Image Management Service

API Reference

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1 Before You Start

Welcome to *Image Management Service API Reference*. An image is a template used to create a server or disk. Image Management Service (IMS) provides image lifecycle management. You can use a server or an external image file to create a system or data disk image, or use an Elastic Cloud Server (ECS) or Cloud Backup and Recovery (CBR) backup to create a full-ECS image.

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

If you plan to access IMS through an API, ensure that you are familiar with IMS concepts. For details, see section "Overview" in *Image Management Service User Guide*.

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

Endpoint

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

Concepts

- Account

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

- User

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

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

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- 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.

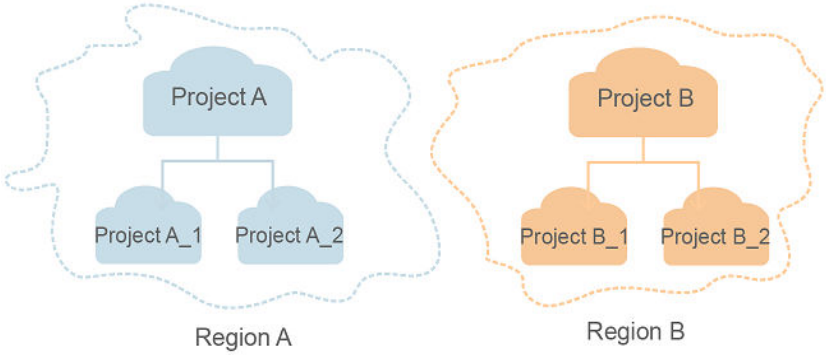
- AZ

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

  Figure 1-1 Project isolation model



Selecting an API Type

The following APIs have been deprecated and are not recommended:

- **Deleting an Image (Native OpenStack API V1.1, Deprecated)**
- **Querying Image Metadata (Native OpenStack API V1, Deprecated)**
- **Querying Image Details (Native OpenStack API V1.1, Deprecated)**

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2 API Overview

IMS APIs (recommended) and Native OpenStack APIs are provided.

A combination of the two types of APIs allows you to use all functions provided by IMS. For example, you can use either native OpenStack APIs or extension APIs to create private images.

Table 2-1 API description

Type	Subtype	Description
IMS APIs	Image	Create, query, and export images.
	Image sharing	Share private images with other tenants.
	Image replication	Replicate an existing image as another one. When replicating an image, you can change the image attributes to meet the requirements of different scenarios.
	Image quota	Query the number of private images in the current region.
	Image jobs	Query the execution status of an asynchronous job.
Native OpenStack API	Image	Create, query, and export images.
	Image schema	An image schema is used to display details of an images or image entity, such as the entity's attributes and their data types. With an image schema, you can understand basic information about an image.
	Image sharing	Share private images with other tenants.

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

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NOTE

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

Request Methods

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

Table 3-2 HTTP methods

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

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

```
POST https://{{endpoint}}/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.

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Table 3-3 Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of *Hostname:Port number*. If the port number is not specified, the default port is used. The default port number for **https** is **443**.	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the type (or format) of the message body. The default value **application/json** is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in **Obtaining a Project ID**.	No	e9993fc787d94b6c886cbaa340f9c0f4
X-Auth-Token	Specifies the user token. It is a response to the API for obtaining a user token (This is the only API that does not require authentication). After the request is processed, the value of **X-Subject-Token** in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

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

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

```
POST https://{{endpoint}}/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 (for example, JSON or XML) 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*, *domainname* (account), *$ADMIN_PASS* (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://{{endpoint}}/v3/auth/tokens
Content-Type: application/json

{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "$ADMIN_PASS",     //You are advised to store it in ciphertext in the configuration file or an environment variable and decrypt it when needed to ensure security.
                    "domain": {
                        "name": "domainname"
                    }
                }
            }
        },
        "scope": {
            "project": {
                "name": "xxxxxxxxxxxxxxxxx"
            }
```

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```
    }
  }
}
```

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

3.2 Authentication

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

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

AK/SK Authentication

NOTE

- AK/SK authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token authentication is recommended.
- API Gateway checks the time format and compares the request time with the time when API Gateway received the request. If the time difference exceeds 15 minutes, API Gateway will reject the request. So, the local time on the client must be synchronized with the clock server to avoid a large offset in the value of **X-Sdk-Date** in the request header.

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

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

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

NOTE

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

Token Authentication

NOTE

- A token remains valid for 24 hours after it is generated. You can cache a token and reuse it for authentication instead of generating a new one each time.
- Before using a token, ensure that it has sufficient time remaining before expiration. Using a near-expiry token may cause API call failures.

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A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API. You can obtain a token by calling the Obtaining a User Token API.

IMS is a project-level service. When you call the API, set **auth.scope** in the request body to **project**.

```
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",   // IAM user name
                    "password": $ADMIN_PASS,  // IAM user password. You are advised to store it in ciphertext in the configuration file or an environment variable and decrypt it when needed to ensure security.
                    "domain": {
                        "name": "domainname"  // Name of the account that the IAM user belongs to
                    }
                }
            }
        },
        "scope": {
            "project": {
                "name": "xxxxxxxx"    // Project name
            }
        }
    }
}
```

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 **ABCDEFG....**, **X-Auth-Token: ABCDEFG....** can be added to a request as follows:

```
GET https://{{endpoint}}/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFG....
```

3.3 Response

Status Code

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

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

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

Response Header

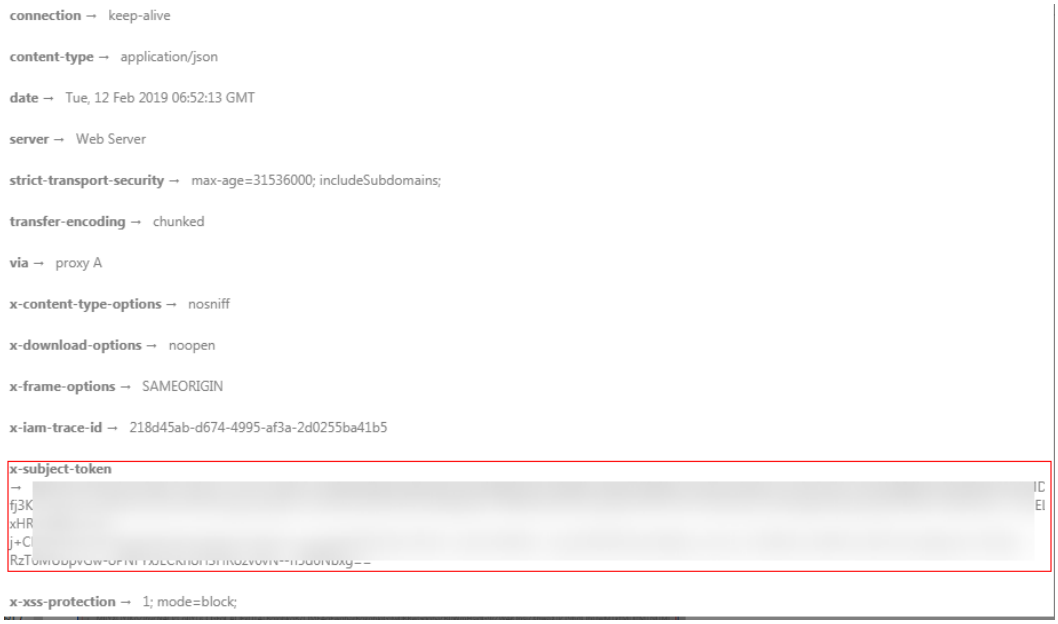
Similar to a request, a response also has a header, for example, **Content-Type**.

Figure 3-1 shows the response header 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.

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> **NOTE**
>
> For security purposes, you are advised to set the token in ciphertext in configuration files or environment variables and decrypt it when using it.

Figure 3-1 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 a structured format (for example, JSON or XML) as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following shows part of the response body for the API 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 request message format is invalid.",
    "error_code": "IMG.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

This section describes how to make API calls to create a private image from an ECS.

For details about how to call APIs, see **Calling APIs**.

NOTE

- Before using an ECS to create a private image, ensure that the ECS is stopped.
- The token obtained from IAM is valid for only 24 hours. If you want to use a token for authentication, you can cache it to avoid frequently calling the IAM API.

Involved APIs

If you use a token for authentication, you must obtain the token and add **X-Auth-Token** to the request header of the IMS API when making an API call.

- IAM API used to obtain the token
- IMS API used to create a private image

Procedure

1. Obtain the token by referring to **Authentication**.
2. Send **POST https://IMS endpoint/v2/cloudimages/action**.
3. Add **X-Auth-Token** to the request header.
4. Specify the following parameters in the request body:

```
{
   "name": "ims_test",  //Image name (a mandatory string)
   "description": "Image creation from an ECS",  //Image description (an optional string)
   "instance_id": "877a2cda-ba63-4e1e-b95f-e67e48b6129a",  //ECS ID (a mandatory string)
   "tags": [
          "aaa.111",
          "bbb.333",
          "ccc.444"
   ]  //Image tag list (optional, List<String>)
}
```

If the request is successful, a job ID is returned.

If the request fails, an error code and error information are returned. For details, see **Error Codes**.

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5. Query job details using the job ID by referring to **Querying the Status of an Asynchronous Job**.

   If the job status is **SUCCESS**, the private image is successfully created.

   For details about status codes for request exceptions, see **Status Codes**.

6. Obtain the image ID from the body of the job and query, delete, and export the private image using the image ID.

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5 IMS APIs

5.1 Image

5.1.1 Querying Images

Function

This API is used to query images using search criteria and to display the images in a list.

URI

GET /v2/cloudimages

NOTE

You can type a question mark (?) and an ampersand (&) at the end of the URI to define multiple search criteria. For details, see the example request.

Table 5-1 Parameter description

Parameter	Mandatory	Type	Description
__isregistered	No	String	Specifies whether the image is available. The value can be **true**. The value is **true** for all extension APIs by default. Common users can query only the images for which the value of this parameter is **true**.

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Parameter	Mandatory	Type	Description
__imagetype	No	String	Specifies the image type. The following types are supported: • Public image: The value is **gold**. • Private image: The value is **private**. • Shared image: The value is **shared**. **NOTE** The **__imagetype** of images you share with other tenants or those other tenants share with you and you have accepted is **shared**. You can use field **owner** to distinguish the two types of shared images. You can use **member_status** to filter out shared images you have accepted.
__whole_image	No	Boolean	Specifies whether the image is a full-ECS image. The value can be **true** or **false**.
__system__cmkid	No	String	Specifies the ID of the key used to encrypt the image. You can obtain the ID from the IMS console or by calling the **Querying Image Details (Native OpenStack API)** API.
protected	No	Boolean	Specifies whether the image is protected. The value can be **true** or **false**. Set it to **true** when you query public images. This parameter is optional when you query private images.
visibility	No	String	Specifies whether the image is available to other tenants. Available values include: • **public**: public image • **private**: private image • **shared**: shared image
owner	No	String	Specifies the tenant to which the image belongs.
id	No	String	Specifies the image ID.

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Parameter	Mandatory	Type	Description
status	No	String	Specifies the image status. The value can be one of the following: • **queued**: indicates that the image metadata has already been created, and it is ready for the image file to upload. • **saving**: indicates that the image file is being uploaded to the backend storage. • **deleted**: indicates that the image has been deleted. • **killed**: indicates that an error occurs on the image uploading. • **active**: indicates that the image is available for use.
name	No	String	Specifies the image name. Exact matching is used. For detailed description, see **Image Attributes**.
container_format	No	String	Specifies the container type. The value is **bare**.
disk_format	No	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **zvhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
min_ram	No	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. Generally, the value is **0**.
min_disk	No	Integer	Specifies the minimum disk space (GB) required for running the image. The value ranges from 40 GB to 255 GB.
__os_bit	No	String	Specifies the OS architecture, 32 bit or 64 bit.
__platform	No	String	Specifies the image platform type. The value can be **Windows**, **Ubuntu**, **Red Hat**, **SUSE**, **CentOS**, **Debian**, **OpenSUSE**, **Oracle Linux**, **Fedora**, **CoreOS**, **EulerOS**, or **Other**.
marker	No	String	Specifies the start number from which images are queried. The value is the image ID.

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Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of images that will be returned. The value is an integer ranging from **1** to **1000**. The default value is **1000**.
sort_key	No	String	Specifies the field for sorting the query results. The value can be: ● **name**: image name ● **container_format**: container type ● **disk_format**: image format ● **status**: image status ● **id**: image ID ● **size**: unavailable value now ● **created_at**: image creation time Default value: **created_at**
sort_dir	No	String	Specifies whether the query results are sorted in ascending or descending order. Its value can be **desc** (default) or **asc**. This parameter is used together with parameter **sort_key**. The default value is **desc**.
__os_type	No	String	Specifies the image OS type. Available values include: ● Linux ● Windows ● Other
tag	No	String	Specifies a tag added to an image. Tags can be used as a filter to query images. **NOTE** The tagging function has been upgraded. If the tags added before the function upgrade are in the format of "Key.Value", query tags using "Key=Value". For example, an existing tag is **a.b**. After the tag function upgrade, query the tag using "tag=a=b".

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Parameter	Mandatory	Type	Description
member_status	No	String	Specifies the image sharing status. The value can be **accepted**, **rejected**, or **pending**. **accepted**: indicates that the shared image is accepted. **rejected** indicates that the image shared by others is rejected. **pending** indicates that the image shared by others needs to be confirmed. To use this parameter, set **visibility** to **shared** during the query.
__support_kvm	No	String	Specifies whether the image supports KVM. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_xen	No	String	Specifies whether the image supports Xen. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_largememory	No	String	Specifies whether the image supports large-memory ECSs. If the image supports large-memory ECSs, the value is **true**. Otherwise, this parameter is not required. For the supported OSs, see **Table 9-4**.
__support_diskintensive	No	String	Specifies whether the image supports disk-intensive ECSs. If the image supports disk-intensive ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_highperformance	No	String	Specifies whether the image supports high-performance ECSs. If the image supports high-performance ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_xen_gpu_type	No	String	Specifies whether the image supports GPU-accelerated ECSs on the Xen platform. See **Table 9-2** for its value. If the image does not support GPU-accelerated ECSs on the Xen platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.

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Parameter	Mandatory	Type	Description
__support_kvm_gpu_type	No	String	Specifies whether the image supports GPU-accelerated ECSs on the KVM platform. See **Table 9-3** for its value. If the image does not support GPU-accelerated ECSs on the KVM platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_xen_hana	No	String	Specifies whether the image supports HANA ECSs on the Xen platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_infiniband	No	String	Specifies whether the image supports ECSs with InfiniBand NICs on the KVM platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen**.
virtual_env_type	No	String	Specifies the environment where the image is used. The value can be **FusionCompute**, **Ironic**, **DataImage**, or **IsoImage**. • For an ECS image (system disk image), the value is **FusionCompute**. • For a data disk image, the value is **DataImage**. • For a BMS image, the value is **Ironic**. • For an ISO image, the value is **IsoImage**.

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Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Specifies the enterprise project to which the images to be queried belong. • If the value is **0**, images of enterprise project **default** are to be queried. • If the value is **UUID**, images of the enterprise project corresponding to the UUID are to be queried. • If the value is **all_granted_eps**, images of all enterprise projects are to be queried. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.
created_at	No	String	Specifies the time when the image was created. Images can be queried by time. The value is in the format of *Operator:UTC time*. The following operators are supported: • gt: greater than • gte: greater than or equal to • lt: less than • lte: less than or equal to • eq: equal to • neq: not equal to The time format is *yyyy-MM-ddThh:mm:ssZ* or *yyyy-MM-dd hh:mm:ss*. For example, to query images created before Oct 28, 2018 10:00:00, set the value of **created_at** as follows: created_at=lt:2018-10-28T10:00:00Z

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Parameter	Mandatory	Type	Description
updated_at	No	String	Specifies the time when the image was modified. Images can be queried by time. The value is in the format of *Operator:UTC time*. The following operators are supported: • gt: greater than • gte: greater than or equal to • lt: less than • lte: less than or equal to • eq: equal to • neq: not equal to The time format is *yyyy-MM-ddThh:mm:ssZ* or *yyyy-MM-dd hh:mm:ss*. For example, to query images updated before Oct 28, 2018 10:00:00, set the value of **updated_at** as follows: updated_at=lt:2018-10-28T10:00:00Z

Request

Request parameters

None

Example Request

Querying public images (the results will be sorted by image name and only one image will be returned)

```
GET https://{Endpoint}/v2/cloudimages?__imagetype=gold&sort_key=name&limit=1
```

Common Query Methods

- Public images

  GET /v2/cloudimages?__imagetype=gold&visibility=public&protected=true
- Private images

  GET /v2/cloudimages?owner={project_id}
- Available shared images

  GET /v2/cloudimages?member_status=accepted&visibility=shared&__imagetype=shared
- Rejected images

  GET /v2/cloudimages?member_status=rejected&visibility=shared&__imagetype=shared

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- Unaccepted images

  GET /v2/cloudimages?member_status=pending&visibility=shared&__imagetype=shared

Response

- Response parameters

Parameter	Type	Description
images	Array of objects	Specifies image details. For details, see **Table 5-2**.

Table 5-2 Data structure description of the images field

Parameter	Type	Description
file	String	Specifies the URL for uploading and downloading the image file.
owner	String	Specifies the tenant to which the image belongs.
id	String	Specifies the image ID.
size	Long	This parameter is unavailable currently.
self	String	Specifies the image URL.
schema	String	Specifies the image schema.

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Parameter	Type	Description
status	String	Specifies the image status. The value can be one of the following: • **queued**: indicates that the image metadata has already been created, and it is ready for the image file to upload. • **saving**: indicates that the image file is being uploaded to the backend storage. • **deleted**: indicates that the image has been deleted. • **killed**: indicates that an error occurs on the image uploading. • **active**: indicates that the image is available for use.
tags	Array of strings	Specifies tags of the image, through which you can manage private images in your own way. You can use the image tag API to add different tags to each image and filter images by tag.
visibility	String	Specifies whether the image is available to other tenants. Available values include: • **private**: private image • **public**: public image • **shared**: shared image
name	String	Specifies the image name. For detailed description, see **Image Attributes**.
checksum	String	This parameter is unavailable currently.
protected	Boolean	Specifies whether the image is protected. A protected image cannot be deleted. The value can be **true** or **false**.
container_format	String	Specifies the container type.

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Parameter	Type	Description
min_ram	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. Generally, the value is **0**.
max_ram	String	Specifies the maximum memory (MB) of the image. You can set this parameter based on the ECS specifications. Generally, you do not need to set this parameter.
updated_at	String	Specifies the time when the image was updated. The value is in UTC format.
__os_bit	String	Specifies the OS architecture, 32 bit or 64 bit.
__os_version	String	Specifies the OS version.
__description	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**.
disk_format	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **zvhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
__isregistered	String	Specifies whether the image has been registered. The value can be **true** or **false**.
__platform	String	Specifies the image platform type. The value can be **Windows**, **Ubuntu**, **Red Hat**, **SUSE**, **CentOS**, **Debian**, **OpenSUSE**, **Oracle Linux**, **Fedora**, **Other**, **CoreOS**, or **EulerOS**.
__os_type	String	Specifies the OS type. The value can be **Linux**, **Windows**, or **Other**.

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Parameter	Type	Description
min_disk	Integer	Specifies the minimum disk space (GB) required for running the image. The value ranges from 40 GB to 255 GB.
virtual_env_type	String	Specifies the environment where the image is used. The value can be **FusionCompute**, **Ironic**, **DataImage**, or **IsoImage**. • For an ECS image, the value is **FusionCompute**. • For a data disk image, the value is **DataImage**. • For a BMS image, the value is **Ironic**. • For an ISO image, the value is **IsoImage**.
__image_source_type	String	Specifies the image backend storage type. Only UDS is supported currently.
__imagetype	String	Specifies the image type. The following types are supported: • Public image: The value is **gold**. • Private image: The value is **private**. • Shared image: The value is **shared**.
created_at	String	Specifies the time when the image was created. The value is in UTC format.
virtual_size	Integer	This parameter is unavailable currently.
__originalimagename	String	Specifies the parent image ID. If the image is a public image or created from an image file, this value is left empty.

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Parameter	Type	Description
__backup_id	String	Specifies the backup ID. To create an image using a backup, set the value to the backup ID. Otherwise, this value is left empty.
__productcode	String	Specifies the product ID of a KooGallery image.
__image_size	String	Specifies the size (bytes) of the image file.
__data_origin	String	Specifies the image source. If the image is a public image, this parameter is left empty.
__lazyloading	String	Specifies whether the image supports lazy loading. The value can be **true**, **false**, **True**, or **False**.
active_at	String	Specifies the time when the image status became **active**.
__os_feature_list	String	Specifies additional attributes of the image. The value is a list (in JSON format) of advanced features supported by the image.
__support_kvm	String	Specifies whether the image supports KVM. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_xen	String	Specifies whether the image supports Xen. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_largememory	String	Specifies whether the image supports large-memory ECSs. If the image supports large-memory ECSs, the value is **true**. Otherwise, this parameter is not required.

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Parameter	Type	Description
__support_diskintensive	String	Specifies whether the image supports disk-intensive ECSs. If the image supports disk-intensive ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_highperformance	String	Specifies whether the image supports high-performance ECSs. If the image supports high-performance ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_xen_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the Xen platform. See **Table 9-2** for its value. If the image does not support GPU-accelerated ECSs on the Xen platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the KVM platform. See **Table 9-3** for its value. If the image does not support GPU-accelerated ECSs on the KVM platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_xen_hana	String	Specifies whether the image supports HANA ECSs on the Xen platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.

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Parameter	Type	Description
__support_kvm_infiniband	String	Specifies whether the image supports ECSs with InfiniBand NICs on the KVM platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen**.
__system_support_market	Boolean	Specifies whether an image can be published in KooGallery. • **true**: supported • **false**: not supported
__is_offshelved	String	Specifies whether the KooGallery image has been taken offline. • **true**: The image has been taken offline. • **false**: The image has not been taken offline.
enterprise_project_id	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects, see *Enterprise Management User Guide*.
__root_origin	String	Specifies that the image is created from an external image file. Value: **file**
__sequence_num	String	Specifies the ECS system disk slot number of the image. Example value: **0**

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Parameter	Type	Description
__support_fc_inject	String	Specifies whether the image supports password/private key injection using Cloud-Init. **true** indicates password/private key injection using Cloud-Init is not supported. Other values indicate the injection is supported. **NOTE** This parameter is valid only for ECS system disk images.
hw_firmware_type	String	Specifies the ECS boot mode. The value can be: • **bios** indicates the BIOS boot mode. • **uefi** indicates the UEFI boot mode.
hw_vif_multiqueue_enabled	String	Specifies whether the image supports NIC multi-queue. The value can be **true** or **false**.
__support_arm	String	Specifies whether the image uses the Arm architecture. The value can be **true** or **false**.
__support_agent_list	String	Specifies the agents configured for the image. • **hss**: server security • **ces**: The host monitoring agent is configured for the image. Example value: "__support_agent_list": "hss,ces" **NOTE** If the response does not contain this field, the HSS or host monitoring agents are not configured for the image.
__system__cmkid	String	Specifies the ID of the key used to encrypt the image.
__account_code	String	Specifies the charging identifier for the image.

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Parameter	Type	Description
__support_amd	String	Specifies whether the image uses AMD's x86 architecture. The value can be **true** or **false**.
__support_kvm_hi1822_hisriov	String	Specifies whether SR-IOV is supported. If it is, the value is **true**. Otherwise, this parameter is not required.
__support_kvm_hi1822_hivirtionet	String	Specifies whether Virtio-Net is supported. If it is, the value is **true**. Otherwise, this parameter is not required.

- Example response

```
STATUS CODE 200
{
  "images": [
    {
      "schema": "/v2/schemas/image",
      "min_disk": 100,
      "created_at": "2018-09-06T14:03:27Z",
      "__image_source_type": "uds",
      "container_format": "bare",
      "file": "/v2/images/bc6bed6e-ba3a-4447-afcc-449174a3eb52/file",
      "updated_at": "2018-09-06T15:17:33Z",
      "protected": true,
      "checksum": "d41d8cd98f00b204e9800998ecf8427e",
      "id": "bc6bed6e-ba3a-4447-afcc-449174a3eb52",
      "__isregistered": "true",
      "min_ram": 2048,
      "__lazyloading": "true",
      "owner": "1bed856811654c1cb661a6ca845ebc77",
      "__os_type": "Linux",
      "__imagetype": "gold",
      "visibility": "public",
      "virtual_env_type": "FusionCompute",
      "tags": [],
      "__platform": "CentOS",
      "size": 0,
      "__os_bit": "64",
      "__os_version": "CentOS 7.3 64bit",
      "name": "CentOS 7.3 64bit vivado",
      "self": "/v2/images/bc6bed6e-ba3a-4447-afcc-449174a3eb52",
      "disk_format": "zvhd2",
      "virtual_size": null,
      "hw_firmware_type": "bios",
      "status": "active",
      "__support_fc_inject":"true"
    },
    {
      "schema": "/v2/schemas/image",
      "min_disk": 100,
      "created_at": "2018-09-06T14:03:05Z",
      "__image_source_type": "uds",
      "container_format": "bare",
      "file": "/v2/images/0328c25e-c840-4496-81ac-c4e01b214b1f/file",
      "updated_at": "2018-09-25T14:27:40Z",
      "protected": true,
      "checksum": "d41d8cd98f00b204e9800998ecf8427e",
```

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```
    "id": "0328c25e-c840-4496-81ac-c4e01b214b1f",
    "__isregistered": "true",
    "min_ram": 2048,
    "__lazyloading": "true",
    "owner": "1bed856811654c1cb661a6ca845ebc77",
    "__os_type": "Linux",
    "__imagetype": "gold",
    "visibility": "public",
    "virtual_env_type": "FusionCompute",
    "tags": [],
    "__platform": "CentOS",
    "size": 0,
    "__os_bit": "64",
    "__os_version": "CentOS 7.3 64bit",
    "name": "CentOS 7.3 64bit with sdx",
    "self": "/v2/images/0328c25e-c840-4496-81ac-c4e01b214b1f",
    "disk_format": "zvhd2",
    "virtual_size": null,
    "hw_firmware_type": "bios",
    "status": "active",
    "__support_fc_inject":"true"
  }
 ]
}
```


Returned Values

- Normal

  200
- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.1.2 Updating an Image

Function

This API is used to update image information.

NOTE

Only **active** images can be updated.

URI

PATCH /v2/cloudimages/{image_id}

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Table 5-3 lists the parameters in the URI.

Table 5-3 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Private image ID For details about how to obtain the image ID, see **Querying Images**.

Request

- Request parameters

Parameter	Mandatory	Type	Description
[Array]	Yes	Array of objects	For details, see **Table 5-4**.

Table 5-4 Data structure description of the [Array] field

Parameter	Mandatory	Type	Description
op	Yes	String	Specifies the operation. The value can be **add**, **replace**, or **remove**.

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Parameter	Mandatory	Type	Description
path	Yes	String	Specifies the name of the attribute to be updated. **/** needs to be added in front of it. You can update the following attributes: • **name**: specifies the image name. • **__description**: specifies the image description. • **__support_kvm**: KVM is supported. • **__support_xen**: Xen is supported. • **__support_largememory**: Ultra-large memory is supported. If the image supports large-memory ECSs, the value is **true**. Otherwise, this parameter is not required. • **__support_diskintensive**: Intensive storage is supported. • **__support_highperformance**: High-performance computing (HPC) is supported. • **__support_xen_gpu_type**: GPU-accelerated ECSs that use Xen for virtualization are supported. • **__support_kvm_gpu_type**: GPU-accelerated ECSs that use KVM for virtualization are supported. • **__support_xen_hana**: HANA ECSs that use Xen for virtualization are supported. If the image supports such ECSs, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.

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Parameter	Mandatory	Type	Description
			• **__is_config_init**: specifies whether initialization is complete. • **enterprise_project_id**: specifies the enterprise project ID. • **min_ram**: specifies the minimum memory (MB) of the image. You can set this parameter based on the ECS specifications. Generally, you do not need to set this parameter. • **max_ram**: specifies the maximum memory (MB) of the image. You can set this parameter based on the ECS specifications. Generally, you do not need to set this parameter. • **hw_vif_multiqueue_enabled**: NIC multi-queue is supported. • **hw_firmware_type**: specifies the boot mode. The value can be **bios** or **uefi**. • **__support_kvm_infiniband**: ECSs with InfiniBand NICs and running on the KVM platform are supported. If such ECSs are supported, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen**. • **__support_fc_inject**: specifies whether the image supports password/private key injection using Cloud-Init. If the value is set to **true**, the injection is not supported. Otherwise, it is supported. • **__support_amd**: specifies whether the image uses

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Parameter	Mandatory	Type	Description
			AMD's x86 architecture. The value can be **true** or **false**. • **__support_kvm_hi1822_hisriov**: SR-IOV is supported. If it is supported, the value is **true**. Otherwise, this parameter is not required. • **__support_kvm_hi1822_hivirtionet**: Virtio-Net is supported. If it is supported, the value is **true**. Otherwise, this parameter is not required. You can add or delete extension attributes. **NOTE** Extension attribute names cannot contain uppercase letters.
value	Yes	String	Specifies the new value of the attribute. For detailed description, see **Image Attributes**.

Example Request

Changing an image name to **ims_test**

```
PATCH https://{Endpoint}/v2/cloudimages/33ad552d-1149-471c-8190-ff6776174a00
[
   {
      "op": "replace",
      "path": "/name",
      "value": "ims_test"
   }
]
```

Response

- Response parameters

Parameter	Type	Description
file	String	Specifies the URL for uploading and downloading the image file.
owner	String	Specifies the tenant to which the image belongs.
id	String	Specifies the image ID.
size	Long	This parameter is unavailable currently.

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Parameter	Type	Description
self	String	Specifies the image URL.
schema	String	Specifies the image schema.
status	String	Specifies the image status. The value can be one of the following: • **queued**: indicates that the image metadata has already been created, and it is ready for the image file to upload. • **saving**: indicates that the image file is being uploaded to the backend storage. • **deleted**: indicates that the image has been deleted. • **killed**: indicates that an error occurs on the image uploading. • **active**: indicates that the image is available for use.
tags	Array of strings	Specifies tags of the image, through which you can manage private images in your own way. You can use the image tag API to add different tags to each image and filter images by tag.
visibility	String	Specifies whether the image is available to other tenants. The value can be one of the following: • **private**: private image • **public**: public image • **shared**: shared image
name	String	Specifies the image name. For details, see **Image Attributes**.
checksum	String	This parameter is unavailable currently.
protected	Boolean	Specifies whether the image is protected. A protected image cannot be deleted. The value can be **true** or **false**.
container_format	String	Specifies the container type.
min_ram	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. The default value is **0**.

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Parameter	Type	Description
max_ram	String	Specifies the maximum memory (MB) of the image. The parameter value depends on the ECS specifications and is not configured by default.
updated_at	String	Specifies the time when the image was updated. The value is in UTC format.
__os_bit	String	Specifies the OS architecture, 32 bit or 64 bit.
__os_version	String	Specifies the OS version.
__description	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**.
disk_format	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **zvhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
__isregistered	String	Specifies whether the image has been registered. The value can be **true** or **false**.
__platform	String	Specifies the image platform type. The value can be **Windows**, **Ubuntu**, **Red Hat**, **SUSE**, **CentOS**, **Debian**, **OpenSUSE**, **Oracle Linux**, **Fedora**, **Other**, **CoreOS**, or **EulerOS**.
__os_type	String	Specifies the OS type. The value can be **Linux**, **Windows**, or **Other**.
__system__cmkid	String	Specifies the ID of the key used to encrypt the image.
min_disk	Integer	Specifies the minimum disk space (GB) required for running the image. The value ranges from 40 GB to 255 GB.
virtual_env_type	String	Specifies the environment where the image is used. The value can be **FusionCompute**, **Ironic**, **DataImage**, or **IsoImage**. • For an ECS image (system disk image), the value is **FusionCompute**. • For a data disk image, the value is **DataImage**. • For a BMS image, the value is **Ironic**. • For an ISO image, the value is **IsoImage**.

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Parameter	Type	Description
__image_source_type	String	Specifies the backend storage of the image. Only UDS is supported currently.
__imagetype	String	Specifies the image type. The following types are supported: • Public image: The value is **gold**. • Private image: The value is **private**. • Shared image: The value is **shared**.
created_at	String	Specifies the time when the image was created. The value is in UTC format.
virtual_size	Integer	This parameter is unavailable currently.
__originalimagename	String	Specifies the parent image ID. If the image is a public image or created from an image file, this value is left empty.
__backup_id	String	Specifies the backup ID. If the image is created from a backup, set the value to the backup ID. Otherwise, this parameter is not required.
__productcode	String	Specifies the product ID of a KooGallery image.
__image_size	String	Specifies the size (bytes) of the image file. The value must be greater than **0**.
__data_origin	String	Specifies the image source. If the image is a public image, this parameter is left empty.
__root_origin	String	Specifies that the image is created from an external image file. Value: **file**
__lazyloading	String	Specifies whether the image supports lazy loading. The value can be **true**, **false**, **True**, or **False**.
active_at	String	Specifies the time when the image status became **active**.
__os_feature_list	String	Specifies additional attributes of the image. The value is a list (in JSON format) of advanced features supported by the image.
__account_code	String	Specifies the charging identifier for the image.

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Parameter	Type	Description
hw_firmware_type	String	Specifies the ECS boot mode. The following values are supported: • **bios** indicates the BIOS boot mode. This value will be used by fault if this parameter does not exist in the response. • **uefi** indicates the UEFI boot mode.
hw_vif_multiqueue_enabled	String	Specifies whether the image supports NIC multi-queue. The value can be **true** or **false**.
__support_kvm	String	Specifies whether the image supports KVM. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_xen	String	Specifies whether the image supports Xen. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_largememory	String	Specifies whether the image can be used to create large-memory ECSs. If the image supports large-memory ECSs, the value is **true**. Otherwise, this parameter is not required. For the supported OSs, see **Table 9-4**.
__support_diskintensive	String	Specifies whether the image can be used to create disk-intensive ECSs. If the image supports disk-intensive ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_highperformance	String	Specifies whether the image can be used to create high-performance ECSs. If the image supports high-performance ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_xen_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the Xen platform. See **Table 9-2** for its value. If the image does not support GPU-accelerated ECSs on the Xen platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.

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Parameter	Type	Description
__support_kvm_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the KVM platform. See **Table 9-3** for its value. If the image does not support GPU-accelerated ECSs on the KVM platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_xen_hana	String	Specifies whether the image supports HANA ECSs on the Xen platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_infiniband	String	Specifies whether the image supports ECSs with InfiniBand NICs on the KVM platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen**.
__system_support_market	Boolean	Specifies whether the image can be published in KooGallery. • **true**: The image can be published in KooGallery. • **false**: The image cannot be published in KooGallery.
__is_offshelved	String	Specifies whether the KooGallery image has been taken offline. • **true**: The image has been taken offline. • **false**: The image has not been taken offline.
enterprise_project_id	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects, see *Enterprise Management User Guide*.

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Parameter	Type	Description
__sequence_num	String	Specifies the ECS system disk slot number of the image. This parameter is unavailable currently.
__support_fc_inject	String	Specifies whether the image supports password/private key injection using Cloud-Init. If the value is set to **true**, the injection is not supported. Otherwise, it is supported. **NOTE** This parameter is valid only for ECS system disk images.
__support_arm	String	Specifies whether the image uses the Arm architecture. The value can be **true** or **false**.
__support_agent_list	String	Specifies the agents configured for the image. ● **hss**: server security ● **ces**: The host monitoring agent is configured for the image. Example value: "__support_agent_list": "hss,ces" **NOTE** If the response does not contain this field, the HSS or host monitoring agents are not configured for the image.
__support_amd	String	Specifies whether the image uses AMD's x86 architecture. The value can be **true** or **false**.
__support_kvm_hi1822_hisriov	String	Specifies whether SR-IOV is supported. If it is, the value is **true**. Otherwise, this parameter is not required.
__support_kvm_hi1822_hivirtionet	String	Specifies whether Virtio-Net is supported. If it is, the value is **true**. Otherwise, this parameter is not required.

- Example response

```
STATUS CODE 200
{
    "file": "/v2/images/33ad552d-1149-471c-8190-ff6776174a00/file",
    "owner": "0b1e494e2660441a957313163095fe5c",
    "id": "33ad552d-1149-471c-8190-ff6776174a00",
    "size": 2,
    "self": "/v2/images/33ad552d-1149-471c-8190-ff6776174a00",
    "schema": "/v2/schemas/image",
    "status": "active",
    "tags": [],
    "visibility": "private",
```

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```
  "name": "ims_test",
  "checksum": "99914b932bd37a50b983c5e7c90ae93b",
  "hw_vif_multiqueue_enabled": "true",
  "protected": false,
  "container_format": "bare",
  "min_ram": 0,
  "updated_at": "2015-12-08T02:30:49Z",
  "__os_bit": "64",
  "__os_version": "Ubuntu 14.04 server 64bit",
  "__description": "ims test",
  "disk_format": "vhd",
  "__isregistered": "true",
  "__platform": "Ubuntu",
  "__os_type": "Linux",
  "min_disk": 40,
  "virtual_env_type": "FusionCompute",
  "__image_source_type": "uds",
  "__imagetype": "private",
  "created_at": "2015-12-04T09:45:33Z",
  "virtual_size": 0,
  "__originalimagename": "33ad552d-1149-471c-8190-ff6776174a00",
  "__backup_id": "",
  "__productcode": "",
  "__image_size": "449261568",
  "__support_fc_inject":"true",
  "__data_origin": null,
  "hw_firmware_type": "bios"
}
```


Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.1.3 Creating an Image

Function

This API is used to create a private image. The following methods are supported:

- Create a system or data disk image from an ECS.
- Create a system disk image from an external image file uploaded to an OBS bucket.

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- Create a system disk image from a data disk.

This API is asynchronous. A successful call only means the cloud service system has received the request. To see if an image is created successfully, you need to use the asynchronous job query API to query the image creation status. For details, see **Querying the Status of an Asynchronous Job**.

Constraints (Creating a System Disk Image Using a Data Disk)

- Before using a data disk to create a system disk image, you need to initialize the source VM to ensure the image availability. For details, see "Overview of Preparations for Creating a Private Image" in the *Image Management Service User Guide*.
- The system cannot verify that an OS has been installed on the data disk. Therefore, ensure that the value of **os_version** is valid when creating a system disk image from the data disk. For details, see **Values of Related Parameters**.

URI

POST /v2/cloudimages/action

Request

- Parameters for creating a system or data disk image from an ECS

Parameter	Mandatory	Type	Description
name	No	String	Specifies the name of the system disk image. For detailed description, see **Image Attributes**. **NOTICE** This parameter is mandatory when you use a cloud server to create a system disk image.
description	No	String	Provides supplementary information about the image. For details, see **Image Attributes**. The value contains a maximum of 1024 characters, including letters and digits. Carriage returns and angle brackets (< >) are not allowed. This parameter is left blank by default.

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Parameter	Mandatory	Type	Description
instance_id	No	String	Specifies the ID of the ECS used to create the image. To obtain the ECS ID, perform the following operations: 1. Log in to the management console. 2. Under **Computing**, click **Elastic Cloud Server**. 3. In the ECS list, click the name of the ECS and view its ID. **NOTICE** This parameter is mandatory when you use a cloud server to create a system disk image.
data_images	No	Array of objects	Specifies the data disk information to be converted. This parameter is mandatory when the data disk of an ECS is used to create a private data disk image. For details, see **Table 5-5**. If the ECS data disk is not used to create a data disk image, the parameter is empty by default. **NOTE** When you create a data disk image using a data disk, if other parameters (such as **name**, **description**, and **tags**) in this table have values, the system uses the value of **data_images**. You cannot specify **instance_id**.
tags	No	Array of strings	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**.
image_tags	No	Array of objects	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**. For details about **image_tags**, see **Table 5-7**.

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Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.
max_ram	No	Integer	Specifies the maximum memory of the image in the unit of MB.
min_ram	No	Integer	Specifies the minimum memory of the image in the unit of MB. The default value is **0**, indicating that the memory is not restricted.

Table 5-5 Data structure description of the data_images field

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the name of a data disk image.
volume_id	Yes	String	Specifies the data disk ID.
description	No	String	Specifies the data disk description.
tags	No	Array of strings	Specifies the data disk image tag.

- Parameters for creating an image using an image file uploaded to the OBS bucket

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Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the image name. For detailed description, see **Image Attributes**.
description	No	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**. The value contains a maximum of 1024 characters, including letters and digits. Carriage returns and angle brackets (< >) are not allowed. This parameter is left blank by default.
os_type	No	String	Specifies the OS type. The value can be **Linux**, **Windows**, or **Other**.
os_version	No	String	Specifies the OS version. This parameter is valid if an external image file uploaded to the OBS bucket is used to create an image. For its value, see **Values of Related Parameters**. **NOTE** If the uploaded file is in ISO format, this parameter is mandatory. This parameter is mandatory when the value of **is_quick_import** is **true**, that is, a system disk image is imported using the quick import method.
license_type	No	String	Specifies the license type of the OS. The value can be: **platform**: license provided by the cloud platform **byol**: Bring Your Own License Currently, this parameter is only available for Windows.

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Parameter	Mandatory	Type	Description
image_url	Yes	String	Specifies the URL of the external image file in the OBS bucket. This parameter is mandatory if an external image file in the OBS bucket is used to create an image. The format is *OBS bucket name*:*Image file name*. • To obtain an OBS bucket name: 1. Log in to the management console. 2. In the service list, choose **Storage** > **Object Storage Service**. All OBS buckets are displayed in the list. 3. Filter the OBS buckets by region and locate the target bucket in the current region. • To obtain an OBS image file name: 1. Log in to the management console. 2. In the service list, choose **Storage** > **Object Storage Service**. All OBS buckets are displayed in the list. 3. Filter the OBS buckets by region and locate the target bucket in the current region. 4. Click the name of the target bucket to go to the bucket details page. 5. In the navigation pane on the left, choose **Objects** to display objects in the OBS bucket and then locate the external image file used to create an image.

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Parameter	Mandatory	Type	Description
			NOTE The storage class of the OBS bucket must be **Standard**.
min_disk	Yes	Integer	Specifies the minimum size of the system disk in the unit of GB. This parameter is mandatory if an external image file in the OBS bucket is used to create an image. The value ranges from 40 GB to 255 GB.
is_config	No	Boolean	Specifies whether automatic configuration is enabled. The value can be **true** or **false**. If automatic configuration is required, set the value to **true**. Otherwise, set it to **false**. The default value is **false**. For details about automatic configuration, see **Creating a Linux System Disk Image from an External Image File** > **Registering an External Image File as a Private Image (Linux)** in *Image Management Service User Guide*.
cmk_id	No	String	Specifies a custom key used for encrypting an image. For its value, see the *Key Management Service User Guide*.
tags	No	Array of strings	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**.
image_tags	No	Array of objects	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**. For details about **image_tags**, see **Table 5-7**.

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Parameter	Mandatory	Type	Description
type	No	String	Specifies the image type. The value can be **ECS**, **BMS**, **FusionCompute**, or **Ironic**. The default value is **ECS**. • **ECS** and **FusionCompute**: indicate an ECS image. • **BMS** and **Ironic**: indicate a BMS image.
enterprise_project_id	No	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.
max_ram	No	Integer	Specifies the maximum memory of the image in the unit of MB.
min_ram	No	Integer	Specifies the minimum memory required by the image in the unit of MB. The default value is **0**, indicating that the memory is not restricted.

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Parameter	Mandatory	Type	Description
data_images	No	Array of objects	Specifies the data disk information to be imported. An external image file can contain a maximum of three data disks. In this case, one system disk and three data disks will be created. For details, see **Table 5-6**. **NOTE** • If a data disk image file is used to create a data disk image, the OS type of the data disk image must be the same as that of the system disk image. • If other parameters (such as **name**, **description**, and **tags**) in **Table 5-6** are set, the system uses the values in **data_images**.
is_quick_import	No	Boolean	Specifies whether to use the quick import method to import a system disk image. • If yes, set the value to **true**. • If no, set the value to **false**. For details about the restrictions on quick import of image files, see **Importing an Image File Quickly**.
architecture	No	String	Specifies the image architecture type. Available values include: • x86 • arm The default value is **x86**. **NOTE** If the image architecture is Arm, the boot mode is automatically changed to UEFI.

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Parameter	Mandatory	Type	Description
hw_firmware_type	No	String	Specifies the ECS boot mode. The value can be: • **bios** indicates the BIOS boot mode. • **uefi** indicates the UEFI boot mode. **NOTE** If the image architecture is Arm, only the UEFI boot mode is supported.

Table 5-6 Data structure description of the images field

Parameter	Mandatory	Type	Description
name	No	String	Specifies the image name. For more details, see **Image Attributes**.
description	No	String	Provides supplementary information about the image. This parameter is left blank by default. The value contains a maximum of 1024 characters, including letters and digits. Carriage returns and angle brackets (< >) are not allowed. For more details, see **Image Attributes**.

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Parameter	Mandatory	Type	Description
image_url	Yes	String	Specifies the URL of the external image file in the OBS bucket. The format is *OBS bucket name*:*Image file name*. ● To obtain an OBS bucket name: 1. Log in to the management console. 2. In the service list, choose **Storage** > **Object Storage Service**. All OBS buckets are displayed in the list. 3. Filter the OBS buckets by region and locate the target bucket in the current region. ● To obtain an OBS image file name: 1. Log in to the management console. 2. In the service list, choose **Storage** > **Object Storage Service**. All OBS buckets are displayed in the list. 3. Filter the OBS buckets by region and locate the target bucket in the current region. 4. Click the name of the target bucket to go to the bucket details page. 5. In the navigation pane on the left, choose **Objects** to display objects in the OBS bucket and then locate the external image file used to create an image. **NOTE** The storage class of the OBS bucket must be **Standard**.
min_disk	Yes	Integer	Specifies the minimum size of the data disk. Unit: GB Value range: 1–2048

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Parameter	Mandatory	Type	Description
is_quick_import	No	Boolean	Specifies whether an image file is imported quickly to create a data disk image. • If yes, set the value to **true**. • If no, set the value to **false**. For details about the restrictions on quick import of image files, see **Importing an Image File Quickly**.
tags	No	Array of strings	Lists the image tags. This parameter is left blank by default. For detailed parameter descriptions, see **Image Tag Format**. Use either **tags** or **image_tags**.
image_tags	No	Array of objects	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**. For detailed parameter descriptions, see **Image Tag Format**. For details about **image_tags**, see **Table 5-7**.

- Parameters for creating a system disk image using a data disk

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the name of the system disk image. For more details, see **Image Attributes**.
volume_id	Yes	String	Specifies the data disk ID.

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Parameter	Mandatory	Type	Description
os_version	Yes	String	Specifies the OS version. Set the parameter value based on **Values of Related Parameters**. Otherwise, the created system disk image may be unavailable. During the creation of a system disk image, if the OS can be detected from the data disk, the OS version in the data disk is used. In this case, the **os_version** value is invalid. If the OS can be detected from the data disk, the **os_version** value is used.
type	No	Sting	Specifies the image type. The value can be **ECS**, **BMS**, **FusionCompute**, or **Ironic**. • **ECS** and **FusionCompute**: indicates an ECS image. • **BMS** and **Ironic**: indicates a BMS image. The default value is **ECS**.
description	No	String	Specifies the image description. This parameter is left blank by default. For details, see **Image Attributes**. The image description must meet the following requirements: • Contains only letters and digits. • Cannot contain carriage returns and angle brackets (< >). • Cannot exceed 1024 characters.
min_ram	No	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. The default value is **0**.
max_ram	No	Integer	Specifies the maximum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. The default value is **0**.

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Parameter	Mandatory	Type	Description
tags	No	Array of strings	Specifies tags of the image. This parameter is left blank by default. Use either **tags** or **image_tags**.
image_tags	No	Array of objects	Specifies tags of the image. This parameter is left blank by default. Use either **tags** or **image_tags**. For details about **image_tags**, see **Table 5-7**.
enterprise_project_id	No	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.

Table 5-7 Data structure of the image_tags field

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key.
value	Yes	String	Specifies the tag value.

Example Request

- Creating a system disk image with parameter **tags** using an ECS (ID: 877a2cda-ba63-4e1e-b95f-e67e48b6129a)

```
POST https://{Endpoint}/v2/cloudimages/action
{
    "name": "ims_test",
    "description": "Create a system disk image from an ECS",
    "instance_id": "877a2cda-ba63-4e1e-b95f-e67e48b6129a",
    "tags": [
        "aaa.111",
        "bbb.333",
        "ccc.444"
         ]
}
```

- Creating a data disk image with parameter **tags** using a data disk (ID: c5dfbd0c-bf0a-4798-a453-61dc6b54aa30) of an ECS

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```
POST https://{Endpoint}/v2/cloudimages/action
{
      "data_images": [{"name": "ims_data_image_test",
      "description": "Create a data disk image from the data disk of an ECS",
      "volume_id": "c5dfbd0c-bf0a-4798-a453-61dc6b54aa30",
      "tags": [
                "aaa.111",
                "bbb.333",
                "ccc.444"
            ]
      }]
}
```

- Creating an image with parameter **tags** using a file in an OBS bucket (file address in the bucket: ims-image:centos70.qcow2)

```
POST https://{Endpoint}/v2/cloudimages/action
{
     "name": "ims_test_file",
     "description": "Create an image from a file in an OBS bucket",
     "image_url": "ims-image:centos70.qcow2",
     "os_version": "CentOS 7.0 64bit",
     "min_disk": 40,
     "tags": [
          "aaa.111",
          "bbb.333",
          "ccc.444"
     ]
}
```

- Creating a system disk image with parameter **image_tags** using an ECS (ID: 877a2cda-ba63-4e1e-b95f-e67e48b6129a)

```
POST https://{Endpoint}/v2/cloudimages/action
{
   "name": "ims_test",
   "description": "Create a system disk image from an ECS",
   "instance_id": "877a2cda-ba63-4e1e-b95f-e67e48b6129a",
   "image_tags": [
{
          "key": "key2",
          "value": "value2"
      },
{
          "key": "key1",
          "value": "value1"
}
       ]
}
```

- Creating a data disk image with parameter **image_tags** using a data disk (ID: c5dfbd0c-bf0a-4798-a453-61dc6b54aa30) of an ECS

```
POST /v2/cloudimages/action
{
      "data_images": [{"name": "ims_data_image_test",
      "description": "Create a data disk image from the data disk of an ECS",
      "volume_id": "c5dfbd0c-bf0a-4798-a453-61dc6b54aa30",
      "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]
      }]
}
```

- Creating an image with parameter **image_tags** using a file in an OBS bucket (file address in the bucket: ims-image:centos70.qcow2)

```
POST https://{Endpoint}/v2/cloudimages/action
{
      "name": "ims_test_file",
      "description": "Create an image from a file in an OBS bucket",
      "image_url": "ims-image:centos70.qcow2",
      "os_version": "CentOS 7.0 64bit",
      "min_disk": 40,
      "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]
}
```

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- Creating an image with parameter **tags** using an ISO file in an OBS bucket (file address in the bucket: ims-image:centos70.iso)

```
POST https://{Endpoint}/v2/cloudimages/action
{
   "name": "ims_test_file",
   "min_disk": 40,
   "image_url": "ims-image:centos70.iso",
   "description": "Create an image from an ISO file",
   "type": "IsoImage",
   "os_version": "CentOS 7.0 64bit",
   "tags": ["aaa.111", "bbb.333", "ccc.444"]
}
```

- Creating an image with parameter **image_tags** using an ISO file in an OBS bucket (file address in the bucket: ims-image:centos70.iso)

```
POST https://{Endpoint}/v2/cloudimages/action
{
   "name": "ims_test_file",
   "min_disk": 40,
   "image_url": "ims-image:centos70.iso",
   "description": "Create an image from an ISO file",
   "type": "IsoImage",
   "os_version": "CentOS 7.0 64bit",
   "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]
}
```

- Creating a system disk image with parameter **tags** using a data disk (ID: 877a2cda-ba63-4e1e-b95f-e67e48b6129a)

```
POST https://{Endpoint}/v2/cloudimages/action
{
      "name": "ims_test",
      "description": "Create a system disk image from a data disk",
      "volume_id": "877a2cda-ba63-4e1e-b95f-e67e48b6129a",
      "type": "ECS",
      "os_version": "CentOS 7.0 64bit",
      "tags": [
            "aaa.111",
            "bbb.333",
            "ccc.444"
        ]
}
```

- Creating a system disk image with parameter **image_tags** using a data disk (ID: 877a2cda-ba63-4e1e-b95f-e67e48b6129a)

```
POST https://{Endpoint}/v2/cloudimages/action
{
      "name": "ims_test",
      "description": "Create a system disk image from a data disk",
      "volume_id": "877a2cda-ba63-4e1e-b95f-e67e48b6129a",
      "type": "ECS",
      "os_version": "CentOS 7.0 64bit",
      "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]
}
```

Response

- Response parameters

Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

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- Example response

```
STATUS CODE 200
{
    "job_id": "8a12fc664fb4daa3014fb4e581380005"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.1.4 Importing an Image File Quickly

Function

This API is used to quickly create a private image from an oversized external image file that has been uploaded to an OBS bucket. Currently, only ZVHD2 and RAW image files can be imported quickly, and the size of such an image file cannot exceed 1 TB.

The fast image creation function is only available for image files in RAW or ZVHD2 format. For other formats of image files that are smaller than 128 GB, you are advised to import these files with the common method.

The API is an asynchronous one. If it is successfully called, the cloud service system receives the request. However, you need to use the asynchronous job query API to query the image creation status. For details, see **Querying the Status of an Asynchronous Job**.

Constraints

Before importing an image file, ensure that the file format is RAW or ZVHD2 and the following have been done:

- For RAW, the image file has been optimized, and a bitmap file has been generated.
- For ZVHD2, the image file has been optimized as required.

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NOTE

For how to convert image file formats and generate a bitmap file, see section "Quickly Importing an Image File" in the *Image Management Service User Guide*.

URI

POST /v2/cloudimages/quickimport/action

Request

- Parameters in the request body when an image file in an OBS bucket is used to create a system disk image

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the image name. For detailed description, see **Image Attributes**.
description	No	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**. The value contains a maximum of 1024 characters, including letters and digits. Carriage returns and angle brackets (< >) are not allowed. This parameter is left blank by default.
os_version	Yes	String	Specifies the OS version. This parameter is valid if an external image file uploaded to the OBS bucket is used to create an image. For its value, see **Values of Related Parameters**.
license_type	No	String	Specifies the license type of the OS. The value can be: **platform**: license provided by the cloud platform **byol**: Bring Your Own License Currently, this parameter is only available for Windows.

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Parameter	Mandatory	Type	Description
image_url	Yes	String	Specifies the URL of the external image file in the OBS bucket. This parameter is mandatory if an external image file in the OBS bucket is used to create an image. The format is *OBS bucket name*:*Image file name*. **NOTE** The storage class of the OBS bucket must be **Standard**.
min_disk	Yes	Integer	Specifies the minimum size (GB) of the system disk. • This parameter is mandatory if an external image file in the OBS bucket is used to create an image. • The value ranges from 1 to 1024 and must be greater than the system disk size in the selected image file.
tags	No	Array of strings	Lists the image tags. This parameter is left blank by default. Set either **tags** or **image_tags**.
image_tags	No	Array of objects	Lists the image tags. This parameter is left blank by default. Set either **tags** or **image_tags**. For details about **image_tags**, see **Table 5-8**.
type	No	String	Specifies the image type. The value can be: **ECS**: ECS system disk image **BMS**: BMS system disk image Default value: **ECS**

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Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Specifies the enterprise project that the image belongs to. ● If the value is **0** or left blank, the image belongs to the default enterprise project. ● If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.
architecture	No	String	Specifies the image architecture type. The value can be: ● x86 ● arm The default value is **x86**. **NOTE** If the image architecture is Arm, the boot mode is automatically changed to UEFI.
hw_firmware_type	No	String	Specifies the ECS boot mode. The value can be: ● **bios** indicates the BIOS boot mode. ● **uefi** indicates the UEFI boot mode. **NOTE** If the image architecture is Arm, only the UEFI boot mode is supported.

- Parameters in the request body when an image file in an OBS bucket is used to create a data disk image

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Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the image name. For detailed description, see **Image Attributes**.
description	No	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**. The value contains a maximum of 1024 characters, including letters and digits. Carriage returns and angle brackets (< >) are not allowed. This parameter is left blank by default.
os_type	No	String	Specifies the OS version. When a data disk image created, the value can be **Linux** or **Windows**. The default is **Linux**.
image_url	Yes	String	Specifies the URL of the external image file in the OBS bucket. This parameter is mandatory if an external image file in the OBS bucket is used to create an image. The format is *OBS bucket name*:*Image file name*. **NOTE** The storage class of the OBS bucket must be **Standard**.
min_disk	Yes	Integer	Specifies the minimum size of the system disk in the unit of GB. This parameter is mandatory if an external image file in the OBS bucket is used to create an image. The value ranges from 1 GB to 1,024 GB.
tags	No	Array of strings	Lists the image tags. This parameter is left blank by default. Set either **tags** or **image_tags**.

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Parameter	Mandatory	Type	Description
image_tags	No	Array of objects	Lists the image tags. This parameter is left blank by default. Set either **tags** or **image_tags**. For details about **image_tags**, see **Table 5-8**.
type	Yes	String	Specifies the image type. The value can be: **DataImage**: data disk image
enterprise_project_id	No	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.

Table 5-8 Data structure of the image_tags field

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key.
value	Yes	String	Specifies the tag value.

Example Request

- Creating a system disk image with parameter **tags** using a file in an OBS bucket (file address in the bucket: ims-image:centos70.zvhd2)

```
POST https://{Endpoint}/v2/cloudimages/quickimport/action
{
    "name": "ims_test_file",
   "description": "Create an image using a file in an OBS bucket.",
```

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```
   "image_url": "ims-image:centos70.zvhd2",
   "os_version": "CentOS 7.0 64bit",
   "min_disk": 40,
   "type": "ECS",
   "tags":
      [
         "aaa.111",
         "bbb.333",
         "ccc.444"
      ]
}
```

- Creating a system disk image with parameter **image_tags** using a file in an OBS bucket (file address in the bucket: ims-image:centos70.zvhd2)

```
POST https://{Endpoint}/v2/cloudimages/quickimport/action
{
   "name": "ims_test_file",
  "description": "Create an image using a file in an OBS bucket.",
   "image_url": "ims-image:centos70.zvhd2",
   "os_version": "CentOS 7.0 64bit",
   "min_disk": 40,
   "type": "ECS",
   "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]
}
```

- Creating a data disk image with parameter **tags** using a file in an OBS bucket (file address in the bucket: ims-image:centos70.zvhd2)

```
POST https://{Endpoint}/v2/cloudimages/quickimport/action
{
   "name": "ims_test_file",
  "description": "Create an image using a file in an OBS bucket.",
   "image_url": "ims-image:centos70.zvhd2",
   "os_type": "Linux",
   "min_disk": 40,
   "type": "DataImage",
   "tags": [
      "aaa.111",
      "bbb.333",
      "ccc.444"
   ]
}
```

- Creating a data disk image with parameter **image_tags** using a file in an OBS bucket (file address in the bucket: ims-image:centos70.zvhd2)

```
POST https://{Endpoint}/v2/cloudimages/quickimport/action
{
   "name": "ims_test_file",
  "description": "Create an image using a file in an OBS bucket.",
   "image_url": "ims-image:centos70.zvhd2",
   "os_type": "Linux",
   "min_disk": 40,
   "type": "DataImage",
   "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]
}
```

Response

- Response parameters

Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

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- Example response

```
STATUS CODE 200
{
    "job_id": "8a12fc664fb4daa3014fb4e581380005"
}
```

Returned Values

- Normal

  200

- Abnormal

Return Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.1.5 Creating a Data Disk Image from an External Image File

Function

This API is used to create a data disk image from a data disk image file uploaded to the OBS bucket. The API is an asynchronous one. If it is successfully called, the cloud service system receives the request. However, you need to use the asynchronous job query API to query the image creation status. For details, see **Querying the Status of an Asynchronous Job**.

URI

POST /v1/cloudimages/dataimages/action

Request

- Request parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the image name. For detailed description, see **Image Attributes**.

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Parameter	Mandatory	Type	Description
description	No	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**. The value contains a maximum of 1,024 characters, including letters and digits. Carriage returns and angle brackets (< >) are not allowed. This parameter is left blank by default.
os_type	No	String	Specifies the OS type. It can only be Windows or Linux. The default is Linux.
image_url	Yes	String	Specifies the URL of the external image file in the OBS bucket. The format is *OBS bucket name*:*Image file name*. **NOTE** The storage class of the OBS bucket must be **Standard**.
min_disk	Yes	Integer	Specifies the minimum size of the data disk. Value range: 40 GB to 2048 GB
cmk_id	No	String	Specifies a custom key used for encrypting an image. For its value, see the *Key Management Service User Guide*.
tags	No	Array of strings	Lists the image tags. This parameter is left blank by default. For detailed parameter description, see **Image Tag Format**. Use either **tags** or **image_tags**.
image_tags	No	Array of **ImageTag** objects	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**.

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Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.

Table 5-9 Data structure description of the image_tags field

Parameter	Mandatory	Type	Description
key	No	string	Specifies the tag key.
value	No	string	Specifies the tag value.

Example Request

- Creating a data disk image with parameter **tags** using a file in an OBS bucket (file address in the bucket: image-test:fedora_data1.qcow2; OS: Linux; minimum size of the data disk: 40 GB)

```
POST https://{Endpoint}/v1/cloudimages/dataimages/action
{
  "name": "fedora-data1",
  "image_url": "image-test:fedora_data1.qcow2",
  "description":"Data disk 1 of Fedora",
  "min_disk": 40,
  "tags": [
    "aaa.111",
    "bbb.222"
  ],
  "os_type": "Linux"
}
```

- Creating a data disk image with parameter **image_tags** using a file in an OBS bucket (file address in the bucket: image-test:fedora_data1.qcow2; OS: Linux; minimum size of the data disk: 40 GB)

```
POST https://{Endpoint}/v1/cloudimages/dataimages/action
{
  "name": "fedora-data2",
  "image_url": "image-test:fedora_data1.qcow2",
  "description":"Data disk 2 of Fedora",
  "min_disk": 40,
  "image_tags": [{"key":"aaa","value":"111"},{"key":"bbb","value":"222"}],
  "os_type": "Linux"
}
```

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Response

- Response parameters

Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

- Example response

```
STATUS CODE 200
{
   "job_id": "4010a32b5f909853015f90aaa24b0015"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.1.6 Creating a Full-ECS Image

Function

This API is used to create a full-ECS image from an ECS or a CBR backup. The API is an asynchronous one. If it is successfully called, the cloud system receives the request to create a full-ECS image. However, you need to use the asynchronous job query API to query the image creation status. For details, see **Querying the Status of an Asynchronous Job**.

Constraints (Creating a Full-ECS Image from an ECS)

- When creating a full-ECS image from an ECS, ensure that the ECS has been properly configured, or the image creation may fail.
- A Windows ECS used to create a full-ECS image cannot have a spanned volume, or data may be lost when ECSs are created from that image.

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- A Linux ECS used to create a full-ECS image cannot have a physical disk group or a logical disk that contains multiple physical disks, or data may be lost when ECSs are created from that image.
- A full-ECS image cannot be replicated within a region or be exported.
- When creating a full-ECS image from a Windows ECS, you need to set the SAN policy of the ECS to **OnlineAll**. Otherwise, EVS disks attached to the ECSs created from the image may be offline. For details, see "Creating a Full-ECS Image from an ECS" > "Setting the ECS SAN Policy to OnlineAll" in *Image Management Service User Guide*.

Constraints (Creating a Full-ECS Image from a CBR Backup)

- When creating a full-ECS image from a CBR backup, ensure that the source ECS of the CBR backup has been properly configured, or the image creation may fail.
- A CBR backup can be used to create only one full-ECS image.
- If an ECS is in **Stopped** state, do not start it when you are using it to create a full-ECS image.
- A full-ECS image created from a CBR backup can be shared with other tenants. However, if it is a shared CBR backup, the full-ECS image created from it cannot be shared.
- A full-ECS image cannot be replicated within a region or be exported.

URI

POST /v1/cloudimages/wholeimages/action

Request

- Parameters for creating a full-ECS image using an ECS

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the image name. For detailed description, see **Image Attributes**.
description	No	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**.
tags	No	Array of strings	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**.
image_tags	No	Array of objects	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**. For details about **image_tags**, see **Table 5-10**.

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Parameter	Mandatory	Type	Description
instance_id	Yes	String	Specifies the ECS ID. This parameter is required when an ECS is used to create a full-ECS image. To obtain the ECS ID, perform the following operations: 1. Log in to the management console. 2. Under **Computing**, click **Elastic Cloud Server**. 3. In the ECS list, click the name of the ECS and view its ID.
enterprise_project_id	No	String	Specifies the enterprise project that the image belongs to. ● If the value is **0** or left blank, the image belongs to the default enterprise project. ● If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.
max_ram	No	Integer	Specifies the maximum memory of the image in the unit of MB. This parameter is not configured by default.
min_ram	No	Integer	Specifies the minimum memory of the image in the unit of MB. The default value is **0**.
vault_id	No	String	Specifies the ID of the vault to which an ECS is to be added or has been added. You can obtain the vault ID from the CBR console or section "Querying the Vault List" in *Cloud Backup and Recovery API Reference*.

- Parameters in the request body when a CBR backup is used to create a full-ECS image

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Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the image name. For detailed description, see **Image Attributes**.
description	No	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**.
tags	No	Array of strings	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**.
image_tags	No	Array of objects	Lists the image tags. This parameter is left blank by default. Use either **tags** or **image_tags**. For details about **image_tags**, see **Table 5-10**.
backup_id	Yes	String	Specifies the CBR backup ID. To obtain the CBR backup ID, perform the following operations: 1. Log in to the management console. 2. Under **Storage**, click **Cloud Backup and Recovery**. 3. On the displayed **Cloud Server Backup** page, click the **Backups** tab and obtain the backup ID from the backup list.
enterprise_project_id	No	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.

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Parameter	Mandatory	Type	Description
max_ram	No	Integer	Specifies the maximum memory of the image in the unit of MB. This parameter is not configured by default.
min_ram	No	Integer	Specifies the minimum memory of the image in the unit of MB. The default value is **0**, indicating that the memory is not restricted.
whole_image_type	Yes	String	Specifies the method of creating the full-ECS image. The value must be **CBR**.

Table 5-10 Data structure of the image_tags field

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key.
value	Yes	String	Specifies the tag value.

Example Request

- Creating a full-ECS image with parameter **tags** using an ECS (ID: 877a2cda-ba63-4e1e-b95f-e67e48b6129a)

```
POST https://{Endpoint}/v1/cloudimages/wholeimages/action
{
    "name": "instance_whole_image",
    "description": "Create an image from an ECS",
    "instance_id": "877a2cda-ba63-4e1e-b95f-e67e48b6129a",
    "vault_id": "de9fcf45-11b2-432c-8562-5c5428574600",
    "tags": [
       "aaa.111",
       "bbb.333",
       "ccc.444"
    ]
}
```

- Creating a full-ECS image with parameter **image_tags** using an ECS (ID: 877a2cda-ba63-4e1e-b95f-e67e48b6129a)

```
POST https://{Endpoint}/v1/cloudimages/wholeimages/action
{
    "name": "instance_whole_image",
    "description": "Create an image from an ECS",
    "instance_id": "877a2cda-ba63-4e1e-b95f-e67e48b6129a",
    "vault_id": "de9fcf45-11b2-432c-8562-5c5428574600",
    "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]
}
```

- Creating a full-ECS image with parameter **image_tags** using a (ID: 9b27efab-4a17-4c06-bfa2-3e0cf021d3c3)

```
POST https://{Endpoint}/v1/cloudimages/wholeimages/action
{
   "name": "backup_whole_image",
```

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```
    "description": "Create a full-ECS image from a ",
    "backup_id": "9b27efab-4a17-4c06-bfa2-3e0cf021d3c3",
    "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]
}
```

- Creating a full-ECS image with parameter **tags** using a CBR backup (ID: 9b27efab-4a17-4c06-bfa2-3e0cf021d3c3)

```
POST https://{Endpoint}/v1/cloudimages/wholeimages/action
{
    "name": "backup_whole_image",
    "description": "Create a full-ECS image from a CBR backup",
    "backup_id": "9b27efab-4a17-4c06-bfa2-3e0cf021d3c3",
    "whole_image_type": "CBR",
      "tags": [
         "aaa.111",
         "bbb.333",
         "ccc.444"
      ]
}
```

- Creating a full-ECS image with parameter **image_tags** using a CBR backup (ID: 9b27efab-4a17-4c06-bfa2-3e0cf021d3c3)

```
POST https://{Endpoint}/v1/cloudimages/wholeimages/action
{
    "name": "backup_whole_image",
    "description": "Create a full-ECS image from a CBR backup",
    "backup_id": "9b27efab-4a17-4c06-bfa2-3e0cf021d3c3",
    "whole_image_type": "CBR",
      "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]
}
```

Response

- Response parameters

Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

- Example response

```
STATUS CODE 200
{
   "job_id": "4010a32b5f909853015f90aaa24b0015"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.

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Returned Value	Description
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.1.7 Registering an Image

Function

This API is used to register an image file as an uninitialized private image on the cloud platform.

The following describes how to use this API:

1. Upload the image file to an OBS bucket. For details, see "Object Storage Service User Guide".
2. Use the image metadata creation API to create image metadata. After the API is invoked successfully, save the image ID. For how to create image metadata, see **Creating Image Metadata (Native OpenStack API)**.
3. Use the API for registering images and the image ID obtained in **2** to register the image file as a private image.
4. After the API is successfully invoked as an asynchronous one, the cloud service system receives a request. Query the image status using the image ID and check whether the image file is successfully registered. When the image status changes to **active**, the image file is successfully registered as a private image.

   For details about how to query the status of an asynchronous task, see **Querying the Status of an Asynchronous Job**.

NOTE

Before registering an image file, ensure that you have Tenant Administrator permissions for OBS.

URI

PUT /v1/cloudimages/{image_id}/upload

Table 5-11 lists the parameters in the URI.

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Table 5-11 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID. • **image_id** is the ID of the image you created by invoking the API for creating image metadata. Registration may fail if you use other image IDs. • After this API is invoked, you can check the image status with the image ID. When the image status changes to **active**, the image file is successfully registered. For details, see **Querying Image Details (Native OpenStack API)**.

Request

- Request parameters

Parameter	Mandatory	Type	Description
image_url	Yes	String	Specifies the URL of the image file in the format of *Bucket name*:*File name*. Image files in the bucket can be in ZVHD, QCOW2, VHD, RAW, VHDX, QED, VDI, QCOW, ZVHD2, ISO, or VMDK format. **NOTE** The storage class of the OBS bucket must be **Standard**.

Example Request

Registering an image (URL of the image file: bucketname:Centos6.5-disk1.vmdk)

```
PUT https://{Endpoint}/v1/cloudimages/4ca46bf1-5c61-48ff-b4f3-0ad4e5e3ba86/upload
{
   "image_url": "bucketname:Centos6.5-disk1.vmdk"
}
```

Response

- Response parameters

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Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

- Example response

```
HTTP/1.1 200
{
   "job_id":" b912fb4a4c464b568ecfca1071b21b10"
}
```

Returned Values

- Normal

  200
- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.

5.1.8 Exporting an Image

Function

This is an extension API and used to export a private image to an OBS bucket.

NOTE

Before exporting an image, ensure that you have Tenant Administrator permissions for OBS.

Constraints

- An image can only be exported to a Standard bucket that is in the same region as the image.
- The following private images cannot be exported:
  - Full-ECS images
  - ISO images
  - Private images created from a Windows, SUSE, Red Hat, Ubuntu, or Oracle Linux public image
- The image size must be less than 1 TB. Images larger than 128 GB support only fast export.

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URI

POST /v1/cloudimages/{image_id}/file

Table 5-12 lists the parameters in the URI.

Table 5-12 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID. For details about how to obtain the image ID, see **Querying Images**.

Request

- Request parameters

Parameter	Mandatory	Type	Description
bucket_url	Yes	String	Specifies the URL of the image file in the format of *Bucket name*:*File name*. **NOTE** The storage class of the OBS bucket must be **Standard**.
file_format	Yes	String	Specifies the file format. The value can be **qcow2**, **vhd**, **zvhd**, or **vmdk**.
is_quick_export	No	Boolean	Whether to enable fast export. The value can be **true** or **false**. **NOTE** If fast export is enabled, **file_format** cannot be specified. The exported image file is in the ZVHD2 format.

Example Request

```
POST https://{Endpoint}/v1/cloudimages/d164b5df-1bc3-4c3f-893e-3e471fd16e64/file
{
   "bucket_url": "ims-image:centos7_5.qcow2",
   "file_format": "qcow2",
   "is_quick_export": false
}
```

Response

- Response parameters

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Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

- Example response

```
STATUS CODE 200
{
    "job_id": "edc89b490d7d4392898e19b2deb34797"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.1.9 Querying Supported Image OSs

Function

This interface is used to query the list of compatible ECS OSs in the current region.

URI

GET /v1/cloudimages/os_version

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Table 5-13 Parameter description

Parameter	Mandatory	Type	Description
tag	No	String	Specifies the OS tag. You can query OSs with specified features based on the tag value. The value can be: • **bms**: indicates the BMS OS versions supported by the image. • **uefi**: indicates the OS versions that support the UEFI boot mode. If this parameter is not specified, all the supported OSs in the current region are to be queried.

Request

- Request parameters

  None

Example Request

- Querying supported OSs
  ```
  GET https://{Endpoint}/v1/cloudimages/os_version
  ```
- Querying supported OSs by filters
  ```
  GET https://{Endpoint}/v1/cloudimages/os_version?tag=kvm&tag=uefi
  ```

Response

- Response parameters

Parameter	Type	Description
[Array]	Array of objects	For details, see **Table 5-14**.

Table 5-14 Data structure description of the *[Array]* field

Parameter	Type	Description
platform	String	Specifies the OS platform.
version_list	Array of objects	Specifies the returned OS details. For details, see **Table 5-15**.

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Table 5-15 Data structure description of the *[Array]*.version_list field

Parameter	Type	Description
platform	String	Specifies the OS platform.
os_version_key	String	Specifies the key value of the OS. The default key value is the value of **os_version**. **os_version** indicates the complete OS version.
os_version	String	Specifies the complete OS version.
os_bit	Integer	Specifies the OS bit.
os_type	String	Specifies the OS type. The value can be: • Linux • Windows

- Example response

```
STATUS CODE 200
[
  {
    "platform": "SUSE",
    "version_list": [
      {
        "platform": "SUSE",
        "os_version_key": "SUSE Linux Enterprise Server 15 64bit",
        "os_version": "SUSE Linux Enterprise Server 15 64bit",
        "os_bit": 64,
        "os_type": "Linux"
      },
      {
        "platform": "SUSE",
        "os_version_key": "SUSE Linux Enterprise Server 12 SP3 64bit",
        "os_version": "SUSE Linux Enterprise Server 12 SP3 64bit",
        "os_bit": 64,
        "os_type": "Linux"
      }
    ]
  },
  {
    "platform": "Other",
    "version_list": [
      {
        "platform": "Other",
        "os_version_key": "Other(32 bit)",
        "os_version": "Other(32 bit)",
        "os_bit": 32,
        "os_type": "Linux"
      }
    ]
  }
]
```

Returned Values

- Normal

  200

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- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.2 Image Sharing

5.2.1 Deleting Image Recipients

Function

This API is an extension one and used to stop sharing images by deleting image recipients.

This API is an asynchronous one. If **job_id** is returned, the task is successfully delivered. You need to query the status of the asynchronous task. If the status is **success**, the task is successfully executed. If the status is **failed**, the task fails. For details about how to query the status of an asynchronous task, see **Querying the Status of an Asynchronous Job**.

URI

DELETE /v1/cloudimages/members

Request

Request parameters

Parameter	Mandatory	Type	Description
images	Yes	Array of strings	Specifies the image IDs.
projects	Yes	Array of strings	Specifies the project IDs.

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Example Request

Deleting image recipients (image IDs: d164b5df-1bc3-4c3f-893e-3e471fd16e64, 0b680482-acaa-4045-b14c-9a8c7dfe9c70; project IDs: 9c61004714024f9586705d090530f9fa, edc89b490d7d4392898e19b2deb34797)

```
DELETE https://{Endpoint}/v1/cloudimages/members
{
  "images": [
       "d164b5df-1bc3-4c3f-893e-3e471fd16e64",
       "0b680482-acaa-4045-b14c-9a8c7dfe9c70"
  ],
  "projects": [
       "9c61004714024f9586705d090530f9fa",
       "edc89b490d7d4392898e19b2deb34797"
    ]
}
```

Response

- Response parameters

Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

- Example response

```
STATUS CODE 200
{
    "job_id": "edc89b490d7d4392898e19b2deb34797"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

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5.2.2 Adding Image Recipients

Function

This API is an extension one and used to share more than one image with multiple tenants.

This API is an asynchronous one. If **job_id** is returned, the task is successfully delivered. You need to query the status of the asynchronous task. If the status is **success**, the task is successfully executed. If the status is **failed**, the task fails. For details about how to query the status of an asynchronous task, see **Querying the Status of an Asynchronous Job**.

URI

POST /v1/cloudimages/members

Request

- Request parameters

Parameter	Mandatory	Type	Description
images	Yes	Array of strings	Specifies the image IDs.
projects	Yes	Array of strings	Specifies the project IDs.

Example Request

Adding tenants who can use shared images (image IDs: d164b5df-1bc3-4c3f-893e-3e471fd16e64, 0b680482-acaa-4045-b14c-9a8c7dfe9c70; project IDs: 9c61004714024f9586705d090530f9fa, edc89b490d7d4392898e19b2deb34797)

```
POST https://{Endpoint}/v1/cloudimages/members
{
   "images": [
      "d164b5df-1bc3-4c3f-893e-3e471fd16e64",
      "0b680482-acaa-4045-b14c-9a8c7dfe9c70"
   ],
   "projects": [
      "9c61004714024f9586705d090530f9fa",
      "edc89b490d7d4392898e19b2deb34797"
   ]
}
```

Response

- Response parameters

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Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

- Example response

```
STATUS CODE 200
{
    "job_id": "edc89b490d7d4392898e19b2deb34797"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.2.3 Updating the Image Sharing Status of Recipients

Function

This API is an extension one and used to update the image sharing status after the tenant accepts or rejects the shared images.

This API is an asynchronous one. If **job_id** is returned, the task is successfully delivered. You need to query the status of the asynchronous task. If the status is **success**, the task is successfully executed. If the status is **failed**, the task fails. For details about how to query the status of an asynchronous task, see **Querying the Status of an Asynchronous Job**.

URI

PUT /v1/cloudimages/members

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Request

Request parameters

Parameter	Mandatory	Type	Description
images	Yes	Array of strings	Specifies the image IDs.
project_id	Yes	String	Specifies the project ID.
status	Yes	String	Specifies whether a shared image will be accepted or declined. The value can be one of the following: • **accepted**: indicates that a shared image is accepted. After an image is accepted, the image is displayed in the image list. You can use the image to create ECSs. • **rejected**: indicates that a shared image is declined. After an image is declined, the image is not displayed in the image list. However, you can still use the image to create ECSs.
vault_id	No	String	Specifies the vault ID. You can obtain the vault ID from the CBR console or section "Querying the Vault List" in *Cloud Backup and Recovery API Reference*.

Example Request

- Updating the image sharing status to **accepted** in batches

```
PUT https://{Endpoint}/v1/cloudimages/members
{
  "images": [
        "d164b5df-1bc3-4c3f-893e-3e471fd16e64",
        "0b680482-acaa-4045-b14c-9a8c7dfe9c70"
    ],
    "project_id": "edc89b490d7d4392898e19b2deb34797",
    "status": "accepted"
}
```

- Updating the sharing status of images created from CBR backups to **accepted** in batches (vault ID: d14r5tef-1bc3-4c4f-823e-3e471rg65e65)

```
PUT https://{Endpoint}/v1/cloudimages/members
{
  "images": [
```

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```
        "d164b5df-1bc3-4c3f-893e-3e471fd16e64",
        "0b680482-acaa-4045-b14c-9a8c7dfe9c70"
    ],
    "project_id": "edc89b490d7d4392898e19b2deb34797",
    "status": "accepted",
    "vault_id": "d14r5tef-1bc3-4c4f-823e-3e471rg65e65"
}
```

Response

- Response parameters

Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

- Example response

```
STATUS CODE 200
{
   "job_id": "edc89b490d7d4392898e19b2deb34797"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.3 Image Replication

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5.3.1 Replicating an Image Within a Region

Function

This API is an extension one and is used to copy an existing image to another image. When replicating an image, you can change the image attributes to meet the requirements of different scenarios.

This API is an asynchronous one. If **job_id** is returned, the task is successfully delivered. You need to query the status of the asynchronous task. If the status is **success**, the task is successfully executed. If the status is **failed**, the task fails. For details about how to query the status of an asynchronous task, see **Querying the Status of an Asynchronous Job**.

Constraints

- Full-ECS images cannot be replicated within the same region.
- Private images created using ISO files do not support in-region replication.
- The size of an image to be replicated within a region cannot be greater than 128 GB.

URI

POST /v1/cloudimages/{image_id}/copy

Table 5-16 lists the parameters in the URI.

Table 5-16 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID. For details about how to obtain the image ID, see **Querying Images**.

Request

- Request parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the image name. For detailed description, see **Image Attributes**.

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Parameter	Mandatory	Type	Description
description	No	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**. The value contains a maximum of 1,024 characters, including letters and digits. Carriage returns and angle brackets (< >) are not allowed. This parameter is left blank by default.
cmk_id	No	String	Specifies the encryption key. This parameter is left blank by default.
enterprise_project_id	No	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.

Example Request

Replicating an image (name: ims_encrypted_copy3) within a region

```
POST https://{Endpoint}/v1/cloudimages/465076de-dc36-4aec-80f5-ef9d8009428f/copy
{
   "name": "ims_encrypted_copy3",
   "description": "test copy",
   "cmk_id": "bd66288c-9081-460a-8227-4cbd0c814cb4"
}
```

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Response

- Response parameters

Parameter	Type	Description
job_id	String	Specifies the asynchronous job ID. For details, see **Querying the Status of an Asynchronous Job**.

- Example response

```
STATUS CODE 200
{
    "job_id": "edc89b490d7d4392898e19b2deb34797"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.4 Image Quota

5.4.1 Querying the Image Quota

Function

This extension API is used to query the quota of private images of a tenant in the current region.

URI

GET /v1/cloudimages/quota

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Request

Request parameters

None

Example Request

Querying the image quota

```
GET https://{Endpoint}/v1/cloudimages/quota
```

Response

- Response parameters

Parameter	Type	Description
quotas	Object	Specifies the quota information. For details, see **Table 5-17**.

Table 5-17 Data structure description of the quotas field

Parameter	Type	Description
resources	Array of objects	Specifies the images included in the quota. For details, see **Table 5-18**.

Table 5-18 Data structure description of the quotas.resources field

Parameter	Type	Description
type	String	Specifies the type of the resource to be queried. The value can be: • **image**: private image • **image_shared**: shared image • **image_member**: image recipient
used	Integer	Specifies the used quota.
quota	Integer	Specifies the total quota.
min	Integer	Specifies the minimum quota.
max	Integer	Specifies the maximum quota.

- Example response

```
STATUS CODE 200
{
  "quotas": {
```

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```
  "resources": [
    {
      "type": "image",
      "used": 0,
      "quota": 20,
      "min": 1,
      "max": 1000
    }
  ]
 }
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

5.5 Image Jobs

5.5.1 Querying the Status of an Asynchronous Job

Function

This is an extension API. It is used to query for the execution status of an asynchronous job, for example, querying for the execution status of an image exporting job.

URI

GET /v1/{project_id}/jobs/{job_id}

Table 5-19 lists the parameters in the URI.

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Table 5-19 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
job_id	Yes	Specifies the asynchronous job ID.

Request

Request parameters

None

Example Request

Querying the status of an asynchronous job

```
GET /v1/ac234de25c6741d2b1273da49eea1b9e/jobs/ff8080814dbd65d7014dbe0d84db0013
```

Response

- Response parameters

  NOTE

  The response parameters vary depending on the value of **job_type**. For details, see **Example Response**.

Parameter	Type	Description
status	String	Specifies the job status. The value can be: • **SUCCESS**: The job is successfully executed. • **FAIL**: The job failed to be executed. • **RUNNING**: The job is in progress. • **INIT**: The job is being initialized.
job_id	String	Specifies the job ID.

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Parameter	Type	Description
job_type	String	Specifies the job type. • **imsCreateImageByInstance**: Creating a system disk image from a cloud server • **imsImportImageJob**: Creating a system disk image from an external image file • **imsImportOvaImageJob**: Creating an image from an OVA image file • **imsVolumeCreateImageJob**: Creating a system disk image from a data disk • **imsVolumesToSysDataImagesJob**: Creating a data disk image from a data disk • **imsImportDataImageJob**: Creating a data disk image from an external image file • **imsCreateWholeImageByInstance-Job**: Creating a full-ECS image from an ECS • **imsCreateWholeImageByBackup-Job**: Creating a full-ECS image from a CBR or CSBS backup • **imsNativeImportImageJob**: Registering an image • **imsNativeExportImageJob**: Exporting an image • **imsAddImageMembersJob**: Adding tenants that can use a shared image • **imsDelImageMembersJob**: Deleting tenants that can use a shared image • **imsUpdateImageMembersJob**: Updating status of tenants who will accept or reject shared images • **imsCopyImageInRegionJob**: Replicating images within a region • **imsCrossRegionCopyImageJob**: Replicating images across regions
begin_time	String	Specifies the start time of the job. The value is in UTC format.
end_time	String	Specifies the end time of the job. The value is in UTC format.
error_code	String	Specifies the error code.

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Parameter	Type	Description
fail_reason	String	Specifies the failure cause.
entities	Object	Specifies the custom attributes of the job. If the job status is normal, the image ID will be returned. If the status is abnormal, an error code and details will be returned. For details, see **Table 5-20**.

Table 5-20 Data structure description of the entities field

Parameter	Type	Description
image_id	String	Specifies the image ID. This parameter is returned only when the value of **job_type** is one of the following: • imsCreateImageByInstance • imsImportImageJob • imsVolumeCreateImageJob • imsImportDataImageJob • imsCreateWholeImageByInstanceJob • imsCreateWholeImageByBackupJob • imsNativeImportImageJob • imsNativeExportImageJob • imsCopyImageInRegionJob • imsCrossRegionCopyImageJob
current_task	String	This is a reserved field.
image_name	String	Specifies the image name.
process_percent	Double	This is a reserved field.
results	Array of result objects	Specifies job execution results. For details, see **Table 5-21**.
sub_jobs_result	Array of objects	Specifies sub-job execution results. For details, see **Table 5-22**.
sub_jobs_list	Array of string	Specifies the sub-job IDs.

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Table 5-21 Data structure description of the results field

Parameter	Type	Description
image_id	String	Specifies the image ID. This parameter is returned only when the value of **job_type** is one of the following: • imsAddImageMembersJob • imsUpdateImageMembersJob
project_id	String	Specifies the project ID.
status	String	Specifies the job status. The value can be: • **SUCCESS**: The job is successfully executed. • **FAIL**: The job failed to be executed. • **RUNNING**: The job is in progress. • **INIT**: The job is being initialized.

Table 5-22 Data structure description of the sub_jobs_result field

Parameter	Type	Description
status	String	Specifies the sub-job status. The value can be: • **SUCCESS**: The sub-job is successfully executed. • **FAIL**: The sub-job failed to be executed. • **RUNNING**: The sub-job is in progress. • **INIT**: The sub-job is being initialized.
job_id	String	Specifies a sub-job ID.

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Parameter	Type	Description
job_type	String	Specifies the sub-job type. The value can be: **imsGoofysImportImageJob**: importing an image **imsGoofysImportImageWithoutconfig-Job**: importing an image **imsGoofysUploadImageJob**: importing an image **imsGoofysExportImageJob**: exporting an image **imsImportBigFileImageJob**: importing an image **imsQuickExportImageJob**: fast export of an image **imsImportIsoFileImageJob**: creating an ISO image **imsImportDataImageJob**: creating a data disk image
begin_time	String	Specifies the start time of the sub-job. The value is in UTC format.
end_time	String	Specifies the end time of the sub-job. The value is in UTC format.
error_code	String	Specifies the error code.
fail_reason	String	Specifies the failure cause.
entities	Object	Specifies the custom attributes of the sub-job. For details, see **Table 5-23**. • If a sub-job is properly executed, an image ID is returned. • If an exception occurs on the sub-job, an error code and associated information are returned.

Table 5-23 Data structure description of the sub_jobs_result.entities field

Parameter	Type	Description
image_id	String	Specifies the image ID. This parameter is returned only when the value of **job_type** is one of the following: • imsImportOvaImageJob • imsVolumesToSysDataImagesJob

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Parameter	Type	Description
image_name	String	Specifies the image name.

Example Response

- If the **job_type** is **imsCreateImageByInstance**, the response example is as follows:

```
{
   "job_id": "9a175ac792fa12d20193002100dd2762",
   "job_type": "imsCreateImageByInstance",
   "begin_time": "2024-11-06T06:19:43.195Z",
   "end_time": "2024-11-06T06:23:25.158Z",
   "status": "SUCCESS",
   "error_code": null,
   "fail_reason": null,
   "entities": {
      "image_name": "test",
      "image_id": "3f7185de-b59a-4bb8-aa1d-7a513528b0e9"
   }
}
```

- If the **job_type** is **imsImportImageJob**, the response example is as follows:

```
{
   "job_id": "9a175ac892fa1342019300224f22218e",
   "job_type": "imsImportImageJob",
   "begin_time": "2024-11-06T06:21:08.769Z",
   "end_time": "2024-11-06T06:27:03.742Z",
   "status": "SUCCESS",
   "error_code": null,
   "fail_reason": null,
   "entities": {
      "image_name": "test",
      "image_id": "431df7fd-a898-4dc0-86b1-22cfefb8a517"
   }
}
```

- If the **job_type** is **imsImportOvaImageJob**, the response example is as follows:

```
{
   "job_id": "9a175ac892fa13420193006a49173317",
   "job_type": "imsImportOvaImageJob",
   "begin_time": "2024-11-06T07:39:45.814Z",
   "end_time": "2024-11-06T07:49:45.814Z",
   "status": "SUCCESS",
   "error_code": null,
   "fail_reason": null,
   "entities": {
      "sub_jobs_result": [
         {
            "job_id": "9a175ac892fa13420193006c29e133f0",
            "job_type": "imsImportImageJob",
            "begin_time": "2024-11-06T07:41:48.896Z",
            "end_time": "2024-11-06T07:49:45.814Z",
            "status": "SUCCESS",
            "error_code": null,
            "fail_reason": null,
            "entities": {
               "image_name": "test",
               "image_id": "fc496c19-40c2-4220-8b1a-eba9d53fca7b"
            }
         }
      ],
      "sub_jobs_list": [
```

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```
            "9a175ac892fa13420193006c29e133f0"
        ]
    }
}
```

- If the **job_type** is **imsVolumeCreateImageJob**, the response example is as follows:

```
{
    "job_id": "9a175ac692fa125401930037d9e329aa",
    "job_type": "imsVolumeCreateImageJob",
    "begin_time": "2024-11-06T06:44:40.545Z",
    "end_time": "2024-11-06T06:47:40.545Z",
    "status": "SUCCESS",
    "error_code": null,
    "fail_reason": null,
    "entities": {
        "image_name": "test",
        "image_id": "21b04ab5-e817-40ee-8d56-7ccdb8820335"
    }
}
```

- If the **job_type** is **imsImportDataImageJob**, the response example is as follows:

```
{
    "job_id": "9a175ac692fa125401930027b9c026b3",
    "job_type": "imsImportDataImageJob",
    "begin_time": "2024-11-06T06:27:03.742Z",
    "end_time": "2024-11-06T06:37:03.742Z",
    "status": "SUCCESS",
    "error_code": null,
    "fail_reason": null,
    "entities": {
        "image_name": "test",
        "image_id": "aa5306f7-bc95-4fa3-aa40-dd38fbdf2031"
    }
}
```

- If the **job_type** is **imsCreateWholeImageByInstanceJob**, the response example is as follows:

```
{
    "job_id": "9a175ac792fa12d201930028cddb29c6",
    "job_type": "imsCreateWholeImageByInstanceJob",
    "begin_time": "2024-11-06T06:28:14.425Z",
    "end_time": "2024-11-06T06:37:03.742Z",
    "status": "SUCCESS",
    "error_code": null,
    "fail_reason": null,
    "entities": {
        "image_name": "test",
        "image_id": "17b7bdeb-2e72-43a0-a202-d36ce344e902"
    }
}
```

- If the **job_type** is **imsCreateWholeImageByBackupJob**, the response example is as follows:

```
{
    "job_id": "9a175ac892fa13420193002961972392",
    "job_type": "imsCreateWholeImageByBackupJob",
    "begin_time": "2024-11-06T06:28:52.245Z",
    "end_time": "2024-11-06T06:28:58.399Z",
    "status": "SUCCESS",
    "error_code": null,
    "fail_reason": null,
    "entities": {
        "image_name": "test",
        "image_id": "ea0d5dce-ddb2-4f6f-83e3-55da065347fd"
    }
}
```

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- If the **job_type** is **imsNativeImportImageJob**, the response example is as follows:

```
{
    "job_id": "9a175ac692fa12540193005389023059",
    "job_type": "imsNativeImportImageJob",
    "begin_time": "2024-11-06T07:14:54.848Z",
    "end_time": "2024-11-06T07:19:54.848Z",
    "status": "SUCCESS",
    "error_code": null,
    "fail_reason": null,
    "entities": {
        "image_id": "af8ea1dc-02f2-4019-8fa9-c9952a0077ce"
    }
}
```

- If the **job_type** is **imsNativeExportImageJob**, the response example is as follows:

```
{
    "job_id": "9a175ac892fa134201930039db1a27b1",
    "job_type": "imsNativeExportImageJob",
    "begin_time": "2024-11-06T06:46:51.929Z",
    "end_time": "2024-11-06T06:49:53.657Z",
    "status": "SUCCESS",
    "error_code": null,
    "fail_reason": null,
    "entities": {
        "image_id": "1ab4df10-fe18-48b7-91c9-53695fcd9df5"
    }
}
```

- If the **job_type** is **imsAddImageMembersJob**, the response example is as follows:

```
{
    "job_id": "9a175ac692fa12540193002a6d4b2720",
    "job_type": "imsAddImageMembersJob",
    "begin_time": "2024-11-06T06:30:00.778Z",
    "end_time": "2024-11-06T06:30:03.179Z",
    "status": "SUCCESS",
    "error_code": null,
    "fail_reason": null,
    "entities": {
        "results": [
            {
                "image_id": "30e55148-deb9-4923-adb9-91618de16ba0",
                "status": "success"
            }
        ]
    }
}
```

- If the **job_type** is **imsDelImageMembersJob**, the response example is as follows:

```
{
    "job_id": "9a175ac792fa12d20193002da96f2ac2",
    "job_type": "imsDelImageMembersJob",
    "begin_time": "2024-11-06T06:33:32.781Z",
    "end_time": "2024-11-06T06:33:34.181Z",
    "status": "SUCCESS",
    "error_code": null,
    "fail_reason": null,
    "entities": {
        "results": []
    }
}
```

- If the **job_type** is **imsUpdateImageMembersJob**, the response example is as follows:

```
{
    "job_id": "9a175ac692fa12540193005c340f321c",
```

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```
  "job_type": "imsUpdateImageMembersJob",
  "begin_time": "2024-11-06T07:24:22.925Z",
  "end_time": "2024-11-06T07:24:23.773Z",
  "status": "SUCCESS",
  "error_code": null,
  "fail_reason": null,
  "entities": {
    "results": [
      {
        "image_id": "6596628c-42d4-4ff1-8660-8ea5ae61f243",
        "status": "success"
      }
    ]
  }
}
```

- If the **job_type** is **imsCopyImageInRegionJob**, the response example is as follows:

```
{
  "job_id": "9a175ac892fa13420193001c2e62205a",
  "job_type": "imsCopyImageInRegionJob",
  "begin_time": "2024-11-06T06:14:27.168Z",
  "end_time": "2024-11-06T06:16:38.446Z",
  "status": "SUCCESS",
  "error_code": null,
  "fail_reason": null,
  "entities": {
    "image_name": "test",
    "image_id": "30e55148-deb9-4923-adb9-91618de16ba0"
  }
}
```

- If the **job_type** is **imsCrossRegionCopyImageJob**, the response example is as follows:

```
{
  "job_id": "9a175ac792fa12d20193001f2a2c2641",
  "job_type": "imsCrossRegionCopyImageJob",
  "begin_time": "2024-11-06T06:17:42.699Z",
  "end_time": "2024-11-06T06:20:22.419Z",
  "status": "SUCCESS",
  "error_code": null,
  "fail_reason": null,
  "entities": {
    "image_name": "test",
    "image_id": "d998b96f-b7e3-4be9-b0c2-9773e592977d"
  }
}
```

- If the **job_type** is **imsVolumesToSysDataImagesJob**, the response example is as follows:

```
{
  "job_id": "9a175ac792fa12d201930031febf2bdd",
  "job_type": "imsVolumesToSysDataImagesJob",
  "begin_time": "2024-11-06T06:38:16.765Z",
  "end_time": "2024-11-06T06:48:16.765Z",
  "status": "SUCCESS",
  "error_code": null,
  "fail_reason": null,
  "entities": {
    "sub_jobs_result": [
      {
        "job_id": "9a175ac792fa12d20193003205b22be1",
        "job_type": "imsCopyVolumeToImageJob",
        "begin_time": "2024-11-06T06:38:18.545Z",
        "end_time": "2024-11-06T06:48:16.765Z",
        "status": "SUCCESS",
        "error_code": null,
        "fail_reason": null,
        "entities": {
          "image_name": "test",
```

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```
                "image_id": "bfb2de92-e7b9-4820-9522-416d8f2c812a"
            }
        }
    ],
    "sub_jobs_list": [
        "9a175ac792fa12d20193003205b22be1"
    ]
  }
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

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6 Native OpenStack APIs

6.1 Image (Native OpenStack APIs)

6.1.1 Querying Images (Native OpenStack API)

Function

This API is used to obtain the image list.

This API does not return the complete result at once, but uses pagination.

Pagination

Pagination refers to the function of returning a subset of a group of images, a link to obtain the next set of images, and a link of the set of images. By default, a set contains 25 images. You can also use the **limit** and **marker** parameters to paginate through images manually and specify the number of images that can be returned.

The parameter **first** in the response indicates the URL of the first page of images, and parameter **next** indicates the URL of the next page of images. When the last page of images is queried, there is no parameter **next**.

URI

GET /v2/images

NOTE

- You can type a question mark (?) and an ampersand (&) at the end of the URI to define multiple search criteria. For details, see the example request.
- If you need the API of the OpenStack Queens release, the request header must contain **X-Api-Version**. If the value of **X-Api-Version** is any letter after **M** in the Alphabet, the API of the Queens release is returned. If the value is **M** or a letter before **M**, the API of the Mitaka release is returned.

Table 6-1 lists the parameters in the URI.

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Table 6-1 Parameter description

Parameter	Mandatory	Type	Description
__isregistered	No	String	Specifies whether the image is available. The value can be **true**. The value is **true** for all extension APIs by default. Common users can query only the images for which the value of this parameter is **true**.
__imagetype	No	String	Specifies the image type. The following types are supported: • Public image: The value is **gold**. • Private image: The value is **private**. • Shared image: The value is **shared**.
protected	No	Boolean	Specifies whether the image is protected. The value is **true** or **false**. Set it to **true** when you query public images. This parameter is optional when you query private images.
visibility	No	String	Specifies whether the image is available to other tenants. Available values include: • **public**: public image • **private**: private image • **shared**: shared image
owner	No	String	Specifies the tenant to which the image belongs.
id	No	String	Specifies the image ID.

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Parameter	Mandatory	Type	Description
status	No	String	Specifies the image status. The value can be one of the following: • **queued**: indicates that the image metadata has already been created, and it is ready for the image file to upload. • **saving**: indicates that the image file is being uploaded to the backend storage. • **deleted**: indicates that the image has been deleted. • **killed**: indicates that an error occurs on the image uploading. • **active**: indicates that the image is available for use.
name	No	String	Specifies the image name. Exact matching is used. For detailed description, see **Image Attributes**.
container_format	No	String	Specifies the container type. The default value is **bare**.
disk_format	No	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **zvhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
min_ram	No	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. Generally, the value is **0**.
min_disk	No	Integer	Specifies the minimum disk space (GB) required for running the image. The value ranges from 40 GB to 255 GB.
__os_bit	No	String	Specifies the OS architecture, 32 bit or 64 bit.

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Parameter	Mandatory	Type	Description
__platform	No	String	Specifies the image platform type. The value can be **Windows**, **Ubuntu**, **Red Hat**, **SUSE**, **CentOS**, **Debian**, **OpenSUSE**, **Oracle Linux**, **Fedora**, **Other**, **CoreOS**, or **EulerOS**.
marker	No	String	Specifies the start number from which images are queried. The value is the image ID.
limit	No	Integer	Specifies the number of images to be queried. The value is an integer. By default, 25 images can be queried.
sort_key	No	String	Specifies the field for sorting the query results. The value can be an attribute of the image: **name**, **container_format**, **disk_format**, **status**, **id**, **size**, or **created_at**. The default value is **created_at**.
sort_dir	No	String	Specifies whether the query results are sorted in ascending or descending order. Its value can be **desc** (default) or **asc**. This parameter is used together with parameter **sort_key**. The default value is **desc**.
__os_type	No	String	Specifies the image OS type. The value can be **Linux**, **Windows**, or **Other**.
tag	No	String	Specifies a tag added to an image. Tags can be used as a filter to query images. **NOTE** The tagging function has been upgraded. If the tags added before the function upgrade are in the format of "Key.Value", query tags using "Key=Value". For example, an existing tag is **a.b**. After the tag function upgrade, query the tag using "tag=a=b".

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Parameter	Mandatory	Type	Description
member_status	No	String	Specifies the image sharing status. The value can be **accepted**, **rejected**, or **pending**. **accepted**: indicates that the shared image is accepted. **rejected** indicates that the image shared by others is rejected. **pending** indicates that the image shared by others needs to be confirmed. To use this parameter, set **visibility** to **shared** during the query.
__support_kvm	No	String	Specifies whether the image supports KVM. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_xen	No	String	Specifies whether the image supports Xen. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_largememory	No	String	Specifies whether the image supports large-memory ECSs. If the image supports large-memory ECSs, the value is **true**. Otherwise, this parameter is not required. For details about the image OSs supported by large-memory ECSs, see **Table 9-4**.
__support_diskintensive	No	String	Specifies whether the image supports disk-intensive ECSs. If the image supports disk-intensive ECSs, the value is **true**. Otherwise, this parameter is not required. For details about the image OSs supported by disk-intensive ECSs, see **Table 9-4**.
__support_highperformance	No	String	Specifies whether the image supports high-performance ECSs. If the image supports high-performance ECSs, the value is **true**. Otherwise, this parameter is not required. For details about the image OSs supported by high-performance computing ECSs, see **Table 9-4**.

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Parameter	Mandatory	Type	Description
__support_xen_gpu_type	No	String	Specifies whether the image supports GPU-accelerated ECSs on the Xen platform. For details about the image OSs supported by GPU-accelerated ECSs, see **Table 9-2**. If the image does not support GPU-accelerated ECSs on the Xen platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_gpu_type	No	String	Specifies whether the image supports GPU-accelerated ECSs on the KVM platform. See **Table 9-3** for its value. If the image does not support GPU-accelerated ECSs on the KVM platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_xen_hana	No	String	Specifies whether the image supports HANA ECSs on the Xen platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_infiniband	No	String	Specifies whether the image supports ECSs with InfiniBand NICs on the KVM platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen**.

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Parameter	Mandatory	Type	Description
created_at	No	String	Specifies the time when the image was created. Images can be queried by time. The value is in the format of *Operator:UTC time*. The following operators are supported: • gt: greater than • gte: greater than or equal to • lt: less than • lte: less than or equal to • eq: equal to • neq: not equal to The time format is *yyyy-MM-ddThh:mm:ssZ* or *yyyy-MM-dd hh:mm:ss*. For example, to query images created before Oct 28, 2018 10:00:00, set the value of **created_at** to **lt:2018-10-28T10:00:00Z**.
updated_at	No	String	Specifies the time when the image was modified. Images can be queried by time. The value is in the format of *Operator:UTC time*. The following operators are supported: • gt: greater than • gte: greater than or equal to • lt: less than • lte: less than or equal to • eq: equal to • neq: not equal to The time format is *yyyy-MM-ddThh:mm:ssZ* or *yyyy-MM-dd hh:mm:ss*. For example, to query images updated before Oct 28, 2018 10:00:00, set the value of **updated_at** to **lt:2018-10-28T10:00:00Z**.

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Common Query Methods

- Public images

  GET /v2/images?__imagetype=gold&visibility=public&protected=true

- Private images

  GET /v2/images?owner={project_id}

- Accepted shared images

  GET /v2/images?
  member_status=accepted&visibility=shared&__imagetype=shared

- Rejected images

  GET /v2/images?
  member_status=rejected&visibility=shared&__imagetype=shared

- Images pending acceptance

  GET /v2/images?
  member_status=pending&visibility=shared&__imagetype=shared

Request

Request parameters

None

Example Request

Querying images

```
GET https://{Endpoint}/v2/images
```

Response

- Response parameters

Parameter	Type	Description
first	String	Specifies the URL of the first page of images.
next	String	Specifies the URL of the next page of images. When the last page of images is queried, there is no parameter **next**.
schema	String	Specifies the URL for the schema describing a list of images.
images	Array of objects	Specifies the resource type. For details, see **Table 6-2**.

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Table 6-2 Data structure description of the images field

Parameter	Type	Description
__backup_id	String	Specifies the backup ID. If the image is created from a backup, set the value to the backup ID. Otherwise, this parameter is not required.
__data_origin	String	Specifies the image source. If the image is a public image, the value is left empty.
__description	String	Specifies the image description.
__image_location	String	Specifies the location where the image is stored.
__image_size	String	Specifies the size (bytes) of the image file. The value is greater than 0.
__image_source_type	String	Specifies the backend storage of the image. Only UDS is supported currently.
__is_config_init	String	Specifies whether initial configuration is complete. The value can be **true** or **false**.
__isregistered	String	Specifies whether the image is available. The value can be **true**. The value is **true** for all extension APIs by default. Common users can query only the images for which the value of this parameter is **true**.
__lazyloading	String	Specifies whether the image supports lazy loading. The value can be **true**, **false**, **True**, or **False**.
__originalimagename	String	Specifies the parent image ID. If the image is a public image or created from an image file, the value is left empty.

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Parameter	Type	Description
__imagetype	String	Specifies the image type. The following types are supported: • Public image: The value is **gold**. • Private image: The value is **private**. • Shared image: The value is **shared**.
protected	Boolean	Specifies whether the image is protected. Set it to **true** when you query public images. This parameter is optional when you query private images.
virtual_env_type	String	Specifies the environment where the image is used. The value can be **FusionCompute**, **Ironic**, **DataImage**, or **IsoImage**. • For an ECS image (system disk image), the value is **FusionCompute**. • For a data disk image, the value is **DataImage**. • For a BMS image, the value is **Ironic**. • For an ISO image, the value is **IsoImage**.
virtual_size	Integer	This parameter is unavailable currently.
visibility	String	Specifies whether the image is available to other tenants. The value can be one of the following: • **public**: public image • **private**: private image • **shared**: shared image
owner	String	Specifies the tenant to which the image belongs.
id	String	Specifies the image ID.

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Parameter	Type	Description
status	String	Specifies the image status. The value can be one of the following: • **queued**: indicates that the image metadata has already been created, and it is ready for the image file to upload. • **saving**: indicates that the image file is being uploaded to the backend storage. • **deleted**: indicates that the image has been deleted. • **killed**: indicates that an error occurs on the image uploading. • **active**: indicates that the image is available for use.
name	String	Specifies the image name. For detailed description, see **Image Attributes**.
container_format	String	Specifies the container type.
disk_format	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **zvhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
min_ram	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. Generally, the value is **0**.
max_ram	String	Specifies the maximum memory (MB) of the image.
min_disk	Integer	Specifies the minimum disk space (GB) required for running the image. The value ranges from 40 GB to 255 GB.
__os_bit	String	Specifies the OS architecture, 32 bit or 64 bit.

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Parameter	Type	Description
__os_feature_list	String	Specifies additional attributes of the image. The value is a list (in JSON format) of advanced features supported by the image.
__platform	String	Specifies the image platform type. The value can be **Windows**, **Ubuntu**, **Red Hat**, **SUSE**, **CentOS**, **Debian**, **OpenSUSE**, **Oracle Linux**, **Fedora**, **Other**, **CoreOS**, or **EulerOS**.
schema	String	Specifies the image schema.
self	String	Specifies the image URL.
size	Integer	This parameter is unavailable currently.
__os_type	String	Specifies the image OS type. The value can be **Linux**, **Windows**, or **Other**.
__os_version	String	Specifies the OS version.
tags	Array of strings	Specifies tags of the image, through which you can manage private images in your own way.
__support_kvm	String	Specifies whether the image supports KVM. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_xen	String	Specifies whether the image supports Xen. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_largememory	String	Specifies whether the image supports large-memory ECSs. If the image supports large-memory ECSs, the value is **true**. Otherwise, this parameter is not required. For details about the image OSs supported by large-memory ECSs, see **Table 9-4**.

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Parameter	Type	Description
__support_diskintensive	String	Specifies whether the image supports disk-intensive ECSs. If the image supports disk-intensive ECSs, the value is **true**. Otherwise, this parameter is not required. For details about the image OSs supported by disk-intensive ECSs, see **Table 9-4**.
__support_highperformance	String	Specifies whether the image supports high-performance ECSs. If the image supports high-performance ECSs, the value is **true**. Otherwise, this parameter is not required. For details about the image OSs supported by high-performance computing ECSs, see **Table 9-4**.
__support_xen_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the Xen platform. For details about the image OSs supported by GPU-accelerated ECSs, see **Table 9-2**. If the image does not support GPU-accelerated ECSs on the Xen platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the KVM platform. See **Table 9-3** for its value. If the image does not support GPU-accelerated ECSs on the KVM platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.

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Parameter	Type	Description
__support_xen_hana	String	Specifies whether the image supports HANA ECSs on the Xen platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_infiniband	String	Specifies whether the image supports ECSs with InfiniBand NICs on the KVM platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen**.
__productcode	String	Specifies the product ID of a KooGallery image.
__root_origin	String	Specifies that the image is created from an external image file. Value: **file**
__sequence_num	String	Specifies the ECS system disk slot number of the image. Example value: **0**
__support_fc_inject	String	Specifies whether the image supports password/private key injection using Cloud-Init. **true** indicates password/private key injection using Cloud-Init is not supported. Other values indicate the injection is supported. **NOTE** This parameter is valid only for ECS system disk images.
__is_offshelved	String	Specifies whether the KooGallery image has been taken offline. • **true**: The image has been taken offline. • **false**: The image has not been taken offline.

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Parameter	Type	Description
created_at	String	Specifies the time when the image was created. The value is in UTC format.
updated_at	String	Specifies the time when the image was updated. The value is in UTC format.
active_at	String	Specifies the time when the image status became **active**.
checksum	String	This parameter is unavailable currently.
hw_firmware_type	String	Specifies the ECS boot mode. Available values include: • **bios** indicates the BIOS boot mode. • **uefi** indicates the UEFI boot mode.
file	String	Specifies the URL for uploading and downloading the image file.
enterprise_project_id	String	Specifies the enterprise project that the image belongs to. • If the value is **0** or left blank, the image belongs to the default enterprise project. • If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID.
__support_arm	String	Specifies whether the image uses the Arm architecture. The value can be **true** or **false**.

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Parameter	Type	Description
__support_agent_list	String	Specifies the agents configured for the image. • **hss**: server security • **ces**: The host monitoring agent is configured for the image. Example value: "__support_agent_list": "hss,ces" **NOTE** If the response does not contain this field, the HSS or host monitoring agents are not configured for the image.
__account_code	string	Specifies the charging identifier for the image.
__support_amd	String	Specifies whether the image uses AMD's x86 architecture. The value can be **true** or **false**.
__system__cmkid	String	Specifies the ID of the key used to encrypt the image.
hw_vif_multiqueue_enabled	String	Specifies whether the image supports NIC multi-queue. The value can be **true** or **false**.

- Example response

```
STATUS CODE 200
{
  "schema": "/v2/schemas/images",
  "next": "/v2/images?__isregistered=true&marker=0328c25e-c840-4496-81ac-
c4e01b214b1f&__imagetype=gold&limit=2",
  "images": [
    {
      "schema": "/v2/schemas/image",
      "min_disk": 100,
      "created_at": "2018-09-06T14:03:27Z",
      "__image_source_type": "uds",
      "container_format": "bare",
      "file": "/v2/images/bc6bed6e-ba3a-4447-afcc-449174a3eb52/file",
      "updated_at": "2018-09-06T15:17:33Z",
      "protected": true,
      "checksum": "d41d8cd98f00b204e9800998ecf8427e",
      "id": "bc6bed6e-ba3a-4447-afcc-449174a3eb52",
      "__isregistered": "true",
      "min_ram": 2048,
      "__lazyloading": "true",
      "owner": "1bed856811654c1cb661a6ca845ebc77",
      "__os_type": "Linux",
      "__imagetype": "gold",
      "visibility": "public",
      "virtual_env_type": "FusionCompute",
```

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```
    "tags": [],
    "__platform": "CentOS",
    "size": 0,
    "__os_bit": "64",
    "__os_version": "CentOS 7.3 64bit",
    "name": "CentOS 7.3 64bit vivado",
    "self": "/v2/images/bc6bed6e-ba3a-4447-afcc-449174a3eb52",
    "disk_format": "zvhd2",
    "virtual_size": null,
    "hw_firmware_type": "bios",
    "status": "active"
  },
  {
    "schema": "/v2/schemas/image",
    "min_disk": 100,
    "created_at": "2018-09-06T14:03:05Z",
    "__image_source_type": "uds",
    "container_format": "bare",
    "file": "/v2/images/0328c25e-c840-4496-81ac-c4e01b214b1f/file",
    "updated_at": "2018-09-25T14:27:40Z",
    "protected": true,
    "checksum": "d41d8cd98f00b204e9800998ecf8427e",
    "id": "0328c25e-c840-4496-81ac-c4e01b214b1f",
    "__isregistered": "true",
    "min_ram": 2048,
    "__lazyloading": "true",
    "owner": "1bed856811654c1cb661a6ca845ebc77",
    "__os_type": "Linux",
    "__imagetype": "gold",
    "visibility": "public",
    "virtual_env_type": "FusionCompute",
    "tags": [],
    "__platform": "CentOS",
    "size": 0,
    "__os_bit": "64",
    "__os_version": "CentOS 7.3 64bit",
    "name": "CentOS 7.3 64bit with sdx",
    "self": "/v2/images/0328c25e-c840-4496-81ac-c4e01b214b1f",
    "disk_format": "zvhd2",
    "virtual_size": null,
    "hw_firmware_type": "bios",
    "status": "active"
  }
 ],
 "first": "/v2/images?__isregistered=true&__imagetype=gold&limit=2"
}
```


Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details about the returned error code, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.

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Returned Value	Description
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.1.2 Querying Image Details (Native OpenStack API)

Function

This API is used to query details about a public or private image.

URI

GET /v2/images/{image_id}

Table 6-3 lists the parameters in the URI.

Table 6-3 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID.

Request

Request parameters

None

Example Request

Querying details of an image

```
GET https://{Endpoint}/v2/images/33ad552d-1149-471c-8190-ff6776174a00
```

Response

- Response parameters

Parameter	Type	Description
file	String	Specifies the URL for uploading and downloading the image file.
owner	String	Specifies the tenant to which the image belongs.
id	String	Specifies the image ID.

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Parameter	Type	Description
size	Long	This parameter is unavailable currently.
self	String	Specifies the image URL.
schema	String	Specifies the image schema.
status	String	Specifies the image status. The value can be one of the following: • **queued**: indicates that the image metadata has already been created, and it is ready for the image file to upload. • **saving**: indicates that the image file is being uploaded to the backend storage. • **deleted**: indicates that the image has been deleted. • **killed**: indicates that an error occurs on the image uploading. • **active**: indicates that the image is available for use.
tags	Array of strings	Specifies tags of the image, through which you can manage private images in your own way. You can use the image tag API to add different tags to each image and filter images by tag.
visibility	String	Specifies whether the image is available to other tenants. Available values include: • **private**: private image • **public**: public image • **shared**: shared image

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Parameter	Type	Description
name	String	Specifies the image name. For detailed description, see **Image Attributes**.
checksum	String	This parameter is unavailable currently.
protected	Boolean	Specifies whether the image is protected. A protected image cannot be deleted. The value can be **true** or **false**.
container_format	String	Specifies the container type.
min_ram	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. Generally, the value is **0**.
max_ram	String	Specifies the maximum memory (MB) of the image. You can set this parameter based on the ECS specifications. Generally, you do not need to set this parameter.
updated_at	String	Specifies the time when the image was updated. The value is in UTC format.
__os_bit	String	Specifies the OS architecture, 32 bit or 64 bit.
__os_version	String	Specifies the OS version.
__description	String	Specifies the image description. For detailed description, see **Image Attributes**.

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Parameter	Type	Description
disk_format	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **zvhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
__isregistered	String	Specifies whether the image has been registered. The value can be **true** or **false**.
__platform	String	Specifies the image platform type. The value can be **Windows**, **Ubuntu**, **Red Hat**, **SUSE**, **CentOS**, **Debian**, **OpenSUSE**, **Oracle Linux**, **Fedora**, **Other**, **CoreOS**, or **EulerOS**.
__os_type	String	Specifies the OS type. The value can be **Linux**, **Windows**, or **Other**.
__system__cmkid	String	Specifies the ID of the key used to encrypt the image.
min_disk	Integer	Specifies the minimum disk space (GB) required for running the image. The value ranges from 40 GB to 255 GB.
virtual_env_type	String	Specifies the environment where the image is used. The value can be **FusionCompute**, **Ironic**, **DataImage**, or **IsoImage**. • For an ECS image (system disk image), the value is **FusionCompute**. • For a data disk image, the value is **DataImage**. • For a BMS image, the value is **Ironic**. • For an ISO image, the value is **IsoImage**.

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Parameter	Type	Description
__image_source_type	String	Specifies the backend storage of the image. Only UDS is supported currently.
__imagetype	String	Specifies the image type. The following types are supported: • Public image: The value is **gold**. • Private image: The value is **private**. • Shared image: The value is **shared**.
created_at	String	Specifies the time when the image was created. The value is in UTC format.
virtual_size	Integer	This parameter is unavailable currently.
__originalimagename	String	Specifies the parent image ID. If the image is a public image or created from an image file, this value is left empty.
__backup_id	String	Specifies the backup ID. To create an image using a backup, set the value to the backup ID. Otherwise, this value is left empty.
__productcode	String	Specifies the product ID of a KooGallery image.
__image_size	String	Specifies the size (bytes) of the image file. The value is greater than 0.
__data_origin	String	Specifies the image source. If the image is a public image, this parameter is left empty.
__root_origin	String	Specifies that the image is created from an external image file. Value: **file**

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Parameter	Type	Description
__lazyloading	String	Specifies whether the image supports lazy loading. The value can be **true**, **false**, **True**, or **False**.
active_at	String	Specifies the time when the image status became **active**.
__os_feature_list	String	Specifies additional attributes of the image. The value is a list (in JSON format) of advanced features supported by the image.
__sequence_num	String	This parameter is unavailable currently.
__support_kvm	String	Specifies whether the image supports KVM. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_xen	String	Specifies whether the image supports Xen. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_largememory	String	Specifies whether the image supports large-memory ECSs. If the image supports large-memory ECSs, the value is **true**. Otherwise, this parameter is not required. For the supported OSs, see **Table 9-4**.
__support_diskintensive	String	Specifies whether the image supports disk-intensive ECSs. If the image supports disk-intensive ECSs, the value is **true**. Otherwise, this parameter is not required.

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Parameter	Type	Description
__support_highperformance	String	Specifies whether the image supports high-performance ECSs. If the image supports high-performance ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_xen_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the Xen platform. See **Table 9-2** for its value. If the image does not support GPU-accelerated ECSs on the Xen platform, this parameter is not required. This parameter cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the KVM platform. See **Table 9-3** for its value. If the image does not support GPU-accelerated ECSs on the KVM platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_xen_hana	String	Specifies whether the image supports HANA ECSs on the Xen platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.

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Parameter	Type	Description
__support_kvm_infiniband	String	Specifies whether the image supports ECSs with InfiniBand NICs on the KVM platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen**.
__support_fc_inject	String	Specifies whether the image supports password/private key injection using Cloud-Init. The parameter value can be **true** or **false**. **true** indicates password/private key injection using Cloud-Init is not supported. Other values indicate the injection is supported. **NOTE** This parameter is valid only for ECS system disk images.
enterprise_project_id	String	Specifies the enterprise project that the image belongs to. ● If the value is **0** or left blank, the image belongs to the default enterprise project. ● If the value is a UUID, the image belongs to the enterprise project corresponding to the UUID. For more information about enterprise projects and how to obtain enterprise project IDs, see *Enterprise Management User Guide*.

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Parameter	Type	Description
__is_offshelved	String	Specifies whether the KooGallery image has been taken offline. • **true**: The image has been taken offline. • **false**: The image has not been taken offline.
hw_firmware_type	String	Specifies the ECS boot mode. Available values include: • **bios** indicates the BIOS boot mode. • **uefi** indicates the UEFI boot mode.
hw_vif_multiqueue_enabled	String	Specifies whether the image supports NIC multi-queue. The value can be **true** or **false**.
__support_arm	String	Specifies whether the image uses the Arm architecture. The value can be **true** or **false**.
__support_agent_list	String	Specifies the agents configured for the image. • **hss**: server security • **ces**: The host monitoring agent is configured for the image. Example value: "__support_agent_list": "hss,ces" **NOTE** If the response does not contain this field, the HSS or host monitoring agents are not configured for the image.
__account_code	String	Specifies the charging identifier for the image.
__image_location	String	Specifies the location where the image is stored.

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Parameter	Type	Description
__is_config_init	String	Specifies whether initial configuration is complete. The value can be **true** or **false**.
__support_amd	String	Specifies whether the image uses AMD's x86 architecture. The value can be **true** or **false**.

- Example response

```
STATUS CODE 200
{
    "schema": "/v2/schemas/image",
    "min_disk": 100,
    "created_at": "2018-09-06T14:03:27Z",
    "__image_source_type": "uds",
    "container_format": "bare",
    "file": "/v2/images/bc6bed6e-ba3a-4447-afcc-449174a3eb52/file",
    "updated_at": "2018-09-06T15:17:33Z",
    "protected": true,
    "checksum": "d41d8cd98f00b204e9800998ecf8427e",
    "id": "bc6bed6e-ba3a-4447-afcc-449174a3eb52",
    "__isregistered": "true",
    "min_ram": 2048,
    "__lazyloading": "true",
    "owner": "1bed856811654c1cb661a6ca845ebc77",
    "__os_type": "Linux",
    "__imagetype": "gold",
    "visibility": "public",
    "virtual_env_type": "FusionCompute",
    "tags": [],
    "__platform": "CentOS",
    "size": 0,
    "__os_bit": "64",
    "__os_version": "CentOS 7.3 64bit",
    "name": "CentOS 7.3 64bit vivado",
    "self": "/v2/images/bc6bed6e-ba3a-4447-afcc-449174a3eb52",
    "disk_format": "zvhd2",
    "virtual_size": null,
    "status": "active"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.

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Returned Value	Description
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.1.3 Modifying an Image (Native OpenStack API)

Function

This API is used to modify image information.

Constraints

Only customized attributes, image name, and image description can be modified.

URI

PATCH /v2/images/{image_id}

Table 6-4 lists the parameters in the URI.

Table 6-4 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID. For details about how to obtain the image ID, see **Querying Images**.

Request

- Request parameters

  Glance has two methods of updating image information. The method is specified by **Content-Type** in the HTTP header. **application/openstack-images-v2.0-json-patch** and **application/openstack-images-v2.1-json-patch** are supported. Content types differ only in the format of the request message body.

  Table 6-5 v2.1 request message body

Parameter	Mandatory	Type	Description
[Array]	Yes	Array of objects	For details, see **Table 6-6**.

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Table 6-6 Data structure description of the [Array] field

Parameter	Type	Mandatory	Description
op	String	Yes	Indicates the type of the update operation, including replacing, adding, and deleting an attribute. The value can be **replace**, **add**, or **remove**.
path	String	Yes	Indicates the name of the target attribute. For **replace** and **remove**, the value can only be an existing attribute of the image. For **add**, the value can be an existing or a new attribute. If the value is an existing attribute, **add** takes the same effect as **replace**. If the value is a new attribute, the **add** operation is performed. Add a slash (/) before the attribute name.
value	String	No	Indicates the value of the attribute to be updated or added. Mandatory for **replace** and **add**, and not for **remove**

Table 6-7 v2.0 request message body

Parameter	Mandatory	Type	Description
[Array]	Yes	Array of objects	For details, see **Table 6-8**.

Table 6-8 Data structure description of the [Array] field

Parameter	Type	Mandatory	Description
replace	String	Mandatory for any of the three values	Indicates that an image attribute will be replaced. The value is the attribute to be replaced and a slash (/) must be added in front of the attribute name.

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Parameter	Type	Mandatory	Description
add	String		Indicates that an image attribute will be added. The value is the attribute to be added and a slash (/) must be added in front of the attribute name.
remove	String		Indicates that an image attribute will be deleted. The value is the attribute to be deleted and a slash (/) must be added in front of the attribute name.
value	String	Mandatory for **replace** and **add**, and not for **remove**	Indicates the value of the attribute to be updated or added. For detailed description, see **Image Attributes**.

Example Request

- Changing the name of an image to ims_test01 (V2.1 request)

```
PATCH https://{Endpoint}/v2/images/33ad552d-1149-471c-8190-ff6776174a00
"Content-Type:application/openstack-images-v2.1-json-patch"
[
    {
        "op": "replace",
        "path": "/name",
        "value": "test01"
    }
]
```

- Changing the name of an image to ims_test01 (V2.0 request)

```
PATCH https://{Endpoint}/v2/images/33ad552d-1149-471c-8190-ff6776174a00
"Content-Type:application/openstack-images-v2.0-json-patch"
[
    {
        "replace": "/name",
        "value": "test01"
    }
]
```

Response

- Response parameters

Parameter	Type	Description
file	String	Specifies the URL for uploading and downloading the image file.
owner	String	Specifies the tenant to which the image belongs.
id	String	Specifies the image ID.

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Parameter	Type	Description
size	Long	This parameter is unavailable currently.
self	String	Specifies the image URL.
schema	String	Specifies the image schema.
status	String	Specifies the image status. The value can be: • **queued**: indicates that the image metadata has already been created, and it is ready for the image file to upload. • **saving**: indicates that the image file is being uploaded to the backend storage. • **deleted**: indicates that the image has been deleted. • **killed**: indicates that an error occurs on the image uploading. • **active**: indicates that the image is available for use.
tags	Array of strings	Specifies tags of the image, through which you can manage private images in your own way. You can use the image tag API to add different tags to each image and filter images by tag.
visibility	String	Specifies whether the image is available to other tenants. The value can be: • **private**: private image • **public**: public image • **shared**: shared image
name	String	Specifies the image name. For detailed description, see **Image Attributes**.
checksum	String	This parameter is unavailable currently.
protected	Boolean	Specifies whether the image is protected. A protected image cannot be deleted. The value can be **true** or **false**.
container_format	String	Specifies the container type.

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Parameter	Type	Description
min_ram	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. The default value is **0**.
max_ram	String	Specifies the maximum memory (MB) of the image. The parameter value depends on the ECS specifications and is not configured by default.
updated_at	String	Specifies the time when the image was updated. The value is in UTC format.
__os_bit	String	Specifies the OS architecture, 32 bit or 64 bit.
__os_version	String	Specifies the OS version.
__description	String	Provides supplementary information about the image. For detailed description, see **Image Attributes**.
disk_format	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **zvhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
__isregistered	String	Specifies whether the image has been registered. The value can be **true** or **false**.
__platform	String	Specifies the image platform type. The value can be **Windows**, **Ubuntu**, **Red Hat**, **SUSE**, **CentOS**, **Debian**, **OpenSUSE**, **Oracle Linux**, **Fedora**, **Other**, **CoreOS**, or **EulerOS**.
__os_type	String	Specifies the OS type. The value can be **Linux**, **Windows**, or **Other**.
__system__cmkid	String	Specifies the ID of the key used to encrypt the image.
min_disk	Integer	Specifies the minimum disk space (GB) required for running the image. The value ranges from 40 GB to 255 GB.

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Parameter	Type	Description
virtual_env_type	String	Specifies the environment where the image is used. The value can be **FusionCompute**, **Ironic**, **DataImage**, or **IsoImage**. • For an ECS image (system disk image), the value is **FusionCompute**. • For a data disk image, the value is **DataImage**. • For a BMS image, the value is **Ironic**. • For an ISO image, the value is **IsoImage**.
__image_source_type	String	Specifies the backend storage of the image. Only UDS is supported currently.
__imagetype	String	Specifies the image type. The following types are supported: • Public image: The value is **gold**. • Private image: The value is **private**. • Shared image: The value is **shared**.
created_at	String	Specifies the time when the image was created. The value is in UTC format.
virtual_size	Integer	This parameter is unavailable currently.
__originalimagename	String	Specifies the parent image ID. If the image is a public image or created from an image file, the value is left empty.
__backup_id	String	Specifies the backup ID. If the image is created from a backup, set the value to the backup ID. Otherwise, this parameter is not required.
__productcode	String	Specifies the product ID of a KooGallery image.
__image_size	String	Specifies the size (bytes) of the image file. The value must be greater than **0**.
__data_origin	String	Specifies the image source. If the image is a public image, the value is left empty.

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Parameter	Type	Description
__root_origin	String	Specifies that the image is created from an external image file. Value: **file**
__lazyloading	String	Specifies whether the image supports lazy loading. The value can be **true**, **false**, **True**, or **False**.
active_at	String	Specifies the time when the image status became **active**.
__os_feature_list	String	Specifies additional attributes of the image. The value is a list (in JSON format) of advanced features supported by the image.
__account_code	String	Specifies the charging identifier for the image.
hw_firmware_type	String	Specifies the ECS boot mode. The value can be: • **bios** indicates the BIOS boot mode. This value will be used by fault if this parameter does not exist in the response. • **uefi** indicates the UEFI boot mode.
hw_vif_multiqueue_enabled	String	Specifies whether the image supports NIC multi-queue. The value can be **true** or **false**.
__support_kvm	String	Specifies whether the image supports KVM. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_xen	String	Specifies whether the image supports Xen. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_large_memory	String	Specifies whether the image can be used to create large-memory ECSs. If the image supports large-memory ECSs, the value is **true**. Otherwise, this parameter is not required. For the supported OSs, see **Table 9-4**.

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Parameter	Type	Description
__support_diskintensive	String	Specifies whether the image can be used to create disk-intensive ECSs. If the image supports disk-intensive ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_highperformance	String	Specifies whether the image can be used to create high-performance ECSs. If the image supports high-performance ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_xen_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the Xen platform. See **Table 9-2** for its value. If the image does not support GPU-accelerated ECSs on the Xen platform, this parameter is not required. This parameter cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the KVM platform. See **Table 9-3** for its value. If the image does not support GPU-accelerated ECSs on the KVM platform, this parameter is not required. This parameter cannot co-exist with **__support_xen** and **__support_kvm**.
__support_xen_hana	String	Specifies whether the image supports HANA ECSs on the Xen platform. If yes, the value is **true**. Otherwise, this parameter is not required. This parameter cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_infiniband	String	Specifies whether the image supports ECSs with InfiniBand NICs on the KVM platform. If yes, the value is **true**. Otherwise, this parameter is not required. This parameter cannot co-exist with **__support_xen**.

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Parameter	Type	Description
__is_offshelved	String	Specifies whether the KooGallery image has been taken offline. • **true**: The image has been taken offline. • **false**: The image has not been taken offline.
__sequence_num	String	Specifies the ECS system disk slot number of the image. This parameter is unavailable currently.
__support_fc_inject	String	Specifies whether the image supports password/private key injection using Cloud-Init. **true** indicates password/private key injection using Cloud-Init is not supported. Other values indicate the injection is supported. **NOTE** This parameter is valid only for ECS system disk images.
__support_arm	String	Specifies whether the image uses the Arm architecture. The value can be **true** or **false**.
__image_location	String	Specifies the location where the image is stored.
__is_config_init	String	Specifies whether initial configuration is complete. The value can be **true** or **false**.
__support_amd	String	Specifies whether the image uses AMD's x86 architecture. The value can be **true** or **false**.

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Parameter	Type	Description
__support_agent_list	String	Specifies the agents configured for the image. • **hss**: server security Host Security Service (HSS) helps you identify and manage the assets on your servers, eliminate risks, and defend against intrusions and web page tampering. There are also advanced protection and security operations available to help you easily detect and handle threats. • **ces**: The host monitoring agent is configured for the image. Monitoring is key for ensuring ECS performance, reliability, and availability. Using monitored data, you can determine ECS resource utilization. The cloud platform provides Cloud Eye to help you obtain the running statuses of your ECSs. You can use Cloud Eye to automatically monitor ECSs in real time and manage alarms and notifications to keep track of ECS performance metrics. Example: "__support_agent_list": "hss,ces" **NOTE** If the response does not contain this field, the HSS or host monitoring agents are not configured for the image.

- Example response

```
STATUS CODE 200
{
    "file": "/v2/images/33ad552d-1149-471c-8190-ff6776174a00/file",
    "owner": "0b1e494e2660441a957313163095fe5c",
    "id": "33ad552d-1149-471c-8190-ff6776174a00",
    "size": 2,
    "self": "/v2/images/33ad552d-1149-471c-8190-ff6776174a00",
    "schema": "/v2/schemas/image",
    "status": "active",
    "tags": [],
    "visibility": "private",
    "name": "ims_test",
    "checksum": "99914b932bd37a50b983c5e7c90ae93b",
    "protected": false,
    "container_format": "bare",
    "min_ram": 0,
    "updated_at": "2015-12-08T02:30:49Z",
    "__os_bit": "64",
    "__os_version": "Ubuntu 14.04 server 64bit",
    "__description": "ims test",
```

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```
    "disk_format": "vhd",
    "__isregistered": "true",
    "__platform": "Ubuntu",
    "__os_type": "Linux",
    "min_disk": 40,
    "virtual_env_type": "FusionCompute",
    "__image_source_type": "uds",
    "__imagetype": "private",
    "created_at": "2015-12-04T09:45:33Z",
    "virtual_size": 0,
    "__originalimagename": "33ad552d-1149-471c-8190-ff6776174a00",
    "__backup_id": "",
    "__productcode": "",
    "__image_size": "449261568",
    "__data_origin": null,
    "hw_firmware_type":"bios"
}
```


Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error. For details, see **Error Codes**.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.1.4 Deleting an Image (Native OpenStack API)

Function

This API is used to delete a private image. You can only delete your own private images.

URI

DELETE /v2/images/{image_id}

Table 6-9 lists the parameters in the URI.

Table 6-9 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID.

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Request

Request parameters

Parameter	Mandatory	Type	Description
delete_backup	No	Boolean	Specifies whether to delete the CBR backups associated with a full-ECS image when the image is deleted. The value can be **true** or **false**. • **true**: When a full-ECS image is deleted, its CBR backups are also deleted. • **false**: When a full-ECS image is deleted, its CBR backups are not deleted.

Example Request

Deleting an image

```
DELETE https://{Endpoint}/v2/images/4ca46bf1-5c61-48ff-b4f3-0ad4e5e3ba90
{
   "delete_backup": true
}
```

Response

- Response parameters

  None

- Example response

  ```
  STATUS CODE 204
  ```

Returned Values

- Normal

  204

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.

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Returned Value	Description
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.1.5 Creating Image Metadata (Native OpenStack API)

Function

This API is used to create image metadata.

After the API is successfully invoked, the image metadata is created, but the image file does not exist yet.

URI

POST /v2/images

Request

- Request parameters

Parameter	Mandatory	Type	Description
__os_version	No	String	Specifies the image OS version. For the value range, see **Values of Related Parameters**. If this parameter is not specified, the value **Other Linux(64 bit)** will be used. In that case, the ECS creation using this image may fail, and the ECS created using this image may fail to run properly.
visibility	No	String	Specifies whether the image is available to other tenants. The default value is **private**. When creating image metadata, the value of **visibility** can be set to **private** only.

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Parameter	Mandatory	Type	Description
name	No	String	Specifies the image name. If this parameter is not specified, its value is empty by default. In that case, ECS creation using this image will fail. The name contains 1 to 255 characters. For detailed description, see **Image Attributes**. This parameter is left blank by default.
protected	No	Boolean	Specifies whether the image is protected. A protected image cannot be deleted. The default value is **false**.
container_format	No	String	Specifies the container format. The default value is **bare**.
disk_format	No	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
tags	No	Array of strings	Lists the image tags. The length is limited to 1 to 255 characters. By default, an image has no tags. **NOTE** The tag is a key-value pair. Example: `"tagkey=tagvalue"`
min_ram	No	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on ECS specifications. The default value is **0**.

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Parameter	Mandatory	Type	Description
min_disk	No	Integer	Specifies the minimum disk space (GB) required for running the image. The value ranges from 40 GB to 255 GB. The value of this parameter must be greater than the image system disk capacity. Otherwise, the ECS creation may fail.

Example Request

```
POST https://{Endpoint}/v2/images
{
    "__os_version": "Ubuntu 14.04 server 64bit",
    "container_format": "bare",
    "disk_format": "vhd",
    "min_disk": 100,
    "min_ram": 1024,
    "name": "test",
    "tags": [
        "test=testvalue",
        "image=imagevalue"
    ],
    "visibility": "private",
    "protected": false
}
```

Response

- Response parameters

Parameter	Type	Description
visibility	String	Specifies whether the image is available to other tenants. The value is **private**.
name	String	Specifies the image name. If this parameter is not specified, its value is empty by default. In that case, ECS creation using this image will fail. The name contains 1 to 128 characters. For detailed description, see **Image Attributes**.

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Parameter	Type	Description
protected	Boolean	Specifies whether the image is protected. A protected image cannot be deleted. The value is **false**.
container_format	String	Specifies the container format. The value is **bare**.
disk_format	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
tags	Array of strings	Lists the image tags. The length is limited to 1 to 255 characters.
min_ram	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications limit. The value is generally set to **0**.
min_disk	Integer	Specifies the minimum disk space (GB) required for running the image. It must be greater than the system disk capacity in the image. Otherwise, the ECS creation will fail. The value ranges from 40 GB to 255 GB.

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Parameter	Type	Description
status	String	Specifies the image status. The value can be one of the following: • **queued**: indicates that the image metadata has already been created, and it is ready for the image file to upload. • **saving**: indicates that the image file is being uploaded to the backend storage. • **deleted**: indicates that the image has been deleted. • **killed**: indicates that an error occurs on the image uploading. • **active**: indicates that the image is available for use.
created_at	String	Specifies the time when the image was created. The value is in UTC format.
updated_at	String	Specifies the time when the image was updated. The value is in UTC format.
self	String	Specifies the image URL.
id	String	Specifies the image ID. After the image creation API is called, the image ID must be saved. The image ID is used to invoke the image uploading API and upload the image.
file	String	Specifies the URL for uploading and downloading the image file.
schema	String	Specifies the URL for accessing the schema.
__image_source_type	String	Specifies the image backend storage type. Only UDS is supported currently.
__image_size	String	Specifies the image size. The unit is byte.

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Parameter	Type	Description
__isregistered	String	Specifies whether the image is registered. Only registered images can be queried on the portal. The value is **true**.
__os_version	String	Specifies the image OS version. For the value range, see **Values of Related Parameters**.
__os_type	String	Specifies the image OS type. The value of this parameter depends on that of **__os_version**. The value can be **Windows**, **Linux**, or **other**.
__platform	String	Specifies the OS platform supported by the image. The value of this parameter depends on that of **__os_version**.
__os_bit	String	Specifies the OS bit. The value of this parameter depends on that of **__os_version**. The value can be **32** or **64**.
__imagetype	String	Specifies the image type. **private** indicates a private image.
virtual_env_type	String	Specifies the platform type. Specifies the environment where the image is used. The value can be **FusionCompute**, **Ironic**, **DataImage**, or **IsoImage**. • For an ECS image, the value is **FusionCompute**. • For an ECS data disk image, the value is **DataImage**. • For a BMS image, the value is **Ironic**. • For an ISO image, the value is **IsoImage**.
owner	String	Specifies the ID of the project to which the image belongs.

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Parameter	Type	Description
__root_origin	String	Specifies that the image is created from an external image file. Value: **file**
checksum	String	Specifies the MD5 value of the image file.
size	Long	This parameter is unavailable currently.
virtual_size	Integer	Specifies the virtual size of the image. The unit is byte.
properties	Properties object	Specifies a collection of image attributes instead of a specified attribute.

- Example response

```
STATUS CODE 201
{
   "schema": "/v2/schemas/image",
   "min_disk": 100,
   "created_at": "2016-06-02T07:49:48Z",
   "__image_source_type": "uds",
   "container_format": "bare",
   "__image_size": "0",
   "file": "/v2/images/4ca46bf1-5c61-48ff-b4f3-0ad4e5e3ba86/file",
   "updated_at": "2016-06-02T07:49:49Z",
   "protected": false,
   "id": "4ca46bf1-5c61-48ff-b4f3-0ad4e5e3ba86",
   "__isregistered": "true",
   "min_ram": 1024,
   "owner": "b912fb4a4c464b568ecfca1071b21b10",
   "__os_type": "Linux",
   "__imagetype": "private",
   "visibility": "private",
   "virtual_env_type": "FusionCompute",
   "tags": [
      "test=testvalue",
      "image=imagevalue"

   ],
   "__platform": "Ubuntu",
   "__os_bit": "64",
   "__os_version": "Ubuntu 14.04 server 64bit",
   "name": "test",
   "self": "/v2/images/4ca46bf1-5c61-48ff-b4f3-0ad4e5e3ba86",
   "disk_format": "vhd",
   "status": "queued"
}
```

Returned Values

- Normal

  201
- Abnormal

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Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.1.6 Deleting an Image (Native OpenStack API V1.1, Deprecated)

Function

This API is used to delete an image. If you soft delete the image with a specified ID, the image persists in the database, but in the **deleted** status.

This API has been deprecated. **Deleting an Image (Native OpenStack API)** is recommended.

URI

DELETE /v1.1/images/{image_id}

Table 6-10 lists the parameters in the URI.

Table 6-10 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID.

Request

Request parameters

None

Example Request

Deleting an image

```
DELETE https://{Endpoint}/v1.1/images/3c3d1d01-b48a-4639-8a88-08be3b9b5d78
```

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Response

- Response parameters

  None

- Example response

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=UTF-8
Content-Length: 0
X-Openstack-Request-Id: req-75e9edca-7b43-47da-bdc5-d39be469b72f
Date: Mon, 23 May 2016 02:43:34 GMT
```

Returned Values

- Normal

  204

- Abnormal

Returned Values	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.1.7 Querying Image Metadata (Native OpenStack API V1, Deprecated)

Function

This API is used to query image metadata.

This API has been deprecated. Use the API in **Querying Image Details (Native OpenStack API)**.

URI

HEAD /v1/images/{image_id}

Table 6-11 lists the parameters in the URI.

Table 6-11 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID.

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Request

Request parameters

None

Example Request

Querying image metadata

```
HEAD https://{Endpoint}/v1/images/3c3d1d01-b48a-4639-8a88-08be3b9b5d78
```

Response

- Response parameters

Parameter	Type	Description
Status	String	Image status
Virtual_size	Integer	Virtual size of an image
Name	String	Image name
Deleted	Boolean	Whether an image has been deleted
Container_format	String	Image container type
Created_at	String	Time when an image was created
Disk_format	String	Image file type
Updated_at	String	Time when an image was updated
Property	Object	Image attribute
Owner	String	Tenant to which an image belongs
Protected	Boolean	Whether an image is protected
Min_ram	Integer	Minimum memory (MB) required for running an image
Checksum	String	Image verification sum. This parameter is available after an image file is uploaded.
Min_disk	Integer	Minimum disk capacity (GB) required for running the image

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Parameter	Type	Description
Is_public	Boolean	Whether an image is a public one
Deleted_at	String	Time when an image was deleted
Id	String	Image UUID
Size	Integer	Image size. This parameter is available after an image file is uploaded.

These parameters are contained in the header of the HTTP response message.

- Example response

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=UTF-8
Content-Length: 0
X-Image-Meta-Id: 3c3d1d01-b48a-4639-8a88-08be3b9b5d78
X-Image-Meta-Deleted: False
X-Image-Meta-Container_format: bare
X-Image-Meta-Checksum: 64d7c1cd2b6f60c92c14662941cb7913
X-Image-Meta-Protected: False
X-Image-Meta-Min_disk: 0
X-Image-Meta-Created_at: 2016-05-22T06:04:20.425843
X-Image-Meta-Size: 13167616
X-Image-Meta-Status: active
X-Image-Meta-Is_public: True
X-Image-Meta-Min_ram: 0
X-Image-Meta-Owner: 23f4cb75768d4febb39542ef6fe169f3
X-Image-Meta-Updated_at: 2016-05-22T06:04:22.719791
X-Image-Meta-Disk_format: qcow2
X-Image-Meta-Name: cirros
Etag: 64d7c1cd2b6f60c92c14662941cb7913
X-Openstack-Request-Id: req-7123ca83-da23-4f4e-9ed6-accd3707d333
Date: Mon, 23 May 2016 02:29:54 GMT
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.

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Returned Value	Description
503 Service Unavailable	The service is unavailable.

6.1.8 Querying Image Details (Native OpenStack API V1.1, Deprecated)

Function

This API is used to query details of images.

This API has been deprecated. Use the API in **Querying Images (Native OpenStack API)**.

URI

GET /v1.1/images/detail

Request

Request parameters

Parameters **name**, **container_format**, **disk_format**, **status**, **size_min**, **size_max**, and **changes-since** can be used to filter the query result.

Parameter	Mandatory	Type	Description
name	No	String	Specifies the image name. For detailed description, see **Image Attributes**.
container_format	No	String	Image container type
disk_format	No	String	Image file format
status	No	String	Image status
size_min	No	String	Minimum size of the image
size_max	No	String	Maximum size of the image
changes-since	No	String	Last update time

Example Request

Querying image details

```
GET https://{Endpoint}/v1.1/images/detail?disk_format=qcow2
```

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Response

- Response parameters

Parameter	Type	Description
status	String	Image status
virtual_size	Integer	Virtual size of an image
name	String	Specifies the image name. For detailed description, see **Image Attributes**.
deleted	Boolean	Whether an image has been deleted
container_format	String	Image container type
created_at	String	Time when an image was created
disk_format	String	Image file type
updated_at	String	Time when an image was updated
properties	Object	Image attribute
owner	String	Tenant to which an image belongs
protected	Boolean	Whether an image is protected
min_ram	Integer	Minimum memory (MB) required for running an image
checksum	String	Image verification sum. This parameter is available after an image file is uploaded.
min_disk	Integer	Minimum disk capacity (GB) required for running the image
is_public	Boolean	Whether an image is a public one
deleted_at	String	Time when an image was deleted
id	String	Image UUID

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Parameter	Type	Description
size	Integer	Image size. This parameter is available after an image file is uploaded.

- Example response

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=UTF-8
Content-Length: 495
X-Openstack-Request-Id: req-68327dda-8078-41fe-b091-01a09ec073da
Date: Mon, 23 May 2016 02:32:28 GMT
{
   "images": [
      {
          "status": "active",
          "deleted_at": null,
          "name": "cirros",
          "deleted": false,
          "container_format": "bare",
          "created_at": "2016-05-22T06:04:20.425843",
          "disk_format": "qcow2",
          "updated_at": "2016-05-22T06:04:22.719791",
          "min_disk": 0,
          "protected": false,
          "id": "3c3d1d01-b48a-4639-8a88-08be3b9b5d78",
          "min_ram": 0,
          "checksum": "64d7c1cd2b6f60c92c14662941cb7913",
          "owner": "23f4cb75768d4febb39542ef6fe169f3",
          "is_public": true,
          "virtual_size": null,
          "properties": {
          },
          "size": 13167616
      }
   ]
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Values	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

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6.2 Image Schema (Native OpenStack APIs)

6.2.1 Querying the Image Schema (Native OpenStack API)

Function

This API is used to query the image schema, which allows you to view image attributes and their data types.

URI

GET /v2/schemas/image

Request

Request parameters

None

Example Request

Querying an image schema

```
GET https://{Endpoint}/v2/schemas/image
```

Response

- Response parameters

Parameter	Type	Description
additionalProperties	Object	Specifies the additional attributes. For details, see **Table 6-12**.
name	String	Specifies the schema name.
links	Array of objects	Specifies the URL for accessing the schema. For details, see **Table 6-13**.
properties	Object	Describes basic image attributes, including the type and usage of each attribute. For details about the parameters, see **Image Attributes**.

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Table 6-12 Data structure description of the additionalProperties field

Parameter	Type	Description
type	String	Type

Table 6-13 Data structure description of the links field

Parameter	Type	Description
href	String	Specifies the domain name.
rel	String	Specifies the domain name description.

- Example response

```
STATUS CODE 200
{
   "additionalProperties": {
      "type": "string"
   },
   "name": "image",
   "links": [
      {
         "href": "{self}",
         "rel": "self"
      },
      {
         "href": "{file}",
         "rel": "enclosure"
      },
      {
         "href": "{schema}",
         "rel": "describedby"
      }
   ],
   "properties": {
      "status": {
         "enum": [
            "queued",
            "saving",
            "active",
            "killed",
            "deleted",
            "pending_delete"
         ],
         "type": "string",
         "description": "Status of the image (READ-ONLY)"
      },
      "tags": {
         "items": {
            "type": "string",
            "maxLength": 255
         },
         "type": "array",
         "description": "List of strings related to the image"
      },
      "kernel_id": {
         "pattern": "^([0-9a-fA-F]){8}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F])
{12}$",
         "type": "string",
         "description": "ID of image stored in Glance that should be used as the kernel when booting
an AMI-style image.",
```

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```
            "is_base": false
        },
        "container_format": {
            "enum": [
                "ami",
                "ari",
                "aki",
                "bare",
                "ovf",
                "ova"
            ],
            "type": "string",
            "description": "Format of the container"
        },
        "min_ram": {
            "type": "integer",
            "description": "Amount of ram (in MB) required to boot image."
        },
        "ramdisk_id": {
            "pattern": "^([0-9a-fA-F]){8}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F])
{12}$",
            "type": "string",
            "description": "ID of image stored in Glance that should be used as the ramdisk when booting
an AMI-style image.",
            "is_base": false
        },
        "locations": {
            "items": {
                "required": [
                    "url",
                    "metadata"
                ],
                "type": "object",
                "properties": {
                    "url": {
                        "type": "string",
                        "maxLength": 255
                    },
                    "metadata": {
                        "type": "object"
                    }
                }
            },
            "type": "array",
            "description": "A set of URLs to access the image file kept in external store"
        },
        "visibility": {
            "enum": [
                "public",
                "private"
            ],
            "type": "string",
            "description": "Scope of image accessibility"
        },
        "updated_at": {
            "type": "string",
            "description": "Date and time of the last image modification (READ-ONLY)"
        },
        "owner": {
            "type": "string",
            "description": "Owner of the image",
            "maxLength": 255
        },
        "file": {
            "type": "string",
            "description": "(READ-ONLY)"
        },
        "min_disk": {
            "type": "integer",
```


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```
            "description": "Amount of disk space (in GB) required to boot image."
        },
        "virtual_size": {
            "type": "integer",
            "description": "Virtual size of image in bytes (READ-ONLY)"
        },
        "id": {
            "pattern": "^([0-9a-fA-F]){8}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F])
{12}$",
            "type": "string",
            "description": "An identifier for the image"
        },
        "size": {
            "type": "integer",
            "description": "Size of image file in bytes (READ-ONLY)"
        },
        "instance_uuid": {
            "type": "string",
            "description": "ID of instance used to create this image.",
            "is_base": false
        },
        "os_distro": {
            "type": "string",
            "description": "Common name of operating system distribution as specified in http://
docs.openstack.org/trunk/openstack-compute/admin/content/adding-images.html",
            "is_base": false
        },
        "name": {
            "type": "string",
            "description": "Descriptive name for the image",
            "maxLength": 255
        },
        "checksum": {
            "type": "string",
            "description": "md5 hash of image contents. (READ-ONLY)",
            "maxLength": 32
        },
        "created_at": {
            "type": "string",
            "description": "Date and time of image registration (READ-ONLY)"
        },
        "disk_format": {
            "enum": [
                "ami",
                "ari",
                "aki",
                "vhd",
                "vmdk",
                "raw",
                "qcow2",
                "vdi",
                "iso"
            ],
            "type": "string",
            "description": "Format of the disk"
        },
        "os_version": {
            "type": "string",
            "description": "Operating system version as specified by the distributor",
            "is_base": false
        },
        "protected": {
            "type": "boolean",
            "description": "If true, image will not be deletable."
        },
        "architecture": {
            "type": "string",
            "description": "Operating system architecture as specified in http://docs.openstack.org/trunk/
openstack-compute/admin/content/adding-images.html",
```


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```
            "is_base": false
        },
        "direct_url": {
            "type": "string",
            "description": "URL to access the image file kept in external store (READ-ONLY)"
        },
        "self": {
            "type": "string",
            "description": "(READ-ONLY)"
        },
        "schema": {
            "type": "string",
            "description": "(READ-ONLY)"
        }
    }
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.2.2 Querying the Image List Schema (Native OpenStack API)

Function

This API is used to query the image list schema, which allows you to know details about and the data structure of the image list.

URI

GET /v2/schemas/images

Request

Request parameters

None

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Example Request

Querying an image list schema

```
GET https://{Endpoint}/v2/schemas/images
```

Response

- Response parameters

Parameter	Type	Description
name	String	Specifies the schema name.
links	Array of objects	Specifies the URL for accessing the schema. For details, see **Table 6-14**.
properties	Object	Describes basic image attributes, including the type and usage of each attribute. For details about the parameters, see **Image Attributes**.

Table 6-14 Data structure description of the links field

Parameter	Type	Description
href	String	Specifies the domain name.
rel	String	Specifies the domain name description.

- Example response

```
STATUS CODE 200
{
   "name": "images",
   "links": [
      {
         "href": "{first}",
         "rel": "first"
      },
      {
         "href": "{next}",
         "rel": "next"
      },
      {
         "href": "{schema}",
         "rel": "describedby"
      }
   ],
   "properties": {
      "images": {
         "items": {
            "additionalProperties": {
               "type": "String"
            },
            "name": "image",
            "links": [
```

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```
                {
                    "href": "{self}",
                    "rel": "self"
                },
                {
                    "href": "{file}",
                    "rel": "enclosure"
                },
                {
                    "href": "{schema}",
                    "rel": "describedby"
                }
            ],
            "properties": {
                "status": {
                    "enum": [
                        "queued",
                        "saving",
                        "active",
                        "killed",
                        "deleted",
                        "pending_delete"
                    ],
                    "type": "string",
                    "description": "Status of the image (READ-ONLY)"
                },
                "tags": {
                    "items": {
                        "type": "string",
                        "maxLength": 255
                    },
                    "type": "array",
                    "description": "List of strings related to the image"
                },
                "kernel_id": {
                    "pattern": "^([0-9a-fA-F]){8}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F])
{4}-([0-9a-fA-F]){12}$",
                    "type": "string",
                    "description": "ID of image stored in Glance that should be used as the kernel when
booting an AMI-style image.",
                    "is_base": false
                },
                "container_format": {
                    "enum": [
                        "ami",
                        "ari",
                        "aki",
                        "bare",
                        "ovf",
                        "ova"
                    ],
                    "type": "string",
                    "description": "Format of the container"
                },
                "min_ram": {
                    "type": "integer",
                    "description": "Amount of ram (in MB) required to boot image."
                },
                "ramdisk_id": {
                    "pattern": "^([0-9a-fA-F]){8}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F])
{4}-([0-9a-fA-F]){12}$",
                    "type": "string",
                    "description": "ID of image stored in Glance that should be used as the ramdisk when
booting an AMI-style image.",
                    "is_base": false
                },
                "locations": {
                    "items": {
                        "required": [
```

```
                        "url",
                        "metadata"
                    ],
                    "type": "object",
                    "properties": {
                        "url": {
                            "type": "string",
                            "maxLength": 255
                        },
                        "metadata": {
                            "type": "object"
                        }
                    }
                },
                "type": "array",
                "description": "A set of URLs to access the image file kept in external store"
            },
            "visibility": {
                "enum": [
                    "public",
                    "private"
                ],
                "type": "string",
                "description": "Scope of image accessibility"
            },
            "updated_at": {
                "type": "string",
                "description": "Date and time of the last image modification (READ-ONLY)"
            },
            "owner": {
                "type": "string",
                "description": "Owner of the image",
                "maxLength": 255
            },
            "file": {
                "type": "string",
                "description": "(READ-ONLY)"
            },
            "min_disk": {
                "type": "integer",
                "description": "Amount of disk space (in GB) required to boot image."
            },
            "virtual_size": {
                "type": "integer",
                "description": "Virtual size of image in bytes (READ-ONLY)"
            },
            "id": {
                "pattern": "^([0-9a-fA-F]){8}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F])
{4}-([0-9a-fA-F]){12}$",
                "type": "string",
                "description": "An identifier for the image"
            },
            "size": {
                "type": "integer",
                "description": "Size of image file in bytes (READ-ONLY)"
            },
            "instance_uuid": {
                "type": "string",
                "description": "ID of instance used to create this image.",
                "is_base": false
            },
            "os_distro": {
                "type": "string",
                "description": "Common name of operating system distribution as specified in http://
docs.openstack.org/trunk/openstack-compute/admin/content/adding-images.html",
                "is_base": false
            },
            "name": {
                "type": "string",
```

```
                    "description": "Descriptive name for the image",
                    "maxLength": 255
                },
                "checksum": {
                    "type": "string",
                    "description": "md5 hash of image contents. (READ-ONLY)",
                    "maxLength": 32
                },
                "created_at": {
                    "type": "string",
                    "description": "Date and time of image registration (READ-ONLY)"
                },
                "disk_format": {
                    "enum": [
                        "ami",
                        "ari",
                        "aki",
                        "vhd",
                        "vmdk",
                        "raw",
                        "qcow2",
                        "vdi",
                        "iso"
                    ],
                    "type": "string",
                    "description": "Format of the disk"
                },
                "os_version": {
                    "type": "string",
                    "description": "Operating system version as specified by the distributor",
                    "is_base": false
                },
                "protected": {
                    "type": "boolean",
                    "description": "If true, image will not be deletable."
                },
                "architecture": {
                    "type": "string",
                    "description": "Operating system architecture as specified in http://docs.openstack.org/
trunk/openstack-compute/admin/content/adding-images.html",
                    "is_base": false
                },
                "direct_url": {
                    "type": "string",
                    "description": "URL to access the image file kept in external store (READ-ONLY)"
                },
                "self": {
                    "type": "string",
                    "description": "(READ-ONLY)"
                },
                "schema": {
                    "type": "string",
                    "description": "(READ-ONLY)"
                }
            }
        },
        "type": "array"
    },
    "schema": {
        "type": "string"
    },
    "next": {
        "type": "string"
    },
    "first": {
        "type": "string"
    }
  }
}
```


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Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.2.3 Querying the Image Recipient Schema (Native OpenStack API)

Function

This API is used to query the image recipient schema, which allows you to view image recipient attributes and their data types.

URI

GET /v2/schemas/member

Request

Request parameters

None

Example Request

Querying the image recipient schema

```
GET https://{Endpoint}/v2/schemas/member
```

Response

- Response parameters

Parameter	Type	Description
name	String	Specifies the schema name.

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Parameter	Type	Description
properties	Object	Describes basic image attributes, including the type and usage of each attribute. For details about the parameters, see **Image Attributes**.

- Example response

```
STATUS CODE 200
{
   "name": "member",
   "properties": {
      "status": {
         "enum": [
            "pending",
            "accepted",
            "rejected"
         ],
         "type": "string",
         "description": "The status of this image member"
      },
      "created_at": {
         "type": "string",
         "description": "Date and time of image member creation"
      },
      "updated_at": {
         "type": "string",
         "description": "Date and time of last modification of image member"
      },
      "image_id": {
         "pattern": "^([0-9a-fA-F]){8}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F])
{12}$",
         "type": "string",
         "description": "An identifier for the image"
      },
      "member_id": {
         "type": "string",
         "description": "An identifier for the image member (tenantId)"
      },
      "schema": {
         "readOnly": true,
         "type": "string"
      }
   }
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.

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Returned Value	Description
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.2.4 Querying the Image Recipient List Schema (Native OpenStack API)

Function

This API is used to query the image recipient list schema, which allows you to view image recipient attributes and their data types.

URI

GET /v2/schemas/members

Request

Request parameters

None

Example Request

Querying the image recipient list schema

```
GET https://{Endpoint}/v2/schemas/members
```

Response

- Response parameters

Parameter	Type	Description
name	String	Specifies the schema name.
links	Array of objects	Specifies the URL for accessing the schema. For details, see **Table 6-15**.
properties	Object	Describes basic image attributes, including the type and usage of each attribute. For details about the parameters, see **Image Attributes**.

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Table 6-15 Data structure description of the links field

Parameter	Type	Description
href	String	Specifies the domain name.
rel	String	Specifies the domain name description.

- Example response

```
STATUS CODE 200
{
   "name": "members",
   "links": [
      {
         "href": "{schema}",
         "rel": "describedby"
      }
   ],
   "properties": {
      "members": {
         "items": {
            "name": "member",
            "properties": {
               "status": {
                  "enum": [
                     "pending",
                     "accepted",
                     "rejected"
                  ],
                  "type": "string",
                  "description": "The status of this image member"
               },
               "created_at": {
                  "type": "string",
                  "description": "Date and time of image member creation"
               },
               "updated_at": {
                  "type": "string",
                  "description": "Date and time of last modification of image member"
               },
               "image_id": {
                  "pattern": "^([0-9a-fA-F]){8}-([0-9a-fA-F]){4}-([0-9a-fA-F]){4}-([0-9a-fA-F])
{4}-([0-9a-fA-F]){12}$",
                  "type": "string",
                  "description": "An identifier for the image"
               },
               "member_id": {
                  "type": "string",
                  "description": "An identifier for the image member (tenantId)"
               },
               "schema": {
                  "readOnly": true,
                  "type": "string"
               }
            }
         },
         "type": "array"
      },
      "schema": {
         "type": "string"
      }
   }
}
```

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Returned Values

- Normal

  200
- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.3 Image Sharing (Native OpenStack APIs)

6.3.1 Adding Image Recipients (Native OpenStack API)

Function

This API is used to add a project ID of a tenant the image is to be shared with.

URI

POST /v2/images/{image_id}/members

Request

- Request parameters

Parameter	Mandatory	Type	Description
member	Yes	String	Specifies an image recipient. The value is the project ID of the tenant.

Example Request

Adding a tenant who can use the shared image (project ID: edc89b490d7d4392898e19b2deb34797)

```
POST https://{Endpoint}/v2/images/d164b5df-1bc3-4c3f-893e-3e471fd16e64/members
{
```

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```
    "member":"edc89b490d7d4392898e19b2deb34797"
}
```

Response

- Response parameters

Parameter	Type	Description
status	String	Specifies the image sharing status.
created_at	String	Specifies the time when a shared image was created. The value is in UTC format.
updated_at	String	Specifies the time when a shared image was updated. The value is in UTC format.
image_id	String	Specifies the image ID.
member_id	String	Specifies the project ID of the tenant who is to accept the shared image.
schema	String	Specifies the sharing schema.

- Example response

```
STATUS CODE 200
{
    "status": "pending",
    "created_at": "2016-09-01T02:05:14Z",
    "updated_at": "2016-09-01T02:05:14Z",
    "image_id": "d164b5df-1bc3-4c3f-893e-3e471fd16e64",
    "member_id": "edc89b490d7d4392898e19b2deb34797",
    "schema": "/v2/schemas/member"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

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6.3.2 Updating the Image Sharing Status of an Recipient (Native OpenStack API)

Function

This API is used to update the image sharing status when a tenant accepts or rejects a shared image.

URI

PUT /v2/images/{image_id}/members/{member_id}

Table 6-16 lists the parameters in the URI.

Table 6-16 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID.
member_id	Yes	String	Specifies the project ID of the tenant who is to accept or reject a shared image.

Request

- Request parameters

Parameter	Mandatory	Type	Description
status	Yes	String	Specifies whether a shared image will be accepted or declined. Available values include: • **accepted**: indicates that a shared image is accepted. After an image is accepted, the image is displayed in the image list. You can use the image to create ECSs. • **rejected**: indicates that a shared image is declined. After an image is rejected, the image is not displayed in the image list. However, you can still use the image to create ECSs.

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Parameter	Mandatory	Type	Description
vault_id	No	String	Specifies the vault ID. You can obtain the vault ID from the CBR console or section "Querying the Vault List" in *Cloud Backup and Recovery API Reference*.

Example Request

- Updating the image sharing status to **accepted**

```
PUT https://{Endpoint}/v2/images/d164b5df-1bc3-4c3f-893e-3e471fd16e64/members/
edc89b490d7d4392898e19b2deb34797
{
    "status": "accepted"
}
```

- Updating the sharing status of an image created from a CBR backup to **accepted** (vault ID: 6yhtb5df-1bc3-4c3f-893e-3e4716yhgt61)

```
PUT https://{Endpoint}/v2/images/d164b5df-1bc3-4c3f-893e-3e471fd16e64/members/
edc89b490d7d4392898e19b2deb34797
{
    "status": "accepted",
    "vault_id": "6yhtb5df-1bc3-4c3f-893e-3e4716yhgt61"
}
```

Response

- Response parameters

Parameter	Type	Description
status	String	Specifies the image sharing status.
created_at	String	Specifies the time when a shared image was created. The value is in UTC format.
updated_at	String	Specifies the time when a shared image was updated. The value is in UTC format.
image_id	String	Specifies the image ID.
member_id	String	Specifies the project ID of the tenant who is to accept or reject a shared image.
schema	String	Specifies the sharing schema.

- Example response

```
STATUS CODE 200
{
    "status": "accepted",
    "created_at": "2016-09-01T02:05:14Z",
    "updated_at": "2016-09-01T02:37:11Z",
    "image_id": "d164b5df-1bc3-4c3f-893e-3e471fd16e64",
    "member_id": "edc89b490d7d4392898e19b2deb34797",
    "schema": "/v2/schemas/member"
}
```

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Returned Values

- Normal

  200
- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.3.3 Querying Details About an Image Recipient (Native OpenStack API)

Function

This API is used to query details about a tenant with whom the image is shared.

URI

GET /v2/images/{image_id}/members/{member_id}

Table 6-17 lists the parameters in the URI.

Table 6-17 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID.
member_id	Yes	String	Specifies the recipient ID.

Request

Request parameters

None

Example Request

Querying details about an image recipient

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```
GET https://{Endpoint}/v2/images/d164b5df-1bc3-4c3f-893e-3e471fd16e64/members/
edc89b490d7d4392898e19b2deb34797
```

Response

- Response parameters

Parameter	Type	Description
status	String	Specifies the image sharing status. The value can be: • **accepted**: The shared image is accepted. After you accept an image, the image will be displayed in your image list. You can use the image to create cloud servers. • **rejected**: The shared image is rejected. After you reject an image, the image will disappear from your image list, but you can still use the image to create cloud servers.
created_at	String	Specifies the time when a shared image was created. The value is in UTC format.
updated_at	String	Specifies the time when a shared image was updated. The value is in UTC format.
image_id	String	Specifies the image ID.
member_id	String	Specifies the recipient ID.
schema	String	Specifies the sharing schema.

- Example response

```
STATUS CODE 200
{
   "status": "accepted",
   "created_at": "2016-09-01T02:05:14Z",
   "updated_at": "2016-09-01T02:37:11Z",
   "image_id": "d164b5df-1bc3-4c3f-893e-3e471fd16e64",
   "member_id": "edc89b490d7d4392898e19b2deb34797",
   "schema": "/v2/schemas/member"
}
```

Returned Values

- Normal

  200

- Abnormal

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Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.3.4 Querying Image Recipients (Native OpenStack API)

Function

This API is used to query the tenants with whom an image is shared using search criteria and to display the tenants in a list.

URI

GET /v2/images/{image_id}/members

Table 6-18 lists the parameters in the URI.

Table 6-18 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID.
limit	No	Integer	**Definition** Number of image recipients on each page. **Constraints** Positive integer **Range** [1,1000] **Default Value** 500

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Parameter	Mandatory	Type	Description
marker	No	String	**Definition** Marker for querying the next page. **Constraints** The value must be Base64-encoded. **Range** N/A **Default Value** N/A

Request

Request parameters

None

Example Request

Querying image recipients

```
GET https://{Endpoint}/v2/images/d164b5df-1bc3-4c3f-893e-3e471fd16e64/members
```

Response

- Response parameters

Parameter	Type	Description
members	Array of objects	Specifies the recipients. For details, see **Table 6-19**.
schema	String	Specifies the sharing schema.

Table 6-19 Data structure description of the members field

Parameter	Type	Description
status	String	Specifies the image sharing status.
created_at	String	Specifies the time when a shared image was created. The value is in UTC format.

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Parameter	Type	Description
updated_at	String	Specifies the time when a shared image was updated. The value is in UTC format.
image_id	String	Specifies the image ID.
member_id	String	Specifies the recipient ID.
schema	String	Specifies the sharing schema.

- Example response

```
STATUS CODE 200
{
   "members": [
      {
         "status": "accepted",
         "created_at": "2016-09-01T02:05:14Z",
         "updated_at": "2016-09-01T02:37:11Z",
         "image_id": "d164b5df-1bc3-4c3f-893e-3e471fd16e64",
         "member_id": "edc89b490d7d4392898e19b2deb34797",
         "schema": "/v2/schemas/member"
      }
   ],
   "schema": "/v2/schemas/members"
}
```

Returned Values

- Normal

  200

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

6.3.5 Deleting an Image Recipient (Native OpenStack API)

Function

This API is used to stop image sharing by deleting the tenant with whom the image is shared.

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URI

DELETE /v2/images/{image_id}/members/{member_id}

Table 6-20 lists the parameters in the URI.

Table 6-20 Parameter description

Parameter	Mandatory	Type	Description
image_id	Yes	String	Specifies the image ID.
member_id	Yes	String	Specifies the recipient ID.

Request

Request parameters

None

Example Request

Deleting an image recipient

```
DELETE https://{Endpoint}/v2/images/d164b5df-1bc3-4c3f-893e-3e471fd16e64/members/
edc89b490d7d4392898e19b2deb34797
```

Response

- Response parameters

  None
- Example response

  ```
  204 No Content
  ```

Returned Values

- Normal

  204
- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

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6.4 API Version Query (Native OpenStack API)

6.4.1 Querying API Versions (Native OpenStack API)

Function

This API is used to query API versions, such as version compatibility and domain name information of APIs.

URI

GET /

Request

- Request parameters

  None

Example Request

Querying API versions

```
GET https://{Endpoint}/
```

Response

- Response parameters

Parameter	Type	Description
versions	Array of objects	Specifies the versions. For details, see **Table 6-21**.

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Table 6-21 Data structure description of the versions field

Parameter	Type	Description
status	String	Specifies the API status. The value can be: • **CURRENT**: This is the preferred API version. • **SUPPORTED**: This is an old but still available API version. • **DEPRECATED**: This is a deprecated API version that will be removed.
id	String	Specifies the API ID.
links	Array of objects	Specifies the description. For details, see **Table 6-22**.

Table 6-22 Data structure description of the versions.links field

Parameter	Type	Description
href	String	Specifies the domain name.
rel	String	Specifies the domain name description.

- Example response

```
STATUS CODE 300
{
   "versions": [
      {
         "status": "CURRENT",
         "id": "v2.2",
         "links": [
            {
               "href": "https://image.az1.dc1.domainname.com/v2/",
               "rel": "self"
            }
         ]
      },
      {
         "status": "SUPPORTED",
         "id": "v2.1",
         "links": [
            {
               "href": "https://image.az1.dc1.domainname.com/v2/",
```

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```
                "rel": "self"
            }
        ]
    },
    {
        "status": "SUPPORTED",
        "id": "v2.0",
        "links": [
            {
                "href": "https://image.az1.dc1.domainname.com/v2/",
                "rel": "self"
            }
        ]
    },
    {
        "status": "DEPRECATED",
        "id": "v1.1",
        "links": [
            {
                "href": "https://image.az1.dc1.domainname.com/v1/",
                "rel": "self"
            }
        ]
    },
    {
        "status": "DEPRECATED",
        "id": "v1.0",
        "links": [
            {
                "href": "https://image.az1.dc1.domainname.com/v1/",
                "rel": "self"
            }
        ]
    }
  ]
}
```


Returned Values

- Normal

  300

- Abnormal

Returned Value	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

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6.4.2 Querying an API Version (Native OpenStack API)

Function

This API is used to query a specified API version, such as version compatibility and domain name information of an API.

URI

GET /{version}

Table 6-23 lists the parameters in the URI.

Table 6-23 Parameter description

Parameter	Mandatory	Type	Description
version	Yes	String	Specifies the API version, for example v2.0.

Request

Request parameters

None

Example Request

Querying an API version

```
GET https://{Endpoint}/v2.0
```

Response

- Response parameters

Parameter	Type	Description
versions	Array of objects	Specifies the version. For details, see Table 6-24.

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Table 6-24 Data structure description of the versions field

Parameter	Type	Description
status	String	Specifies the API status. The value can be: • **CURRENT**: This is the preferred API version. • **SUPPORTED**: This is an old but still available API version. • **DEPRECATED**: This is a deprecated API version that will be removed.
id	String	Specifies the API ID.
links	Array of objects	Specifies the description. For details, see **Table 6-25**.

Table 6-25 Data structure description of the versions.links field

Parameter	Type	Description
href	String	Specifies the domain name.
rel	String	Specifies the domain name description.

- Example response

```
STATUS CODE 300
{
   "versions": [
      {
         "status": "SUPPORTED",
         "id": "v2.0",
         "links": [
            {
               "href": "https://image.az1.dc1.domainname.com/v2/",
               "rel": "self"
            }
         ]
      }
   ]
}
```

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Returned Values

- Normal

  300

- Abnormal

Returned Values	Description
400 Bad Request	Request error.
401 Unauthorized	Authentication failed.
403 Forbidden	You do not have the rights to perform the operation.
404 Not Found	The requested resource was not found.
500 Internal Server Error	Internal service error.
503 Service Unavailable	The service is unavailable.

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7 Examples

7.1 Creating an Image from an ISO File

Scenarios

An ISO file is a disk image of an optical disc. A large number of data files can be compressed into a single ISO file. Likewise, to access the files stored in an ISO, the ISO file needs to be decompressed. For example, you can use a virtual CD-ROM to open an ISO file, or burn the ISO file to a CD or DVD and then use the CD-ROM to read the image.

This section describes how to use APIs to create a private image from an ISO file.

Involved APIs

If you use a token for authentication, you must obtain the token and add **X-Auth-Token** to the request header of the IMS API when making an API call.

- IAM API used to obtain the token

  URI format: POST https://*IAM endpoint*/v3/auth/tokens
- IMS API used to create a private image using an image file uploaded to the OBS bucket

  URI format: POST https://*IMS endpoint*/v2/cloudimages/action
- ECS API used to create an ECS

  URI format: POST https://*ECS endpoint*/v1/*project_id*/cloudservers
- IMS API used to create a system disk image from a data disk

  URI format: POST https://*IMS endpoint*/v2/cloudimages/action

Procedure

1. Obtain the token by referring to **Authentication**.
2. Create a private image using an ISO image file uploaded to the OBS bucket.
   a. Send **POST https://*IMS endpoint*/v2/cloudimages/action**.

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b. Add **X-Auth-Token** to the request header.

c. Set the following parameters in the request body:

For details about the parameters, see **Creating an Image**.

```
{
   "name": "ims_test_file",  //Image name (mandatory, string)
   "description": "Image creation using an image file uploaded to the OBS bucket",  //Image description (optional, string)
   "image_url": "ims-image:centos70.iso",  //Image file address in an OBS bucket (mandatory, string)
   "os_type": "Linux", //OS type (optional, string)
   "os_version": "CentOS 7.0 64bit",  //OS version (mandatory, string)
   "type": "IsoImage", //Image type (mandatory, string)
   "min_disk": 40,  //Minimum system disk space (mandatory, integer)
   "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]  //Image tags (optional, array of objects)
}
```

d. Obtain the image ID by querying job details based on the returned **job_id**. For details, see **Querying the Status of an Asynchronous Job**.

3. Create a temporary ECS from the ISO image.

NOTE

- You can select only a general-computing flavor with 2 vCPUs, 4 GB or more memory, and KVM virtualization type.
- You need to create a system disk and a data disk for the ECS. The OS will be installed on the data disk by default.

a. Send **POST https://***ECS endpoint***/v1/***project_id***/cloudservers**.

b. Add **X-Auth-Token** to the request header.

c. Set the following parameters in the request body:

The following parameters are all mandatory. For details about the parameters, see "Creating an ECS" in *Elastic Cloud Server API Reference*.

```
{
   "server": {
      "imageRef": "fac42d61-ea1e-4271-94ba-6543a852d2c6", //Image ID
      "flavorRef": "rc6.large.2_manage",
      "name": "instance-test",
      "vpcid": "18ec99f0-7159-4d7b-ad27-f32315d5af61",
      "nics": [{
         "subnet_id": "81a4ecb0-0451-4c60-8373-8b923238ec40"
      }],
      "root_volume": {
         "volumetype": "SATA",
         "size": "40"
      },
      "data_volumes": [{
         "volumetype": "SATA",
         "size": "40"
      }],
      "availability_zone": "az-1a",
      "metadata": {
         "virtual_env_type": "IsoImage"
      },
      "extendparam": {
         "diskPrior": "true"
      }
   }
}
```

d. Obtain the ECS ID by querying job details based on the returned **job_id**. For details, see "Querying Task Execution Status" in *Elastic Cloud Server API Reference*.

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e. Query ECS details based on the ECS ID to obtain the data disk ID (**volume_id**) required in **4**. For details, see "Querying Details About an ECS" in *Elastic Cloud Server API Reference*.

4. Use the temporary ECS to create a standard private image.

a. Send **POST https://***IMS endpoint***/v2/cloudimages/action**.

b. Add **X-Auth-Token** to the request header.

c. Set the following parameters in the request body:

For details about the parameters, see **Creating an Image**.

```
{
   "name": "ims_test",  //Image name (a mandatory string)
   "description": "Creating a system disk image from a data disk", //Image description (optional, string)
   "volume_id": "877a2cda-ba63-4e1e-b95f-e67e48b6129a", //Data disk ID (mandatory, string)
   "type": "ECS", //Image type (mandatory, string)
   "os_version": "CentOS 7.0 64bit",  //OS version (mandatory, string)
   "image_tags": [{"key":"key2","value":"value2"},{"key":"key1","value":"value1"}]  //Image tags (optional, array of objects)
}
```

d. Obtain the image ID by querying job details based on the returned **job_id**. For details, see **Querying the Status of an Asynchronous Job**.

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8 Permissions and Supported Actions

8.1 Introduction

This section describes fine-grained permissions management for your IMS. If your account does not need individual IAM users, you may skip over this section.

By default, new IAM users do not have any permissions assigned. You need to add a user to one or more groups, and assign policies or roles to these groups. The user then inherits permissions from the groups it is a member of. This process is called authorization. After authorization, the user can perform specified operations on cloud services based on the permissions.

You can grant user permissions by using roles and policies.

- Roles: A type of coarse-grained authorization mechanism that defines permissions related to user responsibilities. This mechanism provides only a limited number of service-level roles for authorization.
- Policies: A type of fine-grained authorization mechanism that defines permissions required to perform operations on specific cloud resources under certain conditions. This mechanism allows for API-level policies for authorization, meeting requirements for secure access control.

NOTE

Policy-based authorization is useful if you want to allow or deny the access to an API.

An account has all of the permissions required to call all APIs, but IAM users must have the required permissions specifically assigned. The permissions required for calling an API are determined by the actions supported by the API. Only users who have been granted permissions allowing the actions can call the API successfully. For example, if an IAM user queries images using an API, the user must have been granted permissions that allow the **ims:images:list** action.

Supported Actions

IMS provides system-defined policies. You can also create custom policies for more specific access control. The following are related concepts:

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- Permissions: Allow or deny certain operations.
- APIs: APIs that will be called for performing certain operations.
- Actions: Operations that will be allowed or denied.
- Dependent actions: When assigning permissions for an action, you also need to assign permissions for the dependent actions.
- IAM projects or enterprise projects: Applicable scope of custom policies. For example, if an action supports both IAM and enterprise projects, the policy that contains this action will take effect for user groups assigned in IAM and Enterprise Management. If an action supports only IAM projects, the policy will take effect only for user groups assigned in IAM.

NOTE

√: supported; x: not supported

IMS supports the following actions that can be defined in custom policies:

- **Image Management**, including actions supported by IMS's image management APIs, such as the APIs for querying images, updating image information, creating images, registering images, and exporting images.
- **Image Schema**, including actions supported by IMS's image schema management APIs, such as the APIs for querying an image schema, querying an image list schema, querying the image recipient schema, and query an image recipient list schema.
- **Image Sharing**, including actions supported by IMS's shared image APIs, such as the APIs for adding image recipients, updating the image sharing status of image recipients, querying details about an image recipient, and deleting image recipients.
- **Image Replication**, including actions supported by IMS's image replication APIs, such as the API for replicating an image within a region.
- **Image Quota**, including actions supported by IMS's image quota APIs, such as the API for querying image quotas.

NOTE

Error messages returned for native OpenStack APIs are in XML format. JSON format of the fine-grained policy is not supported.

8.2 Image Management

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying Images	GET /v2/cloudimages	ims:images:list	-	√	√
Querying Supported Image OSs	GET /v1/cloudimages/os_version	ims:images:list	-	√	×

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Updating Image Information	PATCH /v2/cloudimages/{image_id}	• ims:images:update • ims:serverImages:create (only for migration to enterprise projects)	• ims:serverImages:create (only for migration to enterprise projects) obs:bucket:* obs:object:* kms:*:* ecs:cloudServers:get ecs:servers:get ecs:serverVolumes:use ecs:cloudServers:list ecs:serverVolumeAttachments:list ecs:servers:list evs:volumes:* bms:servers:list bms:servers:get bms:serverFlavors:get	√	√

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Creating an Image	POST /v2/cloudimages/action **NOTE** If you use an external image file to create an image, you must have Tenant Administrator permissions for OBS.	ims:serverImages:create	obs:bucket:* obs:object:* kms:*:* ecs:cloudServers:get ecs:servers:get ecs:serverVolumes:use ecs:cloudServers:list ecs:serverVolumeAttachments:list ecs:servers:list evs:volumes:* bms:servers:list bms:servers:get bms:serverFlavors:get	√	√

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Importing an Image File Quickly	POST /v2/cloudimages/quickimport/action **NOTE** You must have Tenant Administrator permissions for OBS.	• ims:serverImages:create (required only for quickly importing system disk images) • ims:dataImages:create (required only for quickly importing data disk images)	• ims:serverImages:create (required only for quickly importing system disk images) obs:bucket:* obs:object:* kms:*:* ecs:cloudServers:get ecs:servers:get ecs:serverVolumes:use ecs:cloudServers:list ecs:serverVolumeAttachments:list ecs:servers:list evs:volumes:* bms:servers:list bms:servers:get bms:serverFlavors:get • ims:dataImages:cr	√	√

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
			eate (required only for quickly importing data disk images) obs:bucket:* obs:object:* kms:*:* ecs:cloudServers:get ecs:servers:get ecs:serverVolumes:use ecs:cloudServers:list ecs:serverVolumeAttachments:list ecs:servers:list evs:volumes:*		

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Creating a Data Disk Image Using an External Image File	POST /v1/cloudimages/dataimages/action **NOTE** You must have Tenant Administrator permissions for OBS.	ims:dataImages:create	obs:bucket:* obs:object:* kms:*:* ecs:cloudServers:get ecs:servers:get ecs:serverVolumes:use ecs:cloudServers:list ecs:serverVolumeAttachments:list ecs:servers:list evs:volumes:*	√	√
Creating a Full-ECS Image	POST /v1/cloudimages/wholeimages/action **NOTE** You must have Admin permissions for CBR.	ims:wholeImages:create	obs:bucket:* obs:object:* kms:*:* cbr:*:* CSBS:backup:* ecs:cloudServers:get ecs:servers:get ecs:serverVolumes:use ecs:cloudServers:list ecs:serverVolumeAttachments:list ecs:servers:list evs:volumes:*	√	√

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Registering an Image	PUT /v1/cloudimages/{image_id}/upload **NOTE** You must have Tenant Administrator permissions for OBS.	ims:images:upload	ims:images:get ims:images:update obs:bucket:* obs:object:* kms:*:*	√	√
Exporting an Image	POST /v1/cloudimages/{image_id}/file **NOTE** You must have Tenant Administrator permissions for OBS.	ims:images:export	obs:bucket:* obs:object:* kms:*:*	√	√
Querying Images (Native OpenStack API)	GET /v2/images	ims:images:list	-	√	x
Querying Image Details (Native OpenStack API)	GET /v2/images/{image_id}	ims:images:get	-	√	√
Updating Image Information (Native OpenStack API)	PATCH /v2/images/{image_id}	ims:images:update	-	√	√
Deleting an Image (Native OpenStack API)	DELETE /v2/images/{image_id}	ims:images:delete	-	√	√

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Creating Image Metadata (Native OpenStack API)	POST /v2/images	ims:images:create	-	√	x
Uploading an Image (Native OpenStack API)	PUT /v2/images/{image_id}/file	• ims:images:get • ims:images:update • ims:images:upload	• ims:images:upload obs:bucket:* obs:object:* kms:*:*	√	x
Querying the API Version (Native OpenStack API)	GET /	N/A	-	√	x
Querying Image Details (Native OpenStack API V1.1, Deprecated)	GET /v1.1/images/detail	ims:images:list	-	√	x
Querying Image Metadata (Native OpenStack API V1, Deprecated)	HEAD /v1/images/{image_id}	ims:images:get	-	√	x

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Deleting an Image (Native OpenStack API V1.1, Deprecated)	DELETE /v1.1/images/{image_id}	ims:images:delete	-	√	x

8.3 Image Schema

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying an Image Schema (Native OpenStack API)	GET /v2/schemas/image	N/A	-	√	x
Querying an Image List Schema (Native OpenStack API)	GET /v2/schemas/images	N/A	-	√	x
Querying an Image Sharing Member Schema (Native OpenStack API)	GET /v2/schemas/member	N/A	-	√	x

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying an Image Sharing Member List Schema (Native OpenStack API)	GET /v2/schemas/members	N/A	-	√	x

8.4 Image Sharing

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Adding Image Recipients (Native OpenStack API)	POST /v2/images/{image_id}/members	• ims:images:get • ims:images:share	-	√	x
Updating the Image Sharing Status of Recipients (Native OpenStack API)	PUT /v2/images/{image_id}/members/{member_id}	• ims:images:get • ims:images:share	-	√	x
Querying Details About an Image Recipient (Native OpenStack API)	GET /v2/images/{image_id}/members/{member_id}	• ims:images:get • ims:images:share	-	√	x

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying Image Recipients (Native OpenStack API)	GET /v2/images/{image_id}/members	• ims:images:get • ims:images:share	-	√	x
Deleting an Image Recipient (Native OpenStack API)	DELETE /v2/images/{image_id}/members/{member_id}	• ims:images:get • ims:images:share	-	√	x
Adding Image Recipients	POST /v1/cloudimages/members	ims:images:share	-	√	x
Updating the Image Sharing Status of Recipients	PUT /v1/cloudimages/members	ims:images:share	-	√	x
Deleting Image Recipients	DELETE /v1/cloudimages/members	ims:images:share	-	√	x

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8.5 Image Replication

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Replicating an Image Within a Region	POST /v1/cloudimages/{image_id}/copy	• ims:images:copy • ims:serverImages:create (required only for users who have enabled enterprise projects)	• ims:images:copy ims:serverImages:create obs:bucket:* obs:object:* kms:*:* • ims:serverImages:create (required only for users who have enabled enterprise projects) obs:bucket:* obs:object:* kms:*:* ecs:cloudServers:get ecs:servers:get ecs:serverVolumes:use ecs:cloudServers:list ecs:serverVolumeAttachments:list ecs:servers:list	√	√

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
			evs:volumes:* bms:servers:list bms:servers:get bms:serverFlavors:get		
Replicating an Image Across Regions	POST /v1/cloudimages/{image_id}/cross_region_copy	ims:images:copy	ims:serverImages:create obs:bucket:* obs:object:* kms:*:*	√	x

8.6 Image Quota

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying the Image Quota	GET /v1/cloudimages/quota	ims:quotas:get	-	√	√

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9 Common Parameters

9.1 Image Attributes

Description

An image is a template containing mandatory software, such as an OS. It may also contain application software, such as a database, and proprietary software. Image is the core object of IMS.

Image Attributes

Name	Type	Description
file	String	Specifies the URL for uploading and downloading the image file.
owner	String	Specifies the tenant to which the image belongs.
id	String	Specifies the image ID.
size	Long	This parameter is unavailable currently.
self	String	Specifies the image URL.
schema	String	Specifies the image schema.

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Name	Type	Description
status	String	Specifies the image status. The value can be: • **queued**: The image metadata has already been created, and it is ready to upload the image file. • **saving**: The image file is being uploaded to the backend storage. • **deleted**: The image has been deleted. • **killed**: An error occurs on the image uploading. • **active**: The image is available for use.
tags	Array of strings	Lists the image tags.
visibility	String	Specifies whether the image can be seen by other tenants. The value can be **private**, **public**, or **shared**.
name	String	Specifies the image name. • The name cannot start or end with a space. • The name contains 1 to 128 characters. • The name contains the following characters: – Uppercase letters – Lowercase letters – Digits – Special characters, including hyphens (-), periods (.), underscores (_), and space
checksum	String	This parameter is unavailable currently.
deleted	Boolean	Specifies whether the image has been deleted. The value can be **true** or **false**.
protected	Boolean	Specifies whether the image is protected. A protected image cannot be deleted. The value can be **true** or **false**.
container_format	String	Specifies the container type.
min_ram	Integer	Specifies the minimum memory size (MB) required for running the image. The parameter value depends on the ECS specifications. The default value is **0**.

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Name	Type	Description
update_at	String	Specifies the time when the image was updated.
__os_bit	String	Specifies the OS architecture, 32 bit or 64 bit.
__os_version	String	Specifies the OS version.
__description	String	Provides supplementary information about the image. The value contains a maximum of 1,024 characters, including letters and digits. Carriage returns and angle brackets (< >) are not allowed.
disk_format	String	Specifies the image format. The value can be **zvhd2**, **vhd**, **zvhd**, **raw**, **iso**, or **qcow2**. The default value is **zvhd2** for a non-ISO image.
__isregistered	String	Specifies whether the image has been registered. The value can be **true** or **false**.
__platform	String	Specifies the image platform type. The value can be **Windows**, **Ubuntu**, **Red Hat**, **SUSE**, **CentOS**, **Debian**, **OpenSUSE**, **Oracle Linux**, **Fedora**, **Other**, **CoreOS**, or **EulerOS**.
__os_type	String	Specifies the OS type. The value can be **Linux**, **Windows**, or **Other**.
min_disk	Integer	Specifies the minimum disk space (GB) required for running the image.
max_ram	Integer	Specifies the maximum disk space (GB) for running the image.
virtual_env_type	String	Specifies the environment where the image is used. The value can be **FusionCompute**, **Ironic**, **DataImage**, or **IsoImage**. ● For an ECS image (system disk image), the value is **FusionCompute**. ● For a data disk image, the value is **DataImage**. ● For a BMS image, the value is **Ironic**. ● For an ISO image, the value is **IsoImage**.
__image_source_type	String	Specifies the image backend storage type. Only UDS is supported currently.

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Name	Type	Description
__imagetype	String	Specifies the image type. The following types are supported: • Public image: The value is **gold**. • Private image: The value is **private**. • Shared image: The value is **shared**.
__whole_image	Boolean	Specifies whether the image is a full-ECS image. The value can be **true** or **false**.
create_at	String	Specifies the time when the image was created.
virtual_size	Integer	This parameter is unavailable currently.
deleted_at	String	Specifies the time when the image was deleted.
__originalimagename	String	Specifies the parent image ID. If the image is a public image or created from an image file, this value is left empty.
__backup_id	String	Specifies the backup ID. To create an image using a backup, set the value to the backup ID. Otherwise, this value is left empty.
__image_location	String	Specifies the location where the image is stored.
__image_size	String	Specifies the size (bytes) of the image file.
__data_origin	String	Specifies the image source. If the image is a public image, this parameter is left empty.
hw_firmware_type	String	Specifies the ECS boot mode. The value can be: • **bios** indicates the BIOS boot mode. • **uefi** indicates the UEFI boot mode.
__support_kvm	String	Specifies whether the image supports KVM. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_xen	String	Specifies whether the image supports Xen. If yes, the value is **true**. Otherwise, this parameter is not required.
__support_amd	String	Specifies whether the image uses AMD's x86 architecture. The value can be **true** or **false**.

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Name	Type	Description
__support_largememory	String	Specifies whether the image supports large-memory ECSs. If the image supports large-memory ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_diskintensive	String	Specifies whether the image supports disk-intensive ECSs. If the image supports disk-intensive ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_highperformance	String	Specifies whether the image supports high-performance ECSs. If the image supports high-performance ECSs, the value is **true**. Otherwise, this parameter is not required.
__support_xen_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the Xen platform. For the supported OSs, see **Table 9-2**. If the image does not support GPU-accelerated ECSs on the Xen platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_gpu_type	String	Specifies whether the image supports GPU-accelerated ECSs on the KVM platform. See **Table 9-3** for its value. If the image does not support GPU-accelerated ECSs on the KVM platform, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_xen_hana	String	Specifies whether the image supports HANA ECSs on the Xen platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen** and **__support_kvm**.
__support_kvm_infiniband	String	Specifies whether the image supports ECSs with InfiniBand NICs on the KVM platform. If yes, the value is **true**. Otherwise, this parameter is not required. This attribute cannot co-exist with **__support_xen**.
__support_fc_inject	String	Specifies whether the image supports password/private key injection using Cloud-Init. If the value is set to **true**, the injection is not supported. Otherwise, it is supported.

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Name	Type	Description
__is_config_init	String	Specifies whether initial configuration is complete. The value can be **true** or **false**. If initial configuration is complete, the value is set to **true**. Otherwise, the value is set to **false**. The default value is **false**.
__support_kvm_hi1822_hisriov	String	Specifies whether SR-IOV is supported. If it is, the value is **true**. Otherwise, this parameter is not required.
__support_kvm_hi1822_hivirtionet	String	Specifies whether Virtio-Net is supported. If it is, the value is **true**. Otherwise, this parameter is not required.

9.2 Image Tag Format

Description

You can attach a custom tag to a private image to facilitate private image management.

Format

Format of **tag**

- The format is *key.value*. If a key is added, a tag is added. In other cases, the tag is updated.
- If a tag contains multiple decimal points, the content before the first decimal point is the key, and that after the first decimal point is the value. If a tag contains no decimal point, the value is regarded as an empty string.
- The tag key can contain a maximum of 36 characters, and the tag value can contain a maximum of 43 characters. The tag value can be an empty character string.
- The tag key can only consist of digits, letters, underscores (_), and hyphens (-).
- The tag key must be unique and cannot be empty.
- The tag value can only consist of digits, letters, underscores (_), periods (.), and hyphens (-).

Format of **image_tags**

- The format is *{"key":"keyA", "value":"valueA"}*. If a key already exists when you add it, the tag will be updated.
- The tag key can contain a maximum of 36 characters, and the tag value can contain a maximum of 43 characters. The tag value can be an empty character string.
- The tag key can only consist of digits, letters, underscores (_), and hyphens (-).

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- The tag key must be unique and cannot be empty.
- The tag value can only consist of digits, letters, underscores (_), periods (.), and hyphens (-).

Format (Native OpenStack)

Format of **tag**

- The format is *key*. If a key is added, a tag is added. In other cases, the tag is updated.
- The tag key can contain a maximum of 255 characters.
- The character string cannot contain equal signs (=).

9.3 Restrictions on Image Sharing

Description

You can use the image sharing function to share your private images with other users.

Constraints

- Images can only be shared within a region.
- A system disk image or data disk image can be shared with a maximum of 128 tenants, and a full-ECS image can be shared with a maximum of 10 tenants.
- You can stop sharing images anytime without notifying the recipients.
- An image shared with a domain or an OU cannot be deleted. Other shared images can be deleted anytime without notifying the recipients.
- An image encrypted using the default key cannot be shared with other users.
- Only full-ECS images created from CBR backups can be shared. Full-ECS images created using other methods cannot be shared.

9.4 Obtaining a Project ID

Scenarios

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

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

Obtain the Project ID by Calling an API

You can obtain the project ID by calling the IAM API used to query project information based on the specified criteria.

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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 d Endpoints**. For details about API authentication, see **Authentication**.

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

```
{
    "projects": [
        {
            "domain_id": "65ewtrgaggshhk1223245sghjlse684b",
            "is_domain": false,
            "parent_id": "65ewtrgaggshhk1223245sghjlse684b",
            "name": "project_name",
            "description": "",
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4adasfjljaaaakla12334jklga9sasfg"
            },
            "id": "a4adasfjljaaaakla12334jklga9sasfg",
            "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 **My Credentials** page, view the project ID (value in the **Project ID** column).

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9.5 Values of Related Parameters

__os_version Values

Table 9-1 __os_version values

OS Type	OS Version (__os_version)
Windows	Windows Server 2019 Standard 64bit Windows Server 2019 Datacenter 64bit Windows Server 2016 Standard 64bit Windows Server 2016 Datacenter 64bit Windows Server 2012 R2 Standard 64bit Windows Server 2012 Essentials R2 64bit Windows Server 2012 R2 Datacenter 64bit Windows Server 2012 Datacenter 64bit Windows Server 2012 Standard 64bit Windows 10 64bit Windows Server 2008 R2 WEB 64bit Windows Server 2008 R2 Standard 64bit Windows Server 2008 R2 Enterprise 64bit Windows Server 2008 R2 Datacenter 64bit
SUSE	SUSE Linux Enterprise Server 15 SP1 64bit SUSE Linux Enterprise Server 15 64bit SUSE Linux Enterprise Server 12 SP5 64bit SUSE Linux Enterprise Server 12 SP4 64bit SUSE Linux Enterprise Server 12 SP3 64bit SUSE Linux Enterprise Server 12 SP2 64bit SUSE Linux Enterprise Server 12 SP1 64bit SUSE Linux Enterprise Server 11 SP4 64bit SUSE Linux Enterprise Server 11 SP3 64bit SUSE Linux Enterprise Server 11 SP3 32bit

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OS Type	OS Version (__os_version)
Oracle Linux	Oracle Linux Server release 7.6 64bit Oracle Linux Server release 7.5 64bit Oracle Linux Server release 7.4 64bit Oracle Linux Server release 7.3 64bit Oracle Linux Server release 7.2 64bit Oracle Linux Server release 7.1 64bit Oracle Linux Server release 7.0 64bit Oracle Linux Server release 6.10 64bit Oracle Linux Server release 6.9 64bit Oracle Linux Server release 6.8 64bit Oracle Linux Server release 6.7 64bit Oracle Linux Server release 6.5 64bit
Red Hat	Red Hat Linux Enterprise 8.0 64bit Red Hat Linux Enterprise 7.6 64bit Red Hat Linux Enterprise 7.5 64bit Red Hat Linux Enterprise 7.4 64bit Red Hat Linux Enterprise 7.3 64bit Red Hat Linux Enterprise 7.2 64bit Red Hat Linux Enterprise 7.1 64bit Red Hat Linux Enterprise 7.0 64bit Red Hat Linux Enterprise 6.10 64bit Red Hat Linux Enterprise 6.9 64bit Red Hat Linux Enterprise 6.8 64bit Red Hat Linux Enterprise 6.7 64bit Red Hat Linux Enterprise 6.6 64bit Red Hat Linux Enterprise 6.6 32bit Red Hat Linux Enterprise 6.5 64bit Red Hat Linux Enterprise 6.4 64bit Red Hat Linux Enterprise 6.4 32bit

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OS Type	OS Version (__os_version)
Ubuntu	Ubuntu 19.04 server 64bit Ubuntu 18.04.2 server 64bit Ubuntu 18.04.1 server 64bit Ubuntu 18.04 server 64bit Ubuntu 16.04.6 server 64bit Ubuntu 16.04.5 server 64bit Ubuntu 16.04.4 server 64bit Ubuntu 16.04.3 server 64bit Ubuntu 16.04.2 server 64bit Ubuntu 16.04 server 64bit Ubuntu 14.04.5 server 64bit Ubuntu 14.04.4 server 64bit Ubuntu 14.04.4 server 32bit Ubuntu 14.04.3 server 64bit Ubuntu 14.04.3 server 32bit Ubuntu 14.04.1 server 64bit Ubuntu 14.04.1 server 32bit Ubuntu 14.04 server 64bit Ubuntu 14.04 server 32bit
openSUSE	openSUSE 13.2 64bit openSUSE 11.3 64bit openSUSE 42.3 64bit openSUSE 42.2 64bit openSUSE 42.1 64bit

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OS Type	OS Version (__os_version)
CentOS	CentOS 8.0 64bit CentOS 7.7 64bit CentOS 7.6 64bit CentOS 7.5 64bit CentOS 7.4 64bit CentOS 7.3 64bit CentOS 7.2 64bit CentOS 7.1 64bit CentOS 7.0 64bit CentOS 7.0 32bit CentOS 6.10 64bit CentOS 6.10 32bit CentOS 6.9 64bit CentOS 6.8 64bit CentOS 6.7 64bit CentOS 6.7 32bit CentOS 6.6 64bit CentOS 6.6 32bit CentOS 6.5 64bit CentOS 6.5 32bit CentOS 6.4 64bit CentOS 6.4 32bit CentOS 6.3 64bit CentOS 6.3 32bit
Debian	Debian GNU/Linux 10.0.0 64bit Debian GNU/Linux 9.3.0 64bit Debian GNU/Linux 9.0.0 64bit Debian GNU/Linux 8.10.0 64bit Debian GNU/Linux 8.8.0 64bit Debian GNU/Linux 8.7.0 64bit Debian GNU/Linux 8.6.0 64bit Debian GNU/Linux 8.5.0 64bit Debian GNU/Linux 8.4.0 64bit Debian GNU/Linux 8.2.0 64bit Debian GNU/Linux 8.1.0 64bit

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OS Type	OS Version (__os_version)
Fedora	Fedora 30 64bit Fedora 29 64bit Fedora 28 64bit Fedora 27 64bit Fedora 26 64bit Fedora 25 64bit Fedora 24 64bit Fedora 23 64bit Fedora 22 64bit
EulerOS	EulerOS 2.9 64bit EulerOS 2.5 64bit EulerOS 2.3 64bit EulerOS 2.2 64bit EulerOS 2.1 64bit
openEuler	openEuler 20.03 64bit
NeoKylin	NeoKylin 7.4 64bit NeoKylin Server release 5.0 U2 64bit NeoKylin Linux Advanced Server release 7.0 U5 64bit

__support_xen_gpu_type Values

Table 9-2 Supported GPU types

Supported GPU (__support_xen_gpu_type)	Description
M60_vGPU	The image has a hardware virtualization drive with the M60 video card installed and supports **g1.xlarge** and **g1.2xlarge** ECSs.

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__support_kvm_gpu_type Values

Table 9-3 Supported GPU types

Supported GPU (__support_kvm_gpu_type)	Description
M60	The image has a hardware virtualization drive with the M60 video card installed and supports **g1.xlarge**, **g1.2xlarge**, and **g3.4xlarge.4** ECSs.
V100_vGPU	The image has a hardware virtualization drive with the V100 video card installed and supports **g5.8xlarge.4** ECSs.
P2V_V100	The image has a hardware virtualization drive with the V100 video card installed and supports **p2v.2xlarge.8** ECSs.
P100	The image has a hardware virtualization drive with the P100 video card installed and supports **p1.2xlarge.8** and **p1.4xlarge.8** ECSs.
V100	The image has a hardware virtualization drive with the V100 video card installed and supports **p2.2xlarge.8** and **p2.4xlarge.8** ECSs.

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Special Images and Supported OSs

Table 9-4 Special image types and supported OSs

Image Type	Supported OS
Large-memory	CentOS 6.6 64bit CentOS 6.7 64bit CentOS 6.8 64bit CentOS 7.1 64bit CentOS 7.2 64bit CentOS 7.3 64bit SUSE Enterprise Linux Server 11 SP3 64bit SUSE Enterprise Linux Server 11 SP4 64bit SUSE Enterprise Linux Server 12 SP1 64bit SUSE Enterprise Linux Server 12 SP2 64bit Red Hat Linux Enterprise 6.8 64bit Red Hat Linux Enterprise 7.3 64bit
GPU-accelerated (G1)	Windows Server 2008 R2 Enterprise SP1 64bit Windows Server 2012 R2 Standard 64bit Windows Server 2016 Datacenter 64bit
GPU-accelerated (G2)	Windows Server 2008 R2 Enterprise SP1 64bit Windows Server 2012 R2 Standard 64bit
Disk-intensive	CentOS 7.2 64bit CentOS 7.3 64bit CentOS 6.8 64bit SUSE Enterprise Linux Server 11 SP3 64bit SUSE Enterprise Linux Server 11 SP4 64bit SUSE Enterprise Linux Server 12 SP1 64bit SUSE Enterprise Linux Server 12 SP2 64bit Red Hat Linux Enterprise 6.8 64bit Red Hat Linux Enterprise 7.3 64bit

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Image Type	Supported OS
High-performance	CentOS 6.8 64bit CentOS 7.2 64bit CentOS 7.3 64bit Windows Server 2008 Windows Server 2012 Windows Server 2016 SUSE Enterprise Linux Server 11 SP3 64bit SUSE Enterprise Linux Server 11 SP4 64bit SUSE Enterprise Linux Server 12 SP1 64bit SUSE Enterprise Linux Server 12 SP2 64bit Red Hat Linux Enterprise 6.8 64bit Red Hat Linux Enterprise 7.3 64bit

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A Status Codes

- Normal

Returned Value	Description
200 OK	The results of GET and PUT operations are returned as expected.
201 Created	The results of the POST operation are returned as expected.
202 Accepted	The request has been accepted for processing.
204 No Content	The results of the DELETE operation are returned as expected.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter a username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server cannot find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server cannot be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication so that the request can be processed.

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Returned Value	Description
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of a service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request. The service is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

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B Error Codes

Function Description

If the returned status code is **400**, a customized error message will be returned. This section describes the meaning of each status code.

Response Format

```
STATUS CODE 400
{
    "error": {
        "message": "The imagetype is invalid.",
        "code": "IMG.0024"
    }
}
```

Error Message Description

Table B-1 Error codes

Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0001	The request message format is invalid.	The request message format is invalid.	Use the correct format.
400	IMG.0002	The image name contains more than 128 characters.	The image name contains more than 128 characters.	Reduce the length of the image name.
400	IMG.0003	The image name format is invalid.	The image name format is invalid.	Check whether the image name is valid.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0004	The description contains more than 1024 characters.	The image name contains more than 1024 characters.	Reduce the length of the image description to within 1024 characters.
400	IMG.0005	The ECS does not exist.	The ECS does not exist.	Check whether the ECS exists.
400	IMG.0006	The ECS system disk cannot be used to create an image.	The system disk of the ECS cannot be used to create an image.	Check the system disk status of the ECS.
400	IMG.0007	The request body is empty.	The message body is empty.	Check whether the message body is valid.
400	IMG.0008	The ECS cannot be used to create images because it is not in stopped state.	The ECS cannot be used to create an image because it is not in the **Stopped** state.	Stop the ECS and try again.
400	IMG.0009	The image name already exists.	The image name already exists.	Change another image name.
400	IMG.0010	The ECS cannot be used to create an image because it has in-progress tasks.	The ECS cannot be used to create an image because it has in-progress tasks.	Try again after the tasks are complete.
400	IMG.0011	**forceCreate** must be set to **true**.	**forceCreate** must be set to **true**.	Set **forceCreate** to **true**.
400	IMG.0012	The ECS ID is not specified.	The ECS ID is invalid.	Enter a valid ECS ID.
400	IMG.0013	The image name is not specified.	The image name is not specified.	Enter a valid image name.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0014	An exception occurred when IaaS OpenStack was executing the task.	An exception occurred when IaaS OpenStack was executing the task.	Contact technical support.
400	IMG.0015	The number of private images has reached the maximum allowed.	The number of private images has reached the quota limit.	Increase the quota or delete existing images.
400	IMG.0016	An error occurred when the request body was deleted.	An error occurred when the request body was deleted.	Contact technical support.
400	IMG.0017	The URL format is incorrect.	The URL format is incorrect.	Check whether the URL format is valid.
400	IMG.0018	An error occurred when the job was submitted.	An error occurred when the job was submitted.	Contact technical support.
400	IMG.0019	The backup ID is not specified.	The backup ID is not specified.	Check whether the current backup ID is valid.
400	IMG.0020	The backup does not exist.	The backup does not exist.	Check whether the backup file exists.
400	IMG.0021	The resource type is unknown.	The source type is unknown.	Select a correct source type.
400	IMG.0022	The disk in the current state cannot be used to create images.	A disk in the current state cannot be used to create images.	Check the disk status.
400	IMG.0023	An exception occurred during task query.	An exception occurred during job query.	Contact technical support.
400	IMG.0024	The image type in the request is incorrect.	The image type in the request is incorrect.	Select either BMS or ECS.
400	IMG.0025	The user type in the request is incorrect.	The user type in the request is incorrect.	Check whether the user type is valid.

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Status Code	Error Code	Message	Description	Handling Measure
403	IMG.0026	The role is invalid. You need to apply for the required permissions or pass the real-name authentication.	You do not have the rights to perform the operation.	Contact technical support.
400	IMG.0027	The image ID in the request does not exist.	The image ID in the request does not exist.	Use a valid image ID.
400	IMG.0028	The image in the request is protected.	The image in the request is protected.	Contact technical support.
400	IMG.0029	The backup in the request has already been used to create an image.	The backup in the request has already been used to create an image.	Select another backup that has not been used.
400	IMG.0030	The project ID and token in the request are invalid.	The project ID and token in the request are invalid.	Enter a correct project ID and token.
400	IMG.0031	The resource ID in the request is incorrect.	The resource ID in the request is incorrect.	Use a valid image ID.
400	IMG.0032	The backup is unavailable.	The backup is unavailable.	Check whether the backup is available.
400	IMG.0033	The backup is not a system disk backup.	The backup is not a system disk backup.	Check whether the backup is a system disk backup.
400	IMG.0034	The number of images cannot be modified.	The number of images cannot be modified.	Contact technical support.
400	IMG.0035	An attribute conflict occurred during the modification.	An attribute conflict occurred during the modification.	Contact technical support.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0036	An error occurred when the value of **asumeToken** was obtained.	An error occurred when the value of **asumeToken** was obtained.	Contact technical support.
400	IMG.0037	An error occurred in the AK/SK was obtained.	An error occurred in the AK/SK was obtained.	Contact technical support.
400	IMG.0038	An error occurred when the bucket was created.	An error occurred when the bucket was created.	Contact technical support.
400	IMG.0039	An error occurred when read and write permissions of the bucket were granted to a specified user.	An error occurred when read and write permissions of the bucket were granted to a specified user.	Contact technical support.
400	IMG.0040	An error occurred in the object storage address was obtained.	An error occurred in the object storage address was obtained.	Contact technical support.
400	IMG.0041	The authorized account is empty.	The authorized account is empty.	Use a valid account.
400	IMG.0042	The image is not a Marketplace image.	The image is not a KooGallery image.	Check the operations that can be performed on the image.
400	IMG.0043	The image has already been published in Marketplace by others.	The image has already been published in the KooGallery by others.	Use a compliant image file.
400	IMG.0044	The image is not the one being published to Marketplace.	The image is not the one being published in KooGallery.	Check whether the image has been published in KooGallery.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0045	Failed to generate the image product code.	Failed to generate the image product code.	Contact technical support.
400	IMG.0046	The image is unavailable.	The image is unavailable.	Check the image status.
400	IMG.0047	This operation can be performed only by the image owner.	This operation can be performed only by the image owner.	Check whether you have the permission to operate the image.
400	IMG.0048	The operation on the Marketplace image is unknown.	The operation on the KooGallery image is unknown.	Perform a correct operation.
400	IMG.0049	The image has been published in Marketplace or is being published in Marketplace.	The image has been published in KooGallery or is being published in KooGallery.	Do not release the image repeatedly.
400	IMG.0050	Failing to publish the image in Marketplace cannot be set.	An image published to KooGallery cannot be set to **Failed**.	Check the operations supported by the image.
400	IMG.0051	The image created using a CBR backup cannot be published in Marketplace.	An image created using a CSBS backup cannot be published in KooGallery.	Select an image that can be published.
400	IMG.0052	A shared image cannot be published in Marketplace.	A shared image cannot be published in KooGallery.	Select an image that can be published.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0053	An error occurred when the domain information of the shadow account was obtained.	An error occurred when the domain information of the shadow account was obtained.	Contact technical support.
400	IMG.0054	The image description format is invalid.	The image description format is invalid.	Check the image description. It can contain a maximum of 1024 characters, including letters and digits. Spaces and angle brackets (< >) are not allowed.
400	IMG.0055	The memory or disk size is invalid.	The memory or disk size is invalid.	Check the memory (MB) or disk size (GB) supported by the image.
400	IMG.0056	Invalid OS version.	The OS version is invalid.	Select a valid OS version.
400	IMG.0057	The image file is empty, not found, or in incorrect format, or you do not have enough permission to access the file.	Empty or non-existing image file, incorrect file format, or insufficient permissions.	Select a valid image file.
400	IMG.0058	The region of the bucket where the image file is stored is inconsistent with that of the user.	The region of the bucket where the image file is stored is inconsistent with that of the user.	Ensure that the bucket where the image is stored is in region as the user.
400	IMG.0059	The size of the image file exceeds the maximum allowed.	The size of the image file exceeds the maximum allowed.	Check whether the size of the image file is less than or equal to 128 GB.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0060	The number of tasks exceeds the flow control limit.	The number of tasks exceeds the flow control limit.	Wait for a while and then try again.
400	IMG.0061	Unknown system error.	Unknown system error.	Contact technical support.
400	IMG.0062	The image name is incorrect.	The image name is incorrect.	Check whether the image name is valid.
400	IMG.0063	The VM type does not support image creation.	The ECS type does not support image creation.	Select an ECS that supports image creation.
400	IMG.0064	Failed to obtain tenant information from IAM.	Failed to obtain tenant information from IAM.	Contact technical support.
400	IMG.0065	Failed to obtain the tenant domain from IAM.	Failed to obtain the tenant domain from IAM.	Contact technical support.
400	IMG.0066	The image ID is incorrect.	The image ID is incorrect.	Enter a correct image ID.
400	IMG.0067	The project ID is incorrect.	The project ID is incorrect.	Enter a correct project ID.
400	IMG.0068	The specified bucket name is empty.	The specified bucket name is empty.	Check whether the specified bucket name is empty and enter a correct bucket name.
400	IMG.0069	The specified bucket cannot be accessed.	The specified bucket cannot be accessed.	Contact technical support.
400	IMG.0070	The image file already exists. Confirm the file in the corresponding directory of the OBS bucket or in the OBS bucket.	The image file already exists.	Check whether the file exists in the corresponding directory of the OBS bucket or in the OBS bucket.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0071	The image cannot be exported.	The image cannot be exported.	Select another image.
400	IMG.0072	The specified image format is not supported.	The specified image format is not supported.	Check the image format. Only VHD, RAW, ZVHD, and QCOW2 are supported. The default format is VHD.
400	IMG.0073	The name of the exported file is empty.	The name of the exported file is empty.	Enter a correct file name.
400	IMG.0074	The file name length exceeds the limit.	The file name length exceeds the limit.	Reduce the length of the file name.
400	IMG.0075	The file name contains invalid characters.	The file name contains invalid characters.	Ensure that the image file name meets the following requirements: • The name cannot start or end with space. • The name contains 1 to 128 characters. • The name contains the following four types of characters: • Uppercase letters • Lowercase letters • Digits • Special characters, including hyphens (-), periods (.), underscores (_), and space

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0076	You cannot share an image with yourself.	You cannot share an image with yourself.	Do not share images with yourself.
400	IMG.0077	The public image cannot be exported.	The public image cannot be exported.	Select another image.
400	IMG.0078	The Marketplace image or private image created from a Marketplace image cannot be exported.	A KooGallery image or private image created from a KooGallery image cannot be exported.	Select another image.
400	IMG.0079	The system disk image created from a charged image cannot be exported.	A system disk image created from a charged image cannot be exported.	Select another image.
400	IMG.0080	The image created from a CBR backup cannot be exported.	The image created from a CSBS backup cannot be exported.	Export the image after the backup is created.
400	IMG.0081	The image cannot be exported because it is created from an image file.	The image cannot be exported because it is created from an image file.	Select another image.
400	IMG.0082	The image cannot be published in Marketplace.	The image cannot be published in KooGallery.	Check whether the image can be published.
400	IMG.0083	The image is a public image.	The image is a public image.	-
400	IMG.0084	The image is a private image.	The image is a private image.	-
400	IMG.0085	The publishing mode is incorrect.	The publishing mode is incorrect.	-

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0086	No image was found.	No image was found.	Check whether the image exists.
400	IMG.0087	The token is incorrect.	The token is incorrect.	Enter a correct token.
400	IMG.0088	The number of shared images has reached the maximum allowed.	The number of shared images has reached the quota.	Increase the quota.
400	IMG.0089	The public image or Marketplace image cannot be shared.	A public image or KooGallery image cannot be shared.	Check the constraints of image sharing.
400	IMG.0090	The image being created cannot be deleted.	An image being created cannot be deleted.	Delete the image after the image is created.
400	IMG.0091	The protected image cannot be deleted.	A protected image cannot be deleted.	Remove the image from KooGallery.
400	IMG.0092	The image can only be deleted by the owner.	The image can only be deleted by the owner.	Ask the image owner to delete the image.
400	IMG.0093	The Marketplace image cannot be deleted.	A KooGallery image cannot be deleted.	Do not delete KooGallery images.
400	IMG.0094	The public image cannot be deleted.	The public image cannot be deleted.	Do not delete public images.
400	IMG.0095	The KMS key does not exist.	The key does not exist.	Check whether the key exists.
400	IMG.0096	The specified KMS key ID must be different from the image key ID.	The specified KMS key ID must be different from the image key ID.	Check whether the specified KMS key ID is the same as the image key ID.
400	IMG.0097	The key is not enabled.	The key is not enabled.	Enable the key.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0098	The encrypted image cannot be shared or published in Marketplace.	The encrypted image cannot be shared or published in KooGallery.	Copy the image to a non-encrypted image and then share or release the non-encrypted image.
400	IMG.0099	You do not have the permission to access the key.	You do not have the permission to access the key.	Check whether you have the permission to access the key.
400	IMG.0100	You do not have OBT permission for KMS.	You do not have OBT permission for KMS.	Check whether you have the OBT permission for KMS.
400	IMG.0101	The original key does not exist.	The original key does not exist.	Check whether the key is valid.
400	IMG.0102	The original key is not enabled.	The original key is not enabled.	Enable the original key.
400	IMG.0103	You do not have the permission to access the original key.	You do not have the permission to access the original key.	Check whether you have the permission to access the key.
400	IMG.0104	Enter the project name if there are multiple projects in the same region.	Enter the project name if there are multiple projects in the same region.	Enter the project name.
400	IMG.0105	The operation is not supported.	The operation is not supported.	Contact technical support.
400	IMG.0106	The image owner is another tenant.	The image owner is another tenant.	Confirm the image owner.
400	IMG.0107	The Marketplace image cannot be shared.	A KooGallery image cannot be shared.	Check the constraints of image sharing.
400	IMG.0108	The tenant ID was not found in the current region.	The tenant ID was not found in the current region.	Contact technical support.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0109	The bucket name contains invalid characters.	The bucket name contains invalid characters.	Check whether the bucket name is valid.
400	IMG.0110	The system disk is unavailable and cannot be used to create images.	The system disk is unavailable and cannot be used to create images.	Create an image when the system disk is available.
400	IMG.0111	The size of the system disk exceeds the maximum allowed.	The size of the system disk exceeds the maximum allowed.	Ensure that the ECS system disk size is greater than or equal to the system disk size of the image and smaller than 1024 GB.
400	IMG.0112	Failed to add the tenant.	Failed to add the tenant.	Contact technical support.
400	IMG.0113	Failed to delete the tenant.	Failed to delete the tenant.	Contact technical support.
400	IMG.0114	Failed to query the tenant details.	Failed to query the tenant details.	Contact technical support.
400	IMG.0115	The image tag is invalid.	The image tag is invalid.	Check the validity of the image tag.
400	IMG.0116	The number of image tags exceeds the quota.	The number of image tags exceeds the quota.	Delete tags that are unnecessary or not in use.
400	IMG.0117	The image source can only be BMS or ECS.	The image type can only be BMS or ECS.	Select a BMS or ECS as the image source.
400	IMG.0118	The BMS image does not support KMS encryption.	The BMS image does not support KMS encryption.	Modify the BMS image configuration.
400	IMG.0119	The VM does not have a system disk.	The ECS does not have a system disk.	Attach a system disk to the ECS.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0120	The specified data disk ID is unavailable.	The specified data disk ID is unavailable.	Check whether the current data disk ID is valid.
400	IMG.0121	The object cannot be found.	The object cannot be found.	Check whether the object exists.
400	IMG.0122	The OS type is invalid.	The OS type is invalid.	Select an OS supported by IMS.
400	IMG.0123	The image file address in the request is duplicate.	The image file address in the request is duplicate.	Delete the duplicate image file address.
400	IMG.0124	The data disk image cannot be published in Marketplace.	A data disk image cannot be published in KooGallery.	Select another image.
400	IMG.0125	The data disk image cannot be converted to a public image.	The data disk image cannot be published as a public image.	Check the constraints on data disk images.
400	IMG.0126	The VM in the current stage cannot be used to create a full-ECS image.	The ECS in the current status cannot be used to create a full-ECS image.	Check the ECS status. Ensure that the ECS is in the **Running** or **Stopped** state.
400	IMG.0127	The CSBS backup does not exist.	The CSBS backup does not exist.	Check whether the CSBS backup exists.
400	IMG.0128	The full-ECS image cannot be exported.	A full-ECS image cannot be exported.	Check the constraints on image export.
400	IMG.0129	The full-ECS image cannot be published in Marketplace.	A full-ECS image cannot be published in KooGallery.	Select another image.
400	IMG.0130	The full-ECS image cannot be exported or replicated.	A full-ECS image cannot be exported or replicated.	Check the constraints on full-ECS images.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0131	The full-ECS image cannot be published in Marketplace.	A full-ECS image cannot be published in KooGallery.	Check the constraints on full-ECS images.
400	IMG.0132	The CSBS backup in the current state cannot be used to create a full-ECS image.	A CSBS backup in the current state cannot be used to create a full-ECS image.	Wait until the CSBS backup becomes available.
400	IMG.0133	You are not allowed to access the CSBS backup.	You are not allowed to access the CSBS backup.	Apply for the permissions.
400	IMG.0134	The CSBS backup has been registered as an image.	The CSBS backup has been registered as an image.	A CSBS backup can be used to create only one full-ECS image. Select another CSBS backup.
400	IMG.0135	The full-ECS image cannot be shared.	A full-ECS image cannot be shared.	Check the constraints of image sharing.
400	IMG.0136	Failed to create a full-ECS image because the ECS is being backed up.	Failed to create a full-ECS image because a backup is being created for the ECS.	Wait until the CBR backup becomes available.
400	IMG.0137	Failed to obtain the VM information.	Failed to obtain the ECS information.	Check whether the ECS ID is correct and whether you have the permission to perform operations on the ECS.
400	IMG.0138	Failed to obtain the OS type information.	Failed to obtain the OS type information.	Contact technical support.
400	IMG.0139	Other disks on the VM are being used to created VMs.	Other disks on the ECS are being used to create ECSs.	Contact technical support.

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400	IMG.0140	The disks in the request come from different ECSs.	The disks in the request are from different ECSs.	Ensure that the ECS to which the disks are attached is the same.
400	IMG.0141	The value of **hw_firmware_type** is not **uefi** or **bios**.	The value of **hw_firmware_type** is not **uefi** or **bios**.	Set **hw_firmware_type** to **uefi** or **bios**.
400	IMG.0142	Replication must be performed across regions.	Replication must be performed across regions.	Select another destination region.
400	IMG.0143	An encrypted image cannot be replicated cross regions.	An encrypted image cannot be replicated cross regions.	Select an unencrypted image.
400	IMG.0144	The image does not exist.	The image does not exist.	Check whether the image exists.
400	IMG.0145	The project name is incorrect.	The project name is incorrect.	Enter a correct project name.
400	IMG.0146	The size of the image to be replicated across regions exceeds the upper limit.	The size of the image to be replicated across regions exceeds the upper limit.	Check whether the image size is less than or equal to 128 GB.
400	IMG.0147	The entered region information is incorrect.	The entered region information is incorrect.	Enter the correct region information.
400	IMG.0148	The image is being exported.	The image is being exported.	Wait until the image is exported.
400	IMG.0149	The number of image replicated cross regions exceeds the maximum number allowed at a time.	The number of images replicated cross regions exceeds the maximum number allowed at a time.	Try again later.

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400	IMG.0150	The CSBS backup used to create the full-ECS image already exists in the destination region and cannot be used again.	The CSBS backup used to create the full-ECS image already exists in the destination region, and the full-ECS image cannot be replicated again.	Do not copy the full-ECS again.
400	IMG.0151	The agency does not have the needed permissions to perform this operation on the target project.	The agency does not have the permissions to perform this operation on the target project.	Create an agency again. The agency must have the IMS Administrator permission in both the source and destination regions.
400	IMG.0152	The full-ECS image is available only in the specified AZ.	A full-ECS image is available only in the specified AZ.	Contact technical support.
400	IMG.0153	DESS or DSS disks cannot be used to create images.	DESS or DSS disks cannot be used to create images.	Select another ECS.
400	IMG.0154	Failed to communicate with Enterprise Project Management Service (EPS).	Failed to communicate with EPS.	Contact technical support.
400	IMG.0155	Failed to check the enterprise project ID validity.	Failed to check the enterprise project ID validity.	Contact technical support.
400	IMG.0156	Failed to associate the image with the enterprise project ID.	Failed to associate the image with the enterprise project ID.	Contact technical support.
400	IMG.0157	Incorrect image type.	Incorrect image type.	Select a correct image type.

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400	IMG.0158	Only image files in raw OR ZVHD2 format support the Fast Create function. For raw image files, bitmaps must be uploaded to the OBS bucket together with image files.	Only image files in RAW or ZVHD2 format support the fast image creation function. For RAW image files, bitmap files must be uploaded to the OBS bucket together with image files.	Check the image file format. If a RAW image file is used, provide the bitmap file.
400	IMG.0159	The OS version is required when image files are used to create ECSs through the fast image creation function.	**os_version** is required when image files are used to create ECSs through the fast image creation function.	Enter the OS version.
400	IMG.0160	Only images less than 128 GB can be exported.	Only images smaller than 128 GB can be exported.	Images larger than 128 GB cannot be exported.
400	IMG.0161	You do not have permission.	No OBT permissions for displaying the vendor name.	Contact technical support.
400	IMG.0162	The value contains a maximum of 12 characters that consist of letters and spaces, and cannot start or end with a space	The value contains a maximum of 12 characters that consist of letters and spaces, and cannot start or end with a space.	Check whether the vendor name is valid.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0163	This image cannot be titled by vendors. Only images running a Windows OS booted in BIOS mode can be titled by vendors.	This image cannot be titled by vendors.	Contact technical support.
400	IMG.0164	Failed to create an image because the spot ECS is being reclaimed.	Failed to create an image because the spot ECS is being reclaimed.	Failed to create an image because the spot ECS is being reclaimed.
400	IMG.0165	You do not have permission to access the CSBS backup.	You do not have permission to access the CSBS backup.	Contact technical support.
400	IMG.0166	OS information must be contained in the ISO files used to create images.	OS version information must be contained when an ISO file is used to create an image.	OS version information must be contained when an ISO file is used to create an image.
400	IMG.0167	This operation cannot be performed for ISO images.	The ISO image does not support this function.	Contact technical support.
400	IMG.0168	Data disk images cannot be updated.	Data disk images cannot be updated.	Contact technical support.
400	IMG.0169	Failed to update the image because the OS versions are different.	Failed to update the image because the OS versions are different.	Contact technical support.
400	IMG.0170	Failed to update the image because the image formats are different.	Failed to update the image because the image formats are different.	Contact technical support.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0171	Failed to update the image because the minimum disk space is less than that of the source image.	Failed to update the image because the minimum disk space is less than that of the source image.	Contact technical support.
400	IMG.0172	Failed to update the image because the minimum memory is less than that of the source image.	Failed to update the image because the minimum memory is less than that of the source image.	Contact technical support.
400	IMG.0173	Failed to update the image because the image environment types are different.	Failed to update the image because the image environment types are different.	Contact technical support.
400	IMG.0174	Failed to update the image because the name of the source image is different from that of the target image.	Failed to update the image because the name of the source image is different from that of the target image.	Contact technical support.
400	IMG.0175	The folder name and image file name cannot contain spaces.	The folder name and image file name cannot contain spaces.	Check whether the file name is valid.
400	IMG.0176	Failed to delete the full-ECS backup.	Failed to delete the full-ECS backup.	Contact technical support.
400	IMG.0177	The source and target tenants reside in different regions.	The source and target tenants reside in different regions.	Check whether the source and target tenants reside in the same region.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0178	The target tenant is the same as the source tenant.	The target tenant is the same as the source tenant.	The target tenant cannot be the same as the source tenant. Please check.
400	IMG.0179	The token of the source image agency is invalid.	The token of the source image agency is invalid.	Contact technical support.
400	IMG.0180	CBR does not support full-ECS image creation.	CBR does not support full-ECS image creation.	Contact technical support.
400	IMG.0181	Failed to obtain ECSs that can be protected.	Failed to obtain ECSs that can be protected.	Contact technical support.
400	IMG.0182	Insufficient vault capacity. Please expand the capacity.	Insufficient vault capacity. Please expand the capacity.	Check whether the vault capacity is sufficient.
400	IMG.0183	The ECS can only be associated with one vault.	The ECS can only be associated with one vault.	Ensure that the resource is not associated with any other vault.
400	IMG.0184	Failed to obtain the vault.	Failed to obtain the vault.	Check whether the vault exists.
400	IMG.0185	The number of ECSs associated with the vault has reached the upper limit.	The number of ECSs associated with the vault has reached the upper limit.	Create another vault or delete unused resources.
400	IMG.0186	The ECS is associated with the CSBS service.	The ECS is associated with the CSBS service.	Contact technical support.
400	IMG.0187	KMS access traffic has reached the upper limit.	KMS access traffic has reached the upper limit.	Contact technical support.
400	IMG.0188	Vault is unavailable.	Vault is unavailable.	Contact technical support.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.0189	The target CBR vault does not support image replication.	The target CSBS vault does not support image replication.	Contact technical support.
400	IMG.0190	Full-ECS images can be created only from CBR backups.	Full-ECS images can be created only from CBR backups.	Contact technical support.
400	IMG.0191	Failed to query ECS flavors.	Failed to query ECS flavors.	Contact technical support.
400	IMG.0192	The flavor used to query images is invalid.	The flavor used to query images is invalid.	Contact technical support.
400	IMG.0193	The vault is not a cloud server backup vault.	The vault is not a CBR backup vault.	Check that the vault is a CBR backup vault.
400	IMG.0194	The maximum number of images that can be imported at one time has been reached.	The maximum number of images that can be imported at one time has been reached.	Contact technical support.
400	IMG.0195	Full-ECS images created from CBR backups must contain an OS.	Full-ECS images created from CBR backups must contain the OS version.	Specify the OS version.
400	IMG.0196	The image cannot be replicated because it is not accepted by the recipient.	The image cannot be replicated because it is not accepted by the recipient.	Accept the shared image.
400	IMG.0197	Failed to replicate the shared image because it is encrypted using KMS.	Failed to replicate the shared image because it is encrypted using KMS.	Shared encrypted images cannot be replicated.

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400	IMG.0198	Backup ID does not match the backup type or does not exist.	Backup ID does not match the backup type or the backup does not exist.	Check whether the backup ID matches the backup type.
400	IMG.0212	The value of **Architecture** must be **x86** or **Arm**.	The value of **Architecture** must be **x86** or **Arm**.	Set **Architecture** to **x86** or **arm**.
400	IMG.0238	Not real-name authentication.	Real-name authentication is not performed.	Perform real-name authentication.
400	IMG.0239	Insufficient balance.	The account balance is insufficient.	Check the balance and top up the account if needed.
400	IMG.0241	Incomplete payment information.	The payment information is incomplete.	Complete the payment information.
400	IMG.0242	Insufficient budget of enterprise department.	The department budget is insufficient.	Increase the budget.
400	IMG.0251	License must be BYOL or system license.	The value of **License Type** must be **BYOL** or **Platform**.	Set **License Type** to **BYOL** or **Platform**.
400	IMG.0252	License type not supported by OS.	A license type cannot be configured for the OS.	Change the OS or contact technical support.
400	IMG.0253	System licenses not supported by OS.	The OS does not support system licenses.	Set **License Type** to **BYOL**.
400	IMG.1075	Failed to register the image file.	Failed to register the image file.	Contact technical support.
400	IMG.1090	License must be BYOL or system license.	The value of **License Type** must be **BYOL** or **Platform**.	Set **License Type** to **BYOL** or **Platform**.

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Status Code	Error Code	Message	Description	Handling Measure
400	IMG.1091	License type not supported by image file OS.	A license type cannot be configured for the image file OS.	Change the OS or contact technical support.
400	IMG.1092	System licenses not supported by image file OS.	The image file OS does not support system licenses.	Set **License Type** to **BYOL**.

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