **/dev/vdb1**.
label	Yes	String	Specifies the file system label. If no label exists, the value is an empty string.
uuid	Yes	String	Specifies the UUID of the file system.
device	Yes	String	Specifies the device name in the Btrfs.
size	Yes	String	Specifies the data size of the file system.
nodesize	Yes	String	Specifies the size of the Btrfs node.
sectorsize	Yes	String	Specifies the sector size.
data_profile	Yes	String	Specifies the data configuration (RAD).
system_profile	Yes	String	Specifies the file system configuration (RAD).
metadata_profile	Yes	String	Specifies the metadata configuration (RAD).
global_reserve1	Yes	String	Specifies the Btrfs file system information.
g_vol_used_size	Yes	String	Specifies the Btrfs file system information.
default_subvolid	Yes	String	Specifies the default subvolume ID.
default_subvol_name	Yes	String	Specifies the default subvolume name.
default_subvol_mountpath	Yes	String	Specifies the mount path of the subvolume or Btrfs file system.

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Parameter	Mandatory	Type	Description
subvolumn	Yes	JSON array	Specifies the subvolume information. For details, see **Table 5-7**.

Table 5-7 subvolumn data structure

Parameter	Mandatory	Type	Description
uuid	Yes	String	Specifies the parent volume UUID of the subvolume.
is_snapshot	Yes	String	Specifies whether the subvolume is snapshot.
subvol_id	Yes	String	Specifies the subvolume ID.
parent_id	Yes	String	Specifies the parent volume ID of the subvolume.
subvol_name	Yes	String	Specifies the subvolume name.
subvol_mount_path	Yes	String	Specifies the mount path of the subvolume.

Table 5-8 networks data structure

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the NIC name.
ip	Yes	String	Specifies the IP address bound to the NIC.
netmask	Yes	String	Specifies the subnet mask.
gateway	Yes	String	Specifies the gateway.
mtu	Yes	Integer	Specifies the maximum transmission unit (MTU) of the NIC.
mac	Yes	String	Specifies the MAC address.

Response

Response parameters

For details about the response parameters, see **Table 5-9**.

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Table 5-9 Response parameters

Parameter	Type	Description
id	String	Specifies the source server ID reported to SMS.

Example

- Example request
  - Source server that runs a Windows OS

```
{
   "ip": "x.x.x.x",
   "os_type": "WINDOWS",
   "os_version": "WINDOWS7_64BIT",
   "name": "szxy8l003079611",
   "hostname": "szxy8l003079611",
   "firmware": "BIOS",
   "system_dir": "C:\\Windows\\System32",
   "cpu_quantity": 4,
   "memory": 17171075072,
   "cdrom_letter": "E:\\",
   "oem_system": false,
   "account_rights": true,
   "driver_files": true,
   "system_services": true,
   "disks": [{
         "name": "Disk 0",
         "partition_style": "MBR",
         "device_use": "BOOT",
         "size": 85897247744,
         "used_size": 75081272320,
         "physical_volumes": [{
               "name": "(Reserved)",
               "uuid": "\\?\Volume{a93c494a-aaae-11e5-bc8a-806e6f6e6963}\",
               "device_use": "BOOT",
               "file_system": "NTFS",
               "size": 104857088,
               "used_size": 26271232
            }, {
               "name": "C:\\",
               "uuid": "\\?\Volume{a93c494b-aaae-11e5-bc8a-806e6f6e6963}\",
               "device_use": "OS",
               "file_system": "NTFS",
               "size": 85792390656,
               "used_size": 75055001088
            }
         ]
      }, {
         "name": "Disk 1",
         "device_use": "",
         "size": 214745218048,
         "used_size": 80274349056,
         "physical_volumes": [{
               "uuid": "\\?\Volume{9111e143-aaf2-11e5-8199-88fa68b2e4ce}\",
               "name": "D:\\",
               "device_use": "",
               "dosName": "\\Device\\HarddiskVolume3",
               "file_system": "NTFS",
               "size_per_cluster": 4096,
               "size": 109888667136,
               "used_size": 58702257664,
               "disk_number": 1,
               "start_offset": 1048576
            }, {
               "uuid": "\\?\Volume{dc33da02-b511-11e5-ae0b-d574b5579dc9}\",
```

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```
                "name": "F:\\",
                "device_use": "",
                "dosName": "\\Device\\HarddiskVolume4",
                "file_system": "NTFS",
                "size_per_cluster": 4096,
                "size": 104856550912,
                "used_size": 21572091392,
                "disk_number": 1,
                "start_offset": 109889716224
            }
        ],
        "partition_style": "MBR"
    }
  ],
  "networks": [{
        "mac": "0XAC44503B8D"
    }
  ]
}
```

– Source server that runs a Linux OS

```
{
     "ip": "x.x.x.x",
  "os_type": "LINUX",
  "os_version": "REDHAT_5_3_32BIT",
  "name":"linux sources",
  "hostname":"sms-console",
  "cpu_quantity": 4,
  "memory": 8581140480,
  "firmware": "BIOS",
  "boot_loader":"GRUB",
  "raw_device":"",
  "has_rsync":true,
  "paravirtualization":true,
  "disks": [{
     "name": "sda",
      "partition_style": "MBR",
      "used_size": 77301869568,
      "size": 85897247744,
         "device_use": "BOOT|OS",
      "physical_volumes": [{
                "name": "sda1",
                "uuid": "\\?\Volume{a93c494a-aaae-11e5-bc8a-806e6f6e6963}\",
                "device_use": "BOOT|OS",
                "file_system": "ext3",
                "mount_point":"mountpint1",
            "size": 104857088,
            "used_size": 78585856
          }, {
              "name": "sda2",
              "uuid": "\\?\Volume{a93c494b-aaae-11e5-bc8a-806e6f6e6964}\",
              "device_use": "NORMAL",
              "file_system": "ext3",
              "mount_point":"mountpint2",
              "size": 85792390656,
              "used_size": 8516792320
            }
          ]
      }, {
          "name": "sdb",
          "partition_style": "MBR",
          "size": 214745218048,
          "used_size": 52823923712,
          "device_use": "NORMAL",
          "physical_volumes": [{
                "name": "sdb1",
                   "uuid": "\\?\Volume{9111e143-aaf2-11e5-8199-88fa68b2e4ce}\",
                "device_use": "BOOT|OS",
                "file_system": "ext3",
                "mount_point":"mountpoint3",
```

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```
                "size": 109888667136,
                "used_size":10988866713

            }, {
                 "name": "sdb2",
                 "uuid": "\\?\Volume{dc33da02-b511-11e5-ae0b-d574b5579dc8}\",
                 "device_use": "NORMAL",
                 "file_system": "ext3",
                 "mount_point":"mountpoint3",
                 "size": 104856550912,
                 "used_size": 83377922048
              }
            ]
        }
    ],
        "btrfs_list": [],
    "network": {
        "mac": "0XAC44503B5C"
    }

}
```

- Example response

```
{
    "id": "8abda8635e09d185015e09d188dd0001"
}
```

Status Code

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

Error Code

For details, see **Error Code**.

5.1.2 Querying the List of Source Servers

Function

This API is used to query the list of source servers.

URI

GET /v1/sms/sources

Request

Request parameters

For details about the request parameters, see **Table 5-10**.

Table 5-10 Request parameters

Parameter	Mandatory	Type	Description
state	No	String	Specifies the source server status.
name	No	String	Specifies the name of the source server.

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Parameter	Mandatory	Type	Description
id	No	String	Specifies the source server ID.
ip	No	String	Specifies the IP address of the source server.
num_per_page	No	int	Specifies the number of source servers recorded on each page.
page_num	No	int	Specifies the page number (starting from 0).

Response

Response parameters

For details about the response parameters, see **Table 5-11**.

Table 5-11 Response parameters

Parameter	Type	Description
count	int	Specifies the number of source servers.
source_servers	JSON array	Specifies the list of source servers. For details, see **Table 5-12**.

Table 5-12 Data structure of **source_servers**

Parameter	Type	Description
id	String	Specifies the ID of the record in the SMS database.
ip	String	Specifies the IP address of the source server.
name	String	Specifies the name of the source server.
hostname	String	Specifies the name displayed after you log in to the source server.
add_date	long	Specifies the timestamp reported to SMS.
os_type	String	Specifies the operating system (OS) type of the source server. The value can be **WINDOWS** or **LINUX**.
os_version	String	Specifies the OS version, for example, WINDOWS7_64BIT.
oem_system	Boolean	Specifies whether the OS is an OEM OS.

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Parameter	Type	Description
state	String	Specifies the check status of the source server. • **CHECKING**: indicates that the source server is being checked. • **AVAILABLE**: indicates that the source server passes the check, and the OS and data on the source server can be migrated to the cloud. • **UNAVAILABLE**: indicates that the source server fails to pass the check, and the OS and data on the source server cannot be migrated to the cloud.
connected	Boolean	Specifies the status of the connection between the migration Agent on the source server and the SMS server. • **true**: indicates that the source server is properly connected to the SMS server. • **false**: indicates that the source server is disconnected from the SMS server.
current_task	JSON	Specifies the information about tasks bound to the source server. For details, see **Table 5-15**.
init_target_server	JSON	Specifies the recommended specifications of the target ECS to which data is to be migrated. For details, see **Table 5-13**.

Table 5-13 Objects of **init_target_server**

Parameter	Type	Description
disks	JSON array	Specifies the recommended disk information of the target ECS. For details, see **Table 5-14**.

Table 5-14 Structure members of the **disks** array

Parameter	Type	Description
name	String	Specifies the disk name.
size	long	Specifies the disk capacity (byte).

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Parameter	Type	Description
device_use	JSON	Specifies the disk function. • **BOOT**: indicates the boot disk. • **OS**: indicates the system disk. • **NORMAL**: indicates the common data disk.

Table 5-15 current_task information

Parameter	Type	Description
id	String	Specifies the ID of the task associated with the source server.
name	String	Specifies the name of the task associated with the source server.
state	String	Specifies the status of the task associated with the source server. • **READY**: indicates that the migration task is ready to start. • **RUNNING**: indicates that the migration task is being executed. • **SYNCING**: indicates that the incremental data is being synchronized from the source to target ECSs. • **SUCCESS**: indicates that the migration or synchronization task is successful. • **FAIL**: indicates that the migration or synchronization task fails. • **ABORTING**: indicating that the migration or synchronization task is being paused. • **ABORT**: indicates that the migration task has been stopped.

Example

- Example request

  None

- Example response

```
{
  "count": 1,
  "source_servers": [
    {
      "id": "80d6d78d-3350-4c6e-92b1-3ad88b16d8d8",
      "ip": "x.x.x.x",
      "name": "first",
```


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```
    "hostname": "hello",
    "add_date": 1528178836000,
    "os_type": "WINDOWS",
    "os_version": "WINDOWS7_64BIT",
    "os_description": null,
    "oem_system": false,
    "state": "UNAVAILABLE",
    "connected": false,
    "current_task": {
      "id": "dfedc7eb-cadc-4f27-ae3c-b5e4f05e1c83",
      "name": "sms_task_smssrc",
      "state": "SUCCESS"
    },
    "init_target_server": {
      "disks": [
        {
          "name": "Disk 0",
          "size": 171798691840,
          "device_use": "OS"
        },
        {
          "name": "Disk 1",
          "size": 215822106624,
          "device_use": "NORMAL"
        }
      ]
    }
  }
}
```


Status Code

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

Error Code

For details, see **Error Code**.

5.1.3 Querying a Source Server by Server ID

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.

URI

GET /v1/sms/sources/{source_id}

For details about the parameters, see **Table 5-16**.

Table 5-16 Parameter description

Parameter	Type	Mandatory	Description
source_id	String	Yes	Specifies the source server ID.

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Request

N/A

Response

Response parameters

For details about the response parameters, see **Table 5-17**.

Table 5-17 Response parameters

Parameter	Type	Description
id	String	Specifies the ID of the source server in SMS.
ip	String	Specifies the IP address of the source server.
os_type	String	Specifies the OS type of the source server. The value can be **WINDOWS** or **LINUX**.
os_version	String	Specifies the OS version, for example, WINDOWS7_64BIT.
name	String	Specifies the name of the source server. The name can be changed.
hostname	String	Specifies the name displayed after you log in to the source server.
add_date	long	Specifies the time duration used for adding information about the source server to SMS. The unit is ms.
oem_system	Boolean	Specifies whether the OS of the source server is an OEM OS.
state	String	Specifies the check status of the source server. • **CHECKING**: indicates that the source server is being checked. • **AVAILABLE**: indicates that the check is passed, and the server data can be migrated to the cloud. • **UNAVAILABLE**: indicates that the check fails, and the migration cannot be performed.
connected	Boolean	Specifies whether the source server is properly connected to SMS. • **true**: indicates that the source server is properly connected to SMS. • **false**: indicates that the source server is disconnected from SMS.
firmware	String	Specifies the boot type of the source server. The value can be **BIOS** or **UEFI**.

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Parameter	Type	Description
cpu_quantity	Integer	Specifies the number of CPUs.
memory	long	Specifies the memory size (MB).
disks	JSON array	Specifies the disk information of the source server. For details, see **Table 5-18**.
volume_groups	JSON array	Specifies the volume group information of the Linux host. For details, see **Table 5-20**.
btrfs_list	JSON array	Specifies the Btrfs information on the source server that runs a Linux OS. If no Btrfs exists on the source server, the value is []. For details, see **Table 5-22**.
network	JSON array	Specifies the NIC information of the source server. For details, see **Table 5-24**.
checks	JSON array	Specifies the check item of the source server. For details, see **Table 5-25**.
init_target_server	JSON	Specifies the recommended configurations of the target ECS. For details, see **Table 5-26**.

Table 5-18 Data structure of **disks**

Parameter	Type	Description
name	String	Specifies the disk name.
partition_style	String	Specifies the disk partition type. For example, the partition type can be **MBR** or **GPT**.
size	long	Specifies the total disk capacity (byte).
used_size	long	Specifies the size of the used disk space (byte).
device_use	String	Specifies the disk function. • **BOOT**: indicates that the boot partition is on the disk. • **OS**: indicates that the system partition is on the disk.
os_disk	Boolean	Specifies whether the disk is the system disk. • **true**: System disk • **false**: Data disk
physical_volumes	JSON array	Specifies the physical partition information on the disk. For details, see **Table 5-19**.

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Table 5-19 Data structure of data elements in **physical_volumes**

Parameter	Type	Description
uuid	String	Specifies the partition UUID.
index	Integer	Specifies the serial number of the physical partition. • **0**: First partition • **1**: Second partition
name	String	Specifies the partition name, for example, **C** in the Windows OS and **/dev/vda1** in a Linux OS.
device_use	String	Specifies the partition user. The value can be **OS** or **BOOT**.
file_system	String	Specifies the file system type of the partition.
mount_point	String	Specifies the mount point.
size	Long	Specifies the total partition size.
used_size	Long	Specifies the used partition size.

Table 5-20 volume_groups data structure

Parameter	Type	Description
name	String	Specifies the volume group name.
components	String	Specifies the name of the physical partition and disk that are used to create the volume group.
size	long	Specifies the total volume group size.
free_size	long	Specifies the available space size (byte).
logic_volumes	JSON array	Specifies the information about logical volumes in a volume group. For details, see **Table 5-21**.

Table 5-21 logic_volumes data structure

Parameter	Type	Description
name	String	Specifies the name of the logical partition.
size	long	Specifies the total partition size.
used_size	long	Specifies the used partition size (byte).
free_size	long	Specifies the available partition size (byte).
file_system	String	Specifies the file system type of the partition.

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Parameter	Type	Description
mount_point	String	Specifies the mount point of the logical volume.
uuid	String	Specifies the partition UUID.
inode_size	int	Specifies the file system Inode size.
block_size	int	Specifies the file system block size (byte).
block_count	long	Specifies the total number of logical partition blocks.

Table 5-22 btrfs_list data structure

Parameter	Type	Description
name	String	Specifies the file system name, for example, **/dev/vdb1**.
label	String	Specifies the file system label. If no label exists, the value is an empty string.
uuid	String	Specifies the UUID of the file system.
device	String	Specifies the device name in the Btrfs.
default_subvolid	String	Specifies the default subvolume ID.
default_subvol_name	String	Specifies the default subvolume name.
default_subvol_mountpath	String	Specifies the mount path of the default subvolume.
subvolumn	JSON array	Specifies the subvolume information. For details, see **Table 5-23**.

Table 5-23 subvolumn data structure

Parameter	Mandatory	Type	Description
uuid	Yes	String	Specifies the parent volume UUID of the subvolume.
is_snapshot	Yes	String	Specifies whether the subvolume is snapshot.
subvol_id	Yes	String	Specifies the subvolume ID.

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Parameter	Mandatory	Type	Description
parent_id	Yes	String	Specifies the parent volume ID of the subvolume.
subvol_name	Yes	String	Specifies the subvolume name.
subvol_mount_path	Yes	String	Specifies the mount path of the subvolume.

Table 5-24 network data structure

Parameter	Type	Description
name	String	Specifies the NIC name.
ip	String	Specifies the IP address bound to the NIC.
netmask	String	Specifies the subnet mask.
gateway	String	Specifies the gateway.
mtu	Integer	Specifies the maximum transmission unit (MTU) of the NIC.

Table 5-25 checks data structure

Parameter	Type	Description
id	String	Specifies the check item ID.
name	String	Specifies the check item name.
result	String	Specifies the check result. • **OK**: The check is passed. • **WARN**: An alarm is generated. • **ERROR**: The check is not passed.
error_code	String	Specifies the error code generated for a failed check item.
error_params	Integer	Specifies the error parameter for a failed check item.

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Table 5-26 init_target_server data structure

Parameter	Type	Description
disks	JSON array	Specifies the recommended disk information of the target ECS. For details, see **Table 5-27**.

Table 5-27 Structure members of the **disks** array

Parameter	Type	Description
name	String	Specifies the disk name.
size	long	Specifies the disk capacity (byte).
device_use	String	Specifies the disk function. • **OS**: indicates the system disk. • **NORMAL**: indicates the data disk.

Example

- Example request

  None

- Example response
  - Response when the source server runs the Windows OS


```
{
 "id": "f36fa247-ac20-48b7-ba80-941b31d7718c",
 "ip": "x.x.x.x",
 "name": "szxy2",
 "hostname": "szxy2",
 "add_date": 1528675263000,
 "os_type": "WINDOWS",
 "os_version": "WINDOWS7_64BIT",
 "oem_system": false,
 "state": "AVAILABLE",
 "connected": false,
 "firmware": "BIOS",
 "cpu_quantity": 4,
 "memory": 17171075072,
 "current_task": null,
 "disks": [
  {
   "name": "Disk 0",
   "partition_style": "MBR",
   "relation_name": null,
   "size": 85897247744,
   "used_size": 85897247744,
   "device_use": "BOOT",
   "os_disk": false,
   "physical_volumes": [
    {
     "uuid": "\\?\Volume{e36afecb-24da-11e7-b949-806e6f6e6963}\",
     "index": 0,
     "name": "(Reserved)",
     "dos_name": null,
     "relation_name": null,
     "file_system": "NTFS",
     "size_per_cluster": 4096,
```


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```
        "start_offset": 1048576,
        "total_sectors": 0,
        "hiden_sectors": 0,
        "sectors_per_track": 0,
        "start_sectors": 2048,
        "mount_point": null,
        "size": 104857088,
        "used_size": 25878016,
        "snap_mount_point": null,
        "device_use": "BOOT"
       },
       {
        "uuid": "\\?\Volume{e36afecc-24da-11e7-b949-806e6f6e6963}\",
        "index": 0,
        "name": "C:\\",
        "dos_name": null,
        "relation_name": null,
        "file_system": "NTFS",
        "size_per_cluster": 4096,
        "start_offset": 105906176,
        "total_sectors": 0,
        "hiden_sectors": 0,
        "sectors_per_track": 0,
        "start_sectors": 206848,
        "mount_point": null,
        "size": 85792390656,
        "used_size": 55866973696,
        "snap_mount_point": null,
        "device_use": "OS"
       }
      ]
     },
     {
      "name": "Disk 1",
      "partition_style": "MBR",
      "relation_name": null,
      "size": 214745218560,
      "used_size": 214745218560,
      "device_use": "",
      "os_disk": false,
      "physical_volumes": [
       {
        "uuid": "\\?\Volume{e36afecd-24da-11e7-b949-806e6f6e6963}\",
        "index": 0,
        "name": "D:\\",
        "dos_name": null,
        "relation_name": null,
        "file_system": "NTFS",
        "size_per_cluster": 4096,
        "start_offset": 1048576,
        "total_sectors": 0,
        "hiden_sectors": 0,
        "sectors_per_track": 0,
        "start_sectors": 2048,
        "mount_point": null,
        "size": 214745218560,
        "used_size": 128071798272,
        "snap_mount_point": null,
        "device_use": ""
       }
      ]
     }
    ],
    "volume_groups": [],
    "networks": [
     {
      "name": null,
      "ip": null,
      "netmask": null,
```


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```
    "gateway": null,
    "mtu": 0,
    "mac": "0XB93064096C2C"
   }
 ],
 "checks": [
   {
    "id": 20749,
    "params": [
     ""
    ],
    "name": "OS_VERSION",
    "result": "OK",
    "error_code": null,
    "error_params": ""
   },
   {
    "id": 20756,
    "params": [
     ""
    ],
    "name": "FIRMWARE",
    "result": "OK",
    "error_code": null,
    "error_params": ""
   },
   {
    "id": 20763,
    "params": [
     ""
    ],
    "name": "CPU",
    "result": "OK",
    "error_code": null,
    "error_params": ""
   },
   {
    "id": 20770,
    "params": [
     ""
    ],
    "name": "MEMORY",
    "result": "OK",
    "error_code": null,
    "error_params": ""
   },
   {
    "id": 20777,
    "params": [
     ""
    ],
    "name": "SYSTEM_ROOT",
    "result": "OK",
    "error_code": null,
    "error_params": ""
   },
   {
    "id": 20784,
    "params": [
     ""
    ],
    "name": "PARTITION_STYLE",
    "result": "OK",
    "error_code": null,
    "error_params": ""
   },
   {
    "id": 20791,
    "params": [
```


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```
      ""
    ],
    "name": "FILE_SYSTEM",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 20798,
    "params": [
      ""
    ],
    "name": "FREE_SPACE",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 20805,
    "params": [
      ""
    ],
    "name": "OEM_SYSTEM",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 20812,
    "params": [
      ""
    ],
    "name": "DRIVER_FILE",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 20819,
    "params": [
      ""
    ],
    "name": "SERVICE",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 20826,
    "params": [
      ""
    ],
    "name": "ACCOUNT_RIGHTS",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  }
 ],
 "init_target_server": null
}
```


– Response for the source server that runs a Linux OS


```
{
 "id": "45a02115-28a9-40c2-8604-0abfc9889c9d",
 "ip": "192.168.0.151",
 "name": "novalocal",
 "hostname": null,
 "add_date": 1532658611000,
 "os_type": "LINUX",
 "os_version": "CENTOS_7_2_64BIT",
```

```
"oem_system": false,
"state": "AVAILABLE",
"connected": false,
"firmware": "BIOS",
"cpu_quantity": 2,
"memory": 4,
"current_task": null,
"disks": [
 {
  "name": "/dev/xvda",
  "relation_name": null,
  "partition_style": "MBR",
  "size": 42949672960,
  "used_size": 42948606976,
  "device_use": "NORMAL",
  "os_disk": false,
  "physical_volumes": [
   {
    "uuid": null,
    "index": 0,
    "name": "/dev/xvda1",
    "device_use": "NORMAL",
    "file_system": "ext3",
    "mount_point": "/",
    "size": 42948606976,
    "used_size": 2853855232
   }
  ]
 },
 {
  "name": "/dev/xvdb",
  "relation_name": null,
  "partition_style": "MBR",
  "size": 10737418240,
  "used_size": 6442450944,
  "device_use": "NORMAL",
  "os_disk": false,
  "physical_volumes": [
   {
    "uuid": null,
    "index": 0,
    "name": "/dev/xvdb1",
    "device_use": "NORMAL",
    "file_system": "swap",
    "mount_point": "",
    "size": 1073741824,
    "used_size": 1073741824
   },
   {
    "uuid": null,
    "index": 0,
    "name": "/dev/xvdb2",
    "device_use": "VOLUME_GROUP",
    "file_system": "LVM2_member",
    "mount_point": "",
    "size": 5368709120,
    "used_size": 5368709120
   }
  ]
 },
 {
  "name": "/dev/xvdc",
  "relation_name": null,
  "partition_style": "MBR",
  "size": 10737418240,
  "used_size": 10737418240,
  "device_use": "VOLUME_GROUP",
  "os_disk": false,
  "physical_volumes": []
```


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```
  }
],
"btrfs_list": [],
"volume_groups": [
  {
    "name": "vgtest",
    "components": "/dev/xvdb2;/dev/xvdc",
    "size": 16106127360,
    "free_size": 0,
    "logical_volumes": [
      {
        "name": "/dev/mapper/vgtest-data",
        "size": 1073741824,
        "used_size": 3047424,
        "file_system": "ext4",
        "mount_point": "/data",
        "uuid": null,
        "inode_size": 256,
        "block_size": 0,
        "block_count": 0
      }
    ]
  }
],
"networks": [
  {
    "name": "eth0",
    "ip": "192.168.0.151",
    "netmask": null,
    "gateway": null,
    "mtu": 0,
    "mac": "fa:16:3e:35:97:71"
  }
],
"checks": [
  {
    "id": 6463,
    "params": [
      ""
    ],
    "name": "OS_VERSION",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6470,
    "params": [
      ""
    ],
    "name": "CPU",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6477,
    "params": [
      ""
    ],
    "name": "MEMORY",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6484,
    "params": [
      ""
```


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```
    ],
    "name": "PARAVIRTUALIZATION",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6491,
    "params": [
      ""
    ],
    "name": "FIRMWARE",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6498,
    "params": [
      ""
    ],
    "name": "BOOT_LOADER",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6505,
    "params": [
      ""
    ],
    "name": "RSYNC",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6512,
    "params": [
      ""
    ],
    "name": "RAW_DEVICES",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6519,
    "params": [
      ""
    ],
    "name": "DISK_INFO",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6526,
    "params": [
      ""
    ],
    "name": "PARTITION_STYLE",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  },
  {
    "id": 6533,
    "params": [
```


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```
      ""
    ],
    "name": "FILE_SYSTEM",
    "result": "OK",
    "error_code": null,
    "error_params": ""
  }
 ],
 "init_target_server": {
  "disks": [
   {
    "name": "/dev/xvda",
    "size": 42949672960,
    "used_size": 42948606976,
    "device_use": "NORMAL",
    "physical_volumes": [
     {
      "uuid": null,
      "index": 0,
      "name": "/dev/xvda1",
      "device_use": "NORMAL",
      "file_system": "ext3",
      "mount_point": "/",
      "size": 42948606976,
      "used_size": 2853855232
     }
    ]
   },
   {
    "name": "/dev/xvdb",
    "size": 10737418240,
    "used_size": 6442450944,
    "device_use": "NORMAL",
    "physical_volumes": [
     {
      "uuid": null,
      "index": 0,
      "name": "/dev/xvdb1",
      "device_use": "NORMAL",
      "file_system": "swap",
      "mount_point": "",
      "size": 1073741824,
      "used_size": 1073741824
     },
     {
      "uuid": null,
      "index": 0,
      "name": "/dev/xvdb2",
      "device_use": "VOLUME_GROUP",
      "file_system": "LVM2_member",
      "mount_point": "",
      "size": 5368709120,
      "used_size": 5368709120
     }
    ]
   },
   {
    "name": "/dev/xvdc",
    "size": 10737418240,
    "used_size": 10737418240,
    "device_use": "VOLUME_GROUP",
    "physical_volumes": []
   }
  ]
 }
}
```


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Status Code

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

Error Code

For details, see **Error Code**.

5.1.4 Deleting the Source Server Information by Server ID

Function

This API is used to delete the information about 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.

URI

DELETE /v1/sms/sources/{source_id}

For details about the parameters, see **Table 5-28**.

Table 5-28 Parameter description

Parameter	Mandatory	Description
source_id	Yes	Specifies the source server ID.

Request

None

Response

N/A

Example

- Example request

  None
- Example response

  None

Status Code

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

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Error Code

For details, see **Error Code**.

5.1.5 Modifying the Name of the Source Server with a Specified ID

Function

This API is used to modify the source name of the source server on the SMS server so that users can manage the source servers through SMS.

URI

PUT /v1/sms/sources/{source_id}

For details about the parameters, see **Table 5-29**.

Table 5-29 Parameter description

Parameter	Mandatory	Description
source_id	Yes	Specifies the source server ID.

Request

Request parameters

For details about the request parameters, see **Table 5-30**.

Table 5-30 Request parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the new source server name.

Response

None

Example

- Example request

```
{
  "name": "newName"
}
```

- Example response

  None

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Status Code

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

Error Code

For details, see **Error Code**.

5.1.6 Deleting Information About Source Servers in Batches

Function

This API is used to delete information about multiple source servers at a time 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.

URI

POST /v1/sms/sources/delete

Request

Request parameters

For details about the request parameters, see **Table 5-31**.

Table 5-31 Request parameters

Parameter	Mandatory	Type	Description
ids	Yes	JSON array	Specifies the collection of IDs of all source servers to be deleted.

Response

N/A

Example

- Example request

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

- Example response

  None

Status Code

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

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Error Code

For details, see **Error Code**.

5.2 Task Management

5.2.1 Reporting Data Migration Progress

Function

This API is called the migration Agent installed on the source server during data migration to report the migration progress to the SMS server.

NOTE

This API is automatically called by the migration Agent to report migration progress to SMS. You do not need to make calls to this API.

URI

PUT /v1/sms/tasks/{task_id}/progress

For details about the parameters, see **Table 5-32**.

Table 5-32 Parameter description

Parameter	Mandatory	Description
task_id	Yes	Specifies the task ID.

Request

Request parameters

For details about the request parameters, see **Table 5-33**.

Table 5-33 Request parameters

Parameter	Mandatory	Type	Description
subtask_name	Yes	String	Specifies the subtask name.
progress	Yes	Integer	Specifies the progress of a subtask. The value is an integer ranging from 0 to 100.
migrate_speed	No	Double	Specifies the migration speed in MByte/s.

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Response

None

Example

- Example request

```
{
"subtask_name":"ATTACH_AGENT_IMAGE",
"progress":100
}
```

- Example response

  None

Status Code

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

Error Code

For details, see **Error Code**.

5.2.2 Creating a Migration Task

Function

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

URI

POST /v1/sms/tasks

Request

Request parameters

For details about the request parameters, see **Table 5-34**.

Table 5-34 Request parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the task name (user-defined).
type	Yes	String	Specifies the task type. • **MIGRATE_FILE**: indicates the file-level migration. • **MIGRATE_BLOCK**: indicates the block-level migration.
os_type	Yes	String	Specifies the OS type. The value can be **WINDOWS** or **LINUX**.

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Parameter	Mandatory	Type	Description
priority	No	int	Specifies the process priority. • **0**: Low • **1**: Standard (default) • **2**: High
speed_limit	No	int	Specifies the migration rate limit (in MB). The default value is **0**, indicating that the migration rate is not limited.
start_target_server	No	Boolean	Specifies whether to start the target ECS after the migration. • **true**: indicates that the target ECS will be started after the migration. The default value is **true**. • **false**: indicates that the target ECS will be stopped after the migration.
uninstall_agent	No	Boolean	Specifies whether to automatically uninstall the migration Agent on the source server. • **true**: indicates that the migration Agent will be uninstalled automatically from the source server after the migration. • **false**: indicates that the migration Agent will not be uninstalled automatically from the source server after the migration. The default value is **false**.
source_server	Yes	JSON	Specifies the source server information. For details, see **Table 5-35**.
target_server	Yes	JSON	Specifies the target ECS information. For details, see **Table 5-36**.
migration_ip	Yes	String	Specifies the target ECS IP address. • Enter the elastic IP address if the migration network type is Internet. • Enter a private IP address if the migration network type is a private line or VPN.
region_name	Yes	String	Specifies the region name of the target ECS.
region_id	Yes	String	Specifies the region ID of the target ECS.

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Parameter	Mandatory	Type	Description
project_name	Yes	String	Specifies the name of the project to which the target ECS belongs.
project_id	Yes	String	Specifies the ID of the project to which the target ECS belongs.
vm_template_id	No	String	Specifies the template ID.
smn_info	No	JSON	Specifies the SMN service information. For details, see **Table 5-41**.

Table 5-35 source_server information

Parameter	Mandatory	Type	Description
id	Yes	String	Specifies the source server ID.

Table 5-36 target_server information

Parameter	Mandatory	Type	Description
vm_id	Yes	String	Specifies the target ECS ID.
name	Yes	String	Specifies the name of the target ECS.
disks	Yes	JSON array	Specifies the Disk information. For details, see **Table 5-39**.
btrfs_list	Yes	JSON array	Specifies the Btrfs information. For details, see **Table 5-37**.

Table 5-37 btrfs_list data structure

Parameter	Type	Description
name	String	Specifies the file system name, for example, **/dev/vdb1**.
label	String	Specifies the file system label. If no label exists, the value is an empty string.
uuid	String	Specifies the UUID of the file system.
device	String	Specifies the device name in the Btrfs.

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Parameter	Type	Description
default_subvolid	String	Specifies the default subvolume ID.
default_subvol_name	String	Specifies the default subvolume name.
default_subvol_mountpath	String	Specifies the mount path of the default subvolume.
subvolumn	JSON array	Specifies the subvolume information. For details, see **Table 5-38**.

Table 5-38 subvolumn data structure

Parameter	Mandatory	Type	Description
uuid	Yes	String	Specifies the parent volume UUID of the subvolume.
is_snapshot	Yes	String	Specifies whether the subvolume is snapshot.
subvol_id	Yes	String	Specifies the subvolume ID.
parent_id	Yes	String	Specifies the parent volume ID of the subvolume.
subvol_name	Yes	String	Specifies the subvolume name.
subvol_mount_path	Yes	String	Specifies the mount path of the subvolume.

Table 5-39 disks information in **target_server**

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the disk name.
disk_id	Yes	String	Specifies the ID of the EVS volume corresponding to the disk.
size	Yes	long	Specifies the disk size.
physical_volumes	Yes	JSON array	Specifies the partition information after disks are migrated. For details, see **Table 5-40**.

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Table 5-40 physical_volumes information

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the partition name. • **C** in the Windows OS • **sd1** in the Linux OS
size	Yes	long	Specifies the partition size (byte).

Table 5-41 smn_info information

Parameter	Mandatory	Type	Description
topic_urn	Yes	String	Specifies the topic URN.
trigger_conditions	Yes	String	Specifies the triggering condition for sending SMN messages. The value can be **SUCCESS,FAIL**, **SUCCESS**, or **FAIL**.
language	Yes	String	Specifies the Language option. The value can be **zh_CN** or **en_US**.
topic_name	Yes	String	Specifies the topic name.

Response

Response parameters

For details about the response parameters, see **Table 5-42**.

Table 5-42 Response parameters

Parameter	Type	Description
id	String	Specifies the task ID.

Example

- Example request
  - Creating a task to migrate a source server that runs a Windows OS

```
{
   "name": "Windows Migration",
   "type": "MIGRATE_BLOCK",
   "priority": "1",
   "speed_limit": "0",
   "start_target_server": "true",
   "os_type": "WINDOWS",
   "migration_ip":"x.x.x.x",
   "region_name":"north-china",
```


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```
  "region_id":"cn-north-1",
  "project_name":"cn-north-1",
  "project_id":"12222222111111121212121",
  "vm_template_id":"aaaa-bbbbb",
  "source_server":{
     "id":"35ef9d7a-b8e4-4126-9588-116952749de4"
  },
  "target_server": {
     "vm_id": "e198f4cc-e51a-43df-83d8-79bd41e00bed",
     "disks": [
        {
           "name": "Disk 0",
           "disk_id":"e198f4cc-e51a-43df-1234-79bd41e00bed",
           "size": "85897247744",
           "physical_volumes": [
              {
                 "name": "(Reserved)",
                 "size": "104857088"
              },
              {
                 "name": "C:\\",
                 "size": "85792390656"
              }
           ]
        },
        {
           "name": "Disk 1",
           "disk_id":"e198f4cc-1234-43df-1234-79bd41e00bed",
           "size": "214745218048",
           "physical_volumes": [
              {
                 "name": "D:\\",
                 "size": "109888667136"
              },
              {
                 "name": "F:\\",
                 "size": "104856550912"
              }
           ]
        }
     ]
  }
}
```

– Creating a Linux Migration Task

```
{
  "name": "sms_task_l",
  "type": "MIGRATE_FILE",
  "priority": "1",
  "speed_limit": 0,
  "start_target_server": "true",
  "os_type": "LINUX",
  "source_server": {
        "id": "0c1b1ab3-37ab-49c5-a59f-ad7edec4ea9f"
  },
  "target_server": {
        "name": "sms-target-test",
        "vm_id": "62339ed3-6ec1-xxxx-aa80-c4d907978e5f",
        "flavor": "Si2.small.1",
        "disks": [{
              "name": "/dev/vda",
              "disk_id": "bec4d401-b136-xxxx-b365-50c8bc03bfac",
              "size": 42949672960,
              "device_use": "BOOT",
              "physical_volumes": [{
                    "uuid": null,
                    "index": 0,
                    "name": "/dev/vda1",
                    "device_use": "OS",
                    "file_system": "ext3",
```

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```
                    "mount_point": "/",
                    "size": 42948624384,
                    "used_size": 4851286016
                }]
            }, {
                "name": "/dev/vdb",
                "disk_id": "624822f4-xxxx-4ab1-8a41-ae9fe141acd4",
                "size": 10737418240,
                "device_use": "BTRFS",
                "physical_volumes": []
            }, {
                "name": "/dev/vdc",
                "disk_id": "7157722b-xxxx-463e-9a80-b69de5afc991",
                "size": 10737418240,
                "device_use": "BTRFS",
                "physical_volumes": []
            }],
            "volume_groups": [],
            "btrfs_list": [{
                "name": "/dev/vdb",
                "label": "bcc",
                "uuid": "abc8565e-b14b-xxxx-92b6-6c7fca983bc6",
                "device": "/dev/vdb,/dev/vdc",
                "default_subvolid": "258",
                "default_subvol_name": "sub1",
                "default_subvol_mountpath": "/mnt/btrfs/vdb1",
                "subvolumn": [{
                    "uuid": "abc8565e-b14b-xxxx-92b6-6c7fca983bc6",
                    "is_snapshot": "false",
                    "subvol_id": "258",
                    "parent_id": "5",
                    "subvol_name": "sub1",
                    "subvol_mount_path": "/mnt/btrfs/vdb1"
                }, {
                    "uuid": "abc8565e-b14b-xxxx-92b6-6c7fca983bc6",
                    "is_snapshot": "false",
                    "subvol_id": "259",
                    "parent_id": "5",
                    "subvol_name": "sub2",
                    "subvol_mount_path": "null"
                }],
                "$$hashKey": "object:2949"
            }]
        },
        "smn_info": null,
        "auto_install_pvdriver": true,
        "allow_sync": false,
        "final_sync": false,
        "allow_restart": true,
        "uninstall_agent": true,
        "migration_ip": "100.**.***.46",
        "region_name": "cn-1",
        "region_id": "cn-north-1",
        "project_name": "cn-north-1",
        "project_id": "b276e6*******4598f049745ce9"
    }
```


- Example response


```
{
"id": "170606111111"
}
```


Status Code

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Error Code

For details, see **Error Code**.

5.2.3 Starting a Migration Task

Function

This API is used to start a migration task based on a specified ID.

URI

POST /v1/sms/tasks/{task_id}/action

For details about the parameters, see **Table 5-43**.

Table 5-43 Parameter description

Parameter	Mandatory	Description
task_id	Yes	Specifies the task ID.

Request

Request parameters

For details about the request parameters, see **Table 5-44**.

Table 5-44 Request parameters

Parameter	Mandatory	Type	Description
operation	Yes	String	The value is fixed at **start** when a task is started.

Response

None

Example

- Example request
  ```
  {
  "operation":"start"
  }
  ```
- Example response

  None

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Status Code

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

Error Code

For details, see **Error Code**.

5.2.4 Stopping a Migration Task

Function

This API is used to stop a migration task based on a specified ID.

URI

POST /v1/sms/tasks/{task_id}/action

For details about the parameters, see **Table 5-45**.

Table 5-45 Parameter description

Parameter	Mandatory	Description
task_id	Yes	Specifies the task ID.

Request

Request parameters

For details about the request parameters, see **Table 5-46**.

Table 5-46 Request parameters

Parameter	Mandatory	Type	Description
operation	Yes	String	The value is fixed at **stop** when a task is stopped.

Response

None

Example

- Example request

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


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- Example response

  None

Status Code

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

Error Code

For details, see **Error Code**.

5.2.5 Uploading Migration Logs

Function

This API is used to upload migration logs to the SMS service technical support.

URI

POST /v1/sms/tasks/{task_id}/action

For details about the parameters, see **Table 5-47**.

Table 5-47 Parameter description

Parameter	Mandatory	Description
task_id	Yes	Specifies the task ID.

Request

Request parameters

For details about the request parameters, see **Table 5-48**.

Table 5-48 Request parameters

Parameter	Mandatory	Type	Description
operation	Yes	String	The value is fixed to **collect_log** during log collection.
params	Yes	JSON	Specifies the bucket and directory to which logs are uploaded. For details, see **Table 5-49**.

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Table 5-49 params data structure

Parameter	Mandatory	Type	Description
bucket	Yes	String	Specifies the OBS bucket name.
object	Yes	String	Specifies the path for storing logs. If this parameter is left blank, logs are stored in the root directory of the bucket.

Response

None

Example

- Example request

```
{
 "operation":"collect_log",
 "params":
 {
  "bucket":"logbucket",
  "object":"logfile"
 }
}
```

- Example response

  None

Status Code

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

Error Code

For details, see **Error Code**.

5.2.6 Querying the List of Migration Tasks

Function

This API is used to query the migration task list.

URI

GET /v1/sms/tasks

Request

Request parameters

For details about the request parameters, see **Table 5-50**.

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Table 5-50 Request parameters

Parameter	Mandatory	Type	Description
state	No	String	Specifies the task status.
name	No	String	Specifies the task name.
id	No	String	Specifies the task ID.
source_server_id	No	String	Specifies the source server ID.
vm_id	No	String	Specifies the target ECS ID.
num_per_page	No	int	Specifies the number of tasks recorded on each page.
page_num	No	int	Specifies the page number (starting from 0).

Response

Response parameters

For details about the response parameters, see **Table 5-51**.

Table 5-51 Response parameters

Parameter	Type	Description
count	int	Specifies the total number of tasks that meet the query criteria.
tasks	JSON array	Specifies the task list. For details, see **Table 5-52**.

Table 5-52 Data structure of **tasks**

Parameter	Type	Description
id	String	Specifies the task ID.
name	String	Specifies the task name.
type	String	Specifies the task type. • **MIGRATE_FILE**: indicates the file-level migration. • **MIGRATE_BLOCK**: indicates the block-level migration.

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Parameter	Type	Description
os_type	String	• **WINDOWS**: indicates that the source server runs a Windows OS. • **LINUX**: indicates that the source server runs a Linux OS.
state	String	Specifies the task status. The value can be any of the following: • **READY**: indicates that the migration task is ready to start. • **RUNNING**: indicates that the migration task is being executed. • **SYNCING**: indicates that the incremental data is being synchronized from the source to target ECSs. • **ABORTING**: indicates that the migration task is being paused. • **ABORT**: indicates that the migration task is paused. • **MIGRATE_FAIL**: indicates that the migration fails. • **MIGRATE_SUCCESS**: indicates that the migration is successful. • **SYNC_FAIL**: indicates that the synchronization fails. • **SYNC_SUCCESS**: indicated that the synchronization succeeds.
connected	Boolean	Specifies the connection status. • **true**: indicates that the migration task is properly connected to SMS. • **false**: indicates that the migration task is disconnected from SMS.
estimate_complete_time	long	Specifies the estimated completion time.
create_date	long	Specifies the task creation time.
priority	int	Specifies the process priority. • **0**: Low • **1**: Standard (default) • **2**: High
speed_limit	int	Specifies the migration rate limit (in MB). The default value is **0**, indicating that the migration rate is not limited.

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Parameter	Type	Description
migrate_speed	float	Specifies the migration rate.
start_target_server	Boolean	Specifies the status of the target ECS after the migration is complete. • **true**: indicates that the target ECS will be started after the migration. The default value is **true**. • **false**: indicates that the target ECS will be stopped after the migration.
total_time	long	Specifies the total task duration (in ms).
sub_tasks	JSON array	Specifies the list of sub tasks. For details, see **Table 5-53**.
log_collect_status	String	Specifies the log collection operating status. **INIT**: indicates that the system is ready to collect logs. **TELL_AGENT_TO_COLLECT**: indicates that the system is instructing the migration Agent to collect logs. **WAIT_AGENT_COLLECT_ACK**: indicates that the system is waiting for the migration Agent to feed back the collection result. **AGENT_COLLECT_FAIL**: indicates that the migration Agent fails to collect logs. **AGENT_COLLECT_SUCCESS**: indicates that the migration Agent succeeds in collecting logs. **WAIT_SERVER_COLLECT**: indicates that the system is waiting for SMS to dump logs. **SERVER_COLLECT_FAIL**: indicates that SMS fails to dump logs. **SERVER_COLLECT_SUCCESS**: indicates that SMS succeeds in dumping logs. **TELL_AGENT_RESET_ACL**: indicates that the system is instructing the migration Agent to cancel authorization granted to the SMS service to access logs. **WAIT_AGENT_RESET_ACL_ACK**: indicates that the system is waiting for the migration Agent to confirm. **SUCCESS**: indicates that log collection is completed.
source_server	JSON	Specifies the source server information. For details, see **Table 5-54**.

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Parameter	Type	Description
target_server	JSON	Specifies the target ECS information. For details, see **Table 5-55**.

Table 5-53 Structure members of **sub_tasks**

Parameter	Type	Description
id	long	Specifies the subtask ID.
name	String	Specifies the subtask name. • **ATTACH_AGENT_IMAGE**: Attach an agent image. • **DETTACH_AGENT_IMAGE**: Detach an agent image. • **FORMAT_DISK_LINUX**: Format a Linux partition. • **FORMAT_DISK_WINDOWS**: Format a Windows partition. • **MIGRATE_LINUX_FILE**: Migrate Linux file-level data. • **MIGRATE_WINDOWS_BLOCK**: Migrate Windows block-level data. • **SYNC_LINUX_FILE**: Synchronize Linux file-level data. • **SYNC_WINDOWS_BLOCK**: Synchronize Windows block-level data. • **CONFIGURE_LINUX**: Modify Linux configurations. • **CONFIGURE_WINDOWS**: Modify Windows configurations.
progress	int	Specifies the sub task progress.
start_date	long	Specifies the sub task start time.
end_date	long	Specifies the sub task end time.

Table 5-54 source_server structure

Parameter	Type	Description
id	String	Specifies the ID of the source server in SMS.
ip	String	Specifies the IP address of the source server.

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Parameter	Type	Description
name	String	Specifies the name of the source server. You can change the name after adding it. The default value is the same as that of **hostname**.
add_date	long	Specifies the time duration used for adding information about the source server to SMS. The unit is ms.
os_type	String	• **WINDOWS**: indicates that the source server runs a Windows OS. • **LINUX**: indicates that the source server runs a Linux OS.
os_version	String	Specifies the OS version. For example, the version can be **WINDOWS7_64BIT**.
oem_system	Boolean	Specifies whether the OS of the source server is an OEM OS.
state	String	Specifies the check status of the source server. • **CHECKING**: indicates that the source server is being checked. • **AVAILABLE**: indicates that the check is passed, and the server data can be migrated. • **UNAVAILABLE**: indicates that the check fails, and the migration cannot be performed.

Table 5-55 target_server structure

Parameter	Type	Description
id	String	Specifies the ID of the source server in SMS.
vm_id	String	Specifies the ID of the target ECS.
name	String	Specifies the name of the target ECS.
ip	String	Specifies the private IP address of the target ECS.

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Parameter	Type	Description
os_type	String	Specifies the OS type of the target ECS. • **WINDOWS**: indicates that the target ECS runs a Windows OS. • **LINUX**: indicates that the target ECS runs a Linux OS.
os_version	String	Specifies the OS version of the target ECS. For example, the version can be **WINDOWS7_64BIT**.

Example

- Example request
  ```
  GET  v1/sms/tasks
  ```
- Example response
  ```
  {
  "count":1,
  "tasks":[{
     "id": "90c950d7-d184-4b5e-87c0-f0bd09dfa0c1",
     "name": "taskName",
     "type": "MIGRATE_BLOCK",
     "os_type": "WINDOWS",
     "state": "RUNNING",
     "connected": true,
     "consume_time": 12733551760,
     "estimate_complete_time": 1519733551760,
     "create_date": 1519733551760,
     "auto_install_pvdriver": false,
     "allow_sync": true,
     "final_sync": false,
     "priority": 1,
     "speed_limit": 0,
     "migrate_speed": 9.644518,
     "start_target_server": true,
     "total_time": 175848,
     "source_server": {
        "id": "b6bbff1f-9b43-4c60-8030-d4e1e576fea8",
        "ip": "10.159.219.7",
        "hostname": null,
        "addDate": 1519722504092,
        "os_type": "WINDOWS",
        "os_version": "WINDOWS2012_64BIT",
        "oem_system": false,
        "state": "AVAILABLE"
     },
     "target_server": {
        "id": "7f40e37c-c883-4583-afe9-4e5026f336a7",
        "ip": "x.x.x.x",
        "vm_id": "2c44c00e-6354-49e2-b36f-151284a91f6c",
        "name": "windows",
        "port": 8899,
        "os_type": "WINDOWS",
        "os_version": "WINDOWS2012_64BIT",
     },
     "sub_tasks": [{
           "id": 143,
           "name": "ATTACH_AGENT_IMAGE",
           "progress": 100,
           "start_date": 1519733559435,
           "end_date": 1519733715574,
  ```

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```
            "totalTime": 156139
        }, {
            "id": 144,
            "name": "FORMAT_DISK_WINDOWS",
            "progress": 100,
            "start_date": 1519733715589,
            "end_date": 1519733735298,
            "totalTime": 19709
        }, {
            "id": 145,
            "name": "MIGRATE_WINDOWS_BLOCK",
            "progress": 41,
            "start_date": 1519733735314,
            "end_date": null,
            "totalTime": 0
        }, {
            "id": 146,
            "name": "CONFIGURE_WINDOWS",
            "progress": 0,
            "start_date": null,
            "end_date": null,
            "totalTime": 0
        }, {
            "id": 147,
            "name": "DETTACH_AGENT_IMAGE",
            "progress": 0,
            "start_date": null,
            "end_date": null,
            "totalTime": 0
        }
    ],
}
]
```


Status Code

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

Error Code

For details, see **Error Code**.

5.2.7 Querying a Migration Task by Task ID

Function

This API is used to query a migration task based on a specified ID.

URI

GET /v1/sms/tasks/{task_id}

For details about the parameters, see **Table 5-56**.

Table 5-56 Parameter description

Parameter	Mandatory	Description
task_id	Yes	Specifies the task ID.

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Request

N/A

Response

Response parameters

For details about the response parameters, see **Table 5-57**.

Table 5-57 Response parameters

Parameter	Type	Description
id	String	Specifies the task ID.
name	String	Specifies the task name.
type	String	Specifies the task type. • **MIGRATE_FILE**: indicates the file-level migration. • **MIGRATE_BLOCK**: indicates the block-level migration.
os_type	String	• **WINDOWS**: indicates that the source server runs a Windows OS. • **LINUX**: indicates that the source server runs a Linux OS.
state	String	Specifies the task status. The value can be any of the following: • **READY**: indicates that the migration task is ready to start. • **RUNNING**: indicates that the migration task is being executed. • **SYNCING**: indicates that the incremental data is being synchronized from the source to target ECSs. • **ABORTING**: indicates that the migration task is being paused. • **ABORT**: indicates that the migration task is paused. • **MIGRATE_FAIL**: indicates that the migration fails. • **MIGRATE_SUCCESS**: indicates that the migration succeeds. • **SYNC_FAIL**: indicates that the synchronization fails. • **SYNC_SUCCESS**: indicated that the synchronization succeeds.

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Parameter	Type	Description
connected	Boolean	Specifies the connection status. ● **true**: indicates that the migration task is properly connected to SMS. ● **false**: indicates that the migration task is disconnected from SMS.
create_date	long	Specifies the task creation time.
start_date	long	Specifies the task start time.
finish_date	long	Specifies the task end time.
priority	int	Specifies the migration process priority. ● **0**: Low ● **1**: Standard (default) ● **2**: High
speed_limit	int	Specifies the migration rate limit (in MB). The default value is **0**, indicating that the migration rate is not limited.
migrate_speed	float	Specifies the migration rate.
start_target_server	Boolean	Specifies the status of the target ECS after the migration is complete. ● **true**: indicates that the target ECS will be started after the migration. The default value is **true**. ● **false**: indicates that the target ECS will be stopped after the migration.
error_json	String	Specifies the task failure cause.
total_time	long	Specifies the total task duration (in ms).
migration_ip	String	Specifies the target ECS IP address. ● Enter the elastic IP address if the migration network type is Internet. ● Enter a private IP address if the migration network type is a private line or VPN.
region_name	String	Specifies the region name of the target ECS.
region_id	String	Specifies the region ID of the target ECS.
project_name	String	Specifies the name of the project to which the target ECS belongs.
project_id	String	Specifies the ID of the project to which the target ECS belongs.

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Parameter	Type	Description
sub_task_list	JSON array	Specifies the list of sub tasks. For details, see **Table 5-58**.
source_server	JSON	Specifies the source server information. For details, see **Table 5-59**.
target_server	JSON	Specifies the target ECS information. For details, see **Table 5-60**.

Table 5-58 Structure members of **sub_task_list**

Parameter	Type	Description
id	long	Specifies the subtask ID.
name	String	Specifies the subtask name. • **ATTACH_AGENT_IMAGE**: Attach an agent image. • **DETTACH_AGENT_IMAGE**: Detach an agent image. • **FORMAT_DISK_LINUX**: Format a Linux partition. • **FORMAT_DISK_WINDOWS**: Format a Windows partition. • **MIGRATE_LINUX_FILE**: Migrate Linux file-level data. • **MIGRATE_WINDOWS_BLOCK**: Migrate Windows block-level data. • **SYNC_LINUX_FILE**: Synchronize Linux file-level data. • **SYNC_WINDOWS_BLOCK**: Synchronize Windows block-level data. • **CONFIGURE_LINUX**: Modify Linux configurations. • **CONFIGURE_WINDOWS**: Modify Windows configurations.
progress	int	Specifies the sub task progress.
start_date	long	Specifies the sub task start time.
end_date	long	Specifies the sub task end time.

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Table 5-59 source_server structure

Parameter	Type	Description
id	String	Specifies the ID of the source server in SMS.
ip	String	Specifies the IP address of the source server.
name	String	Specifies the name of the source server. You can change the name after adding it. The default value is the same as that of **hostname**.
os_type	String	• **WINDOWS**: indicates that the source server runs a Windows OS. • **LINUX**: indicates that the source server runs a Linux OS.
os_version	String	Specifies the OS version. For example, the version can be **WINDOWS2008_R2_64BIT**.
oem_system	Boolean	Specifies whether the OS of the source server is an OEM OS.
state	String	Specifies the check status of the source server. • **CHECKING**: indicates that the source server is being checked. • **AVAILABLE**: indicates that the check is passed, and the server data can be migrated. • **UNAVAILABLE**: indicates that the check fails, and the migration cannot be performed.

Table 5-60 target_server structure

Parameter	Type	Description
id	String	Specifies the ID of the source server in SMS.
vm_id	String	Specifies the ID of the target ECS.
name	String	Specifies the name of the target ECS.
ip	String	Specifies the private IP address of the target ECS server.
os_type	String	Specifies the OS type of the target ECS. • **WINDOWS**: indicates that the target ECS runs a Windows OS. • **LINUX**: indicates that the target ECS runs a Linux OS.
os_version	String	Specifies the OS version of the target ECS.

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Parameter	Type	Description
system_dir	String	Specifies the system directory. For example, the directory can be **C:\\Windows\\System32**.
disks	JSON array	Specifies the disk information of the target ECS.
volume_groups	JSON array	Specifies the volume group information of the target ECS.
btrfs_list	JSON array	Specifies the Btrfs information of the target ECS. For details, see **Table 5-61**.

Table 5-61 btrfs_list data structure

Parameter	Type	Description
name	String	Specifies the file system name, for example, **/dev/vdb1**.
label	String	Specifies the file system label. If no label exists, the value is an empty string.
uuid	String	Specifies the UUID of the file system.
device	String	Specifies the device name in the Btrfs.
default_subvolid	String	Specifies the default subvolume ID.
default_subvol_name	String	Specifies the default subvolume name.
default_subvol_mountpath	String	Specifies the mount path of the default subvolume.
subvolumn	JSON array	Specifies the subvolume information. For details, see **Table 5-62**.

Table 5-62 subvolumn data structure

Parameter	Mandatory	Type	Description
uuid	Yes	String	Specifies the parent volume UUID of the subvolume.
is_snapshot	Yes	String	Specifies whether the subvolume is snapshot.
subvol_id	Yes	String	Specifies the subvolume ID.

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Parameter	Mandatory	Type	Description
parent_id	Yes	String	Specifies the parent volume ID of the subvolume.
subvol_name	Yes	String	Specifies the subvolume name.
subvol_mount_path	Yes	String	Specifies the mount path of the subvolume.

Table 5-63 disks data structure members

Parameter	Type	Description
id	long	Specifies the ID of the disk in the SMS database.
name	String	Specifies the disk name.
relation_name	String	Specifies the name of the source disk corresponding to the destination disk.
disk_id	String	Specifies the EVS ID of the disk.
partition_style	String	Specifies the disk partition type. • MBR • GPT
size	long	Specifies the disk size.
os_disk	String	Specifies whether the disk is the system disk.
used_size	String	Specifies the size of the used disk space.
physical_volumes	JSON array	Specifies the physical volume information of the disk. For details, see **Table 5-64**.

Table 5-64 Structure members of **physical_volumes**

Parameter	Type	Description
id	long	Specifies the ID of the physical partition in the database.
uuid	String	Specifies the partition UUID.
index	long	Specifies the serial number of the partition.
relation_name	String	Specifies the name of the source partition corresponding to the destination partition.
name	String	Specifies the partition name, for example, **C** in the Windows OS and **/dev/vda1** in a Linux OS.

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Parameter	Type	Description
device_use	String	Specifies the partition user. • **BOOT**: indicates the boot partition. • **OS**: indicates the system partition. • **NORMAL**: indicates the common partition.
file_system	String	Specifies the file system type of the partition. For example, the value can be **NTFS**.
mount_point	String	Specifies the mount point of the partition.
size	long	Specifies the total partition size.
used_size	long	Specifies the used partition size.
free_size	long	Specifies the size of the available partition space.

Example

- Example request

  None

- Example response

```
{
 "id": "65da430b-9538-4296-abd0-86a5aaf13c77",
 "name": "sms_task_smssource",
 "type": "MIGRATE_BLOCK",
 "os_type": "WINDOWS",
 "state": "READY",
 "connected": true,
 "estimate_complete_time": null,
 "create_date": 1528699579000,
 "start_date": null,
 "finish_date": null,
 "priority": 1,
 "speed_limit": 0,
 "migrate_speed": 0.0,
 "start_target_server": true,
 "error_json": "",
 "total_time": 0,
 "migration_ip": "192.168.1.175",
 "region_name":"north-china",
 "region_id":"cn-north-1",
 "project_name":"cn-north-1",
 "project_id": "962def8b6e984888b80501c851d534b2",
 "sub_tasks": [{
  "id": 477,
  "name": "ATTACH_AGENT_IMAGE",
  "progress": 0,
  "start_date": null,
  "end_date": null,
  "totalTime": 0
 }, {
  "id": 484,
  "name": "FORMAT_DISK_WINDOWS",
  "progress": 0,
  "start_date": null,
  "end_date": null,
  "totalTime": 0
```

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```
 }, {
  "id": 491,
  "name": "MIGRATE_WINDOWS_BLOCK",
  "progress": 0,
  "start_date": null,
  "end_date": null,
  "totalTime": 0
 }, {
  "id": 498,
  "name": "CONFIGURE_WINDOWS",
  "progress": 0,
  "start_date": null,
  "end_date": null,
  "totalTime": 0
 }, {
  "id": 505,
  "name": "DETTACH_AGENT_IMAGE",
  "progress": 0,
  "start_date": null,
  "end_date": null,
  "totalTime": 0
 }
],
"source_server": {
 "id": "a013ec5f-00d6-456b-8c1f-085599cb97e9",
 "ip": "192.168.1.57",
 "name": "smssource",
 "os_type": "WINDOWS",
 "os_version": "WINDOWS2008_R2_64BIT",
 "oem_system": false,
 "state": "AVAILABLE"
},
"target_server": {
 "id": "ec5eca22-db21-49b0-ae53-56a74f0318ec",
 "vm_id": "7c804c50-e9eb-40af-86ec-c78da64f22e2",
 "name": "smssrc",
 "ip": null,
 "os_type": "WINDOWS",
 "os_version": "WINDOWS2008_R2_64BIT",
 "system_dir": "Y:\\Windows\\System32",
 "disks": [{
   "id": 736,
   "name": "Disk 1",
   "disk_id": "e853bb2d-57e0-42b2-96c0-68794063fb0f",
   "partition_style": "MBR",
   "size": 53687091200,
   "used_size": 42964353024,
   "os_disk": true,
   "physical_volumes": [{
     "id": 1135,
     "uuid": "\\?\Volume{f5a31ed9-cde8-11e6-9dd0-806e6f6e6963}\",
     "index": 1,
     "name": "Z:",
     "device_use": "BOOT",
     "file_system": "NTFS",
     "mount_point": null,
     "size": 113246208,
     "used_size": 25624064,
     "free_size": 87622144
    }, {
     "id": 1142,
     "uuid": "\\?\Volume{f5a31eda-cde8-11e6-9dd0-806e6f6e6963}\",
     "index": 2,
     "name": "Y:",
     "device_use": "OS",
     "file_system": "NTFS",
     "mount_point": null,
     "size": 42851106816,
     "used_size": 26961067520,
```


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```
      "free_size": 15890039296
     }
    ]
   }
  ],
  "btrfs_list": [],
  "volume_groups": []
 }
}
```


Status Code

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

Error Code

For details, see **Error Code**.

5.2.8 Deleting a Migration Task by Task ID

Function

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

You can delete a task only when the task status is **READY**, **ABORT**, **FAIL**, or **SUCCESS**.

URI

DELETE /v1/sms/tasks/{task_id}

For details about the parameters, see **Table 5-65**.

Table 5-65 Parameter description

Parameter	Mandatory	Description
task_id	Yes	Specifies the task ID.

Request

N/A

Response

N/A

Example

- Example request
  None
- Example response
  None

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Status Code

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

Error Code

For details, see **Error Code**.

5.2.9 Deleting Migration Tasks in Batches

Function

This API is used to delete multiple migration tasks at a time.

You can delete a task only when the task status is **READY**, **ABORT**, **FAIL**, or **SUCCESS**.

URI

POST /v1/sms/tasks/delete

Request

Request parameters

For details about the request parameters, see **Table 5-66**.

Table 5-66 Request parameters

Parameter	Mandatory	Type	Description
ids	Yes	JSON array	Specifies the collection of IDs of all tasks to be deleted.

Response

N/A

Example

- Example request

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

- Example response

  None

Status Code

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

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Error Code

For details, see **Error Code**.

5.2.10 Setting the Migration Rate

Function

This API is used to set the migration rate of a migration task.

URI

POST /v1/sms/tasks/{task_id}/speed-limit

For details about the parameters, see **Table 5-67**.

Table 5-67 Parameter description

Parameter	Mandatory	Type	Description
task_id	Yes	String	Specifies the ID of the task for which the speed limit needs to be set.

Request

Request parameters

For details about the request parameter, see **Table 5-68**.

Table 5-68 Parameter description

Parameter	Mandatory	Type	Description
speed_limit	Yes	Integer	Specifies the information about the time segment when the migration rate is limited. For details, see **Table 5-69**.

Table 5-69 speed_limit data structure

Parameter	Mandatory	Type	Description
start	Yes	String	Specifies the start time of a segment. The format is: XX:XX.
end	Yes	String	Specifies the end time of a segment. The format is: XX:XX.

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Parameter	Mandatory	Type	Description
speed	Yes	Integer	Specifies the migration rate in a time segment. The value is an integer ranging from 0 to 1000. Unit: Mbit/s.

Response

N/A

Example

- Example request

  POST /v1/sms/tasks/ a45a300b-86b5-4b13-8802-52274fa43016/speed-limit

```
{
   "speed_limit": [
      {
         "start": "0:00",
         "end": "8:00",
         "speed": 20
      },
      {
         "start": "8:00",
         "end": "15:00",
         "speed": 50
      },
      {
         "start": "15:00",
         "end": "24:00",
         "speed": 25
      }
   ]
}
```

- Example response

  None

Status Code

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

Error Code

For details, see **Error Code**.

5.2.11 Querying the Migration Rate

Function

This API is used to search the migration rate of a migration task by a time segment.

URI

GET /v1/sms/tasks/{task_id}/speed-limit

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For details about the parameters, see **Table 5-70**.

Table 5-70 Parameter description

Parameter	Mandatory	Type	Description
task_id	Yes	String	Specifies the migration task ID. You can view the ID list using the API in **Querying the List of Migration Tasks**.

Request

N/A

Response

Table 5-71 Response

Parameter	Type	Description
speed_limit	JSON array	Specifies the information about the time segment when the migration rate is limited. For details, see **Table 5-72**.

Table 5-72 speed_limit data structure

Parameter	Type	Description
start	String	Specifies the start time of a segment. The format is: XX:XX.
end	String	Specifies the end time of a segment. The format is: XX:XX.
speed	Integer	Specifies the migration rate in a time segment. The value is an integer ranging from 0 to 1000. Unit: Mbit/s.

Example

- **Example request**

```
GET /v1/sms/tasks/c3408583-23a8-490b-8d20-ee88bafe6c96/speed-limit
```

- **Example response**

```
{
    "speed_limit": [
        {
            "start": "0:00",
            "end": "8:00",
            "speed": 20
        },
        {
            "start": "8:00",
            "end": "15:00",
```


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```
            "speed": 50
        },
        {
            "start": "15:00",
            "end": "24:00",
            "speed": 25
        }
    ]
}
```

Status Code

For details, see **Status Code**.

Error Code

For details, see **Error Code**.

5.3 Certificate Management

5.3.1 Downloading the SSL Socket Certificate and Private Key

Function

When the source server runs a Windows OS, the migration Agent installed on source servers communicates with destination servers through the SSL socket. This API is used to download the certificates and private keys in PEM format required by destination servers.

NOTE

This API is automatically called by the migration Agent to download SSL socket certificates and private keys. You do not need to make calls to this API.

URI

GET /v1/sms/tasks/{task_id}/certkey

For details about the parameters, see **Table 5-73**.

Table 5-73 Parameter description

Parameter	Mandatory	Description
task_id	Yes	Specifies the task ID.

Request

None

Response

Response parameters

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For details about the response parameters, see **Table 5-74**.

Table 5-74 Response parameters

Parameter	Type	Description
cert	String	Specifies the self-signed certificate in the **PEM** format
private_key	String	Specifies the private key in the **PEM** format.

Example

- Example request

  None

- Example response

```
{
"cert":"  -----BEGIN CERTIFICATE-----
MIICrjCCAhegAwIBAgIBADANBgkqhkiG9w0BAQUFADCBnDELMAkGA1UEBhMCQ04x
EjAQBgNVBAgMCUd1YW5nRG9uZzERMA8GA1UEBwwIU2hlbnpoZW4xDTALBgNVBAoM
BE1hYVMxFDASBgNVBAsMC0Nsb3VkYmlsaXR5MSIwIAYDVQQDDBlBdGxhcyBQZXJz
b25hbCBMaWNlbnNlIENBMR0wGwYJKoZIhvcNAQkBFg5jd2pjc3VAMTI2LmNvbTAe
Fw0xODAzMTYwMTQzMDFaFw0xOTAzMTYwMTQzMDFaMIGcMQswCQYDVQQGEwJDTjES
MBAGA1UECAwJR3VhbmdEb25nMREwDwYDVQQHDAhTaGVuemhlbjENMAsGA1UECgwE
TWFhUzEUMBIGA1UECwwLQ2xvdWRiaWxpdHkxIjAgBgNVBAMMGUF0bGFzIFBlcnNv
bmFsIExpY2Vuc2UgQ0ExHTAbBgkqhkiG9w0BCQEWDmN3amNzdUAxMjYuY29tMIGf
MA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDGA3ahP8o4h9B6BLlfOVECpbeHbB4+
H8dNB+NtAopv9NKg2fz9KPTxJKw037L/dCNE/DCFFlu9dczxXmJRFIRRz677LcBj
T+05VEjil86qeucnWGVZJjTqG11f5eTUGzUlV12cT425Q/y/BdWAniW70XfjOeeS
hOW6CZefJ9Q0FwIDAQABMA0GCSqGSIb3DQEBBQUAA4GBAH16ASRuNjbJ5eIBPAig
9vmQ3iPgUYJFCMPoJeZWecrqj+pGhVJDsviLimNmEnCkEJpRf0sFvPG64R/BISsB
v/PXvfDLwfTcx1q2j9Y4i3sPe2JfwPKcQLKPdZIyakk9tYsRztFPoxlK0F7YQKd+
rvbHNGLkWxDArm44wURYFA1t
-----END CERTIFICATE-----",
"private_key":"-----BEGIN RSA PRIVATE KEY-----
MIICXAIBAAKBgQDGA3ahP8o4h9B6BLlfOVECpbeHbB4+H8dNB+NtAopv9NKg2fz9
KPTxJKw037L/dCNE/DCFFlu9dczxXmJRFIRRz677LcBjT+05VEjil86qeucnWGVZ
JjTqG11f5eTUGzUlV12cT425Q/y/BdWAniW70XfjOeeShOW6CZefJ9Q0FwIDAQAB
AoGAG753fC9iZ5pL8RTBXmC7A4pxlRVmhWDRfW8KBAeTmw0sB+KTKmt3KmRvhncD
bvx4Rp2pNLSFxR2Ayh7l2qNryIWcuxTrlDowGrUg+QzwMfJixczAEU7IHCRC2k3t
7yf0ElLYoM+A+SgvDO8YWhaJ6SYe0zAHFZbabNsSbWzbb8kCQQDlggnh5CN/nDHb
URZ1FoUrQ8pzk3rc6krWe4WWPx9YJ33zgCOut1w2y2eJ0SN1m+yxAAZ22fnY47kj
HrS8TjvZAkEA3N7DnLggtQcOC6Ye2v5SGLzv0O6Gw5Xl3NLWiiGK8kY/3Q1Aa5gh
/8qBnqKLfxpe+3IKfN+wrXUG5PV+XdapbwJAbKbdatWIgLc/WybOTOw2az8SrxiY
x9EbUOL1YSXM/vzjQc3eFq6ztzUgdTxPXzRMH5d1d/rFr4pPcXLt+V/IMQJBAJQB
AnumNuSX0aWkr9B303OYR+ttqwitDdcnwXPWflFTGcB6/MwcqcvKW4l9ypRli3hb
NwPusWnKndAXYZJoIikCQGe7Nb+e59Ksm5+BoSXp/07FriqvwPrDkr+e1Xpfmoai
s4U4T0RA/NkYRTX/jN/HtpXkjR/dEf7RAAmNO3WtKm4=
-----END RSA PRIVATE KEY-----"
}
```

Status Code

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

Error Code

For details, see **Error Code**.

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5.3.2 Downloading the RSA Public and Private Keys

Function

If a source server runs a Linux OS, the migration Agent installed on the source server communicates with the target ECS through SSH. This API is used to return a group of RSA public and private keys, which are used as the SSH private key of the target ECSs.

NOTE

This API is automatically called by the migration Agent to download RSA public and private keys. You do not need to make calls to this API.

URI

GET /v1/sms/tasks/{task_id}/rsakeypair

For details about the parameters, see **Table 5-75**.

Table 5-75 Parameter description

Parameter	Mandatory	Description
task_id	Yes	Specifies the task ID.

Request

None

Response

Response parameters

For details about the response parameters, see **Table 5-76**.

Table 5-76 Response parameters

Parameter	Type	Description
private_key	String	Specifies the private key in the **PEM** format.
public_key	String	Specifies the public key in the **PEM** format.

Example

- Example request

  None

- Example response

```
{
"private_key ":"-----BEGIN RSA PRIVATE KEY-----\nMIIEoAIBAAKCAQEAo9rcDbwylbq73zmv3IL9cxgBqe
```

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+POIIOguVo7ZKqxwOLm2sz\nAf7y/taAtdQdIwGOeuhTXS1o3Ea3sc96XwJhCJbCZwZck/
6yO2zq041qL6YQ3VZY\nU1XHJnYp50Fd7mQA2ud5M48DE6ggs5sJ5DDr8g0GzscnIPHB1mg1tP
+f1tcTEhFq\nmZiU208VGGetoHFIdgvbcw9V3Ci/INMcoMWe1AsKDNeRVTNdT
+qgzqFUEgOUa21/\n8s25Tdv38pHwKobh9GNAICThsoQuOzmuMPv4nxyoNy43CEuGmj
+3qdXe6+nJYug6\ndEjP9RCJ5LVt5QEflG81+xDfuTXGjIE/aHqhTQIDAQABAoH/JcNK899ryRZANjIV
\nVbzarKvbtk5/s4ZF0eUNSbODqFoo0qjiGJOpbRICl
+VK0caKD8l7bP4KLLofm9s1\nWLAzrMcSBqxwqasJaKixdhAhaNndCSXdNVePjk2tWp62BzsE925hgIB1NR
KKdtpE\nbVLZDe/yobVET1NoWQGrXwuKyvhn9+z/hDkZJDVoQRolUa2SiNYWh7QiU+GeZ5DD
\nPjpiAJfmBe4Zs611AhJMiBQohGDy+L8thGRx3bl69fIIn3Sa1ZTC49sW+82qGHsP
\nqhXiB6OCsmVy44DmOUUG/qClY/aSer/a4cNLaZTzzx3IhCeI30ats/0aLEw5Szyb
\nsIgBAoGBANO55QA14SgAR+XjGsMOq8/rHU/x3cquJO1COeFF8xCgAOulmRmQbpYC
\ni34fJlpNTbi5czTy8JuPsKAcSGnbnFVZtEEB1XpZCDZ5ChSqaiCZECdl79RjZ4GZ
\nJMa3uXnwioPh9eHx8RSl+qGAT/15LdkPzDDHrt6QTgTt9rrCxWdNAoGBAMYeU5yJ\nzsq7UufGnZ76q
+hvH+lfYrrFz/wE2ZdN2ISGlWV9rr7KEjDNP24rrAzgwNosyepl\nhoBq/nM8k0/
GSQTWn2U1qpwdM7tzdFfPsi5NjFP4sufqhXtXJt5xcGTnX275Cu2i\nX6TaeB8aVdomrAD6nEq2/
w15nEWPhpqpcSIBAoGAWg3QZFWGbgAolJQTFvIPjAEB\n17YVUxbc5/lqKvlYn3Ke0Zv+0YvlLY/
pivxu0KveqfpfER9fzZrBUmiVOElLZlYg\nQCIqjb5+qsSyz/
Vn7HOOFmPaLWkWZl4f8VHF1yLDl7KtZawFkXXDc5vi6fn30UJR
\n5FGahFm2hYw9jFQ5qGUCgYAKAAXgZORXP1VT9aaHG8gJl3JY6UOmgc2ZvvTsujUv\nm0t3L/
zeDH0WkYWeHf41ODMD0Dbw6eb8HGpzjp8w66VL5TludmMCNkciMxWwSP+J
\nbsiihG8jXacXLrL7j2ZI8ZTTmSaAEC4buBtQFpg2xrTv57Zz3wDIwVat/CyjKeJY
\nAQKBgHZGsTBBRMBUEMlSmuctTh41otWjKx34jMtfRzY+zsq59Qy4JMLICOu1rQ8O
\nrebbmoRoApEB9xkWDRZe56/Y3cKcImTjiuGAiP/+49srJJz+Wu3lYvukyDs9viCE\n58M/
hMpCLNcJEmpB8mr5Eb7+aC2UYZdqIY2Wa56MUiicTX/c\n-----END RSA PRIVATE KEY-----\n",
"public_key":"ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQCj2twNvDKVurvfOa/
cgv1zGAGp7484gg6C5WjtkqrHA4ubazMB/vL+1oC11B0jAY566FNdLWjcRrexz3pfAmEIlsJnBlyT/
rI7bOrTjWovphDdVlhTVccmdinnQV3uZADa53kzjwMTqCCzmwnkMOvyDQbOxycg8cHWaDW0/5/
W1xMSEWqZmJTbTxUYZ62gcUh2C9tzD1XcKL8g0xygxZ7UCwoM15FVM11P6qDOoVQSA5RrbX/yzblN2/
fykfAqhuH0Y0AgJOGyhC47Oa4w+/ifHKg3LjcIS4aaP7ep1d7r6cli6Dp0SM/1EInktW3lAR+UbzX7EN
+5NcaMgT9oeqFN \n"
}

Status Code

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

Error Code

For details, see **Error Code**.

5.4 Command Management

5.4.1 Obtaining Commands from SMS

Function

This API is called by the migration Agent to obtain instructions sent from the SMS server to the migration Agent on a specified source server.

NOTE

This API is automatically called by the migration Agent to obtain migration instruction sent by the SMS server. You do not need to make calls to this API.

URI

GET /v1/sms/sources/{source_id}/command

For details about the parameters, see **Table 5-77**.

Table 5-77 Parameter description

Parameter	Mandatory	Description
source_id	Yes	Specifies the source server ID.

Request

None

Response

Response parameters

For details about the response parameters, see **Table 5-78**.

Table 5-78 Response parameters

Parameter	Type	Description
command_name	String	Specifies the command name. The options can be **START**, **STOP**, **DELETE**, and **SYNC**.
command_param	Json	Command parameters. For details, see **Table 5-79**.

Table 5-79 command_param information

Parameter	Type	Description
key1	String	Specifies the parameters to be used.
key2	String	Specifies the parameters to be used.

Example

- Example request

  None

- Example response
  - Starting a migration task

    ```
    {
    "command_name":"START",
    "command_param":{
    "task_id":"2c0689c860ad4728a497c91ec0844384"
    }
    }
    ```

  - Stopping a migration task

    ```
    {
    "command_name":"STOP",
    "command_param":{
    ```


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```
"task_id":"2c0689c860ad4728a497c91ec0844384"
}
}
```

- Synchronizing data after a migration task is complete

```
{
"command_name":"SYNC"
"command_param":{
"task_id":"2c0689c860ad4728a497c91ec0844384"
}
}
```

- Deleting a migration task

```
{
"command_name":"DELETE"
"command_param":{
"task_id":"2c0689c860ad4728a497c91ec0844384"
}
}
```

- Collecting migration logs to a specified OBS bucket

```
{
"command_name":"UPLOAD_LOG"
"command_param":{
"bucket":"logbucket"
"object":""
}
}
```

Status Code

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

Error Code

For details, see **Error Code**.

5.4.2 Reporting the Migration Instruction Execution Result to the SMS Server

Function

This API is called by the migration Agent to send the execution result of a specified instruction to the SMS server.

NOTE

This API is automatically called by the migration Agent to report migration instruction execution result to the SMS server. You do not need to make calls to this API.

URI

POST /v1/sms/sources/{source_id}/command_result

For details about the parameters, see **Table 5-80**.

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Table 5-80 Parameter description

Parameter	Mandatory	Description
source_id	Yes	Specifies the source server ID.

Request

Request parameters

For details about the request parameters, see **Table 5-81**.

Table 5-81 Request parameters

Parameter	Mandatory	Type	Description
command_name	Yes	String	Specifies the command name. The options can be **START**, **STOP**, **DELETE**, **SYNC**, **UPLOAD_LOG**, and **RSET_LOG_ACL**.
result	Yes	String	Specifies the command output. • **success**: indicates that the migration instruction is executed successfully. • **fail**: The migration instruction fails to be executed.
result_detail	Yes	Json	Specifies the migration instruction execution result in JSON format.

Response

None

Example

- Example request

```
{
"command_name":"START",
"result":"success",
"result_detail":{
"key1": "value1",
"key2": "value2"
}
}
```

- Example response

  None

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Status Code

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

Error Code

For details, see **Error Code**.

5.5 Template Management

5.5.1 Querying the Template List

Function

This API is used to query the ECS creating template list.

URI

GET /v1/sms/vm/templates

Request

Request parameters

For details about the request parameters, see **Table 5-82**.

Table 5-82 Parameter description

Parameter	Mandatory	Type	Description
name	No	String	Template name
availability_zone	No	String	AZ
region	No	String	Region ID
Number_per_page	No	Integer	Page size. The default value is **50**.
Page_num	No	Integer	Start page number. The default value is **0**.

Response

Response parameters

For details about the response parameters, see **Table 5-84**.

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Table 5-83 Response parameters

Parameter	Type	Description
count	String	Template quantity
templates	String	Template information. For details, see **Table 5-83**.

Table 5-84 templates information

Parameter	Type	Description
name	String	Template name
id	String	Template ID
region	String	Region ID
availability_zone	String	AZ
volumetype	String	Disk type
vpc	Object	VPC information. For details, see **Table 5-85**.
nics	Array	Subnet information. For details, see **Table 5-87**.
security_groups	Array	Security group. For details, see **Table 5-86**.
publicip	Object	EIP information. For details, see **Table 5-88**.

Table 5-85 vpc information

Parameter	Type	Description
id	String	VPC ID
name	String	VPC name

Table 5-86 security_groups information

Parameter	Type	Description
id	String	Security group ID
name	String	Security group name

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Table 5-87 nics information

Parameter	Type	Description
id	String	Subnet ID
name	String	Subnet name
cidr	String	Subnet gateway/mask

Table 5-88 publicip information

Parameter	Type	Description
type	String	EIP type. The default value is **5_bgp**.
bandwidth_size	Integer	Bandwidth size (Mbit/s). The value range is **1** to **2000**. 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 (with 300 Mbit/s included). The minimum increment is 50 Mbit/s if the allowed bandwidth ranges 300 Mbit/s to 1000 Mbit/s (with 1000 Mbit/s included). The minimum increment is 500 Mbit/s if the allowed bandwidth is greater than 1000 Mbit/s. **NOTE** This parameter is mandatory when **sharetype** is set to **PER** and is optional when **sharetype** is set to **WHOLE** with an ID specified.

Example

- Example request
  ```
  GET  v1/sms/vm/templates?name=temp1
  ```
- Example response
  ```
  {
    "count":1,
    "templates":[
      {
        "name":"temp1",
        "id":"abcdefghijk-aa-bbb",
        "region":"cn-north-7",
        "availability_zone":"cn-north-7a",
  ```


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```
    "volumetype":"SATA",
    "vpc":{
       "id":"0dae26c9-9a70-4392-93f3-87d53115d171",
       "name":"vpc1"
    },
    "nics":[
      {
        "id":"157ee789-03ea-45b1-a698-76c92660dd83",
        "name": "subnet-1637",
        "cidr": "192.168.0.0/24"
      }
    ],
   "security_groups":[
      {
        "id":"507ca48f-814c-4293-8706-300564d54620",
        "name":"default"
      }
    ],
    "publicip":  {
         "type": "5_bgp",
         "bandwidth_size":10,
    }
   }
 ]
}
```


Status Code

For details, see **Status Code**.

Error Code

For details, see **Error Code**.

5.5.2 Querying Information About a Template with a Specified ID

Function

This API is used to query information about an ECS creating template with a specified ID.

URI

GET /v1/sms/vm/template/{id}

For details about the parameters, see **Table 5-89**.

Table 5-89 Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Template ID. Use the API provided in **Querying the Template List** to query the template ID list.

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Request

None

Response

Response parameters

For details about the response parameters, see **Table 5-91**.

Table 5-90 Response parameters

Parameter	Type	Description
template	String	Template information. For details, see **Table 5-91**.
disks	String	Disk information. For details, see **Table 5-97**.

Table 5-91 template information

Parameter	Type	Description
name	String	Template name
id	String	Template ID
is_template	Boolean	Whether the object is a template. The value is **true** if a user saves the template, and **false** if the user does not save the template and directly create a task.
region	String	Region name
target_server_name	String	Name of the target ECS
availability_zone	String	AZ
volumetype	String	Disk type
vpc	Object	VPC information. The value is **{}** if the VPC is automatically created. For details, see **Table 5-92**.
security_groups	Array	Security group. The value is **[]** if the security group is automatically created. For details, see **Table 5-93**.
nics	Array	Subnet information. The value is **[]** if the subnet is automatically created. For details, see **Table 5-94**.

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Parameter	Type	Description
flavors	Array	ECS specifications. The value is **[]** if the ECS is automatically created. For details, see **Table 5-95**.
publicip	Object	EIP information. For details, see **Table 5-96**.

Table 5-92 vpc information

Parameter	Type	Description
id	String	VPC ID
name	String	VPC name

Table 5-93 security_groups information

Parameter	Type	Description
id	String	Security group ID
name	String	Security group name

Table 5-94 nics information

Parameter	Type	Description
id	String	Subnet ID
name	String	Subnet name
cidr	String	Gateway/mask
ip	String	Private IP address

Table 5-95 flavors information

Parameter	Type	Description
id	String	ECS specification ID
name	String	ECS flavor

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Table 5-96 publicip information

Parameter	Type	Description
id	String	EIP ID, which is mandatory for a newly assigned one.
ip	String	EIP address, which is mandatory for a newly assigned one.
type	String	EIP type. The default value is **5_bgp**.
bandwidth_size	Integer	Bandwidth size (Mbit/s). The value ranges from **1** to **2000**. 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 (with 300 Mbit/s included). The minimum increment is 50 Mbit/s if the allowed bandwidth ranges 300 Mbit/s to 1000 Mbit/s (with 1000 Mbit/s included). The minimum increment is 500 Mbit/s if the allowed bandwidth is greater than 1000 Mbit/s. **NOTE** This parameter is mandatory when **sharetype** is set to **PER** and is optional when **sharetype** is set to **WHOLE** with an ID specified.
bandwidth_share_type	String	Bandwidth sharing type. Enumerated values: **PER** (indicates exclusive bandwidth) and **WHOLE** (indicates sharing). The default value is **PER**.

Table 5-97 disk information

Parameter	Type	Description
index	Integer	Disk number, starting from **0**
name	String	Disk name
disktype	String	Disk type. The value is the same as that of **volumetype**.
size	Integer	Disk size (GB)

Example

- Example request
  ```
  GET v1/sms/vm/template/90c950d7-d184-4b5e-87c0-f0bd09dfa0c1
  ```

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- Example response

```
{
   "template": {
      "id":"aaaa-bbbb",
      "name": "template name",
      "is_template":"false",// false indicates creating a task, and true indicates saving the template.
      "region":"cn-north-1",



      "target_server_name":"target server 1",
      "availability_zone":"az1-dc1", //AZ name
      "volumetype": "DESS_SSD_FC",
      "vpc": {
        "id":"0dae26c9-9a70-4392-93f3-87d53115d171",
        "name":"vpc1"
      },
      "security_groups":[
        {
      "id":"507ca48f-814c-4293-8706-300564d54620",
          "name":"default"
       }
        ],
      "nics":[
        {
          "id":"157ee789-03ea-45b1-a698-76c92660dd83",
          "name": "subnet-1637",
          "cidr": "192.168.0.0/24",
      "ip":"192.168.0.0"
          }
      ],
      "flavors":[
        {
          "id": "c3.2xlarge.4",
      "name": "c3.2xlarge.4",
        }
      ],
      "publicip":  {
          "id":"1111",
          "ip ":"x.x.x.x",
          "type": "5_bgp",
          "bandwidth_size":10,
          "bandwidth_share_type":"PER"
      }
   },
   "disks":[
    {
      "index":0,
      "name":"Disk 01",
      "disktype":"DESS_SSD_FC",
      "size":40
    }
   ]
}
```

Status Code

For details, see **Status Code**.

Error Code

For details, see **Error Code**.

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5.5.3 Adding Template Information

Function

This API is used to add information to a template.

URI

POST /v1/sms/vm/template

Request

Request parameters

For details about the request parameter, see **Table 5-98**.

Table 5-98 Parameter description

Parameter	Mandatory	Type	Description
template	Yes	String	Template information. For details, see **Table 5-99**.
disks	Yes	String	Disk information. For details, see **Table 5-104**.

Table 5-99 template information

Parameter	Mandatory	Type	Description
name	Yes	String	Template name
is_template	Yes	Boolean	Whether the object is a template. The value is **true** if a user saves the template, and **false** if the user does not save the template and directly create a task.
region	Yes	String	Region name
target_server_name	Yes	String	Name of the target ECS
availability_zone	Yes	String	AZ
volumetype	Yes	String	Disk type
vpc	Yes	Object	VPC information. The value is **{}** if the VPC is automatically created. For details, see **Table 5-100**.

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Parameter	Mandatory	Type	Description
security_groups	Yes	Array	Security group. The value is **[]** if the security group is automatically created. For details, see **Table 5-101**.
nics	Yes	Array	Subnet information. The value is **[]** if the subnet is automatically created. For details, see **Table 5-102**.
flavors	No	Array	ECS specifications. The value is **[]** if the ECS is automatically created.
publicip	No	Object	EIP information. For details, see **Table 5-103**.

Table 5-100 vpc information

Parameter	Mandatory	Type	Description
id	Yes	String	VPC ID
name	Yes	String	VPC name

Table 5-101 security_groups information

Parameter	Mandatory	Type	Description
id	Yes	String	Security group ID
name	Yes	String	Security group name

Table 5-102 nics information

Parameter	Mandatory	Type	Description
id	Yes	String	Subnet ID
name	Yes	String	Subnet name
cidr	Yes	String	Gateway/mask
ip	No	String	Private IP address

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Table 5-103 publicip information

Parameter	Mandatory	Type	Description
id	No	String	EIP ID, which is mandatory for a newly assigned one.
ip	No	String	EIP address, which is mandatory for a newly assigned one.
type	Yes	String	EIP type. The default value is **5_bgp**.
bandwidth_size	Yes	Integer	Bandwidth size (Mbit/s). The value ranges from **1** to **2000**. 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 (with 300 Mbit/s included). The minimum increment is 50 Mbit/s if the allowed bandwidth ranges 300 Mbit/s to 1000 Mbit/s (with 1000 Mbit/s included). The minimum increment is 500 Mbit/s if the allowed bandwidth is greater than 1000 Mbit/s. **NOTE** This parameter is mandatory when **sharetype** is set to **PER** and is optional when **sharetype** is set to **WHOLE** with an ID specified.
bandwidth_share_type	No	String	Bandwidth sharing type. Enumerated values: **PER** (indicates exclusive bandwidth) and **WHOLE** (indicates sharing). The default value is **PER**.

Table 5-104 disk information

Parameter	Mandatory	Type	Description
index	Yes	Integer	Disk number, starting from **0**
name	No	String	Disk name
disktype	Yes	String	Disk type. The value is the same as that of **volumetype**.
size	Yes	Integer	Disk size (GB)

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Response

Table 5-105 Response message

Parameter	Type	Description
id	String	ID

Example

- Example request

  POST /v1/sms/vm/template

```
{
   "template": {
      "name": "template name",
      "is_template":"false",// false indicates creating a task, and true indicates saving the template.
      "region":"cn-north-1",



      "target_server_name":"target server 1",
      "availability_zone":"az1-dc1", //AZ name
      "volumetype": "DESS_SSD_FC",
      "vpc": {
        "id":"0dae26c9-9a70-4392-93f3-87d53115d171",
        "name":"vpc1"
      },
      "security_groups":[
        {
      "id":"507ca48f-814c-4293-8706-300564d54620",
         "name":"default"
      }
       ],
      "nics":[
        {
          "id":"157ee789-03ea-45b1-a698-76c92660dd83",
          "name": "subnet-1637",
          "cidr": "192.168.0.0/24",
      "ip":"192.168.0.0"
         }
      ],
      "flavors":c3.2xlarge.4,
      "publicip":  {
           "id":"1111",
           "ip ":"x.x.x.x",
           "type": "5_bgp",
           "bandwidth_size":10,
           "bandwidth_share_type":"PER"
      }
   },
   "disks":[
     {
      "index":0,
      "name":"Disk 01",
      "disktype":"DESS_SSD_FC",
      "size":40
    }
   ]
}
```

- Example response

```
{
  "id": "aaaa-bbbb-cccc-dddd"
}
```

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Status Code

For details, see **Status Code**.

Error Code

For details, see **Error Code**.

5.5.4 Modifying Template Information

Function

This API is used to modify the template information.

URI

PUT /v1/sms/vm/template/{id}

Request

Request parameters

For details about the request parameter, see **Table 5-106**.

Table 5-106 Parameter description

Parameter	Mandatory	Type	Description
template	Yes	String	Template information. For details, see **Table 5-107**.

Table 5-107 template information

Parameter	Mandatory	Type	Description
name	Yes	String	Template name
region	Yes	String	Region name
target_server_name	Yes	String	Name of the target ECS
availability_zone	Yes	String	AZ
volumetype	Yes	String	Disk type
vpc	Yes	Object	VPC information. The value is **{}** if the VPC is automatically created. For details, see **Table 5-108**.

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Parameter	Mandatory	Type	Description
security_groups	Yes	Array	Security group. The value is **[]** if the security group is automatically created. For details, see **Table 5-109**.
nics	Yes	Array	Subnet information. The value is **[]** if the subnet is automatically created. For details, see **Table 5-110**.
flavors	No	Array	ECS specifications. The value is **[]** if the ECS is automatically created. For details, see **Table 5-111**.
publicip	No	Object	EIP information. For details, see **Table 5-112**.

Table 5-108 vpc information

Parameter	Mandatory	Type	Description
id	Yes	String	VPC ID
name	Yes	String	VPC name

Table 5-109 security_groups information

Parameter	Mandatory	Type	Description
id	Yes	String	Security group ID
name	Yes	String	Security group name

Table 5-110 nics information

Parameter	Mandatory	Type	Description
id	Yes	String	Subnet ID
name	Yes	String	Subnet name
cidr	Yes	String	Gateway/mask
ip	No	String	Private IP address

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Table 5-111 flavors information

Parameter	Mandatory	Type	Description
id	Yes	String	ECS specification ID
name	Yes	String	ECS flavor

Table 5-112 publicip information

Parameter	Mandatory	Type	Description
id	No	String	EIP ID, which is mandatory for a newly assigned one.
ip	No	String	EIP address, which is mandatory for a newly assigned one.
type	Yes	String	EIP type. The default value is **5_bgp**.
bandwidth_size	Yes	Integer	Bandwidth size (Mbit/s). The value ranges from **1** to **2000**. 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 (with 300 Mbit/s included). The minimum increment is 50 Mbit/s if the allowed bandwidth ranges 300 Mbit/s to 1000 Mbit/s (with 1000 Mbit/s included). The minimum increment is 500 Mbit/s if the allowed bandwidth is greater than 1000 Mbit/s. **NOTE** This parameter is mandatory when **sharetype** is set to **PER** and is optional when **sharetype** is set to **WHOLE** with an ID specified.
bandwidth_share_type	No	String	Bandwidth sharing type. Enumerated values: **PER** (indicates exclusive bandwidth) and **WHOLE** (indicates sharing). The default value is **PER**.

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Response

Table 5-113 Response message

Parameter	Type	Description
id	String	ID

Example

- Example request

```
PUT  /v1/sms/vm/template
{
   "template": {
      "name": "template name",
      "is_template":"false",// false indicates creating a task, and true indicates saving the template.
      "region":"cn-north-1",



      "target_server_name":"target server 1",
      "availability_zone":"az1-dc1", //AZ name
      "volumetype": "DESS_SSD_FC",
      "vpc": {
        "id":"0dae26c9-9a70-4392-93f3-87d53115d171",
        "name":"vpc1"
      },
      "security_groups":[
        {
      "id":"507ca48f-814c-4293-8706-300564d54620",
         "name":"default"
     }
       ],
      "nics":[
        {
          "id":"157ee789-03ea-45b1-a698-76c92660dd83",
          "name": "subnet-1637",
          "cidr": "192.168.0.0/24",
      "ip":"192.168.0.0"
        }
      ],
      "flavors":[
        {
          "id": "c3.2xlarge.4",
      "name": "c3.2xlarge.4",
        }
      ],
      "publicip":  {
          "id":"1111",
          "ip ":"x.x.x.x",
          "type": "5_bgp",
          "bandwidth_size":10,
          "bandwidth_share_type":"PER"
      }
   }
}
```

- Example response

  None

Status Code

For details, see **Status Code**.

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Error Code

For details, see **Error Code**.

5.5.5 Deleting a Template with a Specified ID

Function

This API is used to delete a template with a specified ID.

URI

DELETE /v1/sms/vm/template/{id}

Request

Request parameters

For details about the request parameter, see **Table 5-114**.

Table 5-114 Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Template ID. Use the API provided in **Querying the Template List** to query the template ID list.

Response

None

Example

- Example request
  ```
  DELETE  v1/sms/vm/template/aaaaa-bbbb-cccc
  ```
- Example response

  None

Status Code

For details, see **Status Code**.

Error Code

For details, see **Error Code**.

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5.5.6 Deleting Templates with Specified IDs in Batches

Function

This API is used to delete templates with specified IDs in batches.

URI

POST /v1/sms/vm/templates/delete

Request

Request parameters

For details about the request parameter, see **Table 5-115**.

Table 5-115 Parameter description

Parameter	Mandatory	Type	Description
ids	Yes	Array	Template ID. Use the API provided in **Querying the Template List** to query the template ID list.

Response

None

Example

- Example request

```
POST  v1/sms/vm/templates/delete
{
 "ids": ["aaaaa-ccc", "eeeee-xxxx"]
}
```

- Example response

  None

Status Code

For details, see **Status Code**.

Error Code

For details, see **Error Code**.

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6 Appendix

6.1 Status Code

Table 6-1 describes the status code.

Table 6-1 Status Code

Status Code	Coding	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.
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.

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Status Code	Coding	Description
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.
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.

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Status Code	Coding	Description
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.
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.

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Status Code	Coding	Description
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"}

6.2 Error Code

Table 6-2 Error code description

Status Code	Error Code	Description
403	SMS.2002	You do not have permission to perform this operation.
401	SMS.2003	Invalid HTTP request method.

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Status Code	Error Code	Description
401	SMS.2004	The requested content contains more than 10,240 bytes.
401	SMS.2005	The request type **Content-Type** is not specified.
401	SMS.2006	The request type must be **application** or **json**.
500	SMS.2007	Background exception
400	SMS.2009	The command sent by the client is inconsistent with that on the SMS service.
401	SMS.2013	The source server already exists.
400	SMS.2015	The in-progress or stopped tasks cannot be deleted.
400	SMS.2206	The OS type of the source server is not in the migration support list.
400	SMS.2216	Failed to create the migration task because the specified source server does not exist.
403	SMS.2248	The resource that does not belong to you cannot be deleted.
404	SMS.2252	No migration task is associated with the specified source server.

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 the Project ID from the Console**

Obtain the Project ID by Calling an API

You can obtain the project ID by calling the API used to **query for projects based on specified criteria**.

The API used to obtain a project ID is GET https://{Endpoint}/v3/projects. {Endpoint} is the IAM endpoint and can be obtained from **Regions and Endpoints**. For details about API authentication, see **Authentication**.

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The following is an example response. The value of **id** is the project ID.

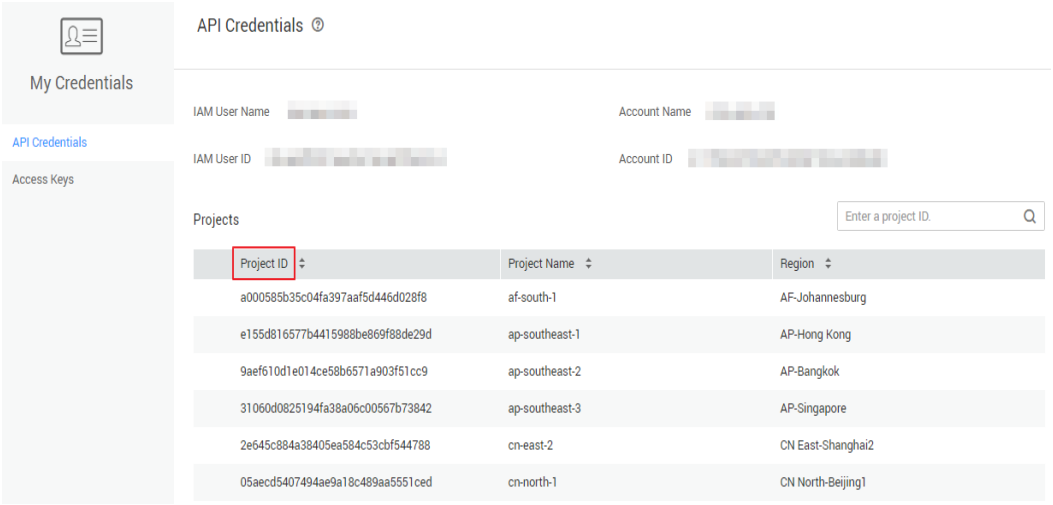
```
{
    "projects": [
        {
            "domain_id": "65382450e8f64ac0870cd180d14e684b",
            "is_domain": false,
            "parent_id": "65382450e8f64ac0870cd180d14e684b",
            "name": "project_name",
            "description": "",
            "links": {
                "next":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

Obtain a Project ID from the Console

To obtain a project ID from the console, perform the following operations:

1. Log in to the management console.
2. Click the username and select **My Credentials** from the drop-down list.
   On the **API Credentials** page, view the project ID in the project list.

Figure 6-1 Viewing the project ID



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A Change History

Released On	Description
2019-12-31	This issue is the third official release, which incorporates the following changes: • Added descriptions of parameter **btrfs_list** in **Reporting Data Migration Progress**. • Added descriptions of parameter **btrfs_list** in **Querying a Source Server by Server ID**. • Added descriptions of parameter **btrfs_list** in **Creating a Migration Task**. • Added descriptions of parameter **btrfs_list** in **Querying a Migration Task by Task ID**.
2019-10-30	This issue is the second official release. Added the following sections: • **Setting the Migration Rate** • **Querying the Migration Rate** • **Querying the Template List** • **Querying Information About a Template with a Specified ID** • **Adding Template Information** • **Modifying Template Information** • **Deleting a Template with a Specified ID** • **Deleting Templates with Specified IDs in Batches** Modified section **Creating a Migration Task**.
2018-09-30	This issue is the first official release.

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