

# Elastic Volume Service

## API Reference

**Issue** 06  
**Date** 2023-02-15



**Copyright © Huawei Cloud Computing Technologies Co., Ltd. 2024. All rights reserved.**

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Cloud Computing Technologies Co., Ltd.

## **Trademarks and Permissions**



HUAWEI and other Huawei trademarks are the property of Huawei Technologies Co., Ltd.

All other trademarks and trade names mentioned in this document are the property of their respective holders.

## **Notice**

The purchased products, services and features are stipulated by the contract made between Huawei Cloud and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

---

# Contents

---

<b>1 Before You Start</b>	<b>1</b>
1.1 Overview	1
1.2 API Calling	1
1.3 Endpoints	1
1.4 Constraints	1
1.5 Concepts	2
<b>2 API Overview</b>	<b>4</b>
<b>3 Calling APIs</b>	<b>5</b>
3.1 Making an API Request	5
3.2 Authentication	9
3.3 Response	10
<b>4 Getting Started</b>	<b>13</b>
4.1 Creating an EVS Disk	13
<b>5 APIs</b>	<b>15</b>
5.1 Disk Management	15
5.1.1 Creating EVS Disks	15
5.1.2 Querying Details About All Disks	21
5.1.3 Deleting an EVS Disk	29
5.1.4 Updating an EVS Disk	31
5.1.5 Querying Details About All Disks (Deprecated)	36
5.1.6 Querying Details About a Disk	44
5.1.7 Querying EVS Disks	50
5.1.8 Expanding Capacity of an EVS Disk	53
5.2 Tag Management	55
5.2.1 Batch Deleting Tags of a Specified EVS Disk	55
5.2.2 Batch Adding Tags for the Specified EVS Disk	57
5.2.3 Obtaining All Tags of an EVS Resource Type	59
5.2.4 Querying Tags of an EVS Disk	60
5.2.5 Querying Details of EVS Disks by Tag	61
5.2.6 Deleting the Tag of an EVS Resource by Key	70
5.2.7 Querying the Number of EVS Disks by Tag	71
5.2.8 Adding or Updating Tags for an EVS Resource (Deprecated)	75

5.2.9 Batch Deleting Tags for an EVS Resource (Deprecated).....	77
5.2.10 Obtaining Tags of a Specified EVS Resource (Deprecated).....	79
5.2.11 Querying Tags of an EVS Resource by Key (Deprecated).....	80
5.2.12 Resetting Tags of an EVS Resource (Deprecated).....	82
5.2.13 Updating Tags of an EVS Resource by Key (Deprecated).....	84
5.2.14 Querying EVS Resources by Tag (Deprecated).....	86
5.3 Task Management.....	89
5.3.1 Querying Task Status.....	89
5.4 EVS Replication Pair (Deprecated).....	93
5.4.1 Creating an EVS Replication Pair (Deprecated).....	93
5.4.2 Deleting an EVS Replication Pair (Deprecated).....	97
5.4.3 Querying All EVS Replication Pairs (Deprecated).....	99
5.4.4 Querying Details About an EVS Replication Pair (Deprecated).....	104
5.5 Replication Consistency Group (Deprecated).....	108
5.5.1 Creating a Replication Consistency Group (Deprecated).....	108
5.5.2 Deleting a Replication Consistency Group (Deprecated).....	112
5.5.3 Querying All Replication Consistency Groups (Deprecated).....	113
5.5.4 Querying Details About a Replication Consistency Group (Deprecated).....	118
5.5.5 Updating a Replication Consistency Group (Deprecated).....	121
5.5.6 Performing a Failover for a Replication Consistency Group (Deprecated).....	125
5.5.7 Synchronizing a Replication Consistency Group (Deprecated).....	127
5.5.8 Performing a Primary/Secondary Switchover for a Replication Consistency Group (Deprecated)....	129
5.5.9 Pausing a Replication Consistency Group (Deprecated).....	131
5.5.10 Reprotecting a Replication Consistency Group (Deprecated).....	133
5.5.11 Expanding EVS Disks in a Replication Consistency Group (Deprecated).....	135
5.6 EVS Replication Quota (Deprecated).....	138
5.6.1 Querying Default Tenant Quotas (Deprecated).....	138
5.6.2 Querying Tenant Quotas (Deprecated).....	140
<b>6 OpenStack Cinder APIs.....</b>	<b>144</b>
6.1 Disk Management.....	144
6.1.1 Creating EVS Disks.....	144
6.1.2 Deleting an EVS Disk.....	153
6.1.3 Updating an EVS Disk.....	155
6.1.4 Querying EVS Disk Types.....	160
6.1.5 Querying EVS Disks.....	163
6.1.6 Querying Details About All Disks.....	167
6.1.7 Querying Details About a Disk.....	174
6.1.8 Querying Details About an EVS Disk Type.....	179
6.1.9 Querying Extension APIs.....	181
6.1.10 Expanding Capacity of an EVS Disk.....	185
6.1.11 Setting Bootable Flag for an EVS Disk.....	187
6.1.12 Setting Read-Only Flag for an EVS Disk.....	189

6.1.13 Exporting EVS Disk Data as an Image.....	191
6.1.14 Attaching an EVS Disk (Deprecated).....	196
6.1.15 Detaching an EVS Disk (Deprecated).....	198
6.1.16 Reserving an EVS Disk (Deprecated).....	201
6.1.17 Canceling Reservation of an EVS Disk (Deprecated).....	202
6.2 Quota Management.....	204
6.2.1 Querying Details of Tenant Quotas.....	204
6.3 AZ Query.....	213
6.3.1 Querying All AZs.....	213
6.4 Disk Metadata Management.....	215
6.4.1 Adding the Metadata for an EVS Disk.....	215
6.4.2 Querying Metadata of an EVS Disk.....	217
6.4.3 Updating the Metadata of an EVS Disk.....	219
6.4.4 Querying One Piece of Metadata for an EVS Disk.....	221
6.4.5 Updating One Piece of Metadata for an EVS Disk.....	223
6.4.6 Deleting One Piece of Metadata for an EVS Disk.....	225
6.5 API Version Query.....	226
6.5.1 Querying Information of API Versions.....	226
6.5.2 Querying Information of an API Version.....	229
<b>7 Out-of-Date APIs.....</b>	<b>232</b>
7.1 OpenStack Cinder API.....	232
7.1.1 EVS Disk.....	232
7.1.1.1 Creating EVS Disks.....	232
7.1.1.2 Deleting an EVS Disk.....	241
7.1.1.3 Updating an EVS Disk.....	243
7.1.1.4 Querying EVS Disks.....	248
7.1.1.5 Querying Details About All Disks.....	252
7.1.1.6 Querying Details About a Disk.....	259
7.1.1.7 Querying EVS Disk Types.....	265
7.1.1.8 Querying Details About an EVS Disk Type.....	267
7.1.1.9 Querying Details of Tenant Quotas.....	269
7.1.1.10 Adding Metadata of an EVS Disk.....	279
7.1.1.11 Querying Metadata of an EVS Disk.....	281
7.1.1.12 Updating Metadata of an EVS Disk.....	282
7.1.1.13 Querying One Piece of Metadata for an EVS Disk.....	284
7.1.1.14 Updating One Piece of Metadata for an EVS Disk.....	286
7.1.1.15 Deleting One Piece of Metadata for an EVS Disk.....	288
7.1.1.16 Querying Extension APIs.....	289
7.1.1.17 Querying All AZs.....	293
7.1.1.18 Querying Summary Information of EVS Disks.....	295
7.1.1.19 Querying Details About a Disk (Deprecated).....	297
7.1.2 EVS Disk Actions.....	302

7.1.2.1 Expanding Capacity of an EVS Disk.....	302
7.1.2.2 Setting Bootable Flag for an EVS Disk.....	304
7.1.2.3 Setting Read-Only Flag for an EVS Disk.....	305
7.1.2.4 Exporting EVS Disk Data as an Image.....	307
7.1.2.5 Reserving an EVS Disk (Deprecated).....	312
7.1.2.6 Canceling Reservation of an EVS Disk (Deprecated).....	314
7.1.3 EVS Snapshot.....	316
7.1.3.1 Creating an EVS Snapshot.....	316
7.1.3.2 Deleting an EVS Snapshot.....	319
7.1.3.3 Updating an EVS Snapshot.....	321
7.1.3.4 Querying EVS Snapshots.....	324
7.1.3.5 Querying Details About EVS Snapshots.....	328
7.1.3.6 Querying Details About an EVS Snapshot.....	332
7.1.3.7 Adding Metadata of an EVS Snapshot.....	335
7.1.3.8 Querying Metadata of an EVS Snapshot.....	337
7.1.3.9 Updating One Piece of Metadata for an EVS Snapshot.....	338
7.1.3.10 Updating Metadata of an EVS Snapshot.....	340
7.1.3.11 Querying One Piece of Metadata for an EVS Snapshot.....	342
7.1.3.12 Deleting One Piece of Metadata for an EVS Snapshot.....	344
7.1.4 EVS Disk Transfer.....	345
7.1.4.1 Creating a Disk Transfer.....	345
7.1.4.2 Accepting a Disk Transfer.....	348
7.1.4.3 Deleting a Disk Transfer.....	350
7.1.4.4 Querying Details of a Disk Transfer.....	351
7.1.4.5 Querying All Disk Transfers.....	353
7.1.4.6 Querying Details of All Disk Transfers.....	355
<b>A Appendix.....</b>	<b>358</b>
A.1 Error Codes.....	358
A.2 Status Codes.....	374
A.3 EVS Disk Status.....	375
A.4 EVS Snapshot Status.....	377
A.5 EVS Replication Pair Status (Deprecated).....	377
A.6 Replication Consistency Group Status (Deprecated).....	378
A.7 Details of EVS Replication failure_detail Values (Deprecated).....	380
A.8 API Actions.....	382
A.9 Obtaining a Project ID.....	387
A.10 Obtaining an Account ID.....	387
<b>B Change History.....</b>	<b>389</b>

# 1 Before You Start

---

## 1.1 Overview

Welcome to *Elastic Volume Service API Reference*. Elastic Volume Service (EVS) offers scalable block storage for servers. With high reliability, high performance, and a variety of specifications, EVS disks can be used for distributed file systems, development and test environments, data warehouse applications, and high-performance computing (HPC) scenarios to meet diverse service requirements.

This document describes how to use application programming interfaces (APIs) to perform operations on EVS resources, such as creating, querying, deleting, and updating an EVS resource. For details about all supported operations, see [API Overview](#).

Before calling an EVS API, ensure that you are familiar with the EVS concepts. For details, see **Service Overview** in the *Elastic Volume Service User Guide*.

## 1.2 API Calling

EVS supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see [Calling APIs](#).

## 1.3 Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. For the endpoint of the EVS service, see [Regions and Endpoints](#).

## 1.4 Constraints

- For detailed constraints, see the constraints described in specific APIs.

## 1.5 Concepts

- **Account**

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

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

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

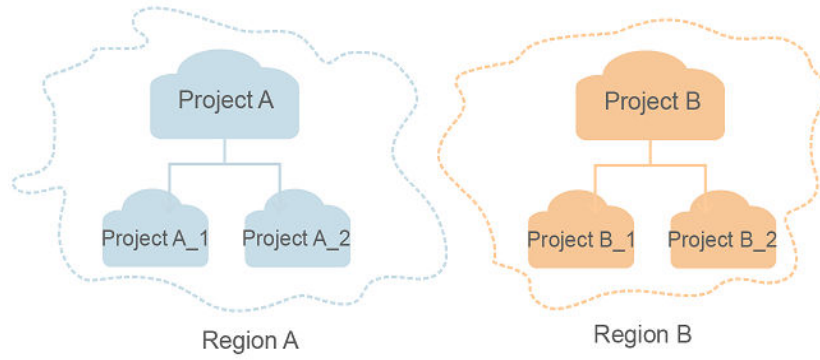
A region is a geographic area in which cloud resources are deployed. Availability zones (AZs) in the same region can communicate with each other over an intranet, while AZs in different regions are isolated from each other. Deploying cloud resources in different regions can better suit certain user requirements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



# 2 API Overview

EVS APIs include APIs and OpenStack Cinder APIs.

A combination of these two types of APIs allows you to use all EVS functions.

**Table 2-1** API overview

Type	Subtype	Description
API	EVS disk	These APIs provide the functions, such as creating disks, deleting disks, and querying disk details.
	EVS snapshot	An EVS snapshot is a complete copy or image of the disk data at a specific time point. These APIs provide the function of rolling back the snapshot data to the disk.
	EVS tag	Tags are used to identify cloud resources for purposes of easy categorization and quick search. These APIs provide the functions, such as adding, deleting, and querying tags.
OpenStack Cinder API	EVS disk	These APIs provide the functions, such as creating disks, updating disks, querying disks, querying images, and querying quotas.
	EVS disk action	These APIs provide the functions, such as expanding disks, reserving disks, exporting disk data as images, and setting the bootable attribute for disks.
	EVS snapshot	An EVS snapshot is a complete copy or image of the disk data at a specific time point. These APIs provide the functions, such as creating snapshots, querying snapshots, updating snapshot metadata, and querying snapshot metadata.

# 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 <a href="#">Regions and Endpoints</a> .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the <b>resource-path</b> of the API used to obtain a user token is <b>/v3/auth/tokens</b> .
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of <i>Parameter name=Parameter value</i> . For example, <b>?limit=10</b> indicates that a maximum of 10 data records will be displayed.

 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.

**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 <i>Hostname:Port number</i> . If the port number is not specified, the default port is used. The default port number for <b>https</b> is <b>443</b> .	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 <b>application/json</b> 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 <a href="#">Obtaining a Project ID</a> .	No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario.	e9993fc787d94b6c886cbaa340f9c0f4

Parameter	Description	Mandatory	Example Value
X-Auth-Token	<p>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).</p> <p>After the request is processed, the value of <b>X-Subject-Token</b> in the response header is the token value.</p>	<p>No</p> <p>This field is mandatory for token authentication.</p>	<p>The following is part of an example token:</p> <p>MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZ</p>

 **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*, *\*\*\*\*\** (login password), and *xxxxxxxxxxxxxxxxxxxx* (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": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxxxxxxxxxxxxxxx"
      }
    }
  }
}
```

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

## 3.2 Authentication

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

- Token authentication: Requests are authenticated using tokens.
- 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

#### NOTE

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

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

EVS 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": "*****", // IAM user password
"domain": {
  "name": "domainname" // Name of the account to which the IAM user belongs
}
},
"scope": {
  "project": {
    "name": "xxxxxxx" // 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 **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

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

## 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.

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

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

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

## 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 fields for the API used to obtain a user token. The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

### 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

```
connection → keep-alive
content-type → application/json
date → Tue, 12 Feb 2019 06:52:13 GMT
server → Web Server
strict-transport-security → max-age=31536000; includeSubdomains;
transfer-encoding → chunked
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5
x-subject-token → [REDACTED]
x-xss-protection → 1; mode=block
```

## (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 is part of the response body for the API used to obtain a user token.

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

```

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

```
{  
  "error_msg": "The 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.

# 4 Getting Started

## 4.1 Creating an EVS Disk

### Scenarios

This topic describes how to create an EVS disk by calling APIs. For details about how to call APIs, see [Calling APIs](#).

In the following example, APIs are called to create a disk from a snapshot.

### Prerequisites

You have planned the region where you want to create the disk and obtained the endpoint required for calling the API. For details, see [Endpoints](#).

### Procedure

**Step 1** Query the snapshots and obtain information of the snapshot you desire.

API: [Querying Details About EVS Snapshots](#)

- Example request

`https://{endpoint}/v2/ba546eb46e7247c9aadb566ed7a1d31f/snapshots/detail`

- Example response

```
{
  "snapshots": [
    {
      "status": "available",
      "description": null,
      "updated_at": "2019-06-18T12:47:38.234689",
      "volume_id": "037cf89a-8cea-4d63-ac57-345c0ffccfc2",
      "id": "0b126d3b-f2af-404d-8d39-a42fce70065a",
      "size": 40,
      "os-extended-snapshot-attributes:progress": "100%",
      "name": "snapshot-test",
      "os-extended-snapshot-attributes:project_id": "ba546eb46e7247c9aadb566ed7a1d31f",
      "created_at": "2019-06-18T12:47:33.700070",
      "metadata": {}
    }
  ]
}
```

In the response, **id** indicates the snapshot ID.

**Step 2** Create a disk from the snapshot.

API: **Creating EVS Disks**

- Example request

POST `https://{endpoint}/v2/ba546eb46e7247c9aadb566ed7a1d31f/cloudvolumes`

```
{
  "volume": {
    "count": 1,
    "availability_zone": "az-dc-1",
    "description": "test_volume_1",
    "size": 120,
    "snapshot_id": "0b126d3b-f2af-404d-8d39-a42fce70065a",
    "name": "test_volume_1",
    "volume_type": "SAS"
  }
}
```

- Example response

```
{
  "job_id": "ff8080816b512df7016b6ab8982b496b"
}
```

----End

# 5 APIs

## 5.1 Disk Management

### 5.1.1 Creating EVS Disks

#### Function

This API is used to create one or multiple EVS disks.

#### URI

- URI format  
POST /v2/{project\_id}/cloudvolumes
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

#### Request

- Request parameters

Parameter	Type	Mandatory	Description
volume	Object	Yes	The information of the disk to be created. For details, see <a href="#">Parameters in the volume field</a> .

- Parameters in the **volume** field

Parameter	Type	Mandatory	Description
backup_id	String	No	<p>The backup ID. This parameter is mandatory when you create the disk from a backup.</p> <p><b>NOTE</b> For how to obtain the backup ID, see <a href="#">Querying Details About VBS Backups (Native OpenStack API)</a> in the <i>Volume Backup Service API Reference</i>.</p>
availability_zone	String	Yes	<p>The AZ where you want to create the disk. If the specified AZ does not exist, the disk will fail to be created.</p> <p><b>NOTE</b> For details about how to obtain the AZ, see <a href="#">Querying All AZs</a>.</p>
description	String	No	<p>The disk description, which can contain a maximum of 255 bytes.</p>
size	Integer	Yes	<p>The disk size, in GB. The value can be as follows:</p> <ul style="list-style-type: none"> <li>• System disk: 1 GB to 1024 GB</li> <li>• Data disk: 10 GB to 32768 GB</li> </ul> <p>This parameter is mandatory when you create an empty disk. You can specify the parameter value as required within the value range.</p> <p>This parameter is mandatory when you create the disk from a snapshot. Ensure that the disk size is greater than or equal to the snapshot size.</p> <p>This parameter is mandatory when you create the disk from an image. Ensure that the disk size is greater than or equal to the minimum disk capacity required by <b>min_disk</b> in the image attributes.</p> <p>This parameter is optional when you create the disk from a backup. If this parameter is not specified, the disk size is equal to the backup size.</p> <p><b>NOTE</b> If the specified value is a decimal, the number part of the value will be used.</p>

Parameter	Type	Mandatory	Description
name	String	No	<p>The disk name.</p> <ul style="list-style-type: none"> <li>If you create disks one by one, the <b>name</b> value is the disk name, which can contain a maximum of 255 characters.</li> <li>If you create multiple disks (the <b>count</b> value greater than 1), the system will automatically add a hyphen followed by a four-digit incremental number, such as <b>-0000</b>, to the end of each disk name. For example, the disk names can be <b>volume-0001</b> and <b>volume-0002</b>. The value can contain a maximum of 250 bytes.</li> </ul>
snapshot_id	String	No	<p>The snapshot ID. If this parameter is specified, the disk will be created from a snapshot.</p> <p><b>NOTE</b> For details about how to obtain the snapshot ID, see <a href="#">Querying Details About EVS Snapshots</a>.</p>
imageRef	String	No	<p>The image ID. If this parameter is specified, the disk will be created from an image.</p> <p><b>NOTE</b> BMS system disks cannot be created from BMS images. For how to obtain the image ID, see <a href="#">Querying Images</a> in the <i>Image Management Service API Reference</i>.</p>
volume_type	String	Yes	<p>The disk type.</p> <p>The value can be <b>SATA</b> or <b>SSD</b>.</p> <ul style="list-style-type: none"> <li><b>SSD</b>: the ultra-high I/O type</li> <li><b>SATA</b>: the common I/O type</li> </ul> <p>If the specified disk type is not available in the AZ, the disk will fail to be created.</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>When the disk is created from a snapshot, the disk type of the new disk will be consistent with that of the snapshot's source disk.</li> <li>For details about disk types, see <b>Disk Types and Performance</b> in the <i>Elastic Volume Service User Guide</i>.</li> </ul>

Parameter	Type	Mandatory	Description
count	Integer	No	<p>The number of disks to be created in a batch. If this parameter is not specified, only one disk will be created. You can create a maximum of 100 disks in a batch.</p> <p>If disks are created from backups, batch creation is not supported, and this parameter must be set to <b>1</b>.</p> <p><b>NOTE</b> If the specified value is a decimal, the number part of the value will be used.</p>
shareable	String	No	<p>Whether the disk is shareable. The value can be <b>true</b> (shared disk) or <b>false</b> (common disk).</p> <p><b>NOTE</b> This field is no longer used. Use <b>multiattach</b>.</p>



Parameter	Type	Mandatory	Description
metadata	Map<String,String>	No	<p>The metadata of the disk to be created.</p> <p>Optional parameters:</p> <p>The encryption CMK ID in <b>metadata</b>. This parameter is used together with <b>__system_encrypted</b> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.</p> <p><b>NOTE</b></p> <p><b>__system_encrypted</b>: the encryption field in <b>metadata</b>. The value can be <b>0</b> (does not encrypt the disk) or <b>1</b> (encrypts the disk). If this parameter is not specified, the encryption attribute of the disk will be the same as that of the data source. If the disk is not created from a data source, the disk will not be encrypted by default.</p> <p><b>full_clone</b>: If the disk is created from a snapshot and linked cloning needs to be used, set this parameter to <b>0</b>.</p> <p><b>hw:passthrough</b>:</p> <ul style="list-style-type: none"> <li>• If this parameter is set to <b>true</b>, the disk device type will be SCSI, which allows ECS OSs to directly access underlying storage media. SCSI reservation commands are supported.</li> <li>• If this parameter is set to <b>false</b>, the disk device type will be VBD, which supports only simple SCSI read/write commands.</li> <li>• If this parameter is not specified, the disk device type will be VBD.</li> </ul>
multiattach	Boolean	No	<p>Whether the disk is shareable. The default value is <b>false</b>.</p> <ul style="list-style-type: none"> <li>• <b>true</b>: indicates a shared disk will be created.</li> <li>• <b>false</b>: indicates a non-shared disk will be created.</li> </ul>

Parameter	Type	Mandatory	Description
tags	Object	No	<p>The tags to be added to the disk during the disk creation.</p> <p>A maximum of 10 tags can be added to a disk.</p> <p>A tag key must be unique. Deduplication will be performed for duplicate keys. Therefore, only one tag key in the duplicate keys is valid.</p> <ul style="list-style-type: none"><li>• Tag key: A tag key can contain a maximum of 36 characters. Character set: A-Z, a-z, 0-9, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF)</li><li>• Tag value: A tag value can contain a maximum of 43 characters and can be an empty string. Character set: A-Z, a-z, 0-9, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF)</li></ul>

 **NOTE**

Specifying either two of the **backup\_id**, **snapshot\_id**, and **imageRef** fields is not supported.

- Example request

```
{
  "volume": {
    "backup_id": null,
    "count": 1,
    "availability_zone": "az-dc-1",
    "description": "test_volume_1",
    "size": 120,
    "name": "test_volume_1",
    "volume_type": "SSD",
    "metadata": {
      "__system__encrypted": "1",
      "__system__cmkid": "37b0d52e-c249-40d6-83cb-2b93f22445bd"
    }
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
job_id	String	The task ID. <b>NOTE</b>
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "job_id": "70a599e0-31e7-49b7-b260-868f441e862b"
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.1.2 Querying Details About All Disks

### Function

This API is used to query details about all disks.

### URI

- URI format  
GET /v2/{project\_id}/cloudvolumes/detail
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request query parameters

Parameter	Mandatory	Type	Description
availability_zone	No	String	The AZ information.
dedicated_storage_id	No	String	The dedicated storage pool ID. All disks in the dedicated storage pool can be filtered out. Only exact match is supported.
dedicated_storage_name	No	String	The dedicated storage pool name. All disks in the dedicated storage pool can be filtered out. Fuzzy match is supported.
enterprise_project_id	No	String	The enterprise project ID for filtering. If parameter <b>all_granted_eps</b> is transferred, disks in all enterprise projects that are within the permission scope will be queried.
id	No	String	The disk ID.
ids	No	String	The disk IDs. The parameter value is in the <i>ids=['id1','id2',..., 'idx']</i> format. In the response, the <b>ids</b> value contains valid disk IDs only. Invalid disk IDs will be ignored. The details about a maximum of 60 disks can be queried. If parameters <b>id</b> and <b>ids</b> are both specified in the request, <b>id</b> will be ignored.

Parameter	Mandatory	Type	Description
limit	No	Integer	The maximum number of query results that can be returned. The default value is <b>1000</b> . Minimum value: <b>1</b> Maximum value: <b>1000</b> Default value: <b>1000</b>
marker	No	String	The pagination query by disk ID. The query starts from the first page by default. By specifying a disk ID for <b>marker</b> , information of all disks following the specified disk will be queried. Note that information of the specified disk will not be included in the query results.
metadata	No	String	The disk metadata.
multiattach	No	Boolean	Whether the disk is shareable. The value can be <b>true</b> (a shared disk) or <b>false</b> (a non-shared disk).
name	No	String	The disk name.
offset	No	Integer	The query offset. All disks after this offset will be queried. The value must be an integer greater than 0 but less than the number of disks.
server_id	No	String	The server ID.
service_type	No	String	The service type. Only EVS, DSS, and DESS are supported.
sort_dir	No	String	The result sorting order. The value can be <b>asc</b> (the ascending order) or <b>desc</b> (the descending order). The default value is <b>desc</b> .

Parameter	Mandatory	Type	Description
sort_key	No	String	The keyword based on which the returned results are sorted. The value can be <b>id</b> , <b>status</b> , <b>size</b> , or <b>created_at</b> , and the default value is <b>created_at</b> .
status	No	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
volume_type_id	No	String	The disk type ID. For details, see <a href="#">Querying EVS Disk Types</a> . The disk type ID is the <b>id</b> value in the table that describes parameters in the <b>volume_types</b> field.

## Request

The following example shows how to query the disks in the **available** state.

- Example request

```
GET https://{endpoint}/v2/{project_id}/cloudvolumes/detail?status=available
```

## Response

- Response parameters

Parameter	Type	Description
volumes	Array of objects	The list of returned disks. For details, see <a href="#">Parameters in the volumes field</a> .
count	Integer	The number of queried disks. This value is not affected by the pagination.
volumes_links	Array of <a href="#">Link</a> objects	The query position marker in the disk list. If only some disks are returned in this query, the URL of the last disk queried will be returned. You can use this URL to continue to query the remaining disks in the next query.
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volumes** field

Parameter	Type	Description
id	String	The disk ID.

Parameter	Type	Description
links	Array of objects	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	Array of objects	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
os-vol-host-attr:host	String	The reserved field.
source_volid	String	The source disk ID. This parameter has a value if the disk is created from a source disk. This field is currently not supported.
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
description	String	The disk description.
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The tenant ID is the same as the project ID.
volume_image_metadata	Object	The metadata of the disk image. <b>NOTE</b> For details about <b>volume_image_metadata</b> , see <a href="#">Querying Image Details (Native OpenStack API)</a> in the <i>Image Management Service API Reference</i> .
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>● <b>SSD</b>: the ultra-high I/O type</li><li>● <b>SATA</b>: the common I/O type</li></ul>
size	Integer	The disk size, in GB.
consistencygroup_id	String	The reserved field.

Parameter	Type	Description
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"> <li>● <b>true</b>: indicates a bootable disk.</li> <li>● <b>false</b>: indicates a non-bootable disk.</li> </ul>
metadata	Map<String, Object>	<p>The disk metadata. The encryption CMK ID in <b>metadata</b>. This parameter is used together with <b>__system__encrypted</b> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.</p> <p><b>__system__encrypted</b>: the encryption field in <b>metadata</b>. The value can be <b>0</b> (not encrypted) or <b>1</b> (encrypted). If this parameter does not appear, the encryption attribute of the disk is the same as that of the data source. If the disk is not created from a data source, the disk is not encrypted by default.</p> <p><b>full_clone</b>: The method of creation when the disk is created from a snapshot.</p> <ul style="list-style-type: none"> <li>● <b>0</b>: linked clone</li> <li>● <b>1</b>: full clone</li> </ul> <p><b>hw:passthrough</b>:</p> <ul style="list-style-type: none"> <li>● If this parameter is <b>true</b>, the disk device type is SCSI, which allows ECS OSs to directly access underlying storage media. SCSI reservation commands are supported.</li> <li>● If this parameter is <b>false</b>, the disk device type is VBD, which supports only simple SCSI read/write commands.</li> <li>● If this parameter does not appear, the disk device type is VBD.</li> </ul>
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
encrypted	Boolean	This field is currently not supported.
replication_status	String	The reserved field.
os-vol-mig-status-attr:migstat	String	The reserved field.
os-vol-host-attr:host	String	The reserved field.



Parameter	Type	Description
os-vol-mig-status-attr:name_id	String	The reserved field.
os-volume-replication:extended_status	String	The reserved field.
shareable	String	Whether the disk is shareable. The value can be <b>true</b> (shared disk) or <b>false</b> (common disk). This field is no longer used. Use <b>multiattach</b> .
user_id	String	The reserved field.
service_type	String	The service type. The value can be <b>EVS</b> , <b>DSS</b> , or <b>DESS</b> .
dedicated_storage_id	String	The ID of the DSS storage pool accommodating the disk.
dedicated_storage_name	String	The name of the DSS storage pool accommodating the disk.
tags	Map<String,String>	The disk tags. This field has values if the disk has tags. Or, it is left empty.
wwn	String	The unique identifier used when attaching the disk.
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"> <li>• <b>true</b>: indicates a shared disk.</li> <li>• <b>false</b>: indicates a non-shared disk.</li> </ul>
enterprise_project_id	String	The ID of the enterprise project that the disk has been added to.
serial_number	String	The disk SN. This field is returned only for non-HyperMetro SCSI volumes and is used for disk mapping in the VM.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "count": 1,
  "volumes": [ {
    "attachments": [ ],
    "availability_zone": "az-dc-1",
    "bootable": "false",
    "created_at": "2016-05-25T02:42:10.856332",
    "description": null,
    "id": "b104b8db-170d-441b-897a-3c8ba9c5a214",
    "links": [ {
      "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214",
      "rel": "self"
    }, {
      "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214",
      "rel": "bookmark"
    }
  ],
    "metadata": { },
    "name": "zjb_u25_test",
    "os-vol-host-attr:host": "pod01.xxx#SATA",
    "volume_image_metadata": { },
    "os-vol-mig-status-attr:migstat": null,
    "os-vol-mig-status-attr:name_id": null,
    "os-vol-tenant-attr:tenant_id": "dd14c6ac581f40059e27f5320b60bf2f",
    "os-volume-replication:extended_status": null,
  }
]
```

```
"replication_status" : "disabled",
"multiattach" : false,
"size" : 1,
"snapshot_id" : null,
"status" : "available",
"updated_at" : "2016-05-25T02:42:22.341984",
"user_id" : "b0524e8342084ef5b74f158f78fc3049",
"volume_type" : "SATA",
"service_type" : "EVS",
"dedicated_storage_id" : null,
"dedicated_storage_name" : null,
"wwn" : " 688860300000d136fa16f48f05992360"
}],
"volumes_links" : [ {
  "href" : "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes/
detail?limit=1&marker=b104b8db-170d-441b-897a-3c8ba9c5a214",
  "rel" : "next"
} ]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.1.3 Deleting an EVS Disk

### Function

This API is used to delete an EVS disk.

---

#### NOTICE

This API has been deprecated. Use another API. For details, see [Deleting an EVS Disk](#).

---

## Debugging

You can debug the API in which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

- URI format  
DELETE /v2/{project\_id}/cloudvolumes/{volume\_id}

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

## Request

- Example request

```
DELETE https://{endpoint}/v2/{project_id}/cloudvolumes/b104b8db-170d-441b-897a-3c8ba9c5a214
```

## Response

- Response parameters

Parameter	Type	Description
job_id	String	The task ID. <b>NOTE</b> For details about how to query the task status, see <a href="#">Querying Task Status</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "job_id": "70a599e0-31e7-49b7-b260-868f441e862b"
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.1.4 Updating an EVS Disk

### Function

This API is used to update the name and description of an EVS disk.

#### NOTICE

This API has been deprecated. Use another API. For details, see [Updating an EVS Disk](#).

## Debugging

You can debug the API in which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

- URI format  
`PUT /v2/{project_id}/cloudvolumes/{volume_id}`
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
volume	Object	Yes	The information of the disk to be updated. For details, see <a href="#">Parameters in the volume field</a> .

- Parameters in the **volume** field

Parameter	Type	Mandatory	Description
name	String	No	The new name of the disk. Parameters <b>name</b> and <b>description</b> cannot be null at the same time. The value can contain a maximum of 255 bytes.
description	String	No	The new description of the disk. Parameters <b>name</b> and <b>description</b> cannot be null at the same time. The value can contain a maximum of 255 bytes.

- Example request

```
{
  "volume": {
    "name": "test_volume",
    "description": "test"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
id	String	The disk ID.
links	Array of objects	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	Array of objects	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
source_volid	String	The source disk ID. This parameter has a value if the disk is created from a source disk. This field is currently not supported.

Parameter	Type	Description
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
description	String	The disk description.
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The returned value is currently invalid. The tenant ID is the same as the project ID.
volume_image_metadata	Object	The metadata of the disk image. The returned value is currently invalid. <b>NOTE</b> For details about <b>volume_image_metadata</b> , see <b>Querying Image Details (Native OpenStack API)</b> in the <i>Image Management Service API Reference</i> .
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>• <b>SSD</b>: the ultra-high I/O type</li><li>• <b>SATA</b>: the common I/O type</li></ul>
size	Integer	The disk size, in GB.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a bootable disk.</li><li>• <b>false</b>: indicates a non-bootable disk.</li></ul>
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> .
os-vol-host-attr:host	String	The reserved field.
shareable	String	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk.</li><li>• <b>false</b>: indicates a non-shared disk.</li></ul>

Parameter	Type	Description
os-volume-replication:extended_status	String	The reserved field.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
__system__encrypted	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"> <li><b>0</b>: indicates a non-encrypted disk.</li> <li><b>1</b>: indicates an encrypted disk.</li> <li>If this parameter does not appear, the disk is not encrypted.</li> </ul>
__system__cmkid	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <b>__system__encrypted</b> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.



Parameter	Type	Description
hw:passthrough	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"> <li><b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media. SCSI reservation commands are supported.</li> <li><b>false</b> indicates the Virtual Block Device (VBD) device type (the default type), which supports only simple SCSI read/write commands.</li> <li>If this parameter does not appear, the disk device type is VBD.</li> </ul>
full_clone	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "id": "36ba39af-3579-4e6e-adfc-b764349c0f77",
  "links": [
    {
      "href": "https://volume.region.xxx.xxx-tsi.de/v2/3cfb09080bd944d0b4cdd72ef26857bd/volumes/36ba39af-3579-4e6e-adfc-b764349c0f77",
      "rel": "self"
    },
    {
      "href": "https://volume.region.xxx.xxx-tsi.de/3cfb09080bd944d0b4cdd72ef26857bd/volumes/36ba39af-3579-4e6e-adfc-b764349c0f77",
      "rel": "bookmark"
    }
  ],
  "name": "newVolume",
  "status": "in-use",
  "attachments": [
    {
      "server_id": "c3d3250c-7ce5-42cc-b620-dd2b63d19ca5",
      "attachment_id": "011a2bdb-a033-4479-845b-50bd8ed7f4d4",
      "attached_at": "2017-05-23T11:27:38.604815",
      "host_name": null,
      "volume_id": "36ba39af-3579-4e6e-adfc-b764349c0f77",
      "device": "/dev/sdf",
      "id": "36ba39af-3579-4e6e-adfc-b764349c0f77"
    }
  ]
}
```

```
    },
  ],
  "description": "new volume",
  "multiattach": false,
  "shareable": false,
  "size": 10,
  "metadata": {
    "policy": "dc71a9c9-b3fa-429d-a070-037682d82d21",
    "attached_mode": "rw",
    "readonly": "False",
    "hw:passthrough": "false"
  },
  "bootable": "false",
  "availability_zone": "az-dc-1",
  "os-vol-host-attr:host": null,
  "source_volid": null,
  "snapshot_id": null,
  "created_at": "2017-05-23T09:49:44.481299",
  "volume_type": "SAS",
  "os-vol-tenant-attr:tenant_id": null,
  "os-volume-replication:extended_status": null,
  "volume_image_metadata": null
}
}
or
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.1.5 Querying Details About All Disks (Deprecated)

### Function

This API is used to query details about all disks.

### URI

- URI format  
GET /v2/{project\_id}/os-vendor-volumes/detail
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters

Parameter	Type	Mandatory	Description
marker	String	No	The ID of the resource from which the pagination query starts. It is the ID of the last resource on the previous page.
name	String	No	The disk name. The value can contain a maximum of 255 bytes.
limit	Integer	No	The maximum number of query results that can be returned. The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit.
sort_key	String	No	The keyword based on which the returned results are sorted. The value can be <b>id</b> , <b>status</b> , <b>size</b> , or <b>created_at</b> , and the default value is <b>created_at</b> .
sort_dir	String	No	The result sorting order. The default value is <b>desc</b> . <ul style="list-style-type: none"> <li><b>desc</b>: the descending order</li> <li><b>asc</b>: the ascending order</li> </ul>
offset	Integer	No	The query offset. All disks after this offset will be queried. The value must be an integer greater than 0 but less than the number of disks.
status	String	No	The disk status. For details, see <a href="#">EVS Disk Status</a> .
metadata	String	No	The disk metadata.
availability_zone	String	No	The AZ to which the disk belongs.

Parameter	Type	Mandatory	Description
multiattach	Boolean	No	Whether the disk is shareable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk.</li><li>• <b>false</b>: indicates a non-shared disk.</li></ul>
service_type	String	No	The service type. Only EVS and DSS are supported.
dedicated_storage_id	String	No	The dedicated storage pool ID. All disks in the dedicated storage pool can be filtered out. Only exact match is supported.
dedicated_storage_name	String	No	The dedicated storage pool name. All disks in the dedicated storage pool can be filtered out. Fuzzy match is supported.
volume_type_id	String	No	The disk type ID.
id	String	No	The disk ID.
ids	Array of strings	No	The disk IDs. The parameter value is in the <i>ids=['id1','id2',..., 'idx']</i> format. In the response, the <b>ids</b> value contains valid disk IDs only. Invalid disk IDs will be ignored. The details about a maximum of 60 disks can be queried. If parameters <b>id</b> and <b>ids</b> are both specified in the request, <b>id</b> will be ignored.

## Request

The following example shows how to query the shared disks in the **available** state.

- Example request  
GET [https://{endpoint}/v2/{project\\_id}/os-vendor-volumes/detail?status=available&multiattach=true](https://{endpoint}/v2/{project_id}/os-vendor-volumes/detail?status=available&multiattach=true)

## Response

- Response parameters

Parameter	Type	Description
volumes	Array of objects	The list of queried disks. For details, see <a href="#">Parameters in the volumes field</a> .

Parameter	Type	Description
volumes_links	Array of objects	The query position marker in the disk list. If only some disks are returned in this query, the URL of the last disk queried will be returned. You can use this URL to continue to query the remaining disks in the next query. For details, see <a href="#">Parameters in the links field</a> .
count	Integer	The number of queried disks. This value is not affected by the pagination.
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volumes** field

Parameter	Type	Description
id	String	The disk ID.
links	Array of objects	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	Array of objects	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
os-vol-host-attr:host	String	The reserved field.
source_volid	String	The source disk ID. This parameter has a value if the disk is created from a source disk. This field is currently not supported.
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
description	String	The disk description.
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX

Parameter	Type	Description
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>• <b>SSD</b>: the ultra-high I/O type</li><li>• <b>SATA</b>: the common I/O type</li></ul>
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The tenant ID is the same as the project ID.
size	Integer	The disk size, in GB.
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> . If <b>metadata</b> does not contain the <b>hw:passthrough</b> field, the disk device type is VBD. If <b>metadata</b> does not contain the <b>_system_encrypted</b> field, the disk is not encrypted.
os-vol-mig-status-attr:migstat	String	The reserved field.
os-vol-mig-status-attr:name_id	String	The reserved field.
os-volume-replication:extended_status	String	The reserved field.
encrypted	Boolean	This field is currently not supported.
replication_status	String	The reserved field.
user_id	String	The reserved field.
consistencygroup_id	String	The reserved field.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a bootable disk.</li><li>• <b>false</b>: indicates a non-bootable disk.</li></ul>
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX

Parameter	Type	Description
shareable	String	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"> <li>• <b>true</b>: indicates a shared disk.</li> <li>• <b>false</b>: indicates a non-shared disk.</li> </ul>
volume_image_metadata	Object	The metadata of the disk image. This field has a value if the disk is created from an image. Or, it is left empty. <b>NOTE</b> For details about <b>volume_image_metadata</b> , see <b>Querying Image Details (Native OpenStack API)</b> in the <i>Image Management Service API Reference</i> .
service_type	String	The service type. The value can be <b>EVS</b> or <b>DSS</b> .
dedicated_storage_id	String	The ID of the DSS storage pool accommodating the disk.
dedicated_storage_name	String	The name of the DSS storage pool accommodating the disk.
tags	Object	The disk tags. This field has values if the disk has tags. Or, it is left empty.
wwn	String	The unique identifier used when attaching the disk.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.

Parameter	Type	Description
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
<code>__system__encrypted</code>	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"><li>• <b>0</b>: indicates a non-encrypted disk.</li><li>• <b>1</b>: indicates an encrypted disk.</li><li>• If this parameter does not appear, the disk is not encrypted.</li></ul>
<code>__system__cmkid</code>	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <code>__system__encrypted</code> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
<code>hw:passthrough</code>	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"><li>• <b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media and support SCSI reservations commands.</li><li>• <b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li><li>• If this parameter does not appear, the disk device type is VBD.</li></ul>
<code>full_clone</code>	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field



Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "count": 1,
  "volumes": [
    {
      "attachments": [ ],
      "availability_zone": "az-dc-1",
      "bootable": "false",
      "consistencygroup_id": null,
      "created_at": "2016-05-25T02:42:10.856332",
      "description": null,
      "encrypted": false,
      "id": "b104b8db-170d-441b-897a-3c8ba9c5a214",
      "links": [
        {
          "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214",
          "rel": "self"
        },
        {
          "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214",
          "rel": "bookmark"
        }
      ],
      "metadata": {},
      "name": "zjb_u25_test",
      "os-vol-host-attr:host": "pod01.xxx#SAS",
      "volume_image_metadata": { },
      "os-vol-mig-status-attr:migstat": null,
      "os-vol-mig-status-attr:name_id": null,
      "os-vol-tenant-attr:tenant_id": "dd14c6ac581f40059e27f5320b60bf2f",
      "os-volume-replication:extended_status": null,
      "replication_status": "disabled",
      "multiattach": false,
      "size": 1,
      "snapshot_id": null,
      "source_volid": null,
      "status": "available",
      "updated_at": "2016-05-25T02:42:22.341984",
      "user_id": "b0524e8342084ef5b74f158f78fc3049",
      "volume_type": "SAS",
      "service_type": "EVS",
      "dedicated_storage_id": null,
      "dedicated_storage_name": null,
      "wwn": " 688860300000d136fa16f48f05992360"
    }
  ],
  "volumes_links": [
    {
      "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes/detail?limit=1&marker=b104b8db-170d-441b-897a-3c8ba9c5a214",
      "rel": "next"
    }
  ]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.1.6 Querying Details About a Disk

### Function

This API is used to query details about a disk.

### Debugging

You can debug the API in which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

### URI

- URI format  
GET /v2/{project\_id}/os-vendor-volumes/{volume\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

## Request

- Example request

```
GET https://{endpoint}/v2/{project_id}/os-vendor-volumes/b104b8db-170d-441b-897a-3c8ba9c5a214
```

## Response

- Response parameters

Parameter	Type	Description
volume	Object	The queried disk. For details, see <a href="#">Parameters in the volume field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume** field

Parameter	Type	Description
id	String	The disk ID.
links	Array of objects	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	Array of objects	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
count	String	The number of queried disks.
source_vol_id	String	The source disk ID. This parameter has a value if the disk is created from a source disk. This field is currently not supported.
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
description	String	The disk description.
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The tenant ID is the same as the project ID.

Parameter	Type	Description
volume_image_metadata	Object	The metadata of the disk image. <b>NOTE</b> For details about <b>volume_image_metadata</b> , see <b>Querying Image Details (Native OpenStack API)</b> in the <i>Image Management Service API Reference</i> .
dedicated_storage_id	String	The ID of the DSS storage pool accommodating the disk.
dedicated_storage_name	String	The name of the DSS storage pool accommodating the disk.
enterprise_project_id	String	The ID of the enterprise project that the disk has been added to. This field is currently not supported.
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>● <b>SSD</b>: the ultra-high I/O type</li><li>● <b>SATA</b>: the common I/O type</li></ul>
size	Integer	The disk size, in GB.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li>● <b>true</b>: indicates a bootable disk.</li><li>● <b>false</b>: indicates a non-bootable disk.</li></ul>
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> . If <b>metadata</b> does not contain the <b>hw:passthrough</b> field, the disk device type is VBD.
os-vol-host-attr:host	String	The reserved field.
encrypted	Boolean	Whether the disk is encrypted.
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
os-volume-replication:driver_data	String	The reserved field.

Parameter	Type	Description
os-volume-replication:extended_status	String	The reserved field.
replication_status	String	The reserved field.
os-vol-mig-status-attr:migstat	String	The reserved field.
consistency_group_id	String	The reserved field.
os-vol-mig-status-attr:name_id	String	The reserved field.
shareable	String	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
user_id	String	The reserved field.
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"> <li>• <b>true</b>: indicates a shared disk.</li> <li>• <b>false</b>: indicates a non-shared disk.</li> </ul>
dedicated_storage_id	String	The ID of the DSS storage pool accommodating the disk.
dedicated_storage_name	String	The name of the DSS storage pool accommodating the disk.
tags	Object	The disk tags. This field has values if the disk has tags. Or, it is left empty.
wwn	String	The unique identifier used when attaching the disk.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
__system__encrypted	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"><li>• <b>0</b>: indicates a non-encrypted disk.</li><li>• <b>1</b>: indicates an encrypted disk.</li><li>• If this parameter does not appear, the disk is not encrypted.</li></ul>
__system__cmkid	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <b>__system__encrypted</b> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
hw:passthrough	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"><li>• <b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media. SCSI reservation commands are supported.</li><li>• <b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li><li>• If this parameter does not appear, the disk device type is VBD.</li></ul>
full_clone	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume": {
    "attachments": [ ],
    "links": [
      {
        "href": "https://volume.az0.dc1.domainname.com/v2/40acc331ac784f34842ba4f08ff2be48/volumes/591ac654-26d8-41be-bb77-4f90699d2d41",
        "rel": "self"
      },
      {
        "href": "https://volume.az0.dc1.domainname.com/40acc331ac784f34842ba4f08ff2be48/volumes/591ac654-26d8-41be-bb77-4f90699d2d41",
        "rel": "bookmark"
      }
    ],
    "availability_zone": "az-dc-1",
    "os-vol-host-attr:host": "az-dc-1#SSD",
    "encrypted": false,
    "multiattach": true,
    "updated_at": "2016-02-03T02:19:29.895237",
    "os-volume-replication:extended_status": null,
    "replication_status": "disabled",
    "snapshot_id": null,
    "id": "591ac654-26d8-41be-bb77-4f90699d2d41",
    "size": 40,
    "user_id": "fd03ee73295e45478d88e15263d2ee4e",
    "os-vol-tenant-attr:tenant_id": "40acc331ac784f34842ba4f08ff2be48",
    "volume_image_metadata": null,
    "os-vol-mig-status-attr:migstat": null,
    "metadata": { },
    "tags": {
      "key1": "value1",
      "key2": "value2"
    },
    "status": "available",
    "description": "auto-created_from_restore_from_backup",
    "source_volid": null,
    "consistencygroup_id": null,
    "os-vol-mig-status-attr:name_id": null,
    "name": "restore_backup_0115efb3-678c-4a9e-bff6-d3cd278238b9",
    "bootable": "false",
    "created_at": "2016-02-03T02:19:11.723797",
    "volume_type": null,
    "service_type": "EVS",
    "dedicated_storage_id": null,
    "dedicated_storage_name": null,
    "wwn": " 68886030000d136fa16f48f05992360"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.1.7 Querying EVS Disks

### Function

This API is used to query EVS disks and display the query results in a list.

---

#### NOTICE

This API has been deprecated. Use another API. For details, see [Querying EVS Disks](#).

---

### URI

- URI format  
GET /v2/{project\_id}/cloudvolumes
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters



Parameter	Type	Mandatory	Description
marker	String	No	The ID of the resource from which the pagination query starts. It is the ID of the last resource on the previous page.
name	String	No	The disk name. The value can contain a maximum of 255 bytes.
status	String	No	The disk status. For details, see <a href="#">EVS Disk Status</a> .
limit	Integer	No	The maximum number of query results that can be returned. The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit.
availability_zone	String	No	The AZ information.
sort_key	String	No	The keyword based on which the returned results are sorted. The value can be <b>id</b> , <b>status</b> , <b>size</b> , or <b>created_at</b> , and the default value is <b>created_at</b> .
sort_dir	String	No	The result sorting order. The default value is <b>desc</b> . <ul style="list-style-type: none"><li>• <b>desc</b>: the descending order</li><li>• <b>asc</b>: the ascending order</li></ul>

## Request

The following example shows how to query the disks in the **available** state.

- Example request  
GET `https://{endpoint}/v2/{project_id}/cloudvolumes?status=available`

## Response

- Response parameters

Parameter	Type	Description
volumes	Array of objects	The list of queried disks. For details, see <a href="#">Parameters in the volumes field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volumes** field

Parameter	Type	Description
id	String	The disk ID.
links	Array of objects	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name. The value can contain a maximum of 255 bytes.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volumes": [
    {
      "id": "e6cf4401-15f6-44bd-ae2b-cff4dc9523e6",
      "links": [
        {
          "href": "https://volume.az0.dc1.domainname.com/v2/cd631140887d4b6e9c786b67a6dd4c02/volumes/e6cf4401-15f6-44bd-ae2b-cff4dc9523e6",
          "rel": "self"
        },
        {
          "href": "https://volume.az0.dc1.domainname.com/v2/cd631140887d4b6e9c786b67a6dd4c02/volumes/e6cf4401-15f6-44bd-ae2b-cff4dc9523e6",
          "rel": "bookmark"
        }
      ],
      "name": "hallo5"
    },
    {
      "id": "4c5e8203-f70e-4717-90cd-4a8f636888d1",
      "links": [
        {
          "href": "https://volume.az0.dc1.domainname.com/v2/cd631140887d4b6e9c786b67a6dd4c02/volumes/4c5e8203-f70e-4717-90cd-4a8f636888d1",
          "rel": "self"
        },
        {
          "href": "https://volume.az0.dc1.domainname.com/v2/cd631140887d4b6e9c786b67a6dd4c02/volumes/4c5e8203-f70e-4717-90cd-4a8f636888d1",
          "rel": "bookmark"
        }
      ]
    }
  ]
}
```

```
    },  
    ],  
    "name": "hallo4"  
  }  
]  
}
```

or

```
{  
  "error": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.1.8 Expanding Capacity of an EVS Disk

### Function

This API is used to expand the capacity of an EVS disk.

- If the status of the to-be-expanded disk is **available**, there are no restrictions.
- If the status of the to-be-expanded disk is **in-use**, the restrictions are as follows:
  - A shared disk cannot be expanded, that is, the value of parameter **multiattach** must be **false**.
  - The status of the server to which the disk attached must be **ACTIVE**, **PAUSED**, **SUSPENDED**, or **SHUTOFF**.

---

#### NOTICE

This API call exists for compatibility reasons only and is not meant to be used.

---

### URI

- URI format  
POST /v2/{project\_id}/cloudvolumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Description
volume_id	Yes	The ID of a disk.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
os-extend	Object	Yes	The disk expansion marker. For details, see <a href="#">Parameter in the os-extend field</a> .

- Parameter in the **os-extend** field

Parameter	Type	Mandatory	Description
new_size	Integer	Yes	The new disk size, in GB. The new size ranges from the original size to the maximum size ( <b>32768</b> for a data disk and <b>1024</b> for a system disk). <b>NOTE</b> If the specified value is a decimal, the number part of the value will be used.

- Example request

```
{
  "os-extend": {
    "new_size": 200
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
job_id	String	The task ID. <b>NOTE</b> For details about how to query the task status, see <a href="#">Querying Task Status</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{  
  "job_id": "70a599e0-31e7-49b7-b260-868f441e862b"  
}
```

or

```
{  
  "error": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

# 5.2 Tag Management

## 5.2.1 Batch Deleting Tags of a Specified EVS Disk

### Function

This API is used to batch delete tags of a specified EVS disk.

### Constraints

None

### URI

- URI format  
POST /v2/{project\_id}/os-vendor-volumes/{volume\_id}/tags/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
tags	List<resource_tag>	Yes	The tag list. For details, see <a href="#">Parameters in the resource_tag field</a> .
action	String	Yes	The operation to perform. The value can be <b>create</b> or <b>delete</b> . <b>delete</b> : deletes tags.

- Parameters in the **resource\_tag** field

Parameter	Type	Mandatory	Description
key	String	Yes	The tag key.
value	String	No	The tag value. <ul style="list-style-type: none"> <li>It can contain up to 43 Unicode characters.</li> <li>It can be an empty string. The spaces before and after the character string are discarded.</li> <li>It cannot contain the following characters: <ul style="list-style-type: none"> <li>Non-printable ASCII characters (0-31)</li> <li>Special characters, including asterisks (*), left angle brackets (&lt;), right angle brackets (&gt;), backslashes (\), equal signs (=), commas (,), vertical bars ( ), and slashes (/)</li> </ul> </li> </ul>

- Example request

```
{
  "action": "delete",
```

```
"tags": [  
  {  
    "key": "key1"  
  },  
  {  
    "key": "key2"  
  }  
]
```

## Response

None

## Status Codes

- Normal  
204

## Error Codes

For details, see [Error Codes](#).

## 5.2.2 Batch Adding Tags for the Specified EVS Disk

### Function

This API is used to batch add tags for the specified EVS disk.

- When adding tags, if a tag key is consistent with an existing one, the new tag will overwrite the existing tag.
- A maximum of 10 tags can be created for a disk.

### Constraints

None

### URI

- URI format  
POST /v2/{project\_id}/os-vendor-volumes/{volume\_id}/tags/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
tags	List<resource_tag>	Yes	Specifies the tag list. For details, see <a href="#">Parameters in the resource_tag field</a> .
action	String	Yes	Specifies the operation to perform. The value can be <b>create</b> or <b>delete</b> . <b>create</b> : specifies to add tags.

- Parameters in the **resource\_tag** field

Parameter	Type	Mandatory	Description
key	String	Yes	Specifies the tag key. Tag keys of a disk must be unique. <ul style="list-style-type: none"><li>A tag key can contain a maximum of 36 characters.</li><li>Character set: A-Z, a-z, 0-9, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF)</li></ul>
value	String	Yes	Specifies the tag value. <ul style="list-style-type: none"><li>A tag value can contain a maximum of 43 characters and can be an empty string.</li><li>Character set: A-Z, a-z, 0-9, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF)</li></ul>

- Example request

```
{
  "action": "create",
  "tags": [
    {
      "key": "key1",
      "value": "value1"
    },
    {
      "key": "key2",
      "value": "value3"
    }
  ]
}
```

## Response

None



## Status Codes

- Normal  
204

## Error Codes

For details, see [Error Codes](#).

## 5.2.3 Obtaining All Tags of an EVS Resource Type

### Function

This API is used to obtain all tags of an EVS resource type.

### Constraints

None

### URI

- URI format  
GET /v2/{project\_id}/os-vendor-tags/{resource\_type}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

### Request

None

### Response

- Response parameters

Parameter	Type	Description
tags	Object	The tag information of all disks.

- Example response

```
{
  "tags": {
    "key_0": [
      "value_0"
    ],
    "key_1": [
      "value_1",
      "value_2",

```

```
    "value_3",  
    "value_4"  
  ]  
}  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.4 Querying Tags of an EVS Disk

### Function

This API is used to query the tags of the specified EVS disk.

### Constraints

None

### URI

- URI format  
GET /v2/{project\_id}/os-vendor-volumes/{volume\_id}/tags
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

### Request

None

### Response

- Parameter description

Parameter	Type	Description
tags	List<resource_tag>	Specifies the tag list. For details, see <a href="#">Parameters in the tags field</a> .

- Parameters in the **tags** field

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

- Example response

```
{
  "tags": [
    {
      "value": "value1",
      "key": "key1"
    },
    {
      "value": "value2",
      "key": "key2"
    }
  ]
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.5 Querying Details of EVS Disks by Tag

### Function

This API is used to query the details of EVS disks by tag.

### Constraints

None

### URI

- URI format  
POST /v2/{project\_id}/os-vendor-volumes/resource\_instances/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

## Request

- Request parameters

Parameter	Type	Mandatory	Description
tags	Array of objects	Yes	<p>The key-value pairs of tags. For details, see <a href="#">Parameters in the tags field</a>.</p> <p>One tag list can contain a maximum of 10 keys.</p> <p>Tag keys in a tag list must be unique.</p> <p>When multiple keys are specified in a tag list, only the disks having all specified keys are queried.</p> <p><b>NOTE</b> If multiple tag lists are specified in the request, only the disks that meet the requirements of the last tag list are queried.</p>
limit	Integer	No	<p>The number of query records.</p> <p>The value ranges from <b>1</b> to <b>1000</b>, and the default value is <b>1000</b>. The returned value cannot exceed this limit.</p>
offset	Integer	No	<p>The index location.</p> <p>The minimum value is <b>0</b>, which is also the default value.</p> <p>The first record in the query result is the offset+1 record that meets the query criteria.</p>
action	String	Yes	<p>The operation identifier.</p> <p>Specifying <b>filter</b> queries the details of disks by tag.</p>
matches	Array of objects	No	<p>The query criteria that the resource supports. For details, see <a href="#">Parameters in the matches field</a>.</p> <p>Tag keys in a list must be unique.</p>

- Parameters in the **tags** field

Parameter	Type	Mandatory	Description
key	String	Yes	The tag key.

Parameter	Type	Mandatory	Description
values	Array of objects	Yes	<p>The tag value.</p> <ul style="list-style-type: none"> <li>One value list can contain a maximum of 10 values.</li> <li>Tag values in a value list must be unique.</li> <li>If the value list is left empty, any tag value can be matched. When multiple values are specified in a value list and the key requirements are met, disks that have any of the specified values are queried.</li> </ul>

- Parameters in the **matches** field

Parameter	Type	Mandatory	Description
key	String	Yes	<p>The tag key.</p> <p>The value can be as follows:</p> <ul style="list-style-type: none"> <li><b>resource_name</b>: the disk name</li> <li><b>service_type</b>: the service type</li> </ul>
value	String	Yes	<p>The tag value.</p> <ul style="list-style-type: none"> <li>It can contain up to 255 characters.</li> <li>If <b>resource_name</b> is specified for <b>key</b>, the tag value uses a fuzzy match.</li> </ul>

- Example request

```

{
  "offset": "100",
  "limit": "100",
  "action": "filter",
  "tags": [
    {
      "key": "key1",
      "values": [
        "value1",
        "value2"
      ]
    }
  ],
  "matches": [
    {
      "key": "resource_name",
      "value": "resource1"
    }
  ]
}

```

```
    "key": "service_type",  
    "value": "EVS"  
  }  
]  
}
```

## Response

- Response parameters

Parameter	Type	Description
total_count	Integer	The total number of disks that meet the query criteria.
resources	List<resource >	The list of disks that meet the query criteria. For details, see <a href="#">Parameters in the resources field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **resources** field

Parameter	Type	Description
resource_id	String	The disk ID.
resource_name	String	The disk name.
resource_detail	object	The disk details.
tags	Array of Map<String, String> objects	The tag list.

- Parameters in the **VolumeDetailForTag** field

Parameter	Type	Description
id	String	The disk ID.
links	Array of Objects	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	Array of Objects	The disk URI. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.

Parameter	Type	Description
os-vol-host-attr:host	String	The reserved field.
source_volid	String	The source disk ID. This parameter has a value if the disk is created from a source disk. This field is currently not supported.
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
description	String	The disk description.
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The tenant ID is the same as the project ID.
volume_image_metadata	Map<String, Object>	The metadata of the disk image. <b>NOTE</b> Note:
volume_type	String	The disk type.
size	Integer	The disk size, in GB.
consistencygroup_id	String	The reserved field.
bootable	String	Whether the disk is bootable. The value can be <b>true</b> (a bootable disk) or <b>false</b> (a non-bootable disk).
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the VolumeMetadata field</a> .
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
encrypted	Boolean	This field is currently not supported.
replication_status	String	The reserved field.
os-volume-replication:extended_statuses	String	The reserved field.

Parameter	Type	Description
os-vol-mig-status-attr:migstat	String	The reserved field.
os-vol-mig-status-attr:name_id	String	The reserved field.
shareable	Boolean	Whether the disk is shareable. The value can be <b>true</b> (shared disk) or <b>false</b> (common disk). This field is no longer used. Use <b>multiattach</b> .
user_id	String	The reserved field.
service_type	String	The service type. The value can be <b>EVS</b> , <b>DSS</b> , or <b>DESS</b> .
multiattach	Boolean	Whether the disk is shareable.
dedicated_storage_id	String	The ID of the DSS storage pool accommodating the disk.
dedicated_storage_name	String	The name of the DSS storage pool accommodating the disk.
tags	Map<String,String>	The disk tags. This field has values if the disk has tags. Or, it is left empty.
wwn	String	The unique identifier used when attaching the disk.
enterprise_project_id	String	The ID of the enterprise project that the disk has been added to. <b>NOTE</b> Note:

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX



Parameter	Type	Description
attachment_id	String	The ID of the attachment information.
device	String	The device name.
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
id	String	The ID of the attached disk.
server_id	String	The ID of the server to which the disk is attached.
volume_id	String	The disk ID.

- Parameters in the **VolumeMetadata** field

Parameter	Type	Description
__system_cmkid	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <b>__system_encrypted</b> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes. <b>NOTE</b>
__system_encrypted	String	The encryption field in <b>metadata</b> . The value can be <b>0</b> (not encrypted) or <b>1</b> (encrypted). If this parameter does not appear, the encryption attribute of the disk is the same as that of the data source. If the disk is not created from a data source, the disk is not encrypted by default.
full_clone	String	The method of creation when the disk is created from a snapshot. <ul style="list-style-type: none"><li><b>0</b>: linked clone</li><li><b>1</b>: full clone</li></ul>
hw:passthrough	String	<ul style="list-style-type: none"><li>Value <b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media. SCSI reservation commands are supported.</li><li>Value <b>false</b> indicates the VBD device type, which supports only simple SCSI read/write commands.</li><li>If this parameter does not appear, the disk device type is VBD.</li></ul>

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "total_count": 1,
  "resources": [{
    "resource_name": "resource1",
    "resource_detail": {
      "attachments": [{
        "server_id": "2080869e-ba46-4ea5-b45e-3191ac0f1d54",
        "attachment_id": "1335f039-7a42-4d1e-be49-ac584db0ba0b",
        "attached_at": "2019-08-06T07:00:21.842812",
        "host_name": null,
        "volume_id": "7fa6b592-ac75-460d-a28a-bb17429d1eb2",
        "device": "/dev/vda",
        "id": "7fa6b592-ac75-460d-a28a-bb17429d1eb2"
      }],
      "links": [{
        "href": "https://
volume.Region.dc1.domainname.com/v2/051375756c80d5eb2ff0c014498645fb/volumes/7fa6b592-
ac75-460d-a28a-bb17429d1eb2",
        "rel": "self"
      }],
      {
        "href": "https://volume.Region.dc1.domainname.com/051375756c80d5eb2ff0c014498645fb/
volumes/7fa6b592-ac75-460d-a28a-bb17429d1eb2",
        "rel": "bookmark"
      }],
      "availability_zone": "kvmxen.dc1",
      "os-vol-host-attr:host": "az21.dc1#2",
      "encrypted": false,
      "dedicated_storage_id": null,
      "enterprise_project_id": "0",
      "updated_at": "2019-08-09T06:19:35.874737",
      "os-volume-replication:extended_status": null,
      "replication_status": "disabled",
      "snapshot_id": null,
      "id": "7fa6b592-ac75-460d-a28a-bb17429d1eb2",
      "size": 40,
      "user_id": "75f26e17348643bfb7718578b04635c2",
      "os-vol-tenant-attr:tenant_id": "051375756c80d5eb2ff0c014498645fb",
      "service_type": "EVS",
      "os-vol-mig-status-attr:migstat": null,
      "metadata": {
    },
    "status": "in-use",
    "volume_image_metadata": {
      "size": "0",
      "__quick_start": "False",
      "container_format": "bare",
      "min_ram": "0",
      "image_name": "test-hua-centos7.3-0725",
      "image_id": "c6c153a6-dde8-4bac-8e40-3d7619436934",
      "__os_type": "Linux",
      "min_disk": "20",
      "__support_kvm": "true",
      "virtual_env_type": "FusionCompute",
    }
  }
  ]
}
```

```
    "__description": "",
    "__os_version": "CentOS 7.3 64bit",
    "__os_bit": "64",
    "__image_source_type": "uds",
    "__support_xen": "true",
    "file_format": "zvhd2",
    "checksum": "d41d8cd98f00b204e9800998ecf8427e",
    "__imagetype": "gold",
    "disk_format": "zvhd2",
    "__image_cache_type": "Not_Cache",
    "__isregistered": "true",
    "__image_location": "192.168.46.200:5443:pcsimsregion:c6c153a6-
d4e8-4bac-8e40-3d7619436934",
    "__image_size": "911269888",
    "__platform": "CentOS"
  },
  "description": "",
  "multiattach": false,
  "source_valid": null,
  "consistencygroup_id": null,
  "os-vol-mig-status-attr:name_id": null,
  "name": "resource1",
  "bootable": "true",
  "created_at": "2019-08-06T06:59:03.056682",
  "volume_type": "SAS",
  "shareable": false,
  "dedicated_storage_name": null
},
"tags": [{
  "key": "key1",
  "value": "value1"
},
{
  "key": "key1",
  "value": "value2"
}],
"resource_id": "7fa6b592-ac75-460d-a28a-bb17429d1eb2"
}]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "computeFault": {
    "message": "The server has either erred or is incapable of performing the requested operation.",
    "code": 500
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.6 Deleting the Tag of an EVS Resource by Key

### Function

This API is used to delete the tag of an EVS resource by key.

### Constraints

None

### URI

- URI format  
DELETE /v2/{project\_id}/os-vendor-tags/{resource\_type}/{resource\_id}/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	The resource type. The value can be <b>volumes</b> , <b>snapshots</b> , or <b>backups</b> .
resource_id	Yes	The resource ID. The value can be the ID of a disk, snapshot, or backup.
key	Yes	The tag key.

### Request

None

### Response

- Response parameters

Parameter	Type	Description
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.7 Querying the Number of EVS Disks by Tag

### Function

This API is used to query the number of EVS disks by tag.

### Constraints

None

### URI

- URI format  
POST /v2/{project\_id}/os-vendor-volumes/resource\_instances/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

## Request

- Parameter description

Parameter	Type	Mandatory	Description
tags	Array of objects	No	Specifies the key-value pairs of the tag. For details, see <a href="#">Parameters in the tags field</a> . The <b>tags</b> field cannot be left empty. One tag list can contain a maximum of 10 keys. Tag keys in a tag list must be unique. When multiple keys are specified in a tag list, only the disks having all specified keys are queried. <b>NOTE</b> If multiple tag lists are specified in the request, only the disks that meet the requirements of the last tag list are queried.
action	String	Yes	Specifies the operation identifier. Specifying <b>count</b> queries the number of disks by tag.
matches	Array of objects	No	Specifies the query criteria that the resource supports. For details, see <a href="#">Parameters in the match field</a> . The <b>matches</b> field cannot be left empty. Tag keys in the list must be unique.

- Parameters in the **resource\_tag** field

Parameter	Type	Mandatory	Description
key	String	Yes	<p>Specifies the tag key. Tag keys of a disk must be unique.</p> <ul style="list-style-type: none"> <li>A tag key can contain a maximum of 36 characters.</li> <li>Character set: A-Z, a-z, 0-9, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF)</li> </ul>
values	Array of objects	Yes	<p>One value list can contain a maximum of 10 values.</p> <p>Tag values in a value list must be unique.</p> <p>If the value list is left empty, any tag value can be matched.</p> <p>When multiple values are specified in a value list and the key requirements are met, disks that have any of the specified values are queried.</p>

- Parameters in the **match** field

Parameter	Type	Mandatory	Description
key	String	Yes	<p>Specifies the tag key. The value is of the enumerated type.</p> <p>The value can be as follows:</p> <ul style="list-style-type: none"> <li><b>resource_name</b>: disk name.</li> <li><b>service_type</b>: service type.</li> </ul>
value	String	Yes	<p>Specifies the tag value.</p> <ul style="list-style-type: none"> <li>It can contain up to 255 Unicode characters.</li> <li>An empty string specifies an exact match, and a non-empty string specifies a fuzzy query.</li> <li>If <b>resource_name</b> is specified for <b>key</b>, spaces before and after the tag value will be discarded.</li> </ul>

- Example request

```
{
  "action": "count",
  "tags": [
```

```

    {
      "key": "key1",
      "values": [
        "value1",
        "value2"
      ]
    },
    "matches": [
      {
        "key": "resource_name",
        "value": "resource1"
      },
      {
        "key": "service_type",
        "value": "EVS"
      }
    ]
  }

```

## Response

- Parameter description

Parameter	Type	Description
total_count	Integer	Specifies the total number of disks that meet the query criteria.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```

{
  "total_count": 1000
}

```

or

```

{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}

```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```

{
  "computeFault": {

```



```
"message": "The server has either erred or is incapable of performing the requested operation.",  
"code": 500  
}  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.8 Adding or Updating Tags for an EVS Resource (Deprecated)

### Function

This API is used to add or update tags for an EVS resource.

---

#### NOTICE

This API has been deprecated. Use another API. For details, see [Batch Adding Tags for the Specified EVS Disk](#).

---

### Constraints

- Tag key: This parameter is mandatory if tags are to be added to an EVS resource.  
A tag key can contain a maximum of 36 characters and can contain letters (A-Z and a-z), digits (0-9), hyphens (-), underscores (\_), and Unicode characters (\u4E00-\u9FFF).
- Tag value: This parameter is optional if tags are to be added to an EVS resource.  
A tag value can contain a maximum of 43 characters and can contain letters (A-Z and a-z), digits (0-9), periods (.), hyphens (-), underscores (\_), and Unicode characters (\u4E00-\u9FFF). It can be an empty string.
- A maximum of 10 tags can be created for an EVS resource.

### URI

- URI format  
POST /v2/{project\_id}/os-vendor-tags/{resource\_type}/{resource\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	Specifies the resource type. The value can be <b>volumes</b> , <b>snapshots</b> , or <b>backups</b> .
resource_id	Yes	Specifies the resource ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
tags	Object	Yes	Specifies the key-value pair of the tag.

- Description of the request header parameter

Parameter	Type	Mandatory	Description
Content-Type	Object	Yes	Specifies the type. The value can be <b>application/json</b> .

- Example request

```
{
  "tags" : {
    "key_0" : "value_0",
    "key_1" : "value_1"
  }
}
```

### NOTE

If the request body contains an existing key of the resource, the original tag containing this key will be overwritten. For example, "**key\_1**":"**val\_1**" is an existing tag of the resource. If the request body contains "**key\_1**":"**val\_11**", the tag of **key\_1** for this resource is "**key\_1**":"**val\_11**".

## Response

- Parameter description

Parameter	Type	Description
tags	Object	Specifies the key-value pair of the tag.

- Example response

```
{
  "tags" : {
    "key_0" : "value_0",
    "key_1" : "value_1"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "Invalid tags: Tags property value contains invalid characters.",
    "code": 400
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.9 Batch Deleting Tags for an EVS Resource (Deprecated)

### Function

This API is used to batch delete tags for an EVS resource.

---

#### NOTICE

This API has been deprecated. Use another API. For details, see [Batch Deleting Tags of a Specified EVS Disk](#).

---

### Constraints

None

### URI

- URI format  
POST /v2/{project\_id}/os-vendor-tags/{resource\_type}/{resource\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	Specifies the resource type. The value can be <b>volumes</b> , <b>snapshots</b> , or <b>backups</b> .
resource_id	Yes	Specifies the resource ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
os-delete_tags	Object	Yes	Specifies the key-value pair of the tag.

- Description of the request header parameter

Parameter	Type	Mandatory	Description
Content-Type	Object	Yes	Specifies the type. The value can be <b>application/json</b> .

- Example request

```
{
  "os-delete_tags": {
    "key_0": "value_0",
    "key_1": "value_1"
  }
}
```

## Response

None

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.10 Obtaining Tags of a Specified EVS Resource (Deprecated)

### Function

This API is used to obtain the tags of a specified EVS resource.

#### NOTICE

This API has been deprecated. Use another API. For details, see [Querying Tags of an EVS Disk](#).

### Constraints

None

### URI

- URI format  
GET /v2/{project\_id}/os-vendor-tags/{resource\_type}/{resource\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	Specifies the resource type. The value can be <b>volumes</b> , <b>snapshots</b> , or <b>backups</b> .
resource_id	Yes	Specifies the resource ID.

### Request

None

### Response

- Parameter description

Parameter	Type	Description
tags	Object	Specifies the key-value pair of the tag.

- Example response

```
{  
  "tags" : {
```

```
"key_0" : "value_0",  
"key_1" : "value_1"  
}
```

or

```
{  
  "error": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{  
  "itemNotFound": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.11 Querying Tags of an EVS Resource by Key (Deprecated)

### Function

This API is used to query tags of an EVS resource by key.

---

#### NOTICE

This API has been deprecated. Use another API. For details, see [Querying Tags of an EVS Disk](#).

---

### Constraints

None

### URI

- URI format  
GET /v2/{project\_id}/os-vendor-tags/{resource\_type}/{resource\_id}/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	Specifies the resource type. The value can be <b>volumes</b> , <b>snapshots</b> , or <b>backups</b> .
resource_id	Yes	Specifies the resource ID.
key	Yes	Specifies the key of the tag.

## Request

None

## Response

- Parameter description

Parameter	Type	Description
tag	Object	Specifies the key-value pair of the tag.

- Example response

```
{
  "tag": {
    "key_0": "value_0"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "Tags item was not found",
    "code": 404
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.12 Resetting Tags of an EVS Resource (Deprecated)

### Function

This API is used to reset the tags of an EVS resource, and the existing tags will be deleted.

#### NOTICE

This API call exists for compatibility reasons only and is not meant to be used.

### Constraints

- **Tag key:** This parameter is mandatory if tags are to be added to an EVS resource.

A tag key can contain a maximum of 36 characters and can contain letters (A-Z and a-z), digits (0-9), hyphens (-), underscores (\_), and Unicode characters (\u4E00-\u9FFF).

- **Tag value:** This parameter is optional if tags are to be added to an EVS resource.

A tag value can contain a maximum of 43 characters and can contain letters (A-Z and a-z), digits (0-9), periods (.), hyphens (-), underscores (\_), and Unicode characters (\u4E00-\u9FFF). It can be an empty string.

- A maximum of 10 tags can be created for an EVS resource.

### URI

- URI format  
PUT /v2/{project\_id}/os-vendor-tags/{resource\_type}/{resource\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	Specifies the resource type. The value can be <b>volumes</b> , <b>snapshots</b> , or <b>backups</b> .
resource_id	Yes	Specifies the resource ID.



## Request

- Parameter description

Parameter	Type	Mandatory	Description
tags	Object	Yes	Specifies the key-value pair of the tag.

- Description of the request header parameter

Parameter	Type	Mandatory	Description
Content-Type	Object	Yes	Specifies the type. The value can be <b>application/json</b> .

- Example request

```
{
  "tags": {
    "key_new": "value_new"
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
tags	Object	Specifies the key-value pair of the tag.

- Example response

```
{
  "tags": {
    "key_new": "value_new"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "Invalid tags: Tags property key contains invalid characters.",
    "code": 400
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.13 Updating Tags of an EVS Resource by Key (Deprecated)

### Function

This API is used to update tags of an EVS resource by key.

#### NOTICE

This API has been deprecated. Use another API. For details, see [Batch Adding Tags for the Specified EVS Disk](#).

### Constraints

- Tag key: This parameter is mandatory if tags are to be added to an EVS resource.

A tag key can contain a maximum of 36 characters and can contain letters (A-Z and a-z), digits (0-9), hyphens (-), underscores (\_), and Unicode characters (\u4E00-\u9FFF).

- Tag value: This parameter is optional if tags are to be added to an EVS resource.

A tag value can contain a maximum of 43 characters and can contain letters (A-Z and a-z), digits (0-9), periods (.), hyphens (-), underscores (\_), and Unicode characters (\u4E00-\u9FFF). It can be an empty string.

- A maximum of 10 tags can be created for an EVS resource.

### URI

- URI format  
PUT /v2/{project\_id}/os-vendor-tags/{resource\_type}/{resource\_id}/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	Specifies the resource type. The value can be <b>volumes</b> , <b>snapshots</b> , or <b>backups</b> .
resource_id	Yes	Specifies the resource ID.
key	Yes	Specifies the key of the tag.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
tag	Object	Yes	Specifies the key-value pair of the tag.

- Description of the request header parameter

Parameter	Type	Mandatory	Description
Content-Type	Object	Yes	Specifies the type. The value can be <b>application/json</b> .

- Example request

```
{
  "tag": {
    "key_0": "value_0"
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
tag	Object	Specifies the key-value pair of the tag.

- Example response

```
{
  "tag": {
    "key_0": "value_0"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "Request body and URI mismatch",
    "code": 400
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.2.14 Querying EVS Resources by Tag (Deprecated)

### Function

This API is used to query the EVS resources by tag.

#### NOTICE

This API has been deprecated. Use another API. For details, see [Querying Details of EVS Disks by Tag](#).

### Constraints

None

### URI

- URI format  
GET /v2/{project\_id}/os-vendor-tags/{resource\_type}/resource\_instances

Examples:

- `https://{{evs_url}}/v2/{{project_id}}/os-vendor-tags/volumes/resource_instances?tags={'test':['test']}`
- `https://{{evs_url}}/v2/{{project_id}}/os-vendor-tags/volumes/resource_instances`

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	Specifies the resource type. The value can be <b>volumes</b> , <b>snapshots</b> , or <b>backups</b> .

- Request filter parameters

Parameter	Type	Mandatory	Description
tags	String	No	Specifies to query the EVS resources owning the tags in the filtering tag. For example, if the filtering tag is <b>tags={ 'a': ['b', 'c'], 'd': ['e'] }</b> , EVS resources owning tags (key is <b>a</b> and value is <b>b</b> or <b>c</b> ) and tags (key is <b>d</b> and value is <b>e</b> ) are queried.
tags_any	String	No	Specifies to query EVS resources owing one of the tags in the filtering tag. For example, if the filtering tag is <b>tags_any={ 'a': ['b', 'c'], 'd': ['e'] }</b> , EVS resources owning tags (key is <b>a</b> and value is <b>b</b> or <b>c</b> ) or tags (key is <b>d</b> and value is <b>e</b> ) are queried.
not_tags	String	No	Specifies to query EVS resources not owning the tags in the filtering tag. For example, if the filtering tag is <b>not_tags={ 'a': ['b', 'c'], 'd': ['e'] }</b> , EVS resources not owning tags (key is <b>a</b> and value is <b>b</b> or <b>c</b> ) and tags (key is <b>d</b> and value is <b>e</b> ) are queried.
not_tags_any	String	No	Specifies to query EVS resources not owning one of the tags in the filtering tag. For example, if the filtering tag is <b>not_tags={ 'a': ['b', 'c'], 'd': ['e'] }</b> , EVS resources not owning tags (key is <b>a</b> and value is <b>b</b> or <b>c</b> ) or tags (key is <b>d</b> and value is <b>e</b> ) are queried.

## Request

None

## Response

- Parameter description

Parameter	Type	Description
total_count	Integer	Specifies the number of EVS resources.
resources	list	Specifies the EVS resource lists.

- Example response

```
{
  "total_count": 2,
  "resources": [
    {
      "resource_name": null,
      "resource_detail": {
        "status": "available",
        "description": null,
        "availability_zone": "az-dc-1",
        "updated_at": "2017-07-26T08:14:07.857625",
        "source_volid": null,
        "snapshot_id": null,
        "id": "47cc4949-447a-43dc-b482-a1d7917fef69",
        "size": 45,
        "name": null,
        "bootable": "true",
        "created_at": "2017-07-26T08:09:39.787432",
        "multiattach": false
      },
      "tags": {
        "a": "c",
        "d": "e"
      },
      "resource_id": "47cc4949-447a-43dc-b482-a1d7917fef69"
    },
    {
      "resource_name": null,
      "resource_detail": {
        "status": "available",
        "description": null,
        "availability_zone": "az-dc-1",
        "updated_at": "2017-07-26T08:02:11.250455",
        "source_volid": null,
        "snapshot_id": null,
        "id": "588e94ef-eb2d-4895-a692-18163a7eeddc",
        "size": 100,
        "name": null,
        "bootable": "false",
        "created_at": "2017-07-26T08:00:51.563309",
        "multiattach": false
      },
      "tags": {
        "a": "c",
        "d": "e"
      },
      "resource_id": "588e94ef-eb2d-4895-a692-18163a7eeddc"
    }
  ]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "computeFault": {
    "message": "The server has either erred or is incapable of performing the requested operation.",
    "code": 500
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

# 5.3 Task Management

## 5.3.1 Querying Task Status

### Function

This API is used to query the execution status of tasks, such as the status of disk creation, capacity expansion, and deletion.

### URI

- URI format  
GET /v1/{project\_id}/jobs/{job\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
job_id	Yes	Specifies the task ID.

### Request

The following example shows how to query the status of the task whose task ID is ff808081692a62c70169b4dcf9514264.

- Example request  
GET https://{endpoint}/v1/{project\_id}/jobs/ff808081692a62c70169b4dcf9514264

### Response

- Parameter description

Parameter	Type	Description
status	String	Specifies the task status. <ul style="list-style-type: none"><li>• <b>SUCCESS</b>: The task is successfully executed.</li><li>• <b>RUNNING</b>: The task is in progress.</li><li>• <b>FAIL</b>: The task fails.</li><li>• <b>INIT</b>: The task is being initialized.</li></ul>
entities	Object	Specifies the response to the task. For details, see <a href="#">Parameters in the entities field</a> . The content for each type of task is different.
job_id	String	Specifies the task ID.
job_type	String	Specifies the task type. <ul style="list-style-type: none"><li>• <b>createVolume</b>: creates a disk.</li><li>• <b>batchCreateVolume</b>: batch creates disks.</li><li>• <b>deleteVolume</b>: deletes a disk.</li><li>• <b>extendVolume</b>: expands the disk capacity.</li><li>• <b>bulkDeleteVolume</b>: batch deletes disks.</li><li>• <b>deleteSingleVolume</b>: deletes disks one by one during a batch deletion.</li></ul>
begin_time	String	Specifies the time when the task was started. Time format: YYYY-MM-DDTHH:MM:SS.SSS'Z'
end_time	String	Specifies the time when the task finished. Time format: YYYY-MM-DDTHH:MM:SS.SSS'Z'
error_code	String	Specifies the returned error code when the task execution fails.
fail_reason	String	Specifies the cause of the task execution failure.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameter in the **entities** field



Parameter	Type	Description
name	String	Specifies the EVS disk name.
size	Integer	Specifies the disk size, in GB.
sub_jobs	Array of Objects	Specifies the information about a sub-job. For details, see <a href="#">•Parameters in the sub_jobs field</a> .
volume_id	String	Specifies the disk ID.
volume_type	String	Specifies the disk type.

- Parameters in the **sub\_jobs** field

Parameter	Type	Description
status	String	Specifies the task status. <ul style="list-style-type: none"><li>• <b>SUCCESS</b>: The task is successfully executed.</li><li>• <b>RUNNING</b>: The task is in progress.</li><li>• <b>FAIL</b>: The task fails.</li><li>• <b>INIT</b>: The task is being initialized.</li></ul>
entities	Object	Specifies the response to the task. For details, see <a href="#">•Parameters in the entities field</a> . The content for each type of task is different.
job_id	String	Specifies the task ID.
job_type	String	Specifies the task type. <ul style="list-style-type: none"><li>• <b>createVolume</b>: creates a disk.</li><li>• <b>batchCreateVolume</b>: batch creates disks.</li><li>• <b>deleteVolume</b>: deletes a disk.</li><li>• <b>extendVolume</b>: expands the disk capacity.</li><li>• <b>bulkDeleteVolume</b>: batch deletes disks.</li><li>• <b>deleteSingleVolume</b>: deletes disks one by one during a batch deletion.</li></ul>
begin_time	String	Specifies the time when the task was started. Time format: YYYY-MM-DDTHH:MM:SS.SSS'Z'

Parameter	Type	Description
end_time	String	Specifies the time when the task finished. Time format: YYYY-MM-DDTHH:MM:SS.SSS'Z'
error_code	String	Specifies the returned error code when the task execution fails.
fail_reason	String	Specifies the cause of the task execution failure.

- Parameter in the **entities** field

Parameter	Type	Description
name	String	Specifies the EVS disk name.
size	Integer	Specifies the disk size, in GB.
volume_id	String	Specifies the disk ID.
volume_type	String	Specifies the disk type.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "status": "RUNNING",
  "entities": {
    "volume_id": "bdf1bb37-f20f-4266-9a04-f43e0a127376"
  },
  "job_id": "4010a32d535527910153552b492c0002",
  "job_type": "createVolume",
  "begin_time": "2016-03-08T07:40:13.219Z",
  "end_time": "",
  "error_code": null,
  "fail_reason": null
}
```

or

```
{
  "status": "SUCCESS",
  "entities": {
    "sub_jobs": [
      {
        "status": "SUCCESS",
        "entities": {
          "volume_id": "0b549095-4937-4849-8e4c-52aa027d64f7"
        }
      }
    ]
  }
}
```

```
    },
    "job_id": "21917a8d52a19b040152a9f2f2e50041",
    "job_type": "createVolume",
    "begin_time": "2016-02-04T01:43:37.445Z",
    "end_time": "2016-02-04T01:44:02.239Z",
    "error_code": null,
    "fail_reason": null
  },
  {
    "status": "SUCCESS",
    "entities": {
      "volume_id": "e7bca1a2-d3ed-434f-86f4-a1f11aa80072"
    }
  },
  "job_id": "21917a8d52a19b040152a9f2f2f60042",
  "job_type": "createVolume",
  "begin_time": "2016-02-04T01:43:37.462Z",
  "end_time": "2016-02-04T01:44:02.245Z",
  "error_code": null,
  "fail_reason": null
}
]
},
"job_id": "21917a8d52a19b040152a9f2f1eb003e",
"job_type": "batchCreateVolume",
"begin_time": "2016-02-04T01:43:37.193Z",
"end_time": "2016-02-04T01:44:08.283Z",
"error_code": null,
"fail_reason": null
}
}
or
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 5.4 EVS Replication Pair (Deprecated)

### 5.4.1 Creating an EVS Replication Pair (Deprecated)

#### Function

This API is used to create an EVS replication pair using a specified production disk and a disaster recovery (DR) disk. The production disk is in the primary AZ, and the DR disk is in the secondary AZ.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

## Constraints

- Two EVS disks used to create the EVS replication pair have been created and belong to different AZs.
- The types and capacities of the two EVS disks must be consistent.
- If the DR disk has been attached to a server, the server must be stopped.

## URI

- URI format  
POST /v2/{project\_id}/os-vendor-replications
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
replication	Yes	Object	Specifies the replication pair creation marker. For details, see <a href="#">Parameters in the replication field</a> .

- Parameters in the **replication** field

Parameter	Mandatory	Type	Description
name	No	String	Specifies the name of the EVS replication pair. The name can contain a maximum of 255 bytes.
description	No	String	Specifies the description of the EVS replication pair. The description can contain a maximum of 255 bytes.
volume_ids	Yes	list	Specifies the IDs of the EVS disks used to create the EVS replication pair.

Parameter	Mandatory	Type	Description
priority_station	Yes	String	Specifies the primary AZ of the EVS replication pair, that is, the AZ where the production disk belongs.
replication_model	Yes	String	Specifies the type of the EVS replication pair. Currently, only type <b>hypermetro</b> is supported.

- Example request

```
{
  "replication": {
    "name": "my replication",
    "description": "my replication",
    "volume_ids": [
      "18aa67ea-c7cb-4826-800d-50e67f0de75b",
      "375d23be-3658-498f-8b50-d3b950a890ec"
    ],
    "priority_station": "az2.dc2",
    "replication_model": "hypermetro"
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
replication	Object	Specifies the EVS replication pair information.
id	String	Specifies the ID of the EVS replication pair.
name	String	Specifies the name of the EVS replication pair.
description	String	Specifies the description of the EVS replication pair.
status	String	Specifies the status of the EVS replication pair. For details, see <a href="#">EVS Replication Pair Status (Deprecated)</a> .
replication_consistency_group_id	String	Specifies the ID of the replication consistency group where the EVS replication pair belongs.

Parameter	Type	Description
volume_ids	String	Specifies the IDs of the EVS disks used to create the EVS replication pair.
priority_station	String	Specifies the primary site of the EVS replication pair.
created_at	datetime	Specifies the creation time.
updated_at	datetime	Specifies the update time.

- Example response

```
{
  "replication": {
    "id": "91085433-9499-4a68-b2c6-35072467ccd2",
    "name": "my replication",
    "description": "my replication",
    "status": "creating",
    "replication_consistency_group_id": null,
    "volume_ids": "18aa67ea-c7cb-4826-800d-50e67f0de75b, 375d23be-3658-498f-8b50-d3b950a890ec",
    "priority_station": "az2.dc2",
    "created_at": "2017-09-28T05:08:32.839953",
    "updated_at": null
  }
}
```

## Status Codes

- Normal

Returned Value	Description
202	The server has accepted the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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.

Returned Value	Description
407 Proxy Authentication Required	You must use the proxy server for authentication. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.4.2 Deleting an EVS Replication Pair (Deprecated)

### Function

This API is used to delete a specified EVS replication pair.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

### Constraints

- The to-be-deleted EVS replication pair cannot be in any replication consistency group. Otherwise, it cannot be deleted.
- The to-be-deleted EVS replication pair must be in the **available** or **error** state.

### URI

- URI format  
DELETE /v2/{project\_id}/os-vendor-replications/{replication\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.

Parameter	Mandatory	Description
replication_id	Yes	Specifies the ID of the EVS replication pair.

## Request

None

## Response

None

## Status Codes

- Normal

Returned Value	Description
202	The server has accepted the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.



Returned Value	Description
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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

### 5.4.3 Querying All EVS Replication Pairs (Deprecated)

#### Function

This API is used to query all EVS replication pairs of the current tenant.

 **NOTE**

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

#### Constraints

None

#### URI

- URI format  
GET /v2/{project\_id}/os-vendor-replications
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.

#### Request

- Parameter description

Parameter	Mandatory	Type	Description
marker	No	String	Specifies the ID of the last EVS replication pair on the previous page, and the next EVS replication pair ID is returned.
limit	No	integer	Specifies the maximum number of query results that can be returned. The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit.
sort_key	No	String	Specifies that the returned results are sorted by keyword. The default keyword is <b>created_at</b> , indicating that the EVS replication pairs are sorted by creation time.
sort_dir	No	String	Specifies that the returned results are sorted by ascending or descending order. The default value is <b>desc</b> , indicating that the EVS replication pairs are sorted by descending order.
offset	No	integer	Specifies the offset.
changes-since	No	String	Specifies to query all the EVS replication pairs that have been updated from the specified time point to the current time.
name	No	String	Specifies the name of the EVS replication pair.
status	No	String	Specifies the status of the EVS replication pair.
replication_consistency_group_id	No	String	Specifies the ID of the replication consistency group where the EVS replication pair belongs.

Parameter	Mandatory	Type	Description
volume_ids	No	String	Specifies the IDs of the EVS disks used to create the EVS replication pair.
volume_id	No	String	Specifies the ID of an EVS disk.
priority_station	No	String	Specifies the primary site of the EVS replication pair.

- Example request  
None

## Response

- Parameter description

Parameter	Type	Description
replications	List<replication>	Specifies the EVS replication pairs.
id	String	Specifies the ID of the EVS replication pair.
name	String	Specifies the name of the EVS replication pair.
description	String	Specifies the description of the EVS replication pair.
status	String	Specifies the status of the EVS replication pair. For details, see <a href="#">EVS Replication Pair Status (Deprecated)</a> .
replication_consistency_group_id	String	Specifies the ID of the replication consistency group where the EVS replication pair belongs.
volume_ids	String	Specifies the IDs of the EVS disks used to create the EVS replication pair.
priority_station	String	Specifies the primary site of the EVS replication pair.
created_at	datetime	Specifies the creation time.
updated_at	datetime	Specifies the update time.
replication_model	String	Specifies the replication type of the EVS replication pair.

Parameter	Type	Description
replication_status	String	Specifies the replication status of the EVS replication pair. For details, see <a href="#">EVS Replication Pair Status (Deprecated)</a> .
progress	String	Specifies the synchronization progress of the EVS replication pair. Unit: %
failure_detail	String	Specifies the returned error code if the EVS replication pair status is <b>error</b> . For details, see <a href="#">Details of EVS Replication failure_detail Values (Deprecated)</a> .
record_metadata	Object	Specifies the billing record of the replication pair. For details, see <a href="#">Parameters in the record_metadata field</a> .
fault_level	String	Specifies the fault level of the EVS replication pair. The value can be as follows: <ul style="list-style-type: none"><li>● <b>0</b>: indicates that no fault occurs.</li><li>● <b>2</b>: indicates that the production disk does not have read/write permissions. In this case, you are advised to perform a failover.</li><li>● <b>5</b>: indicates that the replication link is disconnected. In this case, a failover cannot be performed. Contact technical support engineers.</li></ul>

- Parameters in the **record\_metadata** field

Parameter	Type	Description
volume_type	String	Specifies the type of the EVS disks in the EVS replication pair.
multiattach	Boolean	Specifies whether the EVS disks in the EVS replication pair are shared EVS disks.

Parameter	Type	Description
volume_size	integer	Specifies the size of each EVS disk in the EVS replication pair. The unit is GB.

- Example response

```
{
  "replications": [
    {
      "status": "available",
      "replication_model": "hypermetro",
      "description": "replication",
      "record_metadata": "{ \"volume_size\": 5, \"volume_type\": \"ssd\", \"multiattach\": false}",
      "updated_at": "2017-11-27T12:08:01.463824",
      "replication_status": "inactive",
      "fault_level": "0",
      "id": "190081db-9023-431d-a51a-197faf3762b5",
      "replication_consistency_group_id": null,
      "priority_station": "az2.dc2",
      "volume_ids": "288a6cac-1352-460f-9b93-bfd41979f805,905d5dee-2ce4-406b-
bb8a-314b3e92643e",
      "name": "replication",
      "created_at": "2017-11-27T12:07:59.993903",
      "progress": null
    },
    {
      "status": "available",
      "replication_model": "hypermetro",
      "description": "replication",
      "record_metadata": "{ \"volume_size\": 10, \"volume_type\": \"ssd\", \"multiattach\": false}",
      "updated_at": "2017-11-28T06:16:30.725816",
      "replication_status": "active",
      "fault_level": "0",
      "id": "6690b30a-b40c-4a50-bd4a-7e5c1e28b821",
      "replication_consistency_group_id": "13b582e6-092e-4f7a-9260-8eb7a4ad860e",
      "priority_station": "az3.dc3",
      "volume_ids": "f3bd8265-130a-4917-815b-a074ddb06850,32eb83a2-dd2f-480d-
a49e-7af6edf3c7c7",
      "name": "replication",
      "created_at": "2017-11-27T11:37:24.459062",
      "progress": "100"
    }
  ]
}
```

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.

Returned Value	Description
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.4.4 Querying Details About an EVS Replication Pair (Deprecated)

### Function

This API is used to query the details about an EVS replication pair, including the name, ID, and status of the replication pair.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

## Constraints

None

## URI

- URI format  
GET /v2/{project\_id}/os-vendor-replications/{replication\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_id	Yes	Specifies the ID of the EVS replication pair.

## Request

None

## Response

- Parameter description

Parameter	Type	Description
replication	Object	Specifies the details of the EVS replication pair.
id	String	Specifies the ID of the EVS replication pair.
name	String	Specifies the name of the EVS replication pair.
description	String	Specifies the description of the EVS replication pair.
status	String	Specifies the status of the EVS replication pair. For details, see <a href="#">EVS Replication Pair Status (Deprecated)</a> .
replication_consistency_group_id	String	Specifies the ID of the replication consistency group where the EVS replication pair belongs.
volume_ids	String	Specifies the IDs of the EVS disks used to create the EVS replication pair.
priority_station	String	Specifies the primary site of the EVS replication pair.

Parameter	Type	Description
created_at	datetime	Specifies the creation time.
updated_at	datetime	Specifies the update time.
replication_model	String	Specifies the replication type of the EVS replication pair.
replication_status	String	Specifies the replication status of the EVS replication pair. For details, see <a href="#">EVS Replication Pair Status (Deprecated)</a> .
progress	String	Specifies the synchronization progress of the EVS replication pair. Unit: %
failure_detail	String	Specifies the returned error code if the EVS replication pair status is <b>error</b> . For details, see <a href="#">Details of EVS Replication failure_detail Values (Deprecated)</a> .
record_metadata	Object	Specifies the billing record of the replication pair. For details, see <a href="#">Parameters in the record_metadata field</a> .
fault_level	String	Specifies the fault level of the EVS replication pair. The value can be as follows: <ul style="list-style-type: none"><li>● <b>0</b>: indicates that no fault occurs.</li><li>● <b>2</b>: indicates that the production disk does not have read/write permissions. In this case, you are advised to perform a failover.</li><li>● <b>5</b>: indicates that the replication link is disconnected. In this case, a failover cannot be performed. Contact technical support engineers.</li></ul>

- Parameters in the **record\_metadata** field



Parameter	Type	Description
volume_type	String	Specifies the type of the EVS disks in the EVS replication pair.
multiattach	Boolean	Specifies whether the EVS disks in the EVS replication pair are shared EVS disks.
volume_size	integer	Specifies the size of each EVS disk in the EVS replication pair. The unit is GB.

- Example response

```
{
  "replication": {
    "status": "available",
    "priority_station": "az2.dc2",
    "volume_ids": "a623cd91-89f9-4baf-a5aa-7774d2bfc8b,3e8fdded-64bb-4c60-
a55e-2e4bc3d240d6",
    "record_metadata": "{\"volume_size\": 10,\"volume_type\": \"ssd\", \"multiattach\": false}",
    "name": "yes",
    "created_at": "2017-09-30T10:14:32.747000",
    "updated_at": "2017-09-30T10:14:34.505912",
    "replication_consistency_group_id": null,
    "replication_status": "active",
    "fault_level": "0",
    "replication_model": "hypermetro",
    "id": "dddd9746-14df-4823-be9d-7b4f4f8518ed",
    "description": "yes",
    "progress": "100"
  }
}
```

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
405 Method Not Allowed	You are not allowed to use the method specified in the request.

Returned Value	Description
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5 Replication Consistency Group (Deprecated)

### 5.5.1 Creating a Replication Consistency Group (Deprecated)

#### Function

This API is used to create a replication consistency group for the specified EVS replication pairs.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

#### Constraints

- At least one EVS replication pair must be added when you create the replication consistency group.
- The EVS replication pairs to be added to the group must be in the **available** state.

## URI

- URI format  
POST /v2/{project\_id}/os-vendor-replication-consistency-groups
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
replication_consistency_group	Yes	Object	Specifies to create the replication consistency group. For details, see <a href="#">Parameters in the replication_consistency_group field</a> .

- Parameters in the **replication\_consistency\_group** field

Parameter	Mandatory	Type	Description
name	No	String	Specifies the name of the replication consistency group. The name can contain a maximum of 255 bytes.
description	No	String	Specifies the description of the replication consistency group. The description can contain a maximum of 255 bytes.
replication_ids	Yes	list	Specifies the IDs of the EVS replication pairs used to create the replication consistency group.
priority_station	Yes	String	Specifies the current primary AZ, that is, the AZ where the production disks belong.

Parameter	Mandatory	Type	Description
replication_model	Yes	String	Specifies the type of the created replication consistency group. Currently, only type <b>hypermetro</b> is supported.

- Example request

```
{
  "replication_consistency_group": {
    "name": "my replication consistency group",
    "description": "my replication consistency group",
    "replication_ids": [
      "18aa67ea-c7cb-4826-800d-50e67f0de75b",
      "375d23be-3658-498f-8b50-d3b950a890ec"
    ],
    "priority_station": "az2.dc2",
    "replication_model": "hypermetro"
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
replication_consistency_group	Object	Specifies the replication consistency group information.
id	String	Specifies the ID of the replication consistency group.
name	String	Specifies the name of the replication consistency group.
description	String	Specifies the description of the replication consistency group.
status	String	Specifies the status of the replication consistency group. For details, see <a href="#">Replication Consistency Group Status (Deprecated)</a> .
priority_station	String	Specifies the primary site of the replication consistency group.
created_at	datetime	Specifies the creation time.
updated_at	datetime	Specifies the update time.

- Example response

```
{
  "replication_consistency_group": {
    "id": "91085433-9499-4a68-b2c6-35072467ccd2",
```

```
"name": "my replication consistency group",
"description": "my replication consistency group",
"status": "creating",
"priority_station": "az2.dc2",
"created_at": "2017-09-28T05:08:32.839953",
"updated_at": null
}
}
```

## Status Codes

- Normal

Returned Value	Description
202	The server has accepted the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.

Returned Value	Description
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5.2 Deleting a Replication Consistency Group (Deprecated)

### Function

This API is used to delete a replication consistency group.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

### Constraints

- All EVS replication pairs in the replication consistency group have been removed.
- The replication group status must be **available** or **error**.

### URI

- URI format  
DELETE /v2/{project\_id}/os-vendor-replication-consistency-groups/{replication\_consistency\_group\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_consistency_group_id	Yes	Specifies the ID of the replication consistency group.

### Request

None

### Response

None

### Status Codes

- Normal

Returned Value	Description
202	The server has accepted the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

### 5.5.3 Querying All Replication Consistency Groups (Deprecated)

#### Function

This API is used to query all replication consistency groups of the current tenant.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

## Constraints

None

## URI

- URI format  
GET /v2/{project\_id}/os-vendor-replication-consistency-groups
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
marker	No	String	Specifies the ID of the last replication consistency group on the previous page. The next replication consistency group ID is returned.
limit	No	integer	Specifies the maximum number of query results that can be returned. The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit.
sort_key	No	String	Specifies that the returned results are sorted by keyword. The default keyword is <b>created_at</b> , indicating that the replication consistency groups are sorted by creation time.



Parameter	Mandatory	Type	Description
sort_dir	No	String	Specifies that the returned results are sorted by ascending or descending order. The default value is <b>desc</b> , indicating that the replication consistency groups are sorted by descending order.
offset	No	integer	Specifies the offset.
changes-since	No	String	Specifies to query all the replication consistency groups that have been updated from the specified time point to the current time.
name	No	String	Specifies the name of the replication consistency group.
status	No	String	Specifies the status of the replication consistency group.
priority_station	No	String	Specifies the primary site of the replication consistency group.
volume_id	No	String	Specifies the ID of an EVS disk.

- Example request  
None

## Response

- Parameter description

Parameter	Type	Description
replication_consistency_groups	List<replication_consistency_group>	Specifies the replication consistency groups.
id	String	Specifies the ID of the replication consistency group.
name	String	Specifies the name of the replication consistency group.

Parameter	Type	Description
description	String	Specifies the description of the replication consistency group.
status	String	Specifies the status of the replication consistency group. For details, see <a href="#">Replication Consistency Group Status (Deprecated)</a> .
priority_station	String	Specifies the primary site.
replication_model	String	Specifies the replication type of the replication consistency group.
replication_status	String	Specifies the replication status of the replication consistency group. For details, see <a href="#">Replication Consistency Group Status (Deprecated)</a> .
replication_ids	list	Specifies the IDs of all EVS replication pairs in the replication consistency group.
created_at	datetime	Specifies the creation time.
updated_at	datetime	Specifies the latest update time.
failure_detail	String	Specifies the returned error code if the status of the replication consistency group is <b>error</b> . For details, see <a href="#">Details of EVS Replication failure_detail Values (Deprecated)</a> .
fault_level	String	Specifies the fault level of the replication consistency group. The value can be as follows: <ul style="list-style-type: none"><li>● <b>0</b>: indicates that no fault occurs.</li><li>● <b>2</b>: indicates that a production disk in the replication consistency group does not have read/write permissions. In this case, you are advised to perform a failover.</li><li>● <b>5</b>: indicates that the replication link is disconnected. In this case, a failover cannot be performed. Contact technical support engineers.</li></ul>

- Example response

```
{
  "replication_consistency_groups": [
    {
      "status": "available",
      "priority_station": "az3.dc3",
      "replication_ids": [
        "86080dc0-2fcf-4b85-8102-bc123eb8dcaa",
        "580b730e-3160-4382-8a4e-174515d1fa77"
      ],
      "name": "replication consistency group",
      "replication_model": "hypermetro",
      "fault_level": "0",
      "updated_at": "2017-11-28T07:17:21.904376",
      "created_at": "2017-11-28T03:05:10.677939",
      "replication_status": "active-stopped",
      "id": "57b84092-7a75-4e22-bc2a-fab0bec547c5",
      "description": "replication consistency group"
    },
    {
      "status": "available",
      "priority_station": "az3.dc3",
      "replication_ids": [
        "3e9ba31c-6406-4060-870e-b7736ac76836",
        "6690b30a-b40c-4a50-bd4a-7e5c1e28b821"
      ],
      "name": "replication consistency group",
      "replication_model": "hypermetro",
      "fault_level": "0",
      "updated_at": "2017-11-28T06:29:27.155762",
      "created_at": "2017-11-27T11:38:50.421364",
      "replication_status": "active",
      "id": "13b582e6-092e-4f7a-9260-8eb7a4ad860e",
      "description": "replication consistency group"
    }
  ]
}
```

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
405 Method Not Allowed	You are not allowed to use the method specified in the request.

Returned Value	Description
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5.4 Querying Details About a Replication Consistency Group (Deprecated)

### Function

This API is used to query the details about a replication consistency group, including the name, ID, and status of the consistency group.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

### Constraints

None

### URI

- URI format  
GET /v2/{project\_id}/os-vendor-replication-consistency-groups/{replication\_consistency\_group\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_consistency_group_id	Yes	Specifies the ID of the replication consistency group.

## Request

None

## Response

- Parameter description

Parameter	Type	Description
replication_consistency_group	Object	Specifies the details of replication consistency groups.
id	String	Specifies the ID of the replication consistency group.
name	String	Specifies the name of the replication consistency group.
description	String	Specifies the description of the replication consistency group.
status	String	Specifies the status of the replication consistency group. For details, see <a href="#">Replication Consistency Group Status (Deprecated)</a> .
priority_station	String	Specifies the primary site of the replication consistency group.
replication_model	String	Specifies the replication type of the replication consistency group.
replication_status	String	Specifies the replication status of the replication consistency group. For details, see <a href="#">Replication Consistency Group Status (Deprecated)</a> .
replication_ids	list	Specifies the IDs of all EVS replication pairs in the replication consistency group.
created_at	datetime	Specifies the creation time.
updated_at	datetime	Specifies the update time.

Parameter	Type	Description
failure_detail	String	Specifies the returned error code if the status of the replication consistency group is <b>error</b> . For details, see <a href="#">Details of EVS Replication failure_detail Values (Deprecated)</a> .
fault_level	String	Specifies the fault level of the replication consistency group. The value can be as follows: <ul style="list-style-type: none"> <li>● <b>0</b>: indicates that no fault occurs.</li> <li>● <b>2</b>: indicates that a production disk in the replication consistency group does not have read/write permissions. In this case, you are advised to perform a failover.</li> <li>● <b>5</b>: indicates that the replication link is disconnected. In this case, a failover cannot be performed. Contact technical support engineers.</li> </ul>

- Example response

```
{
  "replication_consistency_group": {
    "id": "bd35d31b-7ab9-47fc-84c6-3d326c6fa6cb",
    "name": " replicationcgtest",
    "description": "my replicationcg pair",
    "status": "available",
    "priority_staion": "az2.dc2",
    "replication_model": "hypermetro",
    "fault_level": "0",
    "replication_status": "active-stopped",
    "replication_ids": [
      "e5bd643b-7407-4a0e-8d9a-2a88903e8812"
    ],
    "created_at": "2017-09-30T07:37:06.035360",
    "updated_at": null
  }
}
```

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5.5 Updating a Replication Consistency Group (Deprecated)

### Function

This API is used to update a replication consistency group. An update includes the following operations:

- Update the name or description of the replication consistency group.
- Add EVS replication pairs to or remove EVS replication pairs from the replication consistency group.

 NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

## Constraints

- The replication consistency group must be paused before the update.
- Data needs to be synchronized after a replication consistency group update.

## URI

- URI format  
PUT /v2/{project\_id}/os-vendor-replication-consistency-groups/{replication\_consistency\_group\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_consistency_group_id	Yes	Specifies the ID of the replication consistency group.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
replication_consistency_group	Yes	Object	Specifies the replication consistency group information.

- Parameters in the **replication\_consistency\_group** field

Parameter	Mandatory	Type	Description
name	No	String	Specifies the name of the replication consistency group.
description	No	String	Specifies the description of the replication consistency group.
replication_model	No	String	Specifies the type of the replication consistency group. Currently, only type <b>hypermetro</b> is supported.



Parameter	Mandatory	Type	Description
add_replication_ids	No	list	Specifies the IDs of the EVS replication pairs to be added.
remove_replication_ids	No	list	Specifies the IDs of the EVS replication pairs to be removed.

- Example request

```
{
  "replication_consistency_group": {
    "name": "my replication consistency group",
    "description": "my replication consistency group",
    "replication_model": "hypermetro",
    "add_replication_ids": [
      "0fc12f4e-381d-4f4a-acb0-9890c1683afe",
      "0aee8399-4aeb-4d84-8d77-9d8a9d3dbe1a"
    ],
    "remove_replication_ids": [
      "6b27b8b3-95d2-44e3-9cb2-f7de9e8739f2",
      "caded61-7817-466e-bc0c-96448c4d106e"
    ]
  }
}
```

## Response

- Parameter description

Parameter	Mandatory	Type	Description
replication_consistency_group	Yes	Object	Specifies the replication consistency group information.
id	Yes	String	Specifies the ID of the replication consistency group.
name	Yes	String	Specifies the name of the replication consistency group.
description	Yes	String	Specifies the description of the replication consistency group.
status	Yes	String	Specifies the status of the replication consistency group.
priority_station	Yes	String	Specifies the primary site of the replication consistency group.

Parameter	Mandatory	Type	Description
created_at	Yes	String	Specifies the time when the replication consistency group was created.
updated_at	Yes	String	Specifies the time when the replication consistency group was updated.

- Example response

```
{
  "replication_consistency_group": {
    "id": "91085433-9499-4a68-b2c6-35072467ccd2",
    "name": "my replication consistency group",
    "description": "my replication consistency group",
    "status": "updating",
    "priority_station": "az2.dc2",
    "created_at": "2017-10-19T03:57:36.577967",
    "updated_at": "2017-10-19T04:45:26.467988"
  }
}
```

## Status Codes

- Normal

Returned Value	Description
202	The server has accepted the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.

Returned Value	Description
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5.6 Performing a Failover for a Replication Consistency Group (Deprecated)

### Function

This API is used to perform a failover for a replication consistency group. When an exception occurs in the primary AZ, a failover can be performed to change the primary site of a replication consistency group from the primary AZ to the secondary AZ and enable DR ECSs and DR disks in the secondary AZ to provide services.

After the failover, the **replication\_status** value of the replication consistency group is **active-stopped**. In this case, EVS replication is available only after the primary AZ is restored and the replication consistency group is synchronized.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

### Constraints

If a fault occurs in the physical environment of the primary AZ due to force majeure and services become unavailable, perform a failover for the replication consistency group.

### URI

- URI format  
POST /v2/{project\_id}/os-vendor-replication-consistency-groups/{replication\_consistency\_group\_id}/action

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_consistency_group_id	Yes	Specifies the ID of the replication consistency group.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
os-failover-replication-consistency-group	Yes	object	The parameter value is null, indicating that a replication consistency group failover will be performed.

- Example request

```
{  
  "os-failover-replication-consistency-group": null  
}
```

## Response

None

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
405 Method Not Allowed	You are not allowed to use the method specified in the request.

Returned Value	Description
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5.7 Synchronizing a Replication Consistency Group (Deprecated)

### Function

This API is used to synchronize the data between production disks and DR disks in all EVS replication pairs of a replication consistency group. After the synchronization is complete, the data in all EVS replication pairs of the replication consistency group is consistent.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

### Constraints

None

### URI

- URI  
POST /v2/{project\_id}/os-vendor-replication-consistency-groups/{replication\_consistency\_group\_id}/action

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_consistency_group_id	Yes	Specifies the ID of the replication consistency group.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
os-sync-replication-consistency-group	Yes	object	The parameter value is null, indicating that the replication consistency group will be synchronized.

- Example request

```
{
  "os-sync-replication-consistency-group": null
}
```

## Response

None

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
405 Method Not Allowed	You are not allowed to use the method specified in the request.

Returned Value	Description
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5.8 Performing a Primary/Secondary Switchover for a Replication Consistency Group (Deprecated)

### Function

This API is used to perform a primary/secondary switchover for a replication consistency group. A switchover can be performed to switch the primary and secondary AZs of a replication consistency group, which means that the original secondary AZ will be switched to function as the primary AZ, and original DR ECSs and DR disks will be enabled.

After the primary/secondary switchover, the **replication\_status** value of the replication consistency group is **active**. At this time, the data between production disks and DR disks in the primary and secondary AZs is consistent in real time, and EVS replication is working normally.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

### Constraints

The data synchronization of the replication consistency group is complete, and the replication consistency group is working normally.

## URI

- URI format  
POST /v2/{project\_id}/os-vendor-replication-consistency-groups/{replication\_consistency\_group\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_consistency_group_id	Yes	Specifies the ID of the replication consistency group.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
os-reverse-replication-consistency-group	Yes	object	The parameter value is null, indicating that a primary/secondary switchover will be performed for the replication consistency group.

- Example request

```
{
  "os-reverse-replication-consistency-group": null
}
```

## Response

None

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.



Returned Value	Description
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5.9 Pausing a Replication Consistency Group (Deprecated)

### Function

This API is used to pause a replication consistency group, that is, to pause the data synchronization in all EVS replication pairs of a replication consistency group.

Before deleting or updating a replication consistency group, you need to pause the replication consistency group.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

### Constraints

None

## URI

- URI format  
POST /v2/{project\_id}/os-vendor-replication-consistency-groups/{replication\_consistency\_group\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_consistency_group_id	Yes	Specifies the ID of the replication consistency group.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
os-stop-replication-consistency-group	Yes	object	The parameter value is null, indicating that the replication consistency group will be paused.

- Example request

```
{  
  "os-stop-replication-consistency-group": null  
}
```

## Response

None

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.

Returned Value	Description
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5.10 Reprotecting a Replication Consistency Group (Deprecated)

### Function

This API is used to reprotect a replication consistency group. After resources in a faulty AZ have been restored and functioned as DR resources, a reprotection can be performed to synchronize data in all EVS replication pairs of a replication consistency group.

A reprotection can only be performed after the resources in the faulty primary AZ have been restored and can be used to synchronize data in all EVS replication pairs of a replication consistency group.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

## Constraints

- The replication consistency group failover is complete.
- The resources in the faulty AZ have been restored.
- The replication consistency group status is **failovered**.

## URI

- URI format  
POST /v2/{project\_id}/os-vendor-replication-consistency-groups/  
{replication\_consistency\_group\_id}/action

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_consistency_group_id	Yes	Specifies the ID of the replication consistency group.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
os-reprotect-replication-consistency-group	Yes	object	The parameter value is null, indicating that the replication consistency group will be reprotected.

- Example request

```
{  
  "os-reprotect-replication-consistency-group": null  
}
```

## Response

None

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.5.11 Expanding EVS Disks in a Replication Consistency Group (Deprecated)

### Function

This API is used to expand the EVS disks in one or multiple EVS replication pairs. In such an expansion operation, two EVS disks in one EVS replication pair are expanded together.

 NOTE

The **status** and **replication\_status** values of the replication consistency group remain unchanged before and after capacity expansion. When **200** is returned, the capacity expansion is complete.

If the expansion fails, contact technical support engineers to locate and rectify the fault. After the fault is rectified, expand the disks again.

If the capacities of multiple EVS replication pairs in a protection group are expanded, an error indicating incorrect capacity will occur after the capacity expansion.

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

## Constraints

- The **status** value of the replication consistency group must be **available**.
- The **replication\_status** value of the replication consistency group cannot be **error**.

## URI

- URI  
POST /v2/{project\_id}/os-vendor-replication-consistency-groups/{replication\_consistency\_group\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
replication_consistency_group_id	Yes	Specifies the ID of the replication consistency group.

## Request

- Parameter description

Parameter	Mandatory	Type	Description
os-extend-replication-volumes	Yes	Object	Specifies the EVS disk expansion operation.
replications	Yes	list	Specifies the expansion information of one or multiple EVS replication pairs.

- Parameters in the **replications** field

Parameter	Mandatory	Type	Description
id	Yes	String	Specifies the IDs of EVS replication pairs.
new_size	Yes	integer	Specifies the disk capacity after expansion in the EVS replication pair. The unit is GB.

- Example request

```
{
  "os-extend-replication-volumes": {
    "replications": [
      {"id": "25132c7a-bf71-4d18-8a2e-1ad11416c057", "new_size": 10},
      {"id": "6a61d65c-269e-4592-8a89-95742b075b1a", "new_size": 20}
    ]
  }
}
```

## Response

None

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.

Returned Value	Description
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.6 EVS Replication Quota (Deprecated)

### 5.6.1 Querying Default Tenant Quotas (Deprecated)

#### Function

This API is used to query the default quotas of a specified tenant.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

#### Constraints

None

#### URI

- URI  
GET v2/{project\_id}/os-vendor-replication-quota-sets/{project\_id}/defaults
- Parameter description



Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. <ul style="list-style-type: none"><li>The first <b>project_id</b> is the project ID of the query party.</li><li>The second <b>project_id</b> is the project ID of the queried party.</li></ul>

## Request

None

## Response

- Parameter description

Parameter	Type	Description
id	String	Specifies the tenant ID. The tenant ID is the same as the project ID.
replications	Integer	Specifies the quota of EVS replication pairs.
replication_consistency_groups	Integer	Specifies the quota of replication consistency groups.
per_replication_consistency_group_size	Integer	Specifies the default quota of EVS replication pairs in a replication consistency group.

- Example response

```
{
  "quota_set": {
    "replications": 20,
    "replication_consistency_groups": 20,
    "id": "8fc128d1a8d245268b72e26a62027b20",
    "per_replication_consistency_group_size": 20
  }
}
```

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

## 5.6.2 Querying Tenant Quotas (Deprecated)

### Function

This API is used to query the actual quotas of a specified tenant.

#### NOTE

This API has been deprecated. For details about how to use this function, see the *Storage Disaster Recovery Service API Reference*.

## Constraints

None

## URI

- URI  
GET v2/{project\_id}/os-vendor-replication-quota-sets/{project\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. <ul style="list-style-type: none"> <li>• The first <b>project_id</b> is the project ID of the query party.</li> <li>• The second <b>project_id</b> is the project ID of the queried party.</li> </ul>

## Request

- Parameter description

Parameter	Mandatory	Type	Description
usage	No	String	Specifies whether to display the tenant's resource usages. The default value is <b>false</b> . <ul style="list-style-type: none"> <li>• <b>true</b>: indicates to display the tenant's resource usages.</li> <li>• <b>false</b>: indicates not to display the tenant's resource usages.</li> </ul>

- Example request  
None

## Response

- Parameter description

Parameter	Type	Description
id	String	Specifies the tenant ID. The tenant ID is the same as the project ID.

Parameter	Type	Description
replications	Integer	Specifies the actual quota of EVS replication pairs.
replication_consistency_groups	Integer	Specifies the actual quota of replication consistency groups.
per_replication_consistency_group_size	Integer	Specifies the actual quota of EVS replication pairs in a replication consistency group.

- Example response

```
{
  "quota_set": {
    "replications": 20,
    "replication_consistency_groups": 20,
    "id": "8fc128d1a8d245268b72e26a62027b20",
    "per_replication_consistency_group_size": 20
  }
}
```

## Status Codes

- Normal

Returned Value	Description
200	The server has processed the request.

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The requested page was not found.
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. Then, the request can be processed.
408 Request Timeout	The request timed out.

Returned Value	Description
409 Conflict	The request cannot be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal 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 server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

# 6 OpenStack Cinder APIs

## 6.1 Disk Management

### 6.1.1 Creating EVS Disks

#### Function

This API is used to create one or multiple EVS disks.

#### URI

- URI format  
POST /v2/{project\_id}/volumes
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

#### Request

- Request parameters

Parameter	Type	Mandatory	Description
volume	Object	Yes	The information of the disk to be created. For details, see <a href="#">Parameters in the volume field</a> .

Parameter	Type	Mandatory	Description
OS-SCH-HNT:scheduler_hints	Object	No	The scheduling parameter. The <b>dedicated_storage_id</b> field is supported, indicating that the disk can be created in DSS storage pools.

- Parameters in the **volume** field

Parameter	Type	Mandatory	Description
availability_zone	String	Yes	The AZ where you want to create the disk. If the specified AZ does not exist, the disk will fail to be created.  <b>NOTE</b> For details about how to obtain the AZ, see <a href="#">Querying All AZs</a> .
source_volume_id	String	No	The source disk ID. If this parameter is specified, the disk will be cloned from an existing disk. This function is currently not supported.
description	String	No	The disk description, which can contain a maximum of 255 bytes.
snapshot_id	String	No	The snapshot ID. If this parameter is specified, the disk will be created from a snapshot.  <b>NOTE</b> For details about how to obtain the snapshot ID, see <a href="#">Querying Details About EVS Snapshots</a> .

Parameter	Type	Mandatory	Description
size	Integer	Yes	<p>The disk size, in GB. The value can be as follows:</p> <ul style="list-style-type: none"> <li>• System disk: 1 GB to 1024 GB</li> <li>• Data disk: 10 GB to 32768 GB</li> </ul> <p>This parameter is mandatory when you create an empty disk. You can specify the parameter value as required within the value range.</p> <p>This parameter is mandatory when you create the disk from a snapshot. Ensure that the disk size is greater than or equal to the snapshot size.</p> <p>This parameter is mandatory when you create the disk from an image. Ensure that the disk size is greater than or equal to the minimum disk capacity required by <b>min_disk</b> in the image attributes.</p>
name	String	No	<p>The disk name, which can contain a maximum of 255 bytes.</p>
imageRef	String	No	<p>The image ID. If this parameter is specified, the disk will be created from an image.</p> <p><b>NOTE</b> BMS system disks cannot be created from BMS images.</p> <p>For how to obtain the image ID, see <b>Querying Images</b> in the <i>Image Management Service API Reference</i>.</p>
volume_type	String	No	<p>The disk type.</p> <p>The value can be <b>SATA</b> or <b>SSD</b>.</p> <ul style="list-style-type: none"> <li>• <b>SSD</b>: the ultra-high I/O type</li> <li>• <b>SATA</b>: the common I/O type</li> </ul> <p>If the specified disk type is not available in the AZ, the disk will fail to be created.</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>• When the disk is created from a snapshot, the disk type of the new disk will be consistent with that of the snapshot's source disk.</li> <li>• For details about disk types, see <b>Disk Types and Performance</b> in the <i>Elastic Volume Service User Guide</i>.</li> </ul>



Parameter	Type	Mandatory	Description
metadata	Object	No	<p>The disk metadata. The length of <b>key</b> and <b>value</b> under <b>metadata</b> can contain no more than 255 bytes.</p> <p>For details about <b>metadata</b>, see <a href="#">Parameters in the metadata field</a>. The table lists some fields. You can also specify other fields as required.</p> <p><b>NOTE</b> Parameter values under <b>metadata</b> cannot be <b>null</b>.</p>
source_replica	String	No	<p>The source disk ID. If this parameter is specified, the disk will be cloned from an existing disk. This function is currently not supported.</p>
consistency_group_id	String	No	<p>The reserved field.</p>
count	No	Integer	<p>The number of disks to be created in a batch. If this parameter is not specified, only one disk will be created. You can create a maximum of 100 disks in a batch. If disks are created from backups, batch creation is not supported, and this parameter must be set to 1.</p> <p>If the specified value is a decimal, the number part of the value will be used.</p>
shareable	String	No	<p>The extended attribute that defines whether the disk will be shareable. The value can be <b>true</b> (shareable) or <b>false</b> (not shareable). This field is currently not supported.</p> <p><b>NOTE</b> This field is no longer used. Use <b>multiattach</b>.</p>
multiattach	Boolean	No	<p>Whether the disk is shareable. The default value is <b>false</b>.</p> <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk will be created.</li><li>• <b>false</b>: indicates a non-shared disk will be created.</li></ul>

 **NOTE**

Specifying any two of the **source\_valid**, **snapshot\_id**, and **imageRef** fields together is not supported.

- Parameter in the **OS-SCH-HNT:scheduler\_hints** field

Parameter	Type	Mandatory	Description
dedicated_storage_id	String	No	The DSS storage pool ID.

- Parameters in the **metadata** field

Parameter	Type	Mandatory	Description
__system__encrypted	String	No	The encryption field in <b>metadata</b> . The value can be <b>0</b> (does not encrypt the disk) or <b>1</b> (encrypts the disk). If this parameter is not specified, the disk will not be encrypted.
__system__cmkid	String	No	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <b>__system__encrypted</b> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes. <b>NOTE</b> For details about how to obtain the CMK ID, see <b>Querying the Key List</b> in the <i>Key Management Service API Reference</i> .
hw:passthrough	String	No	<ul style="list-style-type: none"> <li>If this parameter is set to <b>true</b>, the disk device type will be SCSI, which allows ECS OSs to directly access the underlying storage media and supports SCSI reservation commands.</li> <li>If this parameter is set to <b>false</b>, the disk device type will be VBD, which supports only simple SCSI read/write commands.</li> <li>If this parameter is not specified, the disk device type will be VBD.</li> </ul> <b>NOTE</b> If parameter <b>shareable</b> is set to <b>true</b> and parameter <b>hw:passthrough</b> is not specified, shared VBD disks are created.

Parameter	Type	Mandatory	Description
full_clone	String	No	If the disk is created from a snapshot and linked cloning needs to be used, set this parameter to <b>0</b> .

 **NOTE**

The preceding table provides only some **metadata** parameters for your reference. You can also specify other fields as required.

- If the disk is created from a snapshot, **\_\_system\_encrypted** and **\_\_system\_cmkid** are not supported, and the new disk will have the same encryption attribute as that of the snapshot's source disk.
- If the disk is created from an image, **\_\_system\_encrypted** and **\_\_system\_cmkid** are not supported, and the new disk will have the same encryption attribute as that of the image.
- If the disk is created from a snapshot, **hw:passthrough** is not supported, and the new disk will have the same device type as that of the snapshot's source disk.
- If the disk is created from an image, **hw:passthrough** is not supported, and the device type of the new disk will be VBD.

- Example request

```
{
  "volume": {
    "name": "openapi_vol01",
    "imageRef": "027cf713-45a6-45f0-ac1b-0ccc57ac12e2",
    "availability_zone": "az-dc-1",
    "description": "create for api test",
    "volume_type": "SAS",
    "metadata": {
      "volume_owner": "openapi"
    },
    "multiattach": false,
    "size": 40
  },
  "OS-SCH-HNT:scheduler_hints": {
    "dedicated_storage_id": "eddc1a3e-4145-45be-98d7-bf6f65af9767"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
volume	Object	The information of the created disks. For details, see <a href="#">Parameters in the volume field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume** field

Parameter	Type	Description
id	String	The disk ID.
links	list	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	list	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a bootable disk.</li><li>• <b>false</b>: indicates a non-bootable disk.</li></ul>
encrypted	Boolean	This field is currently not supported.
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
description	String	The disk description.
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>• <b>SSD</b>: the ultra-high I/O type</li><li>• <b>SATA</b>: the common I/O type</li></ul>
replication_status	String	The reserved field.
consistencygroup_id	String	The ID of the consistency group where the disk belongs. This field is currently not supported.
source_volid	String	The source disk ID. This field is currently not supported.
snapshot_id	String	The snapshot ID.
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> .
size	Integer	The disk size, in GB.
user_id	String	The reserved field.

Parameter	Type	Description
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
shareable	Boolean	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk.</li><li>• <b>false</b>: indicates a non-shared disk.</li></ul>
storage_cluster_id	String	The reserved field.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
<code>__system__encrypted</code>	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"> <li>• <b>0</b>: indicates a non-encrypted disk.</li> <li>• <b>1</b>: indicates an encrypted disk.</li> <li>• If this parameter does not appear, the disk is not encrypted.</li> </ul>
<code>__system__cmkid</code>	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <code>__system__encrypted</code> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
<code>hw:passthrough</code>	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"> <li>• <b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media. SCSI reservation commands are supported.</li> <li>• <b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li> <li>• If this parameter does not appear, the disk device type is VBD.</li> </ul>
<code>full_clone</code>	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
<code>message</code>	String	The error message returned if an error occurs.
<code>code</code>	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume": {
    "attachments": [ ],
    "availability_zone": "az-dc-1",
    "bootable": "false",
    "consistencygroup_id": null,
    "created_at": "2016-05-25T02:38:40.392463",
    "description": "create for api test",
    "encrypted": false,
    "id": "8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "links": [
      {

```

```
    "href": "https://volume.localdomain.com:8776/v2/5dd0b0056f3d47b6ab4121667d35621a/volumes/8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "rel": "self"
  },
  {
    "href": "https://volume.localdomain.com:8776/5dd0b0056f3d47b6ab4121667d35621a/volumes/8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "rel": "bookmark"
  }
],
"metadata": {
  "volume_owner": "openapi"
},
"name": "openapi_vol01",
"replication_status": "disabled",
"multiattach": false,
"size": 40,
"snapshot_id": null,
"source_volid": null,
"status": "creating",
"updated_at": null,
"user_id": "39f6696ae23740708d0f358a253c2637",
"volume_type": "SAS"
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 6.1.2 Deleting an EVS Disk

### Function

This API is used to delete an EVS disk.

### URI

- URI format  
DELETE /v2/{project\_id}/volumes/{volume\_id}

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

- Request filter parameters

Parameter	Type	Mandatory	Description
cascade	Boolean	No	Whether to delete all the snapshots created for this disk. The default value is <b>false</b> .

## Request

The following example shows how to delete a disk and all its snapshots.

- Example request

```
DELETE https://{endpoint}/v2/{project_id}/volumes/{volume_id}?cascade=true
```

## Response

- Response parameters

Parameter	Type	Description
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{  
  "error": {
```



```
"message": "XXXX",  
"code": "XXX"  
}  
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{  
  "itemNotFound": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 6.1.3 Updating an EVS Disk

### Function

This API is used to update an EVS disk.

### URI

- URI format  
PUT /v2/{project\_id}/volumes/{volume\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

### Request

- Request parameters

Parameter	Type	Mandatory	Description
volume	Object	Yes	The information of the disk to be updated. For details, see <a href="#">Parameters in the volume field</a> .

- Parameters in the **volume** field

Parameter	Type	Mandatory	Description
name	String	No	The disk name. The value can contain a maximum of 255 bytes.
description	String	No	The disk description. The value can contain a maximum of 255 bytes.
metadata	Object	No	The disk metadata. The length of the key or value in the metadata cannot exceed 255 bytes.
display_name	String	No	Also the disk name. You can specify either parameter <b>name</b> or <b>display_name</b> . If both parameters are specified, the <b>name</b> value is used. The value can contain a maximum of 255 bytes.
display_description	String	No	Also the disk description. You can specify either parameter <b>description</b> or <b>display_description</b> . If both parameters are specified, the <b>description</b> value is used. The value can contain a maximum of 255 bytes.

- Example request

```
{
  "volume": {
    "name": "test_volume",
    "description": "test"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
volume	Object	The information of the updated disk. For details, see <a href="#">Parameters in the volume field</a> .

Parameter	Type	Description
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume** field

Parameter	Type	Description
id	String	The disk ID.
links	list<map<String,String>>	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	list	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li><b>true</b>: indicates a bootable disk.</li><li><b>false</b>: indicates a non-bootable disk.</li></ul>
encrypted	Boolean	This field is currently not supported.
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
description	String	The disk description.
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li><b>SSD</b>: the ultra-high I/O type</li><li><b>SATA</b>: the common I/O type</li></ul>
replication_status	String	The reserved field.
consistencygroup_id	String	The reserved field.
source_vol_id	String	The source disk ID. This field is currently not supported.
snapshot_id	String	The snapshot ID.

Parameter	Type	Description
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> .
size	Integer	The disk size, in GB.
user_id	String	The reserved field.
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
shareable	Boolean	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk.</li><li>• <b>false</b>: indicates a non-shared disk.</li></ul>
storage_cluster_id	String	The reserved field.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
<code>__system__encrypted</code>	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"> <li><b>0</b>: indicates a non-encrypted disk.</li> <li><b>1</b>: indicates an encrypted disk.</li> <li>If this parameter does not appear, the disk is not encrypted.</li> </ul>
<code>__system__cmkid</code>	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <code>__system__encrypted</code> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
<code>hw:passthrough</code>	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"> <li><b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media and support SCSI reservations commands.</li> <li><b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li> <li>If this parameter does not appear, the disk device type is VBD.</li> </ul>
<code>full_clone</code>	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
<code>message</code>	String	The error message returned if an error occurs.
<code>code</code>	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume": {
    "attachments": [ ],
    "availability_zone": "az-dc-1",
    "bootable": "false",
    "consistencygroup_id": null,
    "created_at": "2016-05-25T02:38:40.392463",
    "description": "create for api test",
    "encrypted": false,
    "id": "8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
```

```
"links": [
  {
    "href": "https://volume.localdomain.com:8776/v2/5dd0b0056f3d47b6ab4121667d35621a/
volumes/8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "rel": "self"
  },
  {
    "href": "https://volume.localdomain.com:8776/5dd0b0056f3d47b6ab4121667d35621a/
volumes/8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "rel": "bookmark"
  }
],
"metadata": {
  "volume_owner": "openapi"
},
"name": "openapi_vol01",
"replication_status": "disabled",
"multiattach": false,
"size": 40,
"snapshot_id": null,
"source_volid": null,
"status": "creating",
"updated_at": null,
"user_id": "39f6696ae23740708d0f358a253c2637",
"volume_type": "SAS"
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.1.4 Querying EVS Disk Types

### Function

This API is used to query EVS disk types and display the query results in a list.

### URI

- URI format

GET /v2/{project\_id}/types

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

## Request

- Example request  
GET https://{endpoint}/v2/{project\_id}/types

## Response

- Response parameters

Parameter	Type	Description
volume_types	list	The list of queried disk types. For details, see <a href="#">Parameters in the volume_types field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume\_types** field

Parameter	Type	Description
extra_specs	Object	The disk type specifications. For details, see <a href="#">Parameters in the extra_specs field</a> .
name	String	The disk type name.
id	String	The disk type ID.
description	String	The disk type description.
qos_specs_id	String	The reserved field.
is_public	Boolean	The reserved field.

- Parameters in the **extra\_specs** field

Parameter	Type	Description
volume_backend_name	String	The reserved field.

Parameter	Type	Description
availability-zone	String	The reserved field.
HW:availability_zone	String	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume_types": [
    {
      "extra_specs": {
        "volume_backend_name": "SAS",
        "availability-zone": "az-dc-1"
      },
      "name": "SAS",
      "qos_specs_id": null,
      "id": "6c81c680-df58-4512-81e7-ecf66d160638",
      "is_public": true,
      "description": null
    },
    {
      "extra_specs": {
        "volume_backend_name": "SAS",
        "availability-zone": "az-dc-1"
      },
      "name": "SAS",
      "qos_specs_id": "585f29d6-7147-42e7-bfb8-ca214f640f6f",
      "is_public": true,
      "id": "ea6e3c13-aac5-46e0-b280-745ed272e662",
      "description": null
    },
    {
      "extra_specs": {
        "volume_backend_name": "SSD",
        "availability-zone": "az-dc-1"
      },
      "name": "SSD",
      "qos_specs_id": "39b0c29a-308b-4f86-b478-5d3d02a43837",
      "is_public": true,
      "id": "6f2dee9e-82f0-4be3-ad89-bae605a3d24f",
      "description": null
    }
  ]
}
```

or

```
{
  "error": {
    "message": "XXXX",
```



```

    "code": "XXX"
  }
}

```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```

{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}

```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.1.5 Querying EVS Disks

### Function

This API is used to query EVS disks.

### URI

- URI format  
GET /v2/{project\_id}/volumes
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters

Parameter	Type	Mandatory	Description
marker	String	No	The ID of the resource from which the pagination query starts. It is the ID of the last resource on the previous page.
name	String	No	The disk name. The value can contain a maximum of 255 bytes.

Parameter	Type	Mandatory	Description
limit	Integer	No	<p>The maximum number of query results that can be returned.</p> <p>The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit.</p> <p>If the tenant has more than 50 disks in total, you are advised to use this parameter and set its value to <b>50</b> to improve the query efficiency. Examples are provided as follows:</p> <p><b>GET /v2/xxx/volumes?limit=50:</b> Queries the 1–50 disks. <b>GET /v2/xxx/volumes?offset=50&amp;limit=50:</b> Queries the 51–100 disks.</p>
sort_key	String	No	<p>The keyword based on which the returned results are sorted. The value can be <b>id</b>, <b>status</b>, <b>size</b>, or <b>created_at</b>, and the default value is <b>created_at</b>.</p>
sort_dir	String	No	<p>The result sorting order. The default value is <b>desc</b>.</p> <ul style="list-style-type: none"><li>• <b>desc</b>: the descending order</li><li>• <b>asc</b>: the ascending order</li></ul>
offset	Integer	No	<p>The query offset.</p> <p>All disks after this offset will be queried. The value must be an integer greater than 0 but less than the number of disks.</p>
status	String	No	<p>The disk status. For details, see <a href="#">EVS Disk Status</a>.</p>
metadata	String	No	<p>The disk metadata.</p>
availability_zone	String	No	<p>The AZ information.</p>

## Request

The following example shows how to query the disks in the **available** state.

- Example request  
GET https://{endpoint}/v2/{project\_id}/volumes?status=available

## Response

- Response parameters

Parameter	Type	Description
volumes	list	The list of queried disks. For details, see <a href="#">Parameters in the volumes field</a> .
volumes_links	list	The query position marker in the disk list. If only some disks are returned in this query, the URL of the last disk queried will be returned. You can use this URL to continue to query the remaining disks in the next query.
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volumes** field

Parameter	Type	Description
id	String	The disk ID.
links	list<map<String, String>>	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name. The value can contain a maximum of 255 bytes.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volumes": [
    {
```

```
    "id": "6b604cef-9bd8-4f5a-ae56-45839e6e1f0a",
    "links": [
      {
        "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/
volumes/6b604cef-9bd8-4f5a-ae56-45839e6e1f0a",
        "rel": "self"
      },
      {
        "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/
volumes/6b604cef-9bd8-4f5a-ae56-45839e6e1f0a",
        "rel": "bookmark"
      }
    ],
    "name": "zjb_u25_test"
  },
  {
    "id": "2bce4552-9a7d-48fa-8484-abbbf64b206e",
    "links": [
      {
        "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/
volumes/2bce4552-9a7d-48fa-8484-abbbf64b206e",
        "rel": "self"
      },
      {
        "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/
volumes/2bce4552-9a7d-48fa-8484-abbbf64b206e",
        "rel": "bookmark"
      }
    ],
    "name": "zjb_u25_test"
  },
  {
    "id": "3f1b98ec-a8b5-4e92-a727-88def62d5ad3",
    "links": [
      {
        "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/
volumes/3f1b98ec-a8b5-4e92-a727-88def62d5ad3",
        "rel": "self"
      },
      {
        "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/
volumes/3f1b98ec-a8b5-4e92-a727-88def62d5ad3",
        "rel": "bookmark"
      }
    ],
    "name": "zjb_u25_test"
  }
],
"volumes_links": [
  {
    "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/
volumes?limit=3&marker=3f1b98ec-a8b5-4e92-a727-88def62d5ad3",
    "rel": "next"
  }
]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
```

```
"message": "XXXX",  
"code": "XXX"  
}  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.1.6 Querying Details About All Disks

### Function

This API is used to query details about all disks. Enterprise project authorization is not supported.

### URI

- URI format  
GET /v2/{project\_id}/volumes/detail
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters

Parameter	Type	Mandatory	Description
marker	String	No	The ID of the resource from which the pagination query starts. It is the ID of the last resource on the previous page.
name	String	No	The disk name. The value can contain a maximum of 255 bytes.

Parameter	Type	Mandatory	Description
limit	Integer	No	<p>The maximum number of query results that can be returned.</p> <p>The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit.</p> <p>If the tenant has more than 50 disks in total, you are advised to use this parameter and set its value to <b>50</b> to improve the query efficiency. Examples are provided as follows:</p> <p><b>GET /v2/xxx/volumes/detail?limit=50:</b> Queries the 1–50 disks.</p> <p><b>GET /v2/xxx/volumes/detail?offset=50&amp;limit=50:</b> Queries the 51–100 disks.</p>
sort_key	String	No	<p>The keyword based on which the returned results are sorted. The value can be <b>id</b>, <b>status</b>, <b>size</b>, or <b>created_at</b>, and the default value is <b>created_at</b>.</p>
sort_dir	String	No	<p>The result sorting order. The default value is <b>desc</b>.</p> <ul style="list-style-type: none"><li>• <b>desc:</b> the descending order</li><li>• <b>asc:</b> the ascending order</li></ul>
offset	Integer	No	<p>The query offset.</p> <p>All disks after this offset will be queried. The value must be an integer greater than 0 but less than the number of disks.</p>
status	String	No	<p>The disk status. For details, see <a href="#">EVS Disk Status</a>.</p>
metadata	String	No	<p>The disk metadata.</p>
availability_zone	String	No	<p>The AZ information.</p>

## Request

The following example shows how to query details of the disks in the **available** state.

- **Example request**  
GET https://{endpoint}/v2/{project\_id}/volumes/detail?status=available

## Response

- Response parameters

Parameter	Type	Description
volumes	list	The list of queried disks. For details, see <a href="#">Parameters in the volumes field</a> .
volumes_links	list	The query position marker in the disk list. If only some disks are returned in this query, the URL of the last disk queried will be returned. You can use this URL to continue to query the remaining disks in the next query. For details, see <a href="#">Parameters in the links field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volumes** field

Parameter	Type	Description
id	String	The disk ID.
links	list<map<String,String>>	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	list	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
os-vol-host-attr:host	String	The reserved field.
source_volid	String	The source disk ID. This parameter has a value if the disk is created from a source disk. This field is currently not supported.
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
description	String	The disk description.

Parameter	Type	Description
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>• <b>SSD</b>: the ultra-high I/O type</li><li>• <b>SATA</b>: the common I/O type</li></ul>
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The tenant ID is the same as the project ID.
size	Integer	The disk size, in GB.
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> .
os-vol-mig-status-attr:migstat	String	The reserved field.
os-vol-mig-status-attr:name_id	String	The reserved field.
os-volume-replication:extended_status	String	The reserved field.
encrypted	Boolean	This field is currently not supported.
replication_status	String	The reserved field.
user_id	String	The reserved field.
consistencygroup_id	String	The ID of the consistency group where the disk belongs. This field is currently not supported.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a bootable disk.</li><li>• <b>false</b>: indicates a non-bootable disk.</li></ul>
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
shareable	String	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .



Parameter	Type	Description
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk.</li><li>• <b>false</b>: indicates a non-shared disk.</li></ul>
volume_image_metadata	Object	The metadata of the disk image. This field has a value if the disk is created from an image. Or, it is left empty. <b>NOTE</b> For details about <b>volume_image_metadata</b> , see <b>Querying Image Details (Native OpenStack API)</b> in the <i>Image Management Service API Reference</i> .

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
<code>__system__encrypted</code>	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"> <li>• <b>0</b>: indicates a non-encrypted disk.</li> <li>• <b>1</b>: indicates an encrypted disk.</li> <li>• If this parameter does not appear, the disk is not encrypted.</li> </ul>
<code>__system__cmkid</code>	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <code>__system__encrypted</code> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
<code>hw:passthrough</code>	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"> <li>• <b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media and support SCSI reservations commands.</li> <li>• <b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li> <li>• If this parameter does not appear, the disk device type is VBD.</li> </ul>
<code>full_clone</code>	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
<code>message</code>	String	The error message returned if an error occurs.
<code>code</code>	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volumes": [
    {
      "attachments": [ ],
      "availability_zone": "az-dc-1",
      "bootable": "false",
      "consistencygroup_id": null,
      "created_at": "2016-05-25T02:42:10.856332",
      "description": null,
      "encrypted": false,
      "id": "b104b8db-170d-441b-897a-3c8ba9c5a214",
      "links": [
```

```
{
  "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/
volumes/b104b8db-170d-441b-897a-3c8ba9c5a214",
  "rel": "self"
},
{
  "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/
volumes/b104b8db-170d-441b-897a-3c8ba9c5a214",
  "rel": "bookmark"
}
],
"metadata": {},
"name": "zjb_u25_test",
"os-vol-host-attr:host": "pod01.xxx#SAS",
"volume_image_metadata": { },
"os-vol-mig-status-attr:migstat": null,
"os-vol-mig-status-attr:name_id": null,
"os-vol-tenant-attr:tenant_id": "dd14c6ac581f40059e27f5320b60bf2f",
"os-volume-replication:extended_status": null,
"replication_status": "disabled",
"multiattach": false,
"size": 1,
"snapshot_id": null,
"source_valid": null,
"status": "available",
"updated_at": "2016-05-25T02:42:22.341984",
"user_id": "b0524e8342084ef5b74f158f78fc3049",
"volume_type": "SAS"
}
],
"volumes_links": [
{
  "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/
volumes/detail?limit=1&marker=b104b8db-170d-441b-897a-3c8ba9c5a214",
  "rel": "next"
}
]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.1.7 Querying Details About a Disk

### Function

This API is used to query details about a disk. Enterprise project authorization is not supported.

### URI

- URI format  
GET /v2/{project\_id}/volumes/{volume\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

### Request

- Example request  
GET https://{endpoint}/v2/{project\_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214

### Response

- Response parameters

Parameter	Type	Description
volume	Object	The queried disk. For details, see <a href="#">Parameters in the volume field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume** field

Parameter	Type	Description
id	String	The disk ID.
links	list<map<String, String>>	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.

Parameter	Type	Description
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	list<map<String, String>>	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
source_vol_id	String	The source disk ID. This parameter has a value if the disk is created from a source disk. This field is currently not supported.
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
description	String	The disk description.
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The tenant ID is the same as the project ID.
volume_image_metadata	Object	The metadata of the disk image. <b>NOTE</b> For details about <code>volume_image_metadata</code> , see <a href="#">Querying Image Details (Native OpenStack API)</a> in the <i>Image Management Service API Reference</i> .
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>● <b>SSD</b>: the ultra-high I/O type</li><li>● <b>SATA</b>: the common I/O type</li></ul>
size	Integer	The disk size, in GB.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li>● <b>true</b>: indicates a bootable disk.</li><li>● <b>false</b>: indicates a non-bootable disk.</li></ul>
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> .
os-vol-host-attr:host	String	The reserved field.

Parameter	Type	Description
encrypted	Boolean	This field is currently not supported.
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
os-volume-replication:extended_status	String	The reserved field.
replication_status	String	The reserved field.
os-vol-mig-status-attr:migstat	String	The reserved field.
consistencygroup_id	String	The reserved field.
os-vol-mig-status-attr:name_id	String	The reserved field.
shareable	Boolean	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
user_id	String	The reserved field.
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk.</li><li>• <b>false</b>: indicates a non-shared disk.</li></ul>
storage_cluster_id	String	The reserved field.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.

Parameter	Type	Description
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached.
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
__system__encrypted	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"><li>• <b>0</b>: indicates a non-encrypted disk.</li><li>• <b>1</b>: indicates an encrypted disk.</li><li>• If this parameter does not appear, the disk is not encrypted.</li></ul>
__system__cmkid	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <b>__system__encrypted</b> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
hw:passthrough	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"><li>• <b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media and support SCSI reservations commands.</li><li>• <b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li><li>• If this parameter does not appear, the disk device type is VBD.</li></ul>
full_clone	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume": {
    "attachments": [ ],
    "links": [
      {
        "href": "https://volume.az0.dc1.domainname.com/v2/40acc331ac784f34842ba4f08ff2be48/volumes/591ac654-26d8-41be-bb77-4f90699d2d41",
        "rel": "self"
      },
      {
        "href": "https://volume.az0.dc1.domainname.com/40acc331ac784f34842ba4f08ff2be48/volumes/591ac654-26d8-41be-bb77-4f90699d2d41",
        "rel": "bookmark"
      }
    ],
    "availability_zone": "az-dc-1",
    "os-vol-host-attr:host": "az-dc-1#SSD",
    "encrypted": false,
    "multiattach": true,
    "updated_at": "2016-02-03T02:19:29.895237",
    "os-volume-replication:extended_status": null,
    "replication_status": "disabled",
    "snapshot_id": null,
    "id": "591ac654-26d8-41be-bb77-4f90699d2d41",
    "size": 40,
    "user_id": "fd03ee73295e45478d88e15263d2ee4e",
    "os-vol-tenant-attr:tenant_id": "40acc331ac784f34842ba4f08ff2be48",
    "volume_image_metadata": null,
    "os-vol-mig-status-attr:migstat": null,
    "metadata": { },
    "status": "error_restoring",
    "description": "auto-created_from_restore_from_backup",
    "source_volid": null,
    "consistencygroup_id": null,
    "os-vol-mig-status-attr:name_id": null,
    "name": "restore_backup_0115efb3-678c-4a9e-bff6-d3cd278238b9",
    "bootable": "false",
    "created_at": "2016-02-03T02:19:11.723797",
    "volume_type": null
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
  }
}
```



```

    "code": "XXX"
  }
}

```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

# 6.1.8 Querying Details About an EVS Disk Type

## Function

This API is used to query details about an EVS disk type.

## URI

- URI format  
GET /v2/{project\_id}/types/{type\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
type_id	Yes	Specifies the disk type ID.

## Request

- Example request  
GET https://{endpoint}/v2/{project\_id}/types/6c81c680-df58-4512-81e7-ecf66d160638

## Response

- Parameter description

Parameter	Type	Description
volume_type	Object	Specifies the details of queried disk types. For details, see <a href="#">Parameters in the volume_type field</a> .
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume\_type** field

Parameter	Type	Description
extra_specs	Object	Specifies the disk type specifications. For details, see <a href="#">Parameters in the extra_specs field</a> .
name	String	Specifies the name of the disk type.
id	String	Specifies the ID of the disk type.
description	String	Specifies the description of the disk type.
qos_specs_id	String	The reserved field.
is_public	Boolean	The reserved field.

- Parameters in the **extra\_specs** field

Parameter	Type	Description
volume_backend_name	String	The reserved field.
availability-zone	String	The reserved field.
HW:availability_zone	String	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume_type": {
    "extra_specs": {
      "volume_backend_name": "SAS",
      "availability-zone": "az-dc-1"
    },
    "name": "SAS",
    "qos_specs_id": null,
    "is_public": true,
    "id": "ea6e3c13-aac5-46e0-b280-745ed272e662",
    "description": null
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.1.9 Querying Extension APIs

### Function

This API is used to query extension APIs.

### URI

- URI format  
GET /v2/{project\_id}/extensions
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

### Request

- Example request  
GET https://{endpoint}/v2/{project\_id}/extensions

### Response

- Parameter description

Parameter	Type	Description
extensions	list	Specifies the extension APIs. For details, see <a href="#">Parameters in the extensions field</a> .
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **extensions** field

Parameter	Type	Description
updated	String	Specifies the last update time. Time format: UTC YYYY-MM-DDTHH:MM:SS.+XX.XX
description	String	Specifies the description.
links	list<map<String,String>>	The reserved field.
alias	String	Specifies the extension parameter alias.
name	String	Specifies the extension parameter name.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "extensions": [
    {
      "updated": "2013-04-18T00:00:00+00:00",
      "name": "SchedulerHints",
      "links": [],
      "alias": "OS-SCH-HNT",
      "description": "Pass arbitrary key/value pairs to the scheduler."
    },
    {
      "updated": "2011-06-29T00:00:00+00:00",
      "name": "Hosts",
      "links": [],
      "alias": "os-hosts",
      "description": "Admin-only host administration."
    },
    {
      "updated": "2011-11-03T00:00:00+00:00",
      "name": "VolumeTenantAttribute",
```

```
"links": [ ],
"alias": "os-vol-tenant-attr",
"description": "Expose the internal project_id as an attribute of a volume."
},
{
  "updated": "2011-08-08T00:00:00+00:00",
  "name": "Quotas",
  "links": [ ],
  "alias": "os-quota-sets",
  "description": "Quota management support."
},
{
  "updated": "2011-08-24T00:00:00+00:00",
  "name": "TypesManage",
  "links": [ ],
  "alias": "os-types-manage",
  "description": "Types manage support."
},
{
  "updated": "2013-07-10T00:00:00+00:00",
  "name": "VolumeEncryptionMetadata",
  "links": [ ],
  "alias": "os-volume-encryption-metadata",
  "description": "Volume encryption metadata retrieval support."
},
{
  "updated": "2012-12-12T00:00:00+00:00",
  "name": "Backups",
  "links": [ ],
  "alias": "backups",
  "description": "Backups support."
},
{
  "updated": "2013-07-16T00:00:00+00:00",
  "name": "SnapshotActions",
  "links": [ ],
  "alias": "os-snapshot-actions",
  "description": "Enable snapshot manager actions."
},
{
  "updated": "2012-05-31T00:00:00+00:00",
  "name": "VolumeActions",
  "links": [ ],
  "alias": "os-volume-actions",
  "description": "Enable volume actions
"
},
{
  "updated": "2013-10-03T00:00:00+00:00",
  "name": "UsedLimits",
  "links": [ ],
  "alias": "os-used-limits",
  "description": "Provide data on limited resources that are being used."
},
{
  "updated": "2012-05-31T00:00:00+00:00",
  "name": "VolumeUnmanage",
  "links": [ ],
  "alias": "os-volume-unmanage",
  "description": "Enable volume unmanage operation."
},
{
  "updated": "2011-11-03T00:00:00+00:00",
  "name": "VolumeHostAttribute",
  "links": [ ],
  "alias": "os-vol-host-attr",
  "description": "Expose host as an attribute of a volume."
},
{
```

```
"updated": "2013-07-01T00:00:00+00:00",
"name": "VolumeTypeEncryption",
"links": [ ],
"alias": "encryption",
"description": "Encryption support for volume types."
},
{
  "updated": "2013-06-27T00:00:00+00:00",
  "name": "AvailabilityZones",
  "links": [ ],
  "alias": "os-availability-zone",
  "description": "Describe Availability Zones."
},
{
  "updated": "2013-08-02T00:00:00+00:00",
  "name": "Qos_specs_manage",
  "links": [ ],
  "alias": "qos-specs",
  "description": "QoS specs support."
},
{
  "updated": "2011-08-24T00:00:00+00:00",
  "name": "TypesExtraSpecs",
  "links": [ ],
  "alias": "os-types-extra-specs",
  "description": "Type extra specs support."
},
{
  "updated": "2013-08-08T00:00:00+00:00",
  "name": "VolumeMigStatusAttribute",
  "links": [ ],
  "alias": "os-vol-mig-status-attr",
  "description": "Expose migration_status as an attribute of a volume."
},
{
  "updated": "2012-08-13T00:00:00+00:00",
  "name": "CreateVolumeExtension",
  "links": [ ],
  "alias": "os-image-create",
  "description": "Allow creating a volume from an image in the Create Volume v1 API."
},
{
  "updated": "2014-01-10T00:00:00-00:00",
  "name": "ExtendedServices",
  "links": [ ],
  "alias": "os-extended-services",
  "description": "Extended services support."
},
{
  "updated": "2012-06-19T00:00:00+00:00",
  "name": "ExtendedSnapshotAttributes",
  "links": [ ],
  "alias": "os-extended-snapshot-attributes",
  "description": "Extended SnapshotAttributes support."
},
{
  "updated": "2012-12-07T00:00:00+00:00",
  "name": "VolumeImageMetadata",
  "links": [ ],
  "alias": "os-vol-image-meta",
  "description": "Show image metadata associated with the volume."
},
{
  "updated": "2012-03-12T00:00:00+00:00",
  "name": "QuotaClasses",
  "links": [ ],
  "alias": "os-quota-class-sets",
  "description": "Quota classes management support."
},
}
```

```
{
  "updated": "2013-05-29T00:00:00+00:00",
  "name": "VolumeTransfer",
  "links": [ ],
  "alias": "os-volume-transfer",
  "description": "Volume transfer management support."
},
{
  "updated": "2014-02-10T00:00:00+00:00",
  "name": "VolumeManage",
  "links": [ ],
  "alias": "os-volume-manage",
  "description": "Allows existing backend storage to be 'managed' by Cinder."
},
{
  "updated": "2012-08-25T00:00:00+00:00",
  "name": "AdminActions",
  "links": [ ],
  "alias": "os-admin-actions",
  "description": "Enable admin actions."
},
{
  "updated": "2012-10-28T00:00:00-00:00",
  "name": "Services",
  "links": [ ],
  "alias": "os-services",
  "description": "Services support."
}
]
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.1.10 Expanding Capacity of an EVS Disk

### Function

This API is used to expand the capacity of an EVS disk.

## URI

- URI format  
POST /v2/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the ID of the disk.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
os-extend	Object	Yes	Specifies the disk expansion marker. For details, see <a href="#">Parameter in the os-extend field</a> .

- Parameter in the **os-extend** field

Parameter	Type	Mandatory	Description
new_size	Integer	Yes	Specifies the size of the disk after capacity expansion, in GB. The new disk size ranges from the original disk size to the maximum size ( <b>32768</b> for a data disk and <b>1024</b> for a system disk).

- Example request

```
{
  "os-extend": {
    "new_size": 100
  }
}
```

## Response

- Parameter description



Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 6.1.11 Setting Bootable Flag for an EVS Disk

### Function

This API is used to set the bootable flag for an EVS disk.

## Constraints

A data disk cannot be used as system disk for an ECS even if this API has been called to set the bootable flag for it.

## URI

- URI format  
POST /v2/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
os-set_bootable	Object	Yes	Specifies the disk bootable marker. For details, see <a href="#">Parameter in the os-set_bootable field</a> .

- Parameter in the **os-set\_bootable** field

Parameter	Type	Mandatory	Description
bootable	Boolean	Yes	Specifies whether to set the bootable flag for the disk. <ul style="list-style-type: none"><li>• <b>false</b>: does not set the flag.</li><li>• <b>true</b>: sets the flag.</li></ul>

- Example request

```
{
  "os-set_bootable": {
    "bootable": true
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.1.12 Setting Read-Only Flag for an EVS Disk

### Function

This API is used to set the read-only flag for the EVS disk.

## URI

- URI format  
POST /v2/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
os-update_readonly_flag	Object	Yes	Specifies the disk read-only flag. For details, see <a href="#">Parameter in the os-update_readonly_flag field</a> .

- Parameter in the **os-update\_readonly\_flag** field

Parameter	Type	Mandatory	Description
readonly	Boolean	Yes	Specifies the read-only flag. <ul style="list-style-type: none"><li>• <b>true</b>: specifies the disk is read-only.</li><li>• <b>false</b>: specifies the disk is not read-only.</li></ul>

- Example request

```
{
  "os-update_readonly_flag": {
    "readonly": true
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 6.1.13 Exporting EVS Disk Data as an Image

### Function

This API is used to export the system disk data or data disk data as an IMS image. The exported image will be displayed in the IMS private image list and can be viewed and used.

### Constraints

If the target disk is in the **in-use** state, stop the server where the disk has been attached before calling this API. If the target disk is a shared disk, stop all servers where the shared disk has been attached before calling this API.

## URI

- URI format  
POST /v2/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
os-volume_upload_image	Object	Yes	The image export operation marker. For details, see <a href="#">Parameters in the os-volume_upload_image field</a> .

- Parameters in the **os-volume\_upload\_image** field

Parameter	Type	Mandatory	Description
disk_format	String	No	The format of the image to be exported. The value can be <b>vhd</b> , <b>zvhd</b> , <b>zvhd2</b> , <b>raw</b> , or <b>qcow2</b> . The default value is <b>zvhd2</b> .
image_name	String	Yes	The name of the image to be exported. <ul style="list-style-type: none"><li>• It cannot start or end with space.</li><li>• It can contain 1 to 128 characters.</li><li>• It can contain the following characters: letters, digits, special characters including hyphens (-), periods (.), and underscores (_), and spaces.</li></ul>

Parameter	Type	Mandatory	Description
force	Boolean	No	Whether to forcibly export the image. The default value is <b>false</b> . <ul style="list-style-type: none"> <li>If this parameter is set to <b>false</b>, images cannot be forcibly exported when the disk status is <b>in-use</b>.</li> <li>If this parameter is set to <b>true</b>, images can be forcibly exported even when the disk status is <b>in-use</b>.</li> </ul>
container_format	String	No	The container type of the image to be exported. The value can be <b>ami</b> , <b>ari</b> , <b>aki</b> , <b>ovf</b> , or <b>bare</b> . The default value is <b>bare</b> .
__os_type	String	No	The OS type of the image to be exported. Only <b>windows</b> and <b>linux</b> are supported currently. The default value is <b>linux</b> . <b>NOTE</b> <ul style="list-style-type: none"> <li>There are two underscores (__) in front of <b>os</b> and one underscore (__) after <b>os</b>.</li> <li>This parameter setting takes effect only when the <b>__os_type</b> field is not included in <b>volume_image_metadata</b> and the disk status is <b>available</b>.</li> <li>If this parameter is not specified, default value <b>linux</b> is used.</li> </ul>

- Example request

```
{
  "os-volume_upload_image": {
    "image_name": "sxmatch2",
    "force": true,
    "container_format": "bare",
    "disk_format": "vhd",
    "__os_type": "linux"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
os-volume_upload_image	Object	The image export operation marker. For details, see <a href="#">Parameters in the os-volume_upload_image field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **os-volume\_upload\_image** field

Parameter	Type	Description
status	String	The disk status after the image is exported. The correct value is <b>uploading</b> .
image_id	String	The ID of the exported image.
image_name	String	The name of the exported image.
volume_type	Object	The disk type information. For details, see <a href="#">Parameters in the volume_type field</a> .
container_format	String	The container type of the exported image. The value can be <b>ami</b> , <b>ari</b> , <b>aki</b> , <b>ovf</b> , or <b>bare</b> . The default value is <b>bare</b> .
size	Integer	The disk size, in GB.
disk_format	String	The format of the exported image. The value can be <b>vhd</b> , <b>zvhd</b> , <b>zvhd2</b> , <b>raw</b> , or <b>qcow2</b> . The default value is <b>vhd</b> .
id	String	The disk ID.
display_description	String	The disk description.
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX

- Parameters in the **volume\_type** field

Parameter	Type	Description
id	String	The disk type ID.
name	String	The disk type name.
deleted	Boolean	Whether the disk has been deleted.
is_public	Boolean	The reserved field.



Parameter	Type	Description
extra_spec	Object	The disk type specifications. For details, see <a href="#">Parameters in the extra_specs field</a> .
description	Integer	The disk type description.
created_at	String	The time when the disk type was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
updated_at	String	The time when the disk type was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
deleted_at	String	The time when the disk type was deleted. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX

- Parameters in the **extra\_specs** field

Parameter	Type	Description
volume_backend_name	String	The reserved field.
availability-zone	String	The reserved field.
HW:availability_zone	String	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "os-volume_upload_image": {
    "status": "uploading",
    "size": 40,
    "id": "16369c5d-384d-4e64-b37a-56d898769362",
    "image_id": "c5333daa-fbc8-4d1d-bf79-b0567bb45d15",
    "image_name": "evs-ims-test1027",
    "volume_type": {
      "description": "None",
      "deleted": false,

```

```
    "created_at": "2015-05-24T14:47:22.132268",
    "updated_at": "2017-07-29T11:29:33.730076",
    "extra_specs": {
      "volume_backend_name": "<or> iaas blockstorage_SAS <or> iaas blockstorage_SAS <or>
iaas blockstoragesas",
      "XX:availability_zone": "az-dc-1"
    },
    "is_public": true,
    "deleted_at": null,
    "id": "8247b6ed-37f0-4c48-8ef1-f0027fb332bc",
    "name": "SAS"
  },
  "container_format": "bare",
  "disk_format": "vhd",
  "display_description": "",
  "updated_at": "2018-01-11T01:50:25.800931"
}
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 6.1.14 Attaching an EVS Disk (Deprecated)

### Function

This API is only used to change the EVS disk status from **available** to **in-use**.

---

#### NOTICE

This API call exists for compatibility reasons only and is not meant to be used.

---

## Constraints

Do not call this API to attach a disk. If you need to attach a disk, call the ECS Attach Volume API.

## URI

- URI format  
POST /v2/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
os-attach	Object	Yes	Specifies the disk attachment marker. For details, see <a href="#">Parameters in the os-attach field</a> .

- Parameters in the **os-attach** field

Parameter	Type	Mandatory	Description
instance_uuid	String	Yes	Specifies the UUID of the host to be attached to.
mountpoint	String	Yes	Specifies the device name.
host_name	String	No	Specifies the name of the host to be attached to. The value can contain a maximum of 255 bytes.
mode	String	No	Specifies the attachment mode. The value can be <b>rw</b> (read/write) or <b>ro</b> (read-only).

- Example request

```
POST https://{endpoint}/v2/{project_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/action
{
  "os-attach": {
    "instance_uuid": "95D9EF50-507D-11E5-B970-0800200C9A66",
    "mountpoint": "/dev/vdc"
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 6.1.15 Detaching an EVS Disk (Deprecated)

### Function

This API is only used to change the EVS disk status from **in-use** to **available**.

**NOTICE**

This API call exists for compatibility reasons only and is not meant to be used.

## Constraints

Do not call this API to detach a disk. If you need to detach a disk, call the ECS Detach Volume API.

## URI

- URI format  
POST /v2/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
os-detach	Object	Yes	Specifies disk detachment marker.

- Parameter in the **os-detach** field

Parameter	Type	Mandatory	Description
attachment_id	String	No	Specifies the attachment ID. If the disk has only one attachment, this parameter is optional. If it has multiple attachments, the parameter is optional.

- Example request

```
POST https://{endpoint}/v2/{project_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/action
{
  "os-detach": {
    "attachment_id": "d8777f54-84cf-4809-a679-468ffed56cf1"
  }
}
```

```
}  
}
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{  
  "error": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{  
  "itemNotFound": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 6.1.16 Reserving an EVS Disk (Deprecated)

### Function

This API is used to reserve an EVS disk.

#### NOTICE

This API call exists for compatibility reasons only and is not meant to be used.

### URI

- URI format  
POST /v2/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

### Request

- Parameter description

Parameter	Type	Mandatory	Description
os-reserve	Object	Yes	Specifies disk reservation marker. Defining a value for this parameter is not mandatory, and you are advised to leave it blank.

- Example request

```
POST https://{endpoint}/v2/{project_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/action
{
  "os-reserve": {}
}
```

### Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 6.1.17 Canceling Reservation of an EVS Disk (Deprecated)

### Function

This API is used to cancel the reservation of an EVS disk.



**NOTICE**

This API call exists for compatibility reasons only and is not meant to be used.

**URI**

- URI format  
POST /v2/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

**Request**

- Parameter description

Parameter	Type	Mandatory	Description
os-unreserve	Object	Yes	Specifies disk reservation canceling marker. Defining a value for this parameter is not mandatory, and you are advised to leave it blank.

- Example request

```
POST https://{endpoint}/v2/{project_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/action
{
  "os-unreserve": {}
}
```

**Response**

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

# 6.2 Quota Management

## 6.2.1 Querying Details of Tenant Quotas

### URI

- URI format  
GET /v2/{project\_id}/os-quota-sets/{target\_project\_id}?usage=True
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
target_project_id	Yes	The ID of the target project. Set this parameter to the value of <b>project_id</b> .
usage	Yes	Whether to query quota details. Only value <b>true</b> is supported currently.

## Request

- Example request  
GET `https://{endpoint}/v2/{project_id}/os-quota-sets/{project_id}?usage=True`

## Response

- Response parameters

Parameter	Type	Description
quota_set	Object	The returned quota information. For details, see <a href="#">Parameters in the quota_set field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **quota\_set** field

Parameter	Type	Description
volumes	Object	The number of disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumes field</a> .
snapshots	Object	The number of snapshots. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshots field</a> .

Parameter	Type	Description
gigabytes	Object	The total size (GB) of disks and snapshots allowed. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytes field</a> .
volumes_SSD	Object	The number of reserved ultra-high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumesSSD field</a> .
volumes_SAS	Object	The number of reserved high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumesSAS field</a> .
volumes_SATA	Object	The number of reserved common I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumesSATA field</a> .
volumes_ESSD	Object	The number of reserved extreme SSD disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumesESSD field</a> .
snapshots_SSD	Object	The number of snapshots reserved for ultra-high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshotsSSD field</a> .

Parameter	Type	Description
snapshots_SAS	Object	The number of snapshots reserved for high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshotsSAS field</a> .
snapshots_SATA	Object	The number of snapshots reserved for common I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshotsSATA field</a> .
snapshots_ESSD	Object	The number of snapshots reserved for extreme SSD disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshotsESSD field</a> .
gigabytes_SSD	Object	The size (GB) reserved for ultra-high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytesSSD field</a> .
gigabytes_SAS	Object	The size (GB) reserved for high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytesSAS field</a> .
gigabytes_SATA	Object	The size (GB) reserved for common I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytesSATA field</a> .

Parameter	Type	Description
gigabytes_ESSD	Object	The size (GB) reserved for extreme SSD disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytesESSD field</a> .
id	String	The tenant ID. The tenant ID is the same as the project ID.
backups	Object	The number of backups. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailBackups field</a> .
backup_gigabytes	Object	The backup size (GB). Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailBackupGigabytes field</a> .
per_volume_gigabytes	Object	The capacity quota of each disk. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailPerVolumeGigabytes field</a> .

 NOTE

If the **limit** value returned in the response is -1, no quota limit has been set.

- Parameters in the **QuotaDetailBackupGigabytes** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailBackups** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytes** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshots** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumes** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytesSATA** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytesESSD** field

Parameter	Type	Description
in_use	Integer	The used quota.

Parameter	Type	Description
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshotsSATA** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshotsESDD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumesSATA** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumesESDD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytesSAS** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.



Parameter	Type	Description
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshotsSAS** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumesSAS** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytesSSD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshotsSSD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumesSSD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailPerVolumeGigabytes** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "quota_set": {
    "gigabytes_SAS": {
      "reserved": 0,
      "limit": -1,
      "in_use": 21
    },
    "gigabytes": {
      "reserved": 0,
      "limit": 42790,
      "in_use": 2792
    },
    "backup_gigabytes": {
      "reserved": 0,
      "limit": 5120,
      "in_use": 51
    },
    "snapshots_SAS": {
      "reserved": 0,
      "limit": -1,
      "in_use": 0
    },
    "volumes_SSD": {
      "reserved": 0,
      "limit": -1,
      "in_use": 28
    },
    "snapshots": {
      "reserved": 0,
      "limit": 10,
      "in_use": 6
    },
    "id": "cd631140887d4b6e9c786b67a6dd4c02",
    "volumes_SAS": {
      "reserved": 0,
      "limit": -1,
      "in_use": 2
    },
    "snapshots_SSD": {
      "reserved": 0,
      "limit": -1,
```

```
    "in_use": 0
  },
  "volumes": {
    "reserved": 0,
    "limit": -1,
    "in_use": 108
  },
  "backups": {
    "reserved": 0,
    "limit": 100,
    "in_use": 10
  },
  "gigabytes_SSD": {
    "reserved": 0,
    "limit": -1,
    "in_use": 1085
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

# 6.3 AZ Query

## 6.3.1 Querying All AZs

### Function

This API is used to query all AZs.

### URI

- URI format  
GET /v2/{project\_id}/os-availability-zone

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

## Request

- Example request  
GET https://{endpoint}/v2/{project\_id}/os-availability-zone

## Response

- Response parameters

Parameter	Type	Description
availabilityZoneInfo	list	The list of queried AZs. For details, see <a href="#">Parameters in the availabilityZoneInfo field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **availabilityZoneInfo** field

Parameter	Type	Description
zoneState	Object	The AZ status. For details, see <a href="#">Parameter in the zoneState field</a> .
zoneName	String	The AZ name.

- Parameter in the **zoneState** field

Parameter	Type	Description
available	Boolean	Whether the AZ is available. <ul style="list-style-type: none"><li><b>true</b>: available</li><li><b>false</b>: unavailable</li></ul>

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.

Parameter	Type	Description
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "availabilityZoneInfo": [
    {
      "zoneState": {
        "available": true
      },
      "zoneName": "az-dc-1"
    }
  ]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

# 6.4 Disk Metadata Management

## 6.4.1 Adding the Metadata for an EVS Disk

### Function

This API is used to add or update the metadata of an EVS disk.

### URI

- URI format  
POST /v2/{project\_id}/volumes/{volume\_id}/metadata
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
metadata	Map<String,String>	Yes	The metadata to be updated. For details, see <a href="#">Parameter in the metadata field</a> . The length of <b>key</b> and <b>value</b> under <b>metadata</b> can contain no more than 255 bytes.

- Parameter in the **metadata** field

Parameter	Type	Mandatory	Description
key_val	String	No	The metadata information, which is made up of one or multiple key-value pairs.

- Example request

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
metadata	Object	The disk metadata, which is made up of key-value pairs.
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.4.2 Querying Metadata of an EVS Disk

### Function

This API is used to query the metadata of an EVS disk.

### URI

- URI format  
GET /v2/{project\_id}/volumes/{volume\_id}/metadata

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Example request

```
GET https://{endpoint}/v2/{project_id}/volumes/{volume_id}/metadata
```

## Response

- Parameter description

Parameter	Type	Description
metadata	Object	Specifies the disk metadata, which is made up of key-value pairs.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```



In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.4.3 Updating the Metadata of an EVS Disk

### Function

This API is used to update the metadata of an EVS disk.

### URI

- URI format  
PUT /v2/{project\_id}/volumes/{volume\_id}/metadata
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

### Request

- Request parameters

Parameter	Type	Mandatory	Description
metadata	Map<String,String>	Yes	The metadata to be updated. For details, see <a href="#">Parameter in the metadata field</a> . The length of <b>key</b> and <b>value</b> under <b>metadata</b> can contain no more than 255 bytes.

- Parameter in the **metadata** field

Parameter	Type	Mandatory	Description
key_val	String	No	The metadata information, which is made up of one or multiple key-value pairs.

- Example request

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
metadata	Object	The disk metadata, which is made up of key-value pairs.
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.4.4 Querying One Piece of Metadata for an EVS Disk

### Function

This API is used to query one piece of the EVS disk metadata.

### URI

- URI format  
GET /v2/{project\_id}/volumes/{volume\_id}/metadata/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.
key	Yes	Specifies the key of the piece of metadata to be queried.

### Request

- Example request  
GET https://{endpoint}/v2/{project\_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/metadata/value1

### Response

- Parameter description

Parameter	Type	Description
meta	Object	Specifies a piece of the disk metadata, which is made up of a key-value pair.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "meta": {
    "key1": "value1"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.4.5 Updating One Piece of Metadata for an EVS Disk

### Function

This API is used to update one piece of the EVS disk metadata.

### URI

- URI format  
PUT /v2/{project\_id}/volumes/{volume\_id}/metadata/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.
key	Yes	Specifies the key of the piece of metadata to be updated.

### Request

- Parameter description

Parameter	Type	Mandatory	Description
meta	Object	Yes	Specifies the disk metadata to be updated. For details, see <a href="#">Parameter in the meta field</a> .

- Parameter in the **meta** field

Parameter	Type	Mandatory	Description
key_val	String	No	Specifies a piece of metadata, which is made up of a key-value pair.

- Example request

```
{
  "meta": {
    "key1": "value1"
  }
}
```

### Response

- Parameter description

Parameter	Type	Description
meta	Object	Specifies a piece of the disk metadata, which is made up of a key-value pair.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "meta": {
    "key1": "value1"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 6.4.6 Deleting One Piece of Metadata for an EVS Disk

### Function

This API is used to delete one piece of the EVS disk metadata.

### URI

- URI format  
DELETE /v2/{project\_id}/volumes/{volume\_id}/metadata/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.
key	Yes	Specifies the key of the piece of metadata to be deleted.

### Request

- Example request  
DELETE https://{endpoint}/v2/{project\_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/metadata/value1

### Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

# 6.5 API Version Query

## 6.5.1 Querying Information of API Versions

### Function

This API is used to query information of API versions.

### URI

- URI format  
GET /

### Request

- Example request  
GET https://{endpoint}/

### Response

- Parameter description

Parameter	Type	Description
versions	Array of objects	Specifies the API versions. For details, see <a href="#">Parameters in the versions field</a> .



- Parameters in the **versions** field

Parameter	Type	Description
min_version	String	Specifies the minimum microversion supported. If this version does not support microversions, the value is an empty string.
media-types	Array of objects	Specifies the request message type of the API version. For details, see <a href="#">Parameters in the media-types field</a> .
links	Array of objects	Specifies the URI of the API version. For details, see <a href="#">Parameters in the links field</a> .
id	String	Specifies the ID of the API version.
updated	String	Specifies the last time when the API version was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
version	String	Specifies the maximum microversion supported. If this version does not support microversions, the value is an empty string.
status	String	Specifies the API version status. The value can be as follows: <ul style="list-style-type: none"><li><b>CURRENT</b>: EVS custom APIs provide multiple versions. For the APIs offering same functions, you are recommended to use the v2 APIs.</li><li><b>SUPPORTED</b>: indicates an earlier version which is still supported.</li><li><b>DEPRECATED</b>: indicates a deprecated version that may be deleted later.</li></ul>

- Parameters in the **media-types** field

Parameter	Type	Description
type	String	Specifies the response type.
base	String	Specifies the text type.

- Parameters in the **links** field

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

Parameter	Type	Description
type	String	Specifies the response type.

- Example response

```
{
  "versions": [
    {
      "min_version": "",
      "media-types": [
        {
          "type": "application/vnd.openstack.volume+json;version=1",
          "base": "application/json"
        },
        {
          "type": "application/vnd.openstack.volume+xml;version=1",
          "base": "application/xml"
        }
      ]
    },
    {
      "rel": "describedby",
      "href": "http://docs.openstack.org/",
      "type": "text/html"
    },
    {
      "rel": "self",
      "href": "https://evs.localdomain.com/v1"
    }
  ],
  "id": "v1.0",
  "updated": "2014-06-28T12:20:21Z",
  "version": "",
  "status": "SUPPORTED"
},
{
  "min_version": "",
  "media-types": [
    {
      "type": "application/vnd.openstack.volume+json;version=1",
      "base": "application/json"
    },
    {
      "type": "application/vnd.openstack.volume+xml;version=1",
      "base": "application/xml"
    }
  ]
},
{
  "rel": "describedby",
  "href": "http://docs.openstack.org/",
  "type": "text/html"
},
{
  "rel": "self",
  "href": "https://evs.localdomain.com/v2"
}
],
"id": "v2.0",
"updated": "2014-06-28T12:20:21Z",
"version": "",
"status": "SUPPORTED"
},
{
  "min_version": "3.0",
  "media-types": [
    {
```

```
    "type": "application/vnd.openstack.volume+json;version=1",
    "base": "application/json"
  },
  {
    "type": "application/vnd.openstack.volume+xml;version=1",
    "base": "application/xml"
  }
],
"links": [
  {
    "rel": "describedby",
    "href": "http://docs.openstack.org/",
    "type": "text/html"
  },
  {
    "rel": "self",
    "href": "https://evs.localdomain.com/v3"
  }
],
"id": "v3.0",
"updated": "2016-02-08T12:20:21Z",
"version": "3.0",
"status": "CURRENT"
}
]
```

## Status Codes

- Normal  
300

## Error Codes

For details, see [Error Codes](#).

## 6.5.2 Querying Information of an API Version

### Function

This API is used to query information of an API version.

### URI

- URI format  
GET /{api\_version}
- Parameter description

Parameter	Type	Description
api_version	String	Specifies the target API version.

### Request

- Example request  
GET https://{endpoint}/v2

## Response

- Parameter description

Parameter	Type	Description
versions	Array of objects	Specifies the API version information. For details, see <a href="#">Parameters in the versions field</a> .

- Parameters in the **versions** field

Parameter	Type	Description
min_version	String	Specifies the minimum microversion supported. If this version does not support microversions, the value is an empty string.
media-types	Array of objects	Specifies the request message type of the API version. For details, see <a href="#">Parameters in the media-types field</a> .
links	Array of objects	Specifies the URI of the API version. For details, see <a href="#">Parameters in the links field</a> .
id	String	Specifies the ID of the API version.
updated	String	Specifies the last time when the API version was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
version	String	Specifies the maximum microversion supported. If this version does not support microversions, the value is an empty string.
status	String	Specifies the API version status. The value can be as follows: <ul style="list-style-type: none"><li><b>CURRENT</b>: EVS custom APIs provide multiple versions. For the APIs offering same functions, you are recommended to use the v2 APIs.</li><li><b>SUPPORTED</b>: indicates an earlier version which is still supported.</li><li><b>DEPRECATED</b>: indicates a deprecated version that may be deleted later.</li></ul>

- Parameters in the **media-types** field

Parameter	Type	Description
type	String	Specifies the response type.
base	String	Specifies the text type.

- Parameters in the **links** field

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

- Example response

```

{
  "versions": [
    {
      "min_version": "",
      "media-types": [
        {
          "type": "application/vnd.openstack.volume+json;version=1",
          "base": "application/json"
        },
        {
          "type": "application/vnd.openstack.volume+xml;version=1",
          "base": "application/xml"
        }
      ],
      "links": [
        {
          "rel": "describedby",
          "href": "http://docs.openstack.org/",
          "type": "text/html"
        },
        {
          "rel": "self",
          "href": "https://evs.localdomain.com/v2"
        }
      ],
      "id": "v2.0",
      "updated": "2014-06-28T12:20:21Z",
      "version": "",
      "status": "SUPPORTED"
    }
  ]
}

```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

# 7 Out-of-Date APIs

---

## 7.1 OpenStack Cinder API

### 7.1.1 EVS Disk

#### 7.1.1.1 Creating EVS Disks

##### Function

This API is used to create one or multiple EVS disks.

##### URI

- URI format  
POST /v3/{project\_id}/volumes
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

##### Request

- Request parameters

Parameter	Type	Mandatory	Description
volume	Object	Yes	The information of the disk to be created. For details, see <a href="#">Parameters in the volume field</a> .
OS-SCH-HNT:scheduler_hints	Object	No	The scheduling parameter. The <b>dedicated_storage_id</b> field is supported, indicating that the disk can be created in DSS storage pools.

- Parameters in the **volume** field

Parameter	Type	Mandatory	Description
availability_zone	String	Yes	The AZ where you want to create the disk. If the specified AZ does not exist, the disk will fail to be created. <b>NOTE</b> For details about how to obtain the AZ, see <a href="#">Querying All AZs</a> .
source_volume_id	String	No	The source disk ID. If this parameter is specified, the disk will be cloned from an existing disk. This function is currently not supported.
description	String	No	The disk description, which can contain a maximum of 255 bytes.
snapshot_id	String	No	The snapshot ID. If this parameter is specified, the disk will be created from a snapshot. <b>NOTE</b> For details about how to obtain the snapshot ID, see <a href="#">Querying Details About EVS Snapshots</a> .

Parameter	Type	Mandatory	Description
size	Integer	Yes	<p>The disk size, in GB. The value can be as follows:</p> <ul style="list-style-type: none"><li>• System disk: 1 GB to 1024 GB</li><li>• Data disk: 10 GB to 32768 GB</li></ul> <p>This parameter is mandatory when you create an empty disk. You can specify the parameter value as required within the value range.</p> <p>This parameter is mandatory when you create the disk from a snapshot. Ensure that the disk size is greater than or equal to the snapshot size.</p> <p>This parameter is mandatory when you create the disk from an image. Ensure that the disk size is greater than or equal to the minimum disk capacity required by <b>min_disk</b> in the image attributes.</p>
name	String	No	The disk name, which can contain a maximum of 255 bytes.
imageRef	String	No	<p>The image ID. If this parameter is specified, the disk will be created from an image.</p> <p><b>NOTE</b> BMS system disks cannot be created from BMS images.</p> <p>For how to obtain the image ID, see <b>Querying Images</b> in the <i>Image Management Service API Reference</i>.</p>
volume_type	String	No	<p>The disk type.</p> <p>The value can be <b>SATA</b> or <b>SSD</b>.</p> <ul style="list-style-type: none"><li>• <b>SSD</b>: the ultra-high I/O type</li><li>• <b>SATA</b>: the common I/O type</li></ul> <p>If the specified disk type is not available in the AZ, the disk will fail to be created.</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"><li>• When the disk is created from a snapshot, the disk type of the new disk will be consistent with that of the snapshot's source disk.</li><li>• For details about disk types, see <b>Disk Types and Performance</b> in the <i>Elastic Volume Service User Guide</i>.</li></ul>



Parameter	Type	Mandator y	Description
metadata	Object	No	<p>The disk metadata. The length of <b>key</b> and <b>value</b> under <b>metadata</b> can contain no more than 255 bytes.</p> <p>For details about <b>metadata</b>, see <a href="#">Parameters in the metadata field</a>. The table lists some fields. You can also specify other fields as required.</p> <p><b>NOTE</b> Parameter values under <b>metadata</b> cannot be <b>null</b>.</p>
source_repl ica	String	No	The source disk ID. If this parameter is specified, the disk will be cloned from an existing disk. This function is currently not supported.
consistency group_id	String	No	The reserved field.
count	No	Integer	<p>The number of disks to be created in a batch. If this parameter is not specified, only one disk will be created. You can create a maximum of 100 disks in a batch. If disks are created from backups, batch creation is not supported, and this parameter must be set to 1.</p> <p>If the specified value is a decimal, the number part of the value will be used.</p>
shareable	String	No	<p>The extended attribute that defines whether the disk will be shareable. The value can be <b>true</b> (shareable) or <b>false</b> (not shareable). This field is currently not supported.</p> <p><b>NOTE</b> This field is no longer used. Use <b>multiattach</b>.</p>
multiattac h	Boolean	No	<p>Whether the disk is shareable. The default value is <b>false</b>.</p> <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk will be created.</li><li>• <b>false</b>: indicates a non-shared disk will be created.</li></ul>

 **NOTE**

Specifying any two of the `source_valid`, `snapshot_id`, and `imageRef` fields together is not supported.

- Parameter in the `OS-SCH-HNT:scheduler_hints` field

Parameter	Type	Mandatory	Description
<code>dedicated_storage_id</code>	String	No	The DSS storage pool ID.

- Parameters in the `metadata` field

Parameter	Type	Mandatory	Description
<code>__system__encrypted</code>	String	No	The encryption field in <code>metadata</code> . The value can be <code>0</code> (does not encrypt the disk) or <code>1</code> (encrypts the disk). If this parameter is not specified, the disk will not be encrypted.
<code>__system__cmkid</code>	String	No	The encryption CMK ID in <code>metadata</code> . This parameter is used together with <code>__system__encrypted</code> for encryption. The length of <code>cmkid</code> is fixed at 36 bytes. <b>NOTE</b> For details about how to obtain the CMK ID, see <a href="#">Querying the Key List</a> in the <i>Key Management Service API Reference</i> .
<code>hw:passthrough</code>	String	No	<ul style="list-style-type: none"> <li>If this parameter is set to <b>true</b>, the disk device type will be SCSI, which allows ECS OSs to directly access the underlying storage media and supports SCSI reservation commands.</li> <li>If this parameter is set to <b>false</b>, the disk device type will be VBD, which supports only simple SCSI read/write commands.</li> <li>If this parameter is not specified, the disk device type will be VBD.</li> </ul> <b>NOTE</b> If parameter <code>shareable</code> is set to <b>true</b> and parameter <code>hw:passthrough</code> is not specified, shared VBD disks are created.

Parameter	Type	Mandatory	Description
full_clone	String	No	If the disk is created from a snapshot and linked cloning needs to be used, set this parameter to <b>0</b> .

 **NOTE**

The preceding table provides only some **metadata** parameters for your reference. You can also specify other fields as required.

- If the disk is created from a snapshot, **\_\_system\_encrypted** and **\_\_system\_cmkid** are not supported, and the new disk will have the same encryption attribute as that of the snapshot's source disk.
- If the disk is created from an image, **\_\_system\_encrypted** and **\_\_system\_cmkid** are not supported, and the new disk will have the same encryption attribute as that of the image.
- If the disk is created from a snapshot, **hw:passthrough** is not supported, and the new disk will have the same device type as that of the snapshot's source disk.
- If the disk is created from an image, **hw:passthrough** is not supported, and the device type of the new disk will be VBD.

- Example request

```
{
  "volume": {
    "name": "openapi_vol01",
    "imageRef": "027cf713-45a6-45f0-ac1b-0ccc57ac12e2",
    "availability_zone": "az-dc-1",
    "description": "create for api test",
    "volume_type": "SAS",
    "metadata": {
      "volume_owner": "openapi"
    },
    "multiattach": false,
    "size": 40
  },
  "OS-SCH-HNT:scheduler_hints": {
    "dedicated_storage_id": "eddc1a3e-4145-45be-98d7-bf6f65af9767"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
volume	Object	The information of the created disks. For details, see <a href="#">Parameters in the volume field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume** field

Parameter	Type	Description
id	String	The disk ID.
links	list	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	list	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a bootable disk.</li><li>• <b>false</b>: indicates a non-bootable disk.</li></ul>
encrypted	Boolean	This field is currently not supported.
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
description	String	The disk description.
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>• <b>SSD</b>: the ultra-high I/O type</li><li>• <b>SATA</b>: the common I/O type</li></ul>
replication_status	String	The reserved field.
consistencygroup_id	String	The ID of the consistency group where the disk belongs. This field is currently not supported.
source_vol_id	String	The source disk ID. This field is currently not supported.
snapshot_id	String	The snapshot ID.
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> .
size	Integer	The disk size, in GB.
user_id	String	The reserved field.

Parameter	Type	Description
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
shareable	Boolean	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk.</li><li>• <b>false</b>: indicates a non-shared disk.</li></ul>
storage_cluster_id	String	The reserved field.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
<code>__system__encrypted</code>	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"> <li>• <b>0</b>: indicates a non-encrypted disk.</li> <li>• <b>1</b>: indicates an encrypted disk.</li> <li>• If this parameter does not appear, the disk is not encrypted.</li> </ul>
<code>__system__cmkid</code>	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <code>__system__encrypted</code> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
<code>hw:passthrough</code>	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"> <li>• <b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media. SCSI reservation commands are supported.</li> <li>• <b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li> <li>• If this parameter does not appear, the disk device type is VBD.</li> </ul>
<code>full_clone</code>	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
<code>message</code>	String	The error message returned if an error occurs.
<code>code</code>	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume": {
    "attachments": [ ],
    "availability_zone": "az-dc-1",
    "bootable": "false",
    "consistencygroup_id": null,
    "created_at": "2016-05-25T02:38:40.392463",
    "description": "create for api test",
    "encrypted": false,
    "id": "8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "links": [
      {

```

```
    "href": "https://volume.localdomain.com:8776/v2/5dd0b0056f3d47b6ab4121667d35621a/volumes/8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "rel": "self"
  },
  {
    "href": "https://volume.localdomain.com:8776/5dd0b0056f3d47b6ab4121667d35621a/volumes/8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "rel": "bookmark"
  }
],
"metadata": {
  "volume_owner": "openapi"
},
"name": "openapi_vol01",
"replication_status": "disabled",
"multiattach": false,
"size": 40,
"snapshot_id": null,
"source_volid": null,
"status": "creating",
"updated_at": null,
"user_id": "39f6696ae23740708d0f358a253c2637",
"volume_type": "SAS"
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.2 Deleting an EVS Disk

#### Function

This API is used to delete an EVS disk.

#### URI

- URI format  
DELETE /v3/{project\_id}/volumes/{volume\_id}

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

- Request filter parameters

Parameter	Type	Mandatory	Description
cascade	Boolean	No	Specifies to delete all snapshots associated with the disk. The default value is <b>false</b> .

## Request

The following example shows how to delete a disk and all its snapshots.

- Example request

```
DELETE https://{endpoint}/v3/{project_id}/volumes/{volume_id}?cascade=true
```

## Response

- Response parameters

Parameter	Type	Description
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{  
  "error": {
```



```
"message": "XXXX",
"code": "XXX"
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.3 Updating an EVS Disk

## Function

This API is used to update the EVS disk information.

## URI

- URI format  
PUT /v3/{project\_id}/volumes/{volume\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
volume	Object	Yes	The information of the disk to be updated. For details, see <a href="#">Parameters in the volume field</a> .

- Parameters in the **volume** field

Parameter	Type	Mandatory	Description
name	String	No	The disk name. The value can contain a maximum of 255 bytes.
description	String	No	The disk description. The value can contain a maximum of 255 bytes.
metadata	Object	No	The disk metadata. The length of the key or value in the metadata cannot exceed 255 bytes.
display_name	String	No	Also the disk name. You can specify either parameter <b>name</b> or <b>display_name</b> . If both parameters are specified, the <b>name</b> value is used. The value can contain a maximum of 255 bytes.
display_description	String	No	Also the disk description. You can specify either parameter <b>description</b> or <b>display_description</b> . If both parameters are specified, the <b>description</b> value is used. The value can contain a maximum of 255 bytes.

- Example request

```
{
  "volume": {
    "name": "test_volume",
    "description": "test"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
volume	Object	The information of the updated disk. For details, see <a href="#">Parameters in the volume field</a> .

Parameter	Type	Description
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume** field

Parameter	Type	Description
id	String	The disk ID.
links	list<map<String,String>>	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	list	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a bootable disk.</li><li>• <b>false</b>: indicates a non-bootable disk.</li></ul>
encrypted	Boolean	This field is currently not supported.
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
description	String	The disk description.
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>• <b>SSD</b>: the ultra-high I/O type</li><li>• <b>SATA</b>: the common I/O type</li></ul>
replication_status	String	The reserved field.
consistencygroup_id	String	The reserved field.
source_vol_id	String	The source disk ID. This field is currently not supported.
snapshot_id	String	The snapshot ID.

Parameter	Type	Description
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> .
size	Integer	The disk size, in GB.
user_id	String	The reserved field.
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
shareable	Boolean	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk.</li><li>• <b>false</b>: indicates a non-shared disk.</li></ul>
storage_cluster_id	String	The reserved field.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
<code>__system__encrypted</code>	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"><li><b>0</b>: indicates a non-encrypted disk.</li><li><b>1</b>: indicates an encrypted disk.</li><li>If this parameter does not appear, the disk is not encrypted.</li></ul>
<code>__system__cmkid</code>	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <code>__system__encrypted</code> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
<code>hw:passthrough</code>	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"><li><b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media and support SCSI reservations commands.</li><li><b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li><li>If this parameter does not appear, the disk device type is VBD.</li></ul>
<code>full_clone</code>	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
<code>message</code>	String	The error message returned if an error occurs.
<code>code</code>	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume": {
    "attachments": [ ],
    "availability_zone": "az-dc-1",
    "bootable": "false",
    "consistencygroup_id": null,
    "created_at": "2016-05-25T02:38:40.392463",
    "description": "create for api test",
    "encrypted": false,
    "id": "8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
```

```
"links": [
  {
    "href": "https://volume.localdomain.com:8776/v2/5dd0b0056f3d47b6ab4121667d35621a/
volumes/8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "rel": "self"
  },
  {
    "href": "https://volume.localdomain.com:8776/5dd0b0056f3d47b6ab4121667d35621a/
volumes/8dd7c486-8e9f-49fe-bceb-26aa7e312b66",
    "rel": "bookmark"
  }
],
"metadata": {
  "volume_owner": "openapi"
},
"name": "openapi_vol01",
"replication_status": "disabled",
"multiattach": false,
"size": 40,
"snapshot_id": null,
"source_volid": null,
"status": "creating",
"updated_at": null,
"user_id": "39f6696ae23740708d0f358a253c2637",
"volume_type": "SAS"
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.4 Querying EVS Disks

#### Function

This API is used to query EVS disks.

## URI

- URI format  
GET /v3/{project\_id}/volumes
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters

Parameter	Type	Mandatory	Description
marker	String	No	The ID of the resource from which the pagination query starts. It is the ID of the last resource on the previous page.
name	String	No	The disk name. The value can contain a maximum of 255 bytes.
limit	Integer	No	The maximum number of query results that can be returned. The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit. If the tenant has more than 50 disks in total, you are advised to use this parameter and set its value to <b>50</b> to improve the query efficiency. Examples are provided as follows: <b>GET /v3/xxx/volumes?limit=50:</b> Queries the 1–50 disks. <b>GET /v3/xxx/volumes?offset=50&amp;limit=50:</b> Queries the 51–100 disks.
sort_key	String	No	The keyword based on which the returned results are sorted. The value can be <b>id</b> , <b>status</b> , <b>size</b> , or <b>created_at</b> , and the default value is <b>created_at</b> .

Parameter	Type	Mandatory	Description
sort_dir	String	No	The result sorting order. The default value is <b>desc</b> . <ul style="list-style-type: none"><li>• <b>desc</b>: the descending order</li><li>• <b>asc</b>: the ascending order</li></ul>
offset	Integer	No	The query offset. All disks after this offset will be queried. The value must be an integer greater than 0 but less than the number of disks.
status	String	No	The disk status. For details, see <a href="#">EVS Disk Status</a> .
metadata	String	No	The disk metadata.
availability_zone	String	No	The AZ information.

## Request

The following example shows how to query the disks in the **available** state.

- Example request  
GET `https://{endpoint}/v3/{project_id}/volumes?status=available`

## Response

- Response parameters

Parameter	Type	Description
volumes	list	The list of queried disks. For details, see <a href="#">Parameters in the volumes field</a> .
volumes_links	list	The query position marker in the disk list. If only some disks are returned in this query, the URL of the last disk queried will be returned. You can use this URL to continue to query the remaining disks in the next query.
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volumes** field



Parameter	Type	Description
id	String	The disk ID.
links	Array of objects	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name. The value can contain a maximum of 255 bytes.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volumes": [
    {
      "id": "6b604cef-9bd8-4f5a-ae56-45839e6e1f0a",
      "links": [
        {
          "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes/6b604cef-9bd8-4f5a-ae56-45839e6e1f0a",
          "rel": "self"
        },
        {
          "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/volumes/6b604cef-9bd8-4f5a-ae56-45839e6e1f0a",
          "rel": "bookmark"
        }
      ]
    },
    {
      "name": "zjb_u25_test"
    }
  ],
  {
    "id": "2bce4552-9a7d-48fa-8484-abbbf64b206e",
    "links": [
      {
        "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes/2bce4552-9a7d-48fa-8484-abbbf64b206e",
        "rel": "self"
      },
      {
        "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/volumes/2bce4552-9a7d-48fa-8484-abbbf64b206e",
        "rel": "bookmark"
      }
    ]
  }
}
```

```
    },
    ],
    "name": "zjb_u25_test"
  },
  {
    "id": "3f1b98ec-a8b5-4e92-a727-88def62d5ad3",
    "links": [
      {
        "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes/3f1b98ec-a8b5-4e92-a727-88def62d5ad3",
        "rel": "self"
      },
      {
        "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/volumes/3f1b98ec-a8b5-4e92-a727-88def62d5ad3",
        "rel": "bookmark"
      }
    ],
    "name": "zjb_u25_test"
  }
],
"volumes_links": [
  {
    "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes?limit=3&marker=3f1b98ec-a8b5-4e92-a727-88def62d5ad3",
    "rel": "next"
  }
]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.5 Querying Details About All Disks

#### Function

This API is used to query details about all disks. Enterprise project authorization is not supported.

## URI

- URI format  
GET /v3/{project\_id}/volumes/detail
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters

Parameter	Type	Mandatory	Description
marker	String	No	The ID of the resource from which the pagination query starts. It is the ID of the last resource on the previous page.
name	String	No	The disk name. The value can contain a maximum of 255 bytes.
limit	Integer	No	The maximum number of query results that can be returned. The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit. If the tenant has more than 50 disks in total, you are advised to use this parameter and set its value to <b>50</b> to improve the query efficiency. Examples are provided as follows: <b>GET /v3/xxx/volumes/detail?limit=50:</b> Queries the 1–50 disks. <b>GET /v3/xxx/volumes/detail?offset=50&amp;limit=50:</b> Queries the 51–100 disks.
sort_key	String	No	The keyword based on which the returned results are sorted. The value can be <b>id</b> , <b>status</b> , <b>size</b> , or <b>created_at</b> , and the default value is <b>created_at</b> .

Parameter	Type	Mandatory	Description
sort_dir	String	No	The result sorting order. The default value is <b>desc</b> . <ul style="list-style-type: none"><li>• <b>desc</b>: the descending order</li><li>• <b>asc</b>: the ascending order</li></ul>
offset	Integer	No	The query offset. All disks after this offset will be queried. The value must be an integer greater than 0 but less than the number of disks.
status	String	No	The disk status. For details, see <a href="#">EVS Disk Status</a> .
metadata	String	No	The disk metadata.
availability_zone	String	No	The AZ information.

## Request

The following example shows how to query details of the disks in the **available** state.

- Example request  
GET `https://{endpoint}/v3/{project_id}/volumes/detail?status=available`

## Response

- Response parameters

Parameter	Type	Description
volumes	list	The list of queried disks. For details, see <a href="#">Parameters in the volumes field</a> .
volumes_links	list	The query position marker in the disk list. If only some disks are returned in this query, the URL of the last disk queried will be returned. You can use this URL to continue to query the remaining disks in the next query. For details, see <a href="#">Parameters in the links field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volumes** field

Parameter	Type	Description
id	String	The disk ID.
links	Array of objects	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	list	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.
os-vol-host-attr:host	String	The reserved field.
source_volid	String	The source disk ID. This parameter has a value if the disk is created from a source disk.  This field is currently not supported.
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
description	String	The disk description.
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li>● <b>SSD</b>: the ultra-high I/O type</li><li>● <b>SATA</b>: the common I/O type</li></ul>
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The tenant ID is the same as the project ID.
size	Integer	The disk size, in GB.

Parameter	Type	Description
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> . If <b>metadata</b> does not contain the <b>hw:passthrough</b> field, the disk device type is VBD. If <b>metadata</b> does not contain the <b>__system__encrypted</b> field, the disk is not encrypted.
os-vol-mig-status-attr:migstat	String	The reserved field.
os-vol-mig-status-attr:name_id	String	The reserved field.
os-volume-replication:extended_status	String	The reserved field.
encrypted	Boolean	This field is currently not supported.
replication_status	String	The reserved field.
user_id	String	The reserved field.
consistencygroup_id	String	The reserved field.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a bootable disk.</li><li>• <b>false</b>: indicates a non-bootable disk.</li></ul>
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
shareable	Boolean	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"><li>• <b>true</b>: indicates a shared disk.</li><li>• <b>false</b>: indicates a non-shared disk.</li></ul>

Parameter	Type	Description
volume_image_metadata	Object	The metadata of the disk image. This field has a value if the disk is created from an image. Or, it is left empty. <b>NOTE</b> For details about <b>volume_image_metadata</b> , see <b>Querying Image Details (Native OpenStack API)</b> in the <i>Image Management Service API Reference</i> .

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
__system__encrypted	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"><li><b>0</b>: indicates a non-encrypted disk.</li><li><b>1</b>: indicates an encrypted disk.</li><li>If this parameter does not appear, the disk is not encrypted.</li></ul>

Parameter	Type	Description
<code>__system_cmkid</code>	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <b>__system_encrypted</b> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
<code>hw:passthrough</code>	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"> <li><b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media and support SCSI reservations commands.</li> <li><b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li> <li>If this parameter does not appear, the disk device type is VBD.</li> </ul>
<code>full_clone</code>	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
<code>message</code>	String	The error message returned if an error occurs.
<code>code</code>	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volumes": [
    {
      "attachments": [ ],
      "availability_zone": "az-dc-1",
      "bootable": "false",
      "consistencygroup_id": null,
      "created_at": "2016-05-25T02:42:10.856332",
      "description": null,
      "encrypted": false,
      "id": "b104b8db-170d-441b-897a-3c8ba9c5a214",
      "links": [
        {
          "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214",
          "rel": "self"
        },
        {
          "href": "https://volume.localdomain.com:8776/dd14c6ac581f40059e27f5320b60bf2f/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214",

```



```
        "rel": "bookmark"
      }
    ],
    "metadata": {},
    "name": "zjb_u25_test",
    "os-vol-host-attr:host": "pod01.xxx#SAS",
    "volume_image_metadata": { },
    "os-vol-mig-status-attr:migstat": null,
    "os-vol-mig-status-attr:name_id": null,
    "os-vol-tenant-attr:tenant_id": "dd14c6ac581f40059e27f5320b60bf2f",
    "replication_status": "disabled",
    "multiattach": false,
    "size": 1,
    "snapshot_id": null,
    "source_vol_id": null,
    "status": "available",
    "updated_at": "2016-05-25T02:42:22.341984",
    "user_id": "b0524e8342084ef5b74f158f78fc3049",
    "volume_type": "SAS"
  }
],
"volumes_links": [
  {
    "href": "https://volume.localdomain.com:8776/v2/dd14c6ac581f40059e27f5320b60bf2f/volumes/detail?limit=1&marker=b104b8db-170d-441b-897a-3c8ba9c5a214",
    "rel": "next"
  }
]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.6 Querying Details About a Disk

#### Function

This API is used to query details about a disk. Enterprise project authorization is not supported.

## URI

- URI format  
GET /v3/{project\_id}/volumes/{volume\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

## Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214

## Response

- Response parameters

Parameter	Type	Description
volume	Object	The queried disk. For details, see <a href="#">Parameters in the volume field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume** field

Parameter	Type	Description
id	String	The disk ID.
links	list<map<String, String>>	The disk URI. For details, see <a href="#">Parameters in the links field</a> .
name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	list<map<String, String>>	The disk attachment information. For details, see <a href="#">Parameters in the attachments field</a> .
availability_zone	String	The AZ to which the disk belongs.

Parameter	Type	Description
source_volid	String	The source disk ID. This parameter has a value if the disk is created from a source disk. This field is currently not supported.
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
description	String	The disk description.
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The tenant ID is the same as the project ID.
volume_image_metadata	Object	The metadata of the disk image. <b>NOTE</b> For details about <b>volume_image_metadata</b> , see <b>Querying Image Details (Native OpenStack API)</b> in the <i>Image Management Service API Reference</i> .
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"> <li>● <b>SSD</b>: the ultra-high I/O type</li> <li>● <b>SATA</b>: the common I/O type</li> </ul>
size	Integer	The disk size, in GB.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"> <li>● <b>true</b>: indicates a bootable disk.</li> <li>● <b>false</b>: indicates a non-bootable disk.</li> </ul>
metadata	Object	The disk metadata. For details, see <a href="#">Parameters in the metadata field</a> .
os-vol-host-attr:host	String	The reserved field.
encrypted	Boolean	This field is currently not supported.
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
os-volume-replication:extended_status	String	The reserved field.

Parameter	Type	Description
replication_status	String	The reserved field.
os-vol-mig-status-attr:migstat	String	The reserved field.
consistencygroup_id	String	The reserved field.
os-vol-mig-status-attr:name_id	String	The reserved field.
shareable	Boolean	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
user_id	String	The reserved field.
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"> <li>• <b>true</b>: indicates a shared disk.</li> <li>• <b>false</b>: indicates a non-shared disk.</li> </ul>
storage_cluster_id	String	The reserved field.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name.

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.
attached_at	String	The time when the disk was attached.
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.

Parameter	Type	Description
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
<code>__system__encrypted</code>	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"><li><b>0</b>: indicates a non-encrypted disk.</li><li><b>1</b>: indicates an encrypted disk.</li><li>If this parameter does not appear, the disk is not encrypted.</li></ul>
<code>__system__cmkid</code>	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <code>__system__encrypted</code> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
<code>hw:passthrough</code>	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"><li><b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media and support SCSI reservations commands.</li><li><b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li><li>If this parameter does not appear, the disk device type is VBD.</li></ul>
<code>full_clone</code>	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume": {
    "attachments": [ ],
```

```
"links": [
  {
    "href": "https://volume.az0.dc1.domainname.com/v2/40acc331ac784f34842ba4f08ff2be48/
volumes/591ac654-26d8-41be-bb77-4f90699d2d41",
    "rel": "self"
  },
  {
    "href": "https://volume.az0.dc1.domainname.com/40acc331ac784f34842ba4f08ff2be48/
volumes/591ac654-26d8-41be-bb77-4f90699d2d41",
    "rel": "bookmark"
  }
],
"availability_zone": "az-dc-1",
"os-vol-host-attr:host": "az-dc-1#SSD",
"encrypted": false,
"multiattach": true,
"updated_at": "2016-02-03T02:19:29.895237",
"os-volume-replication:extended_status": null,
"replication_status": "disabled",
"snapshot_id": null,
"id": "591ac654-26d8-41be-bb77-4f90699d2d41",
"size": 40,
"user_id": "fd03ee73295e45478d88e15263d2ee4e",
"os-vol-tenant-attr:tenant_id": "40acc331ac784f34842ba4f08ff2be48",
"volume_image_metadata": null,
"os-vol-mig-status-attr:migstat": null,
"metadata": {},
"status": "error_restoring",
"description": "auto-created_from_restore_from_backup",
"source_volid": null,
"consistencygroup_id": null,
"os-vol-mig-status-attr:name_id": null,
"name": "restore_backup_0115efb3-678c-4a9e-bff6-d3cd278238b9",
"bootable": "false",
"created_at": "2016-02-03T02:19:11.723797",
"volume_type": null
}
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.7 Querying EVS Disk Types

#### Function

This API is used to query EVS disk types and display the query results in a list.

#### URI

- URI format  
GET /v3/{project\_id}/types
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

#### Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/types

#### Response

- Response parameters

Parameter	Type	Description
volume_types	list	The list of queried disk types. For details, see <a href="#">Parameters in the volume_types field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume\_types** field

Parameter	Type	Description
extra_specs	Object	The disk type specifications. For details, see <a href="#">Parameters in the extra_specs field</a> .
name	String	The disk type name.
id	String	The disk type ID.
description	String	The disk type description.
qos_specs_id	String	The reserved field.

Parameter	Type	Description
is_public	Boolean	The reserved field.

- Parameters in the **extra\_specs** field

Parameter	Type	Description
volume_backend_name	String	The reserved field.
availability-zone	String	The reserved field.
HW:availability_zone	String	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume_types": [
    {
      "extra_specs": {
        "volume_backend_name": "SAS",
        "availability-zone": "az-dc-1"
      },
      "name": "SAS",
      "qos_specs_id": null,
      "id": "6c81c680-df58-4512-81e7-ecf66d160638",
      "is_public": true,
      "description": null
    },
    {
      "extra_specs": {
        "volume_backend_name": "SAS",
        "availability-zone": "az-dc-1"
      },
      "name": "SAS",
      "qos_specs_id": "585f29d6-7147-42e7-bfb8-ca214f640f6f",
      "is_public": true,
      "id": "ea6e3c13-aac5-46e0-b280-745ed272e662",
      "description": null
    },
    {
      "extra_specs": {
        "volume_backend_name": "SSD",
        "availability-zone": "az-dc-1"
      },
      "name": "SSD",

```



```
    "qos_specs_id": "39b0c29a-308b-4f86-b478-5d3d02a43837",  
    "is_public": true,  
    "id": "6f2dee9e-82f0-4be3-ad89-bae605a3d24f",  
    "description": null  
  }  
]  
}
```

or

```
{  
  "error": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{  
  "badrequest": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.8 Querying Details About an EVS Disk Type

## Function

This API is used to query details about an EVS disk type.

## URI

- URI format  
GET /v3/{project\_id}/types/{type\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
type_id	Yes	Specifies the disk type ID.

## Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/types/6c81c680-df58-4512-81e7-ecf66d160638

## Response

- Parameter description

Parameter	Type	Description
volume_type	Object	Specifies the details of queried disk types. For details, see <a href="#">Parameters in the volume_type field</a> .
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume\_type** field

Parameter	Type	Description
extra_specs	Object	Specifies the disk type specifications. For details, see <a href="#">Parameters in the extra_specs field</a> .
name	String	Specifies the name of the disk type.
id	String	Specifies the ID of the disk type.
description	String	Specifies the description of the disk type.
qos_specs_id	String	The reserved field.
is_public	Boolean	The reserved field.

- Parameters in the **extra\_specs** field

Parameter	Type	Description
volume_backend_name	String	The reserved field.
availability-zone	String	The reserved field.
HW:availability_zone	String	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume_type": {
    "extra_specs": {
      "volume_backend_name": "SAS",
      "availability-zone": "az-dc-1"
    },
    "name": "SAS",
    "qos_specs_id": null,
    "is_public": true,
    "id": "ea6e3c13-aac5-46e0-b280-745ed272e662",
    "description": null
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.9 Querying Details of Tenant Quotas

#### Function

This API is used to query the details of tenant quotas.

## URI

- URI format  
GET /v3/{project\_id}/os-quota-sets/{target\_project\_id}?usage=True
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
target_project_id	Yes	The ID of the target project. Set this parameter to the value of <b>project_id</b> .
usage	Yes	Whether to query quota details. Only value <b>true</b> is supported currently.

## Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/os-quota-sets/{project\_id}?usage=True

## Response

- Response parameters

Parameter	Type	Description
quota_set	Object	The returned quota information. For details, see <a href="#">Parameters in the quota_set field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **quota\_set** field

Parameter	Type	Description
volumes	Object	The number of disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumes field</a> .

Parameter	Type	Description
snapshots	Object	The number of snapshots. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshots field</a> .
gigabytes	Object	The total size (GB) of disks and snapshots allowed. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytes field</a> .
volumes_SSD	Object	The number of reserved ultra-high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumesSSD field</a> .
volumes_SAS	Object	The number of reserved high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumesSAS field</a> .
volumes_SATA A	Object	The number of reserved common I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumesSATA field</a> .
volumes_ESSD D	Object	The number of reserved extreme SSD disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailVolumesESSD field</a> .

Parameter	Type	Description
snapshots_SSD	Object	The number of snapshots reserved for ultra-high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshotsSSD field</a> .
snapshots_SAS	Object	The number of snapshots reserved for high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshotsSAS field</a> .
snapshots_SATA	Object	The number of snapshots reserved for common I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshotsSATA field</a> .
snapshots_ESSD	Object	The number of snapshots reserved for extreme SSD disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailSnapshotsESSD field</a> .
gigabytes_SSD	Object	The size (GB) reserved for ultra-high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytesSSD field</a> .

Parameter	Type	Description
gigabytes_SAS	Object	The size (GB) reserved for high I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytesSAS field</a> .
gigabytes_SATA	Object	The size (GB) reserved for common I/O disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytesSATA field</a> .
gigabytes_ESSD	Object	The size (GB) reserved for extreme SSD disks. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailGigabytesESSD field</a> .
id	String	The tenant ID. The tenant ID is the same as the project ID.
backups	Object	The number of backups. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailBackups field</a> .
backup_gigabytes	Object	The backup size (GB). Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailBackupGigabytes field</a> .
per_volume_gigabytes	Object	The capacity quota of each disk. Sub-parameters include <b>reserved</b> (reserved quota), <b>limit</b> (maximum quota), and <b>in_use</b> (used quota). They are all made up of key-value pairs. See <a href="#">Parameters in the QuotaDetailPerVolumeGigabytes field</a> .

 NOTE

If the **limit** value returned in the response is **-1**, no quota limit has been set.

- Parameters in the **QuotaDetailBackupGigabytes** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailBackups** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytes** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshots** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumes** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytesSATA** field



Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytesESSD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshotsSATA** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshotsESSD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumesSATA** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumesESSD** field

Parameter	Type	Description
in_use	Integer	The used quota.

Parameter	Type	Description
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytesSAS** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshotsSAS** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumesSAS** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailGigabytesSSD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailSnapshotsSSD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.

Parameter	Type	Description
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailVolumesSSD** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **QuotaDetailPerVolumeGigabytes** field

Parameter	Type	Description
in_use	Integer	The used quota.
limit	Integer	The maximum quota.
reserved	Integer	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "quota_set": {
    "gigabytes_SAS": {
      "reserved": 0,
      "limit": -1,
      "in_use": 21
    },
    "gigabytes": {
      "reserved": 0,
      "limit": 42790,
      "in_use": 2792
    },
    "backup_gigabytes": {
      "reserved": 0,
      "limit": 5120,
      "in_use": 51
    },
    "snapshots_SAS": {
      "reserved": 0,
      "limit": -1,
      "in_use": 0
    }
  },
}
```

```
"volumes_SSD": {
  "reserved": 0,
  "limit": -1,
  "in_use": 28
},
"snapshots": {
  "reserved": 0,
  "limit": 10,
  "in_use": 6
},
"id": "cd631140887d4b6e9c786b67a6dd4c02",
"volumes_SAS": {
  "reserved": 0,
  "limit": -1,
  "in_use": 2
},
"snapshots_SSD": {
  "reserved": 0,
  "limit": -1,
  "in_use": 0
},
"volumes": {
  "reserved": 0,
  "limit": -1,
  "in_use": 108
},
"backups": {
  "reserved": 0,
  "limit": 100,
  "in_use": 10
},
"gigabytes_SSD": {
  "reserved": 0,
  "limit": -1,
  "in_use": 1085
}
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.10 Adding Metadata of an EVS Disk

#### Function

This API is used to add or update the metadata of an EVS disk.

#### URI

- URI format  
POST /v3/{project\_id}/volumes/{volume\_id}/metadata
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

#### Request

- Request parameters

Parameter	Type	Mandatory	Description
metadata	Map<String,String>	Yes	The metadata to be updated. For details, see <a href="#">Parameter in the metadata field</a> . The length of <b>key</b> and <b>value</b> under <b>metadata</b> can contain no more than 255 bytes.

- Parameter in the **metadata** field

Parameter	Type	Mandatory	Description
key_val	String	No	The metadata information, which is made up of one or multiple key-value pairs.

- Example request

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
metadata	Object	The disk metadata, which is made up of key-value pairs.
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 7.1.1.11 Querying Metadata of an EVS Disk

### Function

This API is used to query the metadata of an EVS disk.

### URI

- URI format  
GET /v3/{project\_id}/volumes/{volume\_id}/metadata
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

### Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/volumes/{volume\_id}/metadata

### Response

- Parameter description

Parameter	Type	Description
metadata	Object	Specifies the disk metadata, which is made up of key-value pairs.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "metadata": {
```

```
"key1": "value1",
"key2": "value2"
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badrequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.12 Updating Metadata of an EVS Disk

#### Function

This API is used to update the metadata of an EVS disk.

#### URI

- URI format  
PUT /v3/{project\_id}/volumes/{volume\_id}/metadata
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

#### Request

- Request parameters



Parameter	Type	Mandatory	Description
metadata	Map<String,String>	Yes	The metadata to be updated. For details, see <a href="#">Parameter in the metadata field</a> . The length of <b>key</b> and <b>value</b> under <b>metadata</b> can contain no more than 255 bytes.

- Parameter in the **metadata** field

Parameter	Type	Mandatory	Description
key_val	String	No	The metadata information, which is made up of one or multiple key-value pairs.

- Example request

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
metadata	Object	The disk metadata, which is made up of key-value pairs.
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

```
}  
}  
or  
{  
  "error": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{  
  "badrequest": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.13 Querying One Piece of Metadata for an EVS Disk

#### Function

This API is used to query one piece of the EVS disk metadata.

#### URI

- URI format  
GET /v3/{project\_id}/volumes/{volume\_id}/metadata/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.
key	Yes	Specifies the key of the piece of metadata to be queried.

## Request

- Example request

```
GET https://{endpoint}/v3/{project_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/metadata/  
value1
```

## Response

- Parameter description

Parameter	Type	Description
meta	Object	Specifies a piece of the disk metadata, which is made up of a key-value pair.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{  
  "meta": {  
    "key1": "value1"  
  }  
}
```

or

```
{  
  "error": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{  
  "itemNotFound": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.14 Updating One Piece of Metadata for an EVS Disk

#### Function

This API is used to update one piece of the EVS disk metadata.

#### URI

- URI format  
PUT /v3/{project\_id}/volumes/{volume\_id}/metadata/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.
key	Yes	Specifies the key of the piece of metadata to be updated.

#### Request

- Parameter description

Parameter	Type	Mandatory	Description
meta	Object	Yes	Specifies the disk metadata to be updated. For details, see <a href="#">Parameter in the meta field</a> .

- Parameter in the **meta** field

Parameter	Type	Mandatory	Description
key_val	String	No	Specifies a piece of metadata, which is made up of a key-value pair.

- Example request

```
{
  "meta": {
    "key1": "value1"
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
meta	Object	Specifies a piece of the disk metadata, which is made up of a key-value pair.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "meta": {
    "key1": "value1"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.15 Deleting One Piece of Metadata for an EVS Disk

#### Function

This API is used to delete one piece of the EVS disk metadata.

#### URI

- URI format  
DELETE /v3/{project\_id}/volumes/{volume\_id}/metadata/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.
key	Yes	Specifies the key of the piece of metadata to be deleted.

#### Request

- Example request  
DELETE https://{endpoint}/v3/{project\_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/metadata/value1

#### Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.16 Querying Extension APIs

## Function

This API is used to query extension APIs.

## URI

- URI format  
GET /v3/{project\_id}/extensions
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

## Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/extensions

## Response

- Parameter description

Parameter	Type	Description
extensions	list	Specifies the extension APIs. For details, see <a href="#">Parameters in the extensions field</a> .
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **extensions** field

Parameter	Type	Description
updated	String	Specifies the last update time. Time format: UTC YYYY-MM-DDTHH:MM:SS.+XX.XX
description	String	Specifies the description.
links	list<map<String,String>>	The reserved field.
alias	String	Specifies the extension parameter alias.
name	String	Specifies the extension parameter name.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "extensions": [
    {
      "updated": "2013-04-18T00:00:00+00:00",
      "name": "SchedulerHints",
      "links": [],
      "alias": "OS-SCH-HNT",
      "description": "Pass arbitrary key/value pairs to the scheduler."
    },
    {
      "updated": "2011-06-29T00:00:00+00:00",
      "name": "Hosts",
      "links": [],
      "alias": "os-hosts",
      "description": "Admin-only host administration."
    },
    {
      "updated": "2011-11-03T00:00:00+00:00",
      "name": "VolumeTenantAttribute",
```



```
    "links": [ ],
    "alias": "os-vol-tenant-attr",
    "description": "Expose the internal project_id as an attribute of a volume."
  },
  {
    "updated": "2011-08-08T00:00:00+00:00",
    "name": "Quotas",
    "links": [ ],
    "alias": "os-quota-sets",
    "description": "Quota management support."
  },
  {
    "updated": "2011-08-24T00:00:00+00:00",
    "name": "TypesManage",
    "links": [ ],
    "alias": "os-types-manage",
    "description": "Types manage support."
  },
  {
    "updated": "2013-07-10T00:00:00+00:00",
    "name": "VolumeEncryptionMetadata",
    "links": [ ],
    "alias": "os-volume-encryption-metadata",
    "description": "Volume encryption metadata retrieval support."
  },
  {
    "updated": "2012-12-12T00:00:00+00:00",
    "name": "Backups",
    "links": [ ],
    "alias": "backups",
    "description": "Backups support."
  },
  {
    "updated": "2013-07-16T00:00:00+00:00",
    "name": "SnapshotActions",
    "links": [ ],
    "alias": "os-snapshot-actions",
    "description": "Enable snapshot manager actions."
  },
  {
    "updated": "2012-05-31T00:00:00+00:00",
    "name": "VolumeActions",
    "links": [ ],
    "alias": "os-volume-actions",
    "description": "Enable volume actions
"
  },
  {
    "updated": "2013-10-03T00:00:00+00:00",
    "name": "UsedLimits",
    "links": [ ],
    "alias": "os-used-limits",
    "description": "Provide data on limited resources that are being used."
  },
  {
    "updated": "2012-05-31T00:00:00+00:00",
    "name": "VolumeUnmanage",
    "links": [ ],
    "alias": "os-volume-unmanage",
    "description": "Enable volume unmanage operation."
  },
  {
    "updated": "2011-11-03T00:00:00+00:00",
    "name": "VolumeHostAttribute",
    "links": [ ],
    "alias": "os-vol-host-attr",
    "description": "Expose host as an attribute of a volume."
  },
  {
```

```
    "updated": "2013-07-01T00:00:00+00:00",
    "name": "VolumeTypeEncryption",
    "links": [ ],
    "alias": "encryption",
    "description": "Encryption support for volume types."
  },
  {
    "updated": "2013-06-27T00:00:00+00:00",
    "name": "AvailabilityZones",
    "links": [ ],
    "alias": "os-availability-zone",
    "description": "Describe Availability Zones."
  },
  {
    "updated": "2013-08-02T00:00:00+00:00",
    "name": "Qos_specs_manage",
    "links": [ ],
    "alias": "qos-specs",
    "description": "QoS specs support."
  },
  {
    "updated": "2011-08-24T00:00:00+00:00",
    "name": "TypesExtraSpecs",
    "links": [ ],
    "alias": "os-types-extra-specs",
    "description": "Type extra specs support."
  },
  {
    "updated": "2013-08-08T00:00:00+00:00",
    "name": "VolumeMigStatusAttribute",
    "links": [ ],
    "alias": "os-vol-mig-status-attr",
    "description": "Expose migration_status as an attribute of a volume."
  },
  {
    "updated": "2012-08-13T00:00:00+00:00",
    "name": "CreateVolumeExtension",
    "links": [ ],
    "alias": "os-image-create",
    "description": "Allow creating a volume from an image in the Create Volume v1 API."
  },
  {
    "updated": "2014-01-10T00:00:00-00:00",
    "name": "ExtendedServices",
    "links": [ ],
    "alias": "os-extended-services",
    "description": "Extended services support."
  },
  {
    "updated": "2012-06-19T00:00:00+00:00",
    "name": "ExtendedSnapshotAttributes",
    "links": [ ],
    "alias": "os-extended-snapshot-attributes",
    "description": "Extended SnapshotAttributes support."
  },
  {
    "updated": "2012-12-07T00:00:00+00:00",
    "name": "VolumeImageMetadata",
    "links": [ ],
    "alias": "os-vol-image-meta",
    "description": "Show image metadata associated with the volume."
  },
  {
    "updated": "2012-03-12T00:00:00+00:00",
    "name": "QuotaClasses",
    "links": [ ],
    "alias": "os-quota-class-sets",
    "description": "Quota classes management support."
  },
}
```

```
{
  "updated": "2013-05-29T00:00:00+00:00",
  "name": "VolumeTransfer",
  "links": [ ],
  "alias": "os-volume-transfer",
  "description": "Volume transfer management support."
},
{
  "updated": "2014-02-10T00:00:00+00:00",
  "name": "VolumeManage",
  "links": [ ],
  "alias": "os-volume-manage",
  "description": "Allows existing backend storage to be 'managed' by Cinder."
},
{
  "updated": "2012-08-25T00:00:00+00:00",
  "name": "AdminActions",
  "links": [ ],
  "alias": "os-admin-actions",
  "description": "Enable admin actions."
},
{
  "updated": "2012-10-28T00:00:00-00:00",
  "name": "Services",
  "links": [ ],
  "alias": "os-services",
  "description": "Services support."
}
]
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.17 Querying All AZs

## Function

This API is used to query all AZs.

## URI

- URI format  
GET /v3/{project\_id}/os-availability-zone
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

## Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/os-availability-zone

## Response

- Response parameters

Parameter	Type	Description
availabilityZoneInfo	list	The list of queried AZs. For details, see <a href="#">Parameters in the availabilityZoneInfo field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **availabilityZoneInfo** field

Parameter	Type	Description
zoneState	Object	The AZ status. For details, see <a href="#">Parameter in the zoneState field</a> .
zoneName	String	The AZ name.

- Parameter in the **zoneState** field

Parameter	Type	Description
available	Boolean	Whether the AZ is available. <ul style="list-style-type: none"><li>• <b>true</b>: available</li><li>• <b>false</b>: unavailable</li></ul>

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "availabilityZoneInfo": [
    {
      "zoneState": {
        "available": true
      },
      "zoneName": "az-dc-1"
    }
  ]
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.18 Querying Summary Information of EVS Disks

## Function

This API is used to query the summary information of EVS disks, including the disk quantity, total capacity, and metadata information.

### NOTE

The request version must be 3.12 or later.

## URI

- URI format  
GET /v3/{project\_id}/volumes/summary
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

## Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/volumes/summary

## Response

- Parameter description

Parameter	Type	Description
volume-summary	Object	Specifies the summary information of queried disks. For details, see <a href="#">Parameters in the volume-summary field</a> .

- Parameters in the **volume-summary** field

Parameter	Type	Description
total_size	Integer	Specifies the total size of disks, in GB.
total_count	Integer	Specifies the total quantity of disks.
metadata	Object	Specifies the disk metadata information. This parameter is supported when the request version is 3.36 or later.

- Example response

```
{
  "volume-summary": {
    "total_size": 83,
    "total_count": 8,
    "metadata": {}
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.1.19 Querying Details About a Disk (Deprecated)

#### Function

This API is used to query details about a disk. Enterprise project authorization is not supported.

---

**NOTICE**

This API has been deprecated. Use another API. For details, see [Querying Details About a Disk](#).

---

#### URI

- URI format  
GET /v1/{project\_id}/volumes/{volume\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	The project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	The disk ID.

#### Request

- Example request  
GET https://{endpoint}/v1/{project\_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214

## Response

- Response parameters

Parameter	Type	Description
volume	Object	The disk information. For details, see <a href="#">Parameters in the volume field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **volume** field

Parameter	Type	Description
id	String	The disk ID.
display_name	String	The disk name.
status	String	The disk status. For details, see <a href="#">EVS Disk Status</a> .
attachments	list	The attachment information.
availability_zone	String	The AZ to which the disk belongs.
os-vol-host-attr:host	String	The reserved field.
source_volid	String	The source disk ID. This parameter has a value if the disk is created from a source disk. This field is currently not supported.
snapshot_id	String	The snapshot ID. This parameter has a value if the disk is created from a snapshot.
display_description	String	The disk description.
created_at	String	The time when the disk was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_type	String	The disk type. The value can be <b>SATA</b> or <b>SSD</b> . <ul style="list-style-type: none"><li><b>SSD</b>: the ultra-high I/O type</li><li><b>SATA</b>: the common I/O type</li></ul>



Parameter	Type	Description
os-vol-tenant-attr:tenant_id	String	The ID of the tenant to which the disk belongs. The tenant ID is the same as the project ID.
size	Integer	The disk size, in GB.
metadata	Object	The disk metadata.
os-vol-mig-status-attr:migstat	String	The reserved field.
os-vol-mig-status-attr:name_id	String	The reserved field.
os-volume-replication:extended_status	String	The reserved field.
encrypted	Boolean	This field is currently not supported.
bootable	String	Whether the disk is bootable. <ul style="list-style-type: none"> <li>• <b>true</b>: indicates a bootable disk.</li> <li>• <b>false</b>: indicates a non-bootable disk.</li> </ul>
shareable	String	Whether the disk is shareable. <b>NOTE</b> This field is no longer used. Use <b>multiattach</b> .
multiattach	Boolean	Whether the disk is shareable. <ul style="list-style-type: none"> <li>• <b>true</b>: indicates a shared disk.</li> <li>• <b>false</b>: indicates a non-shared disk.</li> </ul>
volume_image_metadata	Object	The metadata of the disk image. This field has a value if the disk is created from an image. Or, it is left empty. <b>NOTE</b> For details about <b>volume_image_metadata</b> , see <b>Querying Image Details (Native OpenStack API)</b> in the <i>Image Management Service API Reference</i> .

- Parameters in the **attachments** field

Parameter	Type	Description
server_id	String	The ID of the server to which the disk is attached.
attachment_id	String	The ID of the attachment information.

Parameter	Type	Description
attached_at	String	The time when the disk was attached. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
host_name	String	The name of the physical host housing the cloud server to which the disk is attached.
volume_id	String	The disk ID.
device	String	The device name.
id	String	The ID of the attached disk.

- Parameters in the **metadata** field

Parameter	Type	Description
<code>__system__encrypted</code>	String	The encryption field in <b>metadata</b> . <ul style="list-style-type: none"><li>• <b>0</b>: indicates a non-encrypted disk.</li><li>• <b>1</b>: indicates an encrypted disk.</li><li>• If this parameter does not appear, the disk is not encrypted.</li></ul>
<code>__system__cmkid</code>	String	The encryption CMK ID in <b>metadata</b> . This parameter is used together with <code>__system__encrypted</code> for encryption. The length of <b>cmkid</b> is fixed at 36 bytes.
<code>hw:passthrough</code>	String	The parameter that describes the disk device type in <b>metadata</b> . The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"><li>• <b>true</b> indicates the SCSI device type, which allows ECS OSs to directly access the underlying storage media and support SCSI reservations commands.</li><li>• <b>false</b> indicates the VBD device type (the default type), which supports only simple SCSI read/write commands.</li><li>• If this parameter does not appear, the disk device type is VBD.</li></ul>
<code>full_clone</code>	String	The clone method. If the disk is created from a snapshot, value <b>0</b> indicates the linked cloning method.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "volume": {
    "attachments": [],
    "availability_zone": "az-dc-1",
    "os-vol-host-attr:host": "db-rabbitmq201#LVM_iSCSI",
    "encrypted": false,
    "os-volume-replication:extended_status": null,
    "volume_image_metadata": null,
    "snapshot_id": null,
    "id": "da4f9c7a-c275-4bc9-80c4-76c7d479a218",
    "size": 1,
    "os-vol-tenant-attr:tenant_id": "3dab0aaf682849678a94ec7b5a3af2ce",
    "os-vol-mig-status-attr:migstat": null,
    "metadata": {},
    "status": "available",
    "display_description": null,
    "source_valid": null,
    "os-vol-mig-status-attr:name_id": null,
    "display_name": "test",
    "bootable": "false",
    "created_at": "2014-12-18T17:14:38.000000",
    "volume_type": "SAS",
    "multiattach": false
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badrequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 7.1.2 EVS Disk Actions

### 7.1.2.1 Expanding Capacity of an EVS Disk

#### Function

This API is used to expand the capacity of an EVS disk.

#### URI

- URI format  
POST /v3/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the ID of a disk.

#### Request

- Parameter description

Parameter	Type	Mandatory	Description
os-extend	Object	Yes	Specifies the disk expansion marker. For details, see <a href="#">Parameter in the os-extend field</a> .

- Parameter in the **os-extend** field

Parameter	Type	Mandatory	Description
new_size	Integer	Yes	Specifies the size of the disk after capacity expansion, in GB. The new disk size ranges from the original disk size to the maximum size ( <b>32768</b> for a data disk and <b>1024</b> for a system disk).

- Example request

```
{  
  "os-extend": {  
    "new_size": 100  
  }  
}
```

```
}  
}
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{  
  "error": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{  
  "badRequest": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 7.1.2.2 Setting Bootable Flag for an EVS Disk

### Function

This API is used to set the bootable flag for an EVS disk.

### Constraints

A data disk cannot be used as system disk for an ECS even if this API has been called to set the bootable flag for it.

### URI

- URI format  
POST /v3/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

### Request

- Parameter description

Parameter	Type	Mandatory	Description
os-set_bootable	Object	Yes	Specifies the disk bootable marker. For details, see <a href="#">Parameter in the os-set_bootable field</a> .

- Parameter in the **os-set\_bootable** field

Parameter	Type	Mandatory	Description
bootable	Boolean	Yes	Specifies whether to set the bootable flag for the disk. <ul style="list-style-type: none"> <li>• <b>false</b>: does not set the flag.</li> <li>• <b>true</b>: sets the flag.</li> </ul>

- Example request

```
{
  "os-set_bootable": {
    "bootable": true
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.2.3 Setting Read-Only Flag for an EVS Disk

## Function

This API is used to set the read-only flag for the EVS disk.

## URI

- URI format  
POST /v3/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
os-update_readonly_flag	Object	Yes	Specifies the disk read-only flag. For details, see <a href="#">Parameter in the os-update_readonly_flag field</a> .

- Parameter in the **os-update\_readonly\_flag** field

Parameter	Type	Mandatory	Description
readonly	Boolean	Yes	Specifies the read-only flag. <ul style="list-style-type: none"><li>• <b>true</b>: specifies the disk is read-only.</li><li>• <b>false</b>: specifies the disk is not read-only.</li></ul>

- Example request

```
{
  "os-update_readonly_flag": {
    "readonly": true
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .



- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.2.4 Exporting EVS Disk Data as an Image

#### Function

This API is used to export the system disk data or data disk data as an IMS image. The exported image will be displayed in the IMS private image list and can be viewed and used.

#### URI

- URI format  
POST /v3/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
os-volume_upload_image	Object	Yes	The image export operation marker. For details, see <a href="#">Parameters in the os-volume_upload_image field</a> .

- Parameters in the **os-volume\_upload\_image** field

Parameter	Type	Mandatory	Description
disk_format	String	No	The format of the image to be exported. The value can be <b>vhd</b> , <b>zvhd</b> , <b>zvhd2</b> , <b>raw</b> , or <b>qcow2</b> . The default value is <b>zvhd2</b> .
image_name	String	Yes	The name of the image to be exported. <ul style="list-style-type: none"><li>It cannot start or end with space.</li><li>It can contain 1 to 128 characters.</li><li>It can contain the following characters: letters, digits, special characters including hyphens (-), periods (.), and underscores (_), and spaces.</li></ul>

Parameter	Type	Mandatory	Description
force	Boolean	No	Whether to forcibly export the image. The default value is <b>false</b> . <ul style="list-style-type: none"> <li>If this parameter is set to <b>false</b>, images cannot be forcibly exported when the disk status is <b>in-use</b>.</li> <li>If this parameter is set to <b>true</b>, images can be forcibly exported even when the disk status is <b>in-use</b>.</li> </ul>
container_format	String	No	The container type of the image to be exported. The value can be <b>ami</b> , <b>ari</b> , <b>aki</b> , <b>ovf</b> , or <b>bare</b> . The default value is <b>bare</b> .
__os_type	String	No	The OS type of the image to be exported. Only <b>windows</b> and <b>linux</b> are supported currently. The default value is <b>linux</b> . <b>NOTE</b> <ul style="list-style-type: none"> <li>There are two underscores (__) in front of <b>os</b> and one underscore (__) after <b>os</b>.</li> <li>This parameter setting takes effect only when the <b>__os_type</b> field is not included in <b>volume_image_metadata</b> and the disk status is <b>available</b>.</li> <li>If this parameter is not specified, default value <b>linux</b> is used.</li> </ul>

- Example request

```
{
  "os-volume_upload_image": {
    "image_name": "sxmatch2",
    "force": true,
    "container_format": "bare",
    "disk_format": "vhd",
    "__os_type": "linux"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
os-volume_upload_image	Object	The image export operation marker. For details, see <a href="#">Parameters in the os-volume_upload_image field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **os-volume\_upload\_image** field

Parameter	Type	Description
status	String	The disk status after the image is exported. The correct value is <b>uploading</b> .
image_id	String	The ID of the exported image.
image_name	String	The name of the exported image.
volume_type	Object	The disk type information. For details, see <a href="#">Parameters in the volume_type field</a> .
container_format	String	The container type of the exported image. The value can be <b>ami</b> , <b>ari</b> , <b>aki</b> , <b>ovf</b> , or <b>bare</b> . The default value is <b>bare</b> .
size	Integer	The disk size, in GB.
disk_format	String	The format of the exported image. The value can be <b>vhd</b> , <b>zvhd</b> , <b>zvhd2</b> , <b>raw</b> , or <b>qcow2</b> . The default value is <b>vhd</b> .
id	String	The disk ID.
display_description	String	The disk description.
updated_at	String	The time when the disk was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX

- Parameters in the **volume\_type** field

Parameter	Type	Description
id	String	The disk type ID.
name	String	The disk type name.
deleted	Boolean	Whether the disk has been deleted.
is_public	Boolean	The reserved field.

Parameter	Type	Description
extra_spec	Object	The disk type specifications. For details, see <a href="#">Parameters in the extra_specs field</a> .
description	Integer	The disk type description.
created_at	String	The time when the disk type was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
updated_at	String	The time when the disk type was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
deleted_at	String	The time when the disk type was deleted. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX

- Parameters in the **extra\_specs** field

Parameter	Type	Description
volume_backend_name	String	The reserved field.
availability-zone	String	The reserved field.
HW:availability_zone	String	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "os-volume_upload_image": {
    "status": "uploading",
    "size": 40,
    "id": "16369c5d-384d-4e64-b37a-56d898769362",
    "image_id": "c5333daa-fbc8-4d1d-bf79-b0567bb45d15",
    "image_name": "evs-ims-test1027",
    "volume_type": {
      "description": "None",
      "deleted": false,

```

```
    "created_at": "2015-05-24T14:47:22.132268",
    "updated_at": "2017-07-29T11:29:33.730076",
    "extra_specs": {
      "volume_backend_name": "<or> iaas blockstorage_SAS <or> iaas blockstorage_SAS <or>
iaas blockstoragesas",
      "XX:availability_zone": "az-dc-1"
    },
    "is_public": true,
    "deleted_at": null,
    "id": "8247b6ed-37f0-4c48-8ef1-f0027fb332bc",
    "name": "SAS"
  },
  "container_format": "bare",
  "disk_format": "vhd",
  "display_description": "",
  "updated_at": "2018-01-11T01:50:25.800931"
}
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.2.5 Reserving an EVS Disk (Deprecated)

#### Function

This API is used to reserve an EVS disk.

---

**NOTICE**

This API call exists for compatibility reasons only and is not meant to be used.

---

#### URI

- URI format  
POST /v3/{project\_id}/volumes/{volume\_id}/action

- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
os-reserve	Object	Yes	Specifies disk reservation marker. Defining a value for this parameter is not mandatory, and you are advised to leave it blank.

- Example request

```
POST https://{endpoint}/v2/{project_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/action
{
  "os-reserve": {}
}
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None  
or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.2.6 Canceling Reservation of an EVS Disk (Deprecated)

## Function

This API is used to cancel the reservation of an EVS disk.

---

#### NOTICE

This API call exists for compatibility reasons only and is not meant to be used.

---

## URI

- URI format  
POST /v3/{project\_id}/volumes/{volume\_id}/action
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
volume_id	Yes	Specifies the disk ID.



## Request

- Parameter description

Parameter	Type	Mandatory	Description
os-unreserve	Object	Yes	Specifies disk reservation canceling marker. Defining a value for this parameter is not mandatory, and you are advised to leave it blank.

- Example request

```
POST https://{endpoint}/v2/{project_id}/volumes/b104b8db-170d-441b-897a-3c8ba9c5a214/action
{
  "os-unreserve": {}
}
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

```
}  
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

## 7.1.3 EVS Snapshot

### 7.1.3.1 Creating an EVS Snapshot

#### Function

This API is used to create an EVS snapshot.

#### URI

- URI format  
POST /v3/{project\_id}/snapshots
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

#### Request

- Parameter description

Parameter	Type	Mandatory	Description
snapshot	Object	Yes	Specifies the information of the snapshot to be created. For details, see <a href="#">Parameters in the snapshot field</a> .

- Parameters in the **snapshot** field

Parameter	Type	Mandatory	Description
volume_id	String	Yes	Specifies the ID of the snapshot's source disk.
force	Boolean	No	Specifies the flag for forcibly creating a snapshot. The default value is <b>false</b> . <ul style="list-style-type: none"><li>If this parameter is set to <b>false</b> and the disk is in the <b>attaching</b> state, the snapshot cannot be forcibly created.</li><li>If this parameter is set to <b>true</b> and the disk is in the <b>attaching</b> state, the snapshot can be forcibly created.</li></ul>
metadata	Object	No	Specifies the snapshot metadata.
description	String	No	Specifies the snapshot description. The value can be <b>null</b> . The value can contain a maximum of 255 bytes.
name	String	No	Specifies the snapshot name. The value can contain a maximum of 255 bytes. <b>NOTE</b> When creating a backup for a disk, a snapshot will be created and named with prefix <b>autobk_snapshot_</b> . The EVS console has imposed operation restrictions on snapshots with prefix <b>autobk_snapshot_</b> . Therefore, you are advised not to use <b>autobk_snapshot_</b> as the name prefix for the snapshots you created. Otherwise, the snapshots cannot be used normally.

- Example request

```
{
  "snapshot": {
    "name": "snap-001",
    "description": "Daily backup",
    "volume_id": "5aa119a8-d25b-45a7-8d1b-88e127885635",
    "force": false,
    "metadata": { }
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
snapshot	Object	Specifies the snapshot information. For details, see <a href="#">Parameters in the snapshot field</a> .
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **snapshot** field

Parameter	Type	Description
id	String	Specifies the snapshot ID.
status	String	Specifies the snapshot status. For details, see <a href="#">EVS Snapshot Status</a> .
name	String	Specifies the snapshot name.
description	String	Specifies the snapshot description.
created_at	String	Specifies the time when the snapshot was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
metadata	Object	Specifies the snapshot metadata.
volume_id	String	Specifies the ID of the snapshot's source disk.
size	Integer	Specifies the snapshot size, in GB.
updated_at	String	Specifies the time when the snapshot was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{  
  "snapshot": {
```

```
"status": "creating",
"description": "Daily backup",
"created_at": "2013-02-25T03:56:53.081642",
"metadata": { },
"volume_id": "5aa119a8-d25b-45a7-8d1b-88e127885635",
"size": 1,
"id": "ffa9bc5e-1172-4021-acaf-cdcd78a9584d",
"name": "snap-001",
"updated_at": "2013-02-25T03:56:53.081642"
}
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.2 Deleting an EVS Snapshot

#### Function

This API is used to delete an EVS snapshot.

#### Constraints

- A snapshot can be deleted only when it is in the **available** or **error** state.

#### URI

- URI format  
DELETE /v3/{project\_id}/snapshots/{snapshot\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
snapshot_id	Yes	Specifies the snapshot ID.

## Request

- Example request

```
DELETE https://{endpoint}/v3/{project_id}/snapshots/f9faf7df-fdc1-4093-9ef3-5cba06eef995
```

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.3 Updating an EVS Snapshot

#### Function

This API is used to update an EVS snapshot.

#### URI

- URI format  
PUT /v3/{project\_id}/snapshots/{snapshot\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
snapshot_id	Yes	Specifies the snapshot ID.

#### Request

- Request parameters

Parameter	Type	Mandatory	Description
snapshot	Object	Yes	The information of the snapshot to be updated. For details, see <a href="#">Parameters in the snapshot field</a> .

- Parameters in the **snapshot** field

Parameter	Type	Mandatory	Description
name	String	No	The snapshot name, which can contain a maximum of 255 bytes. <b>NOTE</b> When a disk backup is created, a snapshot will also be created and named with the <b>autobk_snapshot_</b> prefix. Operations cannot be performed on such snapshots. Therefore, you are advised not to use <b>autobk_snapshot_</b> as the prefix of snapshot names to avoid any inconvenience.
description	String	No	The snapshot description, which can contain a maximum of 255 bytes.

- Example request

```
{
  "snapshot": {
    "name": "snap-001",
    "description": "Daily backup"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
snapshot	Object	The snapshot information. For details, see <a href="#">Parameters in the snapshot field</a> .
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **snapshot** field

Parameter	Type	Description
id	String	The snapshot ID.
status	String	The snapshot status. For details, see <a href="#">EVS Snapshot Status</a> .
name	String	The snapshot name.
description	String	The snapshot description.
created_at	String	The time when the snapshot was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX



Parameter	Type	Description
metadata	Object	The snapshot metadata.
volume_id	String	The ID of the snapshot's source disk.
size	Integer	The snapshot size, in GB.
updated_at	String	The time when the snapshot was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
os-extended-snapshot-attributes:progress	String	The reserved field.
os-extended-snapshot-attributes:project_id	String	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "snapshot": {
    "status": "available",
    "description": "Daily backup",
    "created_at": "2013-02-25T03:56:53.081642",
    "metadata": { },
    "volume_id": "5aa119a8-d25b-45a7-8d1b-88e127885635",
    "size": 1,
    "id": "f9faf7df-fdc1-4093-9ef3-5cba06eef995",
    "name": "snap-001",
    "updated_at": "2013-02-25T03:56:53.081642"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.4 Querying EVS Snapshots

## Function

This API is used to query the EVS snapshots.

## URI

- URI format  
GET /v3/{project\_id}/snapshots
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters

Parameter	Type	Mandatory	Description
marker	String	No	The ID of the resource from which the pagination query starts. It is the ID of the last resource on the previous page.

Parameter	Type	Mandatory	Description
offset	Integer	No	Specifies the offset. <b>NOTE</b> This parameter is used when snapshots are queried by page and is used together with the <b>limit</b> parameter. For example, there are a total of 30 snapshots. If you set <b>offset</b> to <b>11</b> and <b>limit</b> to <b>10</b> , the queried snapshot starts from the twelfth snapshot, and at most 10 snapshots can be queried at a time.
limit	Integer	No	Specifies the maximum number of query results that can be returned. The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit. If the tenant has more than 50 snapshots in total, you are advised to use this parameter and set its value to <b>50</b> to improve the query efficiency. Examples are provided as follows: <b>GET /v3/xxx/snapshots?limit=50:</b> Queries the 1–50 snapshots. <b>GET /v3/xxx/snapshots?offset=50&amp;limit=50:</b> Queries the 51–100 snapshots.
name	String	No	Specifies the snapshot name. This parameter does not support fuzzy search. The value can contain a maximum of 255 bytes.
sort_dir	String	No	Specifies the result sorting order. The default value is <b>desc</b> . <ul style="list-style-type: none"><li>• <b>desc</b>: indicates the descending order.</li><li>• <b>asc</b>: indicates the ascending order.</li></ul>
status	String	No	Specifies the snapshot status. For details, see <a href="#">EVS Snapshot Status</a> .
volume_id	String	No	Specifies the ID of the snapshot's source disk.

## Request

The following example shows how to query the snapshots in the **available** state.

- Example request  
GET `https://{endpoint}/v3/{project_id}/snapshots?status=available`

## Response

- Parameter description

Parameter	Type	Description
snapshots	Object	Specifies the snapshot information. For details, see <a href="#">Parameters in the snapshots field</a> .
snapshots_links	list<map<String,String>>	Specifies the query position marker in the snapshot list. This parameter is at the same level as parameter <b>snapshots</b> in the response body. This parameter is returned only when parameter <b>limit</b> is specified in the request, and this parameter indicates that only some snapshots are returned in this query.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **snapshots** field

Parameter	Type	Description
id	String	Specifies the snapshot ID.
status	String	Specifies the snapshot status. For details, see <a href="#">EVS Snapshot Status</a> .
name	String	Specifies the snapshot name.
description	String	Specifies the snapshot description.
created_at	String	Specifies the time when the snapshot was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
metadata	Object	Specifies the snapshot metadata. If <b>metadata</b> contains the <b>__system_enableActive</b> field, the snapshot is automatically created during the backup of a server.
volume_id	String	Specifies the ID of the snapshot's source disk.

Parameter	Type	Description
size	Integer	Specifies the snapshot size, in GB.
updated_at	String	Specifies the time when the snapshot was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "snapshots": [
    {
      "created_at": "2016-02-16T16:54:14.981520",
      "description": null,
      "id": "b836dc3d-4e10-4ea4-a34c-8f6b0460a583",
      "metadata": { },
      "name": "test01",
      "size": 1,
      "status": "available",
      "volume_id": "ba5730ea-8621-4ae8-b702-ff0ffc12c209",
      "updated_at": null
    },
    {
      "created_at": "2016-02-16T16:54:19.475397",
      "description": null,
      "id": "83be494d-329e-4a78-8ac5-9af900f48b95",
      "metadata": { },
      "name": "test02",
      "size": 1,
      "status": "available",
      "volume_id": "ba5730ea-8621-4ae8-b702-ff0ffc12c209",
      "updated_at": null
    },
    {
      "created_at": "2016-02-16T16:54:24.367414",
      "description": null,
      "id": "dd360f46-7593-4d35-8f2c-5566fd0bd79e",
      "metadata": { },
      "name": "test03",
      "size": 1,
      "status": "available",
      "volume_id": "ba5730ea-8621-4ae8-b702-ff0ffc12c209",
      "updated_at": null
    },
    {
      "created_at": "2016-02-16T16:54:29.766740",
      "description": null,
      "id": "4c29796a-8cf4-4482-9afc-e66da9a81240",
      "metadata": { },
      "name": "test04",

```

```

        "size": 1,
        "status": "available",
        "volume_id": "ba5730ea-8621-4ae8-b702-ff0ffc12c209",
        "updated_at": null
      }
    ],
    "snapshots_links": null
  }

```

or

```

{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}

```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```

{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}

```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.5 Querying Details About EVS Snapshots

## Function

This API is used to query details about the EVS snapshots.

## URI

- URI format  
GET /v3/{project\_id}/snapshots/detail
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters

Parameter	Type	Mandatory	Description
marker	String	No	The ID of the resource from which the pagination query starts. It is the ID of the last resource on the previous page.
offset	Integer	No	Specifies the offset. <b>NOTE</b> This parameter is used when snapshots are queried by page and is used together with the <b>limit</b> parameter. For example, there are a total of 30 snapshots. If you set <b>offset</b> to <b>11</b> and <b>limit</b> to <b>10</b> , the queried snapshot starts from the twelfth snapshot, and at most 10 snapshots can be queried at a time.
limit	Integer	No	Specifies the maximum number of query results that can be returned. The value ranges from 1 to 1000, and the default value is 1000. The returned value cannot exceed this limit.  If the tenant has more than 50 snapshots in total, you are advised to use this parameter and set its value to <b>50</b> to improve the query efficiency. Examples are provided as follows: <b>GET /v3/xxx/snapshots/detail?limit=50</b> : Queries the 1–50 snapshots. <b>GET /v3/xxx/snapshots/detail?offset=50&amp;limit=50</b> : Queries the 51–100 snapshots.
name	String	No	Specifies the snapshot name. The value can contain a maximum of 255 bytes.
sort_dir	String	No	Specifies the result sorting order. The default value is <b>desc</b> . <ul style="list-style-type: none"><li>• <b>desc</b>: indicates the descending order.</li><li>• <b>asc</b>: indicates the ascending order.</li></ul>
status	String	No	Specifies the snapshot status. For details, see <a href="#">EVS Snapshot Status</a> .
volume_id	String	No	Specifies the ID of the snapshot's source disk.

## Request

The following example shows how to query details of the snapshots in the **available** state.

- Example request  
GET `https://{endpoint}/v3/{project_id}/snapshots/detail?status=available`

## Response

- Parameter description

Parameter	Type	Description
snapshots	Object	Specifies the snapshot information. For details, see <a href="#">Parameters in the snapshots field</a> .
snapshots_links	list<map<String,String>>	Specifies the query position marker in the snapshot list. This parameter is at the same level as parameter <b>snapshots</b> in the response body. This parameter is returned only when parameter <b>limit</b> is specified in the request, and this parameter indicates that only some snapshots are returned in this query.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **snapshots** field

Parameter	Type	Description
id	String	Specifies the snapshot ID.
status	String	Specifies the snapshot status. For details, see <a href="#">EVS Snapshot Status</a> .
name	String	Specifies the snapshot name.
description	String	Specifies the snapshot description.
created_at	String	Specifies the time when the snapshot was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
updated_at	String	Specifies the time when the snapshot was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX



Parameter	Type	Description
metadata	Object	Specifies the snapshot metadata. If <b>metadata</b> contains the <b>__system__enableActive</b> field, the snapshot is automatically created during the backup of a server.
volume_id	String	Specifies the ID of the snapshot's source disk.
size	Integer	Specifies the snapshot size, in GB.
os-extended-snapshot-attributes:project_id	String	Specifies the tenant ID. The tenant ID is the same as the project ID.
os-extended-snapshot-attributes:progress	String	The reserved field.

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "snapshots": [
    {
      "status": "available",
      "os-extended-snapshot-attributes:progress": "100%",
      "description": null,
      "created_at": "2013-06-19T07:15:29.000000",
      "metadata": { },
      "volume_id": "ae11e59c-bd56-434a-a00c-04757e1c066d",
      "os-extended-snapshot-attributes:project_id": "d6c277ba8820452e83df36f33c9fa561",
      "size": 5,
      "id": "6cd26877-3ca3-4f4e-ae2a-38cc3d6183fa",
      "name": "name_xx2-snap",
      "updated_at": null
    },
    {
      "status": "available",
      "os-extended-snapshot-attributes:progress": "100%",
      "description": null,
      "created_at": "2013-06-19T09:08:08.000000",
      "metadata": { },
      "volume_id": "ae11e59c-bd56-434a-a00c-04757e1c066d",
      "os-extended-snapshot-attributes:project_id": "d6c277ba8820452e83df36f33c9fa561",

```

```
    "size": 5,  
    "id": "b3253e26-5c37-48dd-8bf2-8795dd1e848f",  
    "name": "name_xx2-snap",  
    "updated_at": null  
  }  
]  
}
```

or

```
{  
  "error": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{  
  "itemNotFound": {  
    "message": "XXXX",  
    "code": "XXX"  
  }  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.6 Querying Details About an EVS Snapshot

## Function

This API is used to query details about an EVS snapshot.

## URI

- URI format  
GET /v3/{project\_id}/snapshots/{snapshot\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
snapshot_id	Yes	Specifies the snapshot ID.

## Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/snapshots/f9faf7df-fdc1-4093-9ef3-5cba06eef995

## Response

- Parameter description

Parameter	Type	Description
snapshot	Object	Specifies the snapshot information. For details, see <a href="#">Parameters in the snapshot field</a> .
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **snapshot** field

Parameter	Type	Description
id	String	Specifies the snapshot ID.
status	String	Specifies the snapshot status. For details, see <a href="#">EVS Snapshot Status</a> .
name	String	Specifies the snapshot name. Snapshots whose names started with prefix <b>autobk_snapshot_</b> are automatically created by the system during backup creations. Do not delete these snapshots or use them to roll back the disk data.
description	String	Specifies the snapshot description.
created_at	String	Specifies the time when the snapshot was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
updated_at	String	Specifies the time when the snapshot was updated. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
metadata	Object	Specifies the snapshot metadata. If <b>metadata</b> contains the <b>__system__enableActive</b> field, the snapshot is automatically created during the backup of a server.

Parameter	Type	Description
volume_id	String	Specifies the ID of the snapshot's source disk.
size	Integer	Specifies the snapshot size, in GB.
os-extended-snapshot-attributes:project_id	String	Specifies the tenant ID. The tenant ID is the same as the project ID.
os-extended-snapshot-attributes:progress	String	The reserved field.
user_id	String	Reserved field

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "snapshot": {
    "status": "available",
    "os-extended-snapshot-attributes:progress": "100%",
    "description": "daily backup",
    "created_at": "2013-02-25t04:13:17.000000",
    "metadata": { },
    "volume_id": "5aa119a8-d25b-45a7-8d1b-88e127885635",
    "os-extended-snapshot-attributes:project_id": "0c2eba2c5af04d3f9e9d0d410b371fde",
    "size": 1,
    "user_id": "48d70679b8644035846b2cb53633c256",
    "id": "2bb856e1-b3d8-4432-a858-09e4ce939389",
    "name": "snap-001",
    "updated_at": null
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
```

```
"message": "XXXX",  
"code": "XXX"  
}  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.7 Adding Metadata of an EVS Snapshot

## Function

This API is used to add the metadata of an EVS snapshot.

## URI

- URI format  
POST /v3/{project\_id}/snapshots/{snapshot\_id}/metadata
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
snapshot_id	Yes	Specifies the snapshot ID.

## Request

- Parameter description

Parameter	Type	Mandatory	Description
metadata	Object	Yes	Specifies the metadata to be added. For details, see <a href="#">Parameter in the metadata field</a> .

- Parameter in the **metadata** field

Parameter	Type	Mandatory	Description
key_val	String	No	Specifies the metadata information, which is made up of one or multiple key-value pairs.

- Example request

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

## Response

- Parameter description

Parameter	Type	Description
metadata	Object	Specifies the snapshot metadata, which is made up of key-value pairs.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
```

```
"message": "XXXX",  
"code": "XXX"  
}  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.8 Querying Metadata of an EVS Snapshot

#### Function

This API is used to query the metadata of an EVS snapshot.

#### URI

- URI format  
GET /v3/{project\_id}/snapshots/{snapshot\_id}/metadata
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
snapshot_id	Yes	Specifies the snapshot ID.

#### Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/snapshots/f9faf7df-fdc1-4093-9ef3-5cba06eef995/metadata

#### Response

- Parameter description

Parameter	Type	Description
metadata	Object	Specifies the snapshot metadata, which is made up of key-value pairs. If <b>metadata</b> contains the <b>__system_enableActive</b> field, the snapshot is automatically created during the backup of a server.

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.9 Updating One Piece of Metadata for an EVS Snapshot

#### Function

This API is used to update one piece of the EVS snapshot metadata.



## URI

- URI format  
PUT /v3/{project\_id}/snapshots/{snapshot\_id}/metadata/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
snapshot_id	Yes	Specifies the snapshot ID.
key	Yes	Specifies the key of the piece of metadata to be updated.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
meta	Object	Yes	The metadata to be updated. For details, see <a href="#">Parameter in the metadata field</a> .

- Parameter in the **metadata** field

Parameter	Type	Mandatory	Description
key_val	String	No	A piece of metadata, which is made up of a key-value pair.

- Example request

```
{
  "meta": {
    "key1": "value1"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
meta	Object	A piece of snapshot metadata, which is made up of a key-value pair.

Parameter	Type	Description
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "meta": {
    "key1": "value1"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.10 Updating Metadata of an EVS Snapshot

#### Function

This API is used to update the metadata of an EVS snapshot.

## URI

- URI format  
PUT /v3/{project\_id}/snapshots/{snapshot\_id}/metadata
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
snapshot_id	Yes	Specifies the snapshot ID.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
metadata	Object	Yes	The metadata to be updated. For details, see <a href="#">Parameter in the metadata field</a> .

- Parameter in the **metadata** field

Parameter	Type	Mandatory	Description
key_val	String	No	The metadata information, which is made up of one or multiple key-value pairs.

- Example request

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
metadata	Object	The snapshot metadata, which is made up of key-value pairs.
error	Object	The error message returned if an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "metadata": {
    "key1": "value1",
    "key2": "value2"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.3.11 Querying One Piece of Metadata for an EVS Snapshot

#### Function

This API is used to query one piece of the EVS snapshot metadata.

#### URI

- URI format  
GET /v3/{project\_id}/snapshots/{snapshot\_id}/metadata/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
snapshot_id	Yes	Specifies the snapshot ID.
key	Yes	Specifies the key of the piece of metadata to be queried.

## Request

- Example request

```
GET https://{endpoint}/v3/{project_id}/snapshots/f9faf7df-fdc1-4093-9ef3-5cba06eef995/metadata/value1
```

## Response

- Parameter description

Parameter	Type	Description
meta	Object	Specifies a piece of snapshot metadata, which is made up of a key-value pair.
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

```
{
  "meta": {
    "key1": "value1"
  }
}
```

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "badRequest": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

### 7.1.3.12 Deleting One Piece of Metadata for an EVS Snapshot

## Function

This API is used to delete one piece of the EVS snapshot metadata.

## URI

- URI format  
DELETE /v3/{project\_id}/snapshots/{snapshot\_id}/metadata/{key}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
snapshot_id	Yes	Specifies the snapshot ID.
key	Yes	Specifies the key of the piece of metadata to be deleted.

## Request

- Example request  
DELETE https://{endpoint}/v3/{project\_id}/snapshots/f9faf7df-fdc1-4093-9ef3-5cba06eef995/metadata/value1

## Response

- Parameter description

Parameter	Type	Description
error	Object	Specifies the error message returned when an error occurs. For details, see <a href="#">Parameters in the error field</a> .

- Parameters in the **error** field

Parameter	Type	Description
message	String	The error message returned if an error occurs.
code	String	The error code returned if an error occurs. For details about the error code, see <a href="#">Error Codes</a> .

- Example response

None

or

```
{
  "error": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

In the preceding example, **error** indicates a general error, for example, **badRequest** or **itemNotFound**. An example is provided as follows:

```
{
  "itemNotFound": {
    "message": "XXXX",
    "code": "XXX"
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 7.1.4 EVS Disk Transfer

### 7.1.4.1 Creating a Disk Transfer

#### Function

This API is used to create a disk transfer. After the transfer has been created, a transfer ID and an authentication key are returned.

After a disk transfer is created, the disk status changes from **available** to **awaiting-transfer**. Once the disk transfer is accepted, the disk status changes to **available** again.

## Constraints

A disk transfer can be created only when the disk status is **available**. The detailed constraints are as follows:

- EVS disks with backups and snapshots available cannot be transferred.
- EVS disks associated with backup policies cannot be transferred.

### NOTE

If the disk transfer is created using one of the unsupported disks, error code 400 will be returned.

## URI

- URI format  
POST /v3/{project\_id}/os-volume-transfer
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

## Request

- Request parameters

Parameter	Type	Mandatory	Description
transfer	Object	Yes	The transfer creation marker. For details, see <a href="#">Parameters in the transfer field</a> .

- Parameters in the **transfer** field

Parameter	Type	Mandatory	Description
volume_id	String	Yes	The disk ID.
name	String	Yes	The transfer name, which can contain a maximum of 255 bytes.

- Example request

```
{
  "transfer": {
    "volume_id": "c86b9af4-151d-4ead-b62c-5fb967af0e37",
    "name": "first volume"
  }
}
```



## Response

- Response parameters

Parameter	Type	Description
transfer	Object	The transfer information. For details, see <a href="#">Parameters in the transfer field</a> .

- Parameters in the **transfer** field

Parameter	Type	Description
auth_key	String	The authentication key of the transfer.
links	Array of Objects	The links of the transfer. See <a href="#">Parameters in the links field</a> .
created_at	String	The time when the transfer was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_id	String	The disk ID.
id	String	The transfer ID.
name	String	The transfer name.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name. The default value is <b>next</b> .

- Example response

```
{
  "transfer": {
    "id": "1a7059f5-8ed7-45b7-8d05-2811e5d09f24",
    "created_at": "2015-02-25T03:56:53.081642",
    "name": "first volume",
    "volume_id": "c86b9af4-151d-4ead-b62c-5fb967af0e37",
    "auth_key": "9266c59563c84664",
    "links": [
      {
        "href": "https://localhost/v2/firstproject/os-volume-transfer/3",
        "rel": "self"
      },
      {
        "href": "https://localhost/firstproject/os-volume-transfer/3",
        "rel": "bookmark"
      }
    ]
  }
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.4.2 Accepting a Disk Transfer

## Function

This API is used to accept a disk transfer through the transfer ID and authentication key.

## Constraints

- EVS disks with backups and snapshots available cannot be transferred.
- EVS disks associated with backup policies cannot be transferred.

 **NOTE**

If the disk transfer is created using one of the unsupported disks, error code 400 will be returned.

## URI

- URI format  
POST /v3/{project\_id}/os-volume-transfer/{transfer\_id}/accept
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
transfer_id	Yes	Specifies the disk transfer ID.

## Request

- Request parameters

Parameter	Type	Mandatory	Description
accept	Object	Yes	The transfer acceptance marker. For details, see <a href="#">Parameter in the accept field</a> .

- Parameter in the **accept** field

Parameter	Type	Mandatory	Description
auth_key	String	Yes	The authentication key of the transfer. An authentication key will be returned when a disk transfer is created.

- Example request

```
{
  "accept": {
    "auth_key": "9266c59563c84664"
  }
}
```

## Response

- Response parameters

Parameter	Type	Description
transfer	Object	The transfer information. For details, see <a href="#">Parameters in the transfer field</a> .

- Parameters in the **transfer** field

Parameter	Type	Description
volume_id	String	The disk ID.
id	String	The transfer ID.
name	String	The transfer name.
links	Array of Objects	The links of the transfer. For details, see <a href="#">Parameters in the links field</a> .

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name. The default value is <b>next</b> .

- Example response

```
{
  "transfer": {
    "id": "cac5c677-73a9-4288-bb9c-b2ebfb547377",
  }
}
```

```
"name": "first volume transfer",
"volume_id": "894623a6-e901-4312-aa06-4275e6321cce",
"links": [
  {
    "href": "https://localhost/v2/firstproject/os-volume-transfer/1",
    "rel": "self"
  },
  {
    "href": "https://localhost/firstproject/os-volume-transfer/1",
    "rel": "bookmark"
  }
]
}
```

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.4.3 Deleting a Disk Transfer

## Function

This API is used to delete a disk transfer. A disk transfer can be deleted if it is not accepted. Accepted disk transfers cannot be deleted.

## URI

- URI format  
DELETE /v3/{project\_id}/os-volume-transfer/{transfer\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
transfer_id	Yes	Specifies the disk transfer ID.

## Request

- Example request  
DELETE https://{endpoint}/v3/{project\_id}/os-volume-transfer/cac5c677-73a9-4288-bb9c-b2ebfb547377

## Response

None

## Status Codes

- Normal  
202

## Error Codes

For details, see [Error Codes](#).

### 7.1.4.4 Querying Details of a Disk Transfer

## Function

This API is used to query the details of a disk transfer, including the transfer creation time, transfer ID, and transfer name.

## URI

- URI format  
GET /v3/{project\_id}/os-volume-transfer/{transfer\_id}
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .
transfer_id	Yes	Specifies the disk transfer ID.

## Request

- Example request  
GET https://{endpoint}/v3/{project\_id}/os-volume-transfer/cac5c677-73a9-4288-bb9c-b2ebfb547377

## Response

- Response parameters

Parameter	Type	Description
transfer	Object	The transfer details. For details, see <a href="#">Parameters in the transfer field</a> .

- Parameters in the **transfer** field

Parameter	Type	Description
links	Array of Objects	The links of the transfer. See <a href="#">Parameters in the links field</a> .

Parameter	Type	Description
created_at	String	The time when the transfer was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_id	String	The disk ID.
id	String	The transfer ID.
name	String	The transfer name.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name. The default value is <b>next</b> .

- Example response

```
{
  "transfer": {
    "id": "cac5c677-73a9-4288-bb9c-b2ebfb547377",
    "created_at": "2015-02-25T03:56:53.081642",
    "name": "first volume transfer",
    "volume_id": "894623a6-e901-4312-aa06-4275e6321cce",
    "links": [
      {
        "href": "https://localhost/v2/firstproject/os-volume-transfer/1",
        "rel": "self"
      },
      {
        "href": "https://localhost/firstproject/os-volume-transfer/1",
        "rel": "bookmark"
      }
    ]
  }
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

## 7.1.4.5 Querying All Disk Transfers

### Function

This API is used to query all disk transfers of the current tenant.

### URI

- URI format  
GET /v3/{project\_id}/os-volume-transfer
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters

Parameter	Type	Mandatory	Description
limit	Integer	No	The maximum number of query results that can be returned. The value ranges from <b>1</b> to <b>1000</b> , and the default value is <b>1000</b> . The returned value cannot exceed this limit.
offset	Integer	No	The query offset. All disk transfers after this offset will be queried. The value must be an integer greater than 0 but less than the number of disk transfers.

### Request

The following example shows how to query details of the disk transfers whose limit is no more than 50.

- Example request  
GET https://{endpoint}/v3/{project\_id}/os-volume-transfer?limit=50

### Response

- Response parameters

Parameter	Type	Description
transfers	List<Transfer>	The list of transfers. For details, see <a href="#">Parameters in the transfers field</a> .

- Parameters in the **transfers** field

Parameter	Type	Description
links	Array of Objects	The links of the transfer. See <a href="#">Parameters in the links field</a> .
volume_id	String	The disk ID.
id	String	The transfer ID.
name	String	The transfer name.

- Parameters in the **links** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name. The default value is <b>next</b> .

- Example response

```
{
  "transfers": [
    {
      "id": "cac5c677-73a9-4288-bb9c-b2ebfb547377",
      "name": "first volume transfer",
      "volume_id": "894623a6-e901-4312-aa06-4275e6321cce",
      "links": [
        {
          "href": "https://localhost/v2/firstproject/os-volume-transfer/1",
          "rel": "self"
        },
        {
          "href": "https://localhost/firstproject/os-volume-transfer/1",
          "rel": "bookmark"
        }
      ]
    },
    {
      "id": "f26c0dee-d20d-4e80-8dee-a8d91b9742a1",
      "name": "second volume transfer",
      "volume_id": "673db275-379f-41af-8371-e1652132b4c1",
      "links": [
        {
          "href": "https://localhost/v2/firstproject/os-volume-transfer/2",
          "rel": "self"
        },
        {
          "href": "https://localhost/firstproject/os-volume-transfer/2",
          "rel": "bookmark"
        }
      ]
    }
  ]
}
```



```
    ]  
  }  
]  
}
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

### 7.1.4.6 Querying Details of All Disk Transfers

## Function

This API is used to query the details of all disk transfers, including the transfer creation time, transfer IDs, and transfer names.

## URI

- URI format  
GET /v3/{project\_id}/os-volume-transfer/detail
- Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .

- Request filter parameters

Parameter	Type	Mandatory	Description
limit	Integer	No	The maximum number of query results that can be returned. The value ranges from <b>1</b> to <b>1000</b> , and the default value is <b>1000</b> . The returned value cannot exceed this limit.
offset	Integer	No	The query offset. All disk transfers after this offset will be queried. The value must be an integer greater than 0 but less than the number of disk transfers.

## Request

The following example shows how to query details of the disk transfers whose limit is no more than 50.

- Example request

```
GET https://{endpoint}/v3/{project_id}/os-volume-transfer/detail?limit=50
```

## Response

- Response parameters

Parameter	Type	Description
transfers	List<Transfer>	The list of transfer details. For details, see <a href="#">Parameters in the transfers field</a> .

- Parameters in the **transfers** field

Parameter	Type	Description
links	Array of Objects	The links of the transfer. See <a href="#">Parameters in the Link field</a> .
created_at	String	The time when the transfer was created. Time format: UTC YYYY-MM-DDTHH:MM:SS.XXXXXX
volume_id	String	The disk ID.
id	String	The transfer ID.
name	String	The transfer name.

- Parameters in the **Link** field

Parameter	Type	Description
href	String	The corresponding shortcut link.
rel	String	The shortcut link marker name. The default value is <b>next</b> .

- Example response

```
{
  "transfers": [
    {
      "id": "cac5c677-73a9-4288-bb9c-b2ebfb547377",
      "created_at": "2015-02-25T03:56:53.081642",
      "name": "first volume transfer",
      "volume_id": "894623a6-e901-4312-aa06-4275e6321cce",
      "links": [
        {
          "href": "https://localhost/v2/firstproject/os-volume-transfer/1",
          "rel": "self"
        }
      ]
    }
  ],
}
```

```
{
  "href": "https://localhost/firstproject/os-volume-transfer/1",
  "rel": "bookmark"
}
],
{
  "id": "f26c0dee-d20d-4e80-8dee-a8d91b9742a1",
  "created_at": "2015-03-25T03:56:53.081642",
  "name": "second volume transfer",
  "volume_id": "673db275-379f-41af-8371-e1652132b4c1",
  "links": [
    {
      "href": "https://localhost/v2/firstproject/os-volume-transfer/2",
      "rel": "self"
    },
    {
      "href": "https://localhost/firstproject/os-volume-transfer/2",
      "rel": "bookmark"
    }
  ]
}
]
```

## Status Codes

- Normal  
200

## Error Codes

For details, see [Error Codes](#).

# A Appendix

## A.1 Error Codes

Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.000 1	invalid tenant id!	Incorrect tenant ID in the URI. The tenant ID is the same as the project ID.	Use the correct tenant ID.
400	EVS.000 2	invalid token!	Header parameters in the HTTP request are incorrect.	Use the correct token.
403	EVS.000 3	invalid token roles!	The token used is incorrect.	The account permission set is empty. Add the required permissions to this account.
400	EVS.100 1	null volume!	The name and description formats set in the request to update the disk are incorrect.	Enter the disk name and description in the correct format.
400	EVS.100 2	invalid volume id!	Incorrect disk ID.	Enter the disk ID in the correct format.
400	EVS.100 3	invalid volume name!	Incorrect disk name format.	Enter the disk name in the correct format.
400	EVS.100 4	invalid volume description!	Incorrect disk description format.	Enter the disk description in the correct format.

Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.1005	size of metadata is too large!	The size of the metadata set in the request to create the disk exceeds the upper limit.	Check whether the metadata is too large. The metadata size must be smaller than 1048576 bytes.
400	EVS.1006	invalid backup id!	The ID of the backup used to create the disk is incorrect.	Enter the correct backup ID.
400	EVS.1007	volume name and description can not both be empty!	Parameters <b>name</b> and <b>description</b> are incorrect.	Enter the correct disk name and description.
400	EVS.1008	null createVolumeReq!	The format of the request to create the disk is incorrect.	Use the correct request format.
400	EVS.1009	invalid volumeForCreate!	The body of the request to create the disk is incorrect.	Check the body of the request used to create the disk.
400	EVS.1010	invalid volume size!	Parameter <b>size</b> set in the request to create the disk is invalid.	Enter a valid <b>size</b> value.
400	EVS.1011	null extendVolumeReq!	The format of the request to expand the disk capacity is incorrect.	Use the correct request format.
400	EVS.1012	temporary volume!	You do not have the permission to access this disk.	Do not perform operations for a temporary disk as it does not allow any operation.
400	EVS.1013	request transforming failed!	Request conversion error.	Check whether the request body is correct.
400	EVS.1014	volume can not be extended!	Failed to meet the capacity expansion requirements.	Ensure that the disk meets the expansion requirements.
400	EVS.1015	new volume Size must be greater than old Size!	The new size of the disk is incorrect.	Ensure that the new disk capacity is larger than the original disk capacity.

Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.1016	Invalid input received: May specify only one of imageRef, snapshot_id, backup_id!	Only one data source among image, snapshot, and backup can be selected when creating a disk from a data source.	Select one data source.
400	EVS.1018	Type conversion error , parameter type is unexpected	Type conversion error. The parameter type is unexpected.	Check whether the input parameters are correct. See the parameter description in the <i>Elastic Volume Service API Reference</i> .
400	EVS.1020	invalid volume type!	The disk type set in the request to create the disk is incorrect.	Enter a valid disk type.
400	EVS.1021	the quantity of volume is invalid!	The disk quantity set in the request to batch create disks is incorrect.	Enter a valid disk quantity.
400	EVS.1022	the size param is less than backup size!	Parameter <b>size</b> set in the request to create the disk using a backup is incorrect.	Ensure that the entered disk size is larger than the backup size.
400	EVS.1023	invalid filter limit!	Parameter <b>limit</b> in the URL for querying the disk is incorrect.	Ensure that the <b>limit</b> value ranges from <b>1</b> to <b>1000</b> . The default value is <b>1000</b> .
400	EVS.1024	invalid filter marker!	Parameter <b>marker</b> in the URL for querying the disk is incorrect.	Ensure that the <b>marker</b> value is in the UUID format.
400	EVS.1025	url encoding failed!	Metadata decoding error.	Check whether parameter <b>metadata</b> is correctly specified.

Status Code	Error Code	Error Message	Error Description	Solution
403	EVS.1027	user role is not allowed for this action!	You do not have the rights to perform the operation.	Check whether the account has relevant permissions, or the account is in arrears, does not pass real-name authentication, or has violations.
400	EVS.1031	invalid resources status!	Input value of parameter <b>resources status</b> is invalid.	Specify a valid value for <b>resources status</b> .
400	EVS.1032	invalid resources ID!	Parameter <b>resources id</b> cannot be left empty.	Specify a valid value for <b>resources id</b> .
400	EVS.1033	query quota failed!	Failed to query the tenant quota.	Check whether the tenant quota is configured.
400	EVS.1034	volume count exceeded volume count quota!	Insufficient disk quantity quota assigned to the tenant.	Increase the disk quantity quota.
400	EVS.1036	invalid availability zone!	Parameter <b>availability_zone</b> set in the request to create the disk is incorrect.	Enter the correct AZ.
400	EVS.1039	invalid sort_key!	Input parameter <b>sort_key</b> is incorrect.	Check whether parameter <b>sort_key</b> is correctly specified.
400	EVS.1040	invalid sort_dir!	Parameter <b>sort_dir</b> in the URL for querying the disk is incorrect.	Ensure that the <b>sort_dir</b> value is <b>desc</b> or <b>asc</b> .
400	EVS.1041	invalid filter availability-zone!	Parameter <b>availability-zone</b> in the URL for querying the disk is incorrect.	Check whether the AZ specified in the request is valid.
400	EVS.1042	volume gigabytes exceeded volume gigabytes quota!	Insufficient disk capacity quota assigned to the tenant.	Increase the disk capacity quota.

Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.1043	encrypt and cmk and passthrough in metadata is not support when create volume from snapshot or image!	Parameters <b>__system__encrypted</b> , <b>__system__cmkid</b> , and <b>hw:passthrough</b> are not supported when a disk is created from an image or a snapshot.	Check whether the request body is correct. For details, see the <b>metadata</b> field description for creating disks.
400	EVS.1044	backup status must be available when create a volume from it!	The backup cannot be used to create a disk.	The backup is unavailable.
400	EVS.1045	backupDetail returned by FSP is null!	Failed to query the backup details.	Check whether the backup exists. Contact customer service.
400	EVS.1046	volume status must be available, error, error_extending, error_restoring, error_rollbacking when delete volume!	Failed to delete the disk because the disk status is incorrect.	Contact customer service.
400	EVS.1047	snapshot status must be available or error when delete snapshot!	Failed to delete the snapshot because the snapshot status is incorrect.	Contact customer service.
400	EVS.1048	volume status must be available when extend volume!	Failed to expand the disk capacity because the disk status is incorrect.	Ensure that the disk status meets the expansion requirements.



Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.1049	available-zone is not equal to backup available-zone!	The backup used to create the disk is in the incorrect AZ.	The backup and the disk to be created must in the same AZ.
400	EVS.1051	can not batch create volume from backup!	Batch creating disks from a backup is not available.	Batch creating disks from a backup is not available.
400	EVS.1052	invalid http body!	Request conversion error.	Check whether the request body is correct.
400	EVS.1053	the size of volumes to be deleted is too large!	Too many disks are specified in the request for batch deleting disks.	Reduce the number of disks specified in the batch.
400	EVS.1054	invalid shareable parameter!	Input parameter <b>shareable</b> is invalid.	Check whether parameter <b>shareable</b> is correctly specified.
400	EVS.1057	invalid hw:passthrough in metadata!	Input parameter <b>hw:passthrough</b> under <b>metadata</b> is invalid.	Check whether parameter <b>hw:passthrough</b> is correctly specified.
400	EVS.1058	invalid metadata filter!	Metadata decoding error.	Check whether parameter <b>metadata</b> is correctly specified.
400	EVS.1061	The Volume Tags is Exceed Max Limit Num.	The tag quantity of this EVS disk exceeds the upper limit.	Ensure that the tag quantity of the disk is within the upper limit.
400	EVS.1062	invalid tag!	Invalid tag.	Check the formats of the tag key and tag value and ensure that the formats are correct.
400	EVS.1063	invalid full_clone in metadata!	Input parameter <b>full_clone</b> under <b>metadata</b> is invalid.	Check whether parameter <b>full_clone</b> in <b>metadata</b> is correctly specified.

Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.1064	volume status must be available or in-use when extending!	A disk can be expanded only when its status is <b>available</b> or <b>in-use</b> .	Ensure that the disk is in the <b>available</b> or <b>in-use</b> state before expansion.
400	EVS.1065	multiattach volume status must be available when extending!	A shared disk can be expanded only when its status is <b>available</b> .	Ensure that the shared disk is in the <b>available</b> state before expansion.
400	EVS.1066	status of ECS or BMS does not support volume online extension!	The ECS or BMS status does to meet the requirement of online disk expansion.	Ensure that the ECS or BMS status meets the requirement.
400	EVS.1070	invalid request.	Request conversion error.	Check whether the request body is correct.
500	EVS.2001	submit job failed!	Failed to submit the task.	Contact customer service.
500	EVS.2002	internal error!	The system is currently unavailable.	Contact customer service.
500	EVS.2005	client exception!	A connection exception occurs.	Contact customer service.
500	EVS.2007	update volume timeout!	Updating the metadata of the disk timed out.	Try again later or contact customer service.
500	EVS.2010	exchange token failed!	Failed to obtain the token for the tenant.	Check the user permissions.
500	EVS.2011	delete orderId and productId timeout!	Deleting order information from the disk metadata timed out.	Try again later or contact customer service.
500	EVS.2013	assume role error!	Failed to elevate the permissions.	Contact customer service.
500	EVS.2014	thread is interrupted when sleep!	Failed to escalate rights.	Try again later or contact customer service.

Status Code	Error Code	Error Message	Error Description	Solution
500	EVS.2019	snapshot is error_deleting!	Failed to delete the snapshot because the snapshot is in the <b>error_deleting</b> status.	Contact customer service.
500	EVS.2020	volume is error_deleting!	Failed to delete the disk because the disk is in the <b>error_deleting</b> status.	Contact customer service.
500	EVS.2021	volume is error_detaching!	The disk status is <b>error_detaching</b> .	Try again later or contact customer service.
500	EVS.2023	ConnectException happened!	Network connection timed out.	Try again. If the network fails, check the network status. If the network status is normal, contact customer service.
500	EVS.2024	volume is error!	The status of the created disk is <b>error</b> .	Contact customer service.
500	EVS.2025	volume is error_restoring!	The status of the created disk is <b>error_restoring</b> .	Contact customer service.
500	EVS.2026	volume is error_extending!	Failed to expand the disk capacity because the disk is in the <b>error_extending</b> state.	Contact customer service.
500	EVS.2029	The size of jobList and resultList are mismatched!	Incorrect subtask quantity.	Contact customer service.
500	EVS.2030	query context based on parent jobId exception!	Failed to submit the subtask again.	Contact customer service.
500	EVS.2031	result queried from context is null!	Failed to query the context.	Contact customer service.

Status Code	Error Code	Error Message	Error Description	Solution
500	EVS.2032	some volume count quota usage params are null!	Failed to query the disk quantity quota assigned to the tenant.	Try again later or contact customer service.
500	EVS.2033	some volume gigabytes quota usage params are null!	Failed to query the disk capacity quota assigned to the tenant.	Try again later or contact customer service.
500	EVS.2034	domainId decoded from token is null or empty!	Token resolution failure.	Check whether the account information is correct.
500	EVS.2035	domainName decoded from token is null or empty!	Token resolution failure.	Check whether the account information is correct.
500	EVS.2036	the result of decode token is null!	Empty token.	Check whether the account information is correct.
400	EVS.2040	The status of encrypt Key is not enable!	Incorrect key status.	Ensure that the key status is correct.
400	EVS.2041	The encrypt Param is invalid!	The input encryption parameter is invalid.	Check whether the encryption parameter in the request body is correct.
500	EVS.2042	Failed to create cmk.	Failed to create the CMK.	Try again later or contact customer service.
400	EVS.2043	The status of snapshot is not available or backing-up.	The snapshot status is in correct.	Ensure that the snapshot status is <b>available</b> or <b>backing-up</b> .

Status Code	Error Code	Error Message	Error Description	Solution
404	EVS.2044	Failed to check the role of kms.	Failed to check KMS.	Try again later or contact customer service.
400	EVS.2045	invalid snapshot_id!	Input parameter <b>snapshot_id</b> is invalid.	Ensure that the input <b>snapshot_id</b> value is correct.
400	EVS.2046	invalid imageRef!	Input parameter <b>imageRef</b> is invalid.	Ensure that the input <b>imageRef</b> value is correct.
400	EVS.2047	the metadata Param is not allowed to be updated!	The <b>metadata</b> field cannot be modified.	Ensure that the input <b>metadata</b> value is correct.
500	EVS.2050	set volume Qos failed!	Failed to set the disk QoS.	Ensure that the input <b>qos</b> value is correct.
400	EVS.2052	the job result using order id to query is invalid!	The job corresponding to the order ID is not unique.	Try again later or contact customer service.
400	EVS.2053	The az information from request is invalid!	Input parameter <b>availability_zone</b> is invalid.	Ensure that the input <b>availability_zone</b> value is correct.
400	EVS.2054	Cannot create volume from snapshot as the az is invalid!	When the disk is created from a snapshot, the input <b>availability_zone</b> value of the disk is inconsistent with that of the snapshot.	Ensure that the <b>availability_zone</b> value of the disk is consistent with that of the snapshot.

Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.2055	can not create encrypt volume because hasn't xrole.	KMS access rights have not been granted to EVS.	<p>Before you use the disk encryption function, KMS access rights need to be granted to EVS. Grant the KMS access rights to EVS on the management console. After the rights have been granted, EVS can obtain KMS keys to encrypt or decrypt EVS disks.</p> <p>For details about how to grant the KMS access rights, see <b>EVS Disk Encryption</b> in the <i>Elastic Volume Service User Guide</i>.</p>
403	EVS.2056	action in pdp check deny!	Fine-grained PDP authentication failed.	Check whether the account has relevant permissions, or the account is in arrears, does not pass real-name authentication, or has violations.
400	EVS.2068	operation failed because of volume be locked	Operations cannot be performed on locked resources.	Unlock the resource and then perform the operation.
400	EVS.2070	VolumeTypes are not supported !	Disk type does not exist.	Try again later or contact customer service.
400	EVS.2071	Invalid input received: Availability zone [%s] do not have volume type [%s]	EVS disks of the specified type are used up in the current AZ. No such resources can be used for creation.	Try again later or contact customer service.

Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.207 2	Volume type [SSD] in availability zone [AZ1] is sold out !	Ultra-high I/O disks are used up in the current AZ (AZ1). No such resources can be used for creation.  <b>NOTE</b> The ultra-high I/O disk type and AZ1 are used as the sample disk type and AZ. The disk type and AZ vary depending on the actual condition.	Select another disk type or contact customer service.
400	EVS.207 8	checkQuota Capacity request body is invalid.	Request conversion error.	Check whether the request body is empty.
400	EVS.208 3	AZ and volume type must not be empty or null!	The AZ or disk type parameter in the request is invalid.	Ensure that the input AZ and disk type parameters are correct.
400	EVS.208 4	resource size must greater than zero!	The disk size parameter in the request is invalid.	Check whether the disk size specified in the request body is correct.
400	EVS.208 5	when operation type is SPEC_CHG, resource id must not be empty or null!	The disk ID is invalid during expansion.	Check whether the disk ID specified in the request body is correct.
400	EVS.208 7	retype failed. please make sure that type is supported and the new one is higher than origin	Invalid request parameter.	Ensure that the new type has higher specifications than the old type.

Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.2089	operation failed because the volume is belong to SDRS	The disk is used by the SDRS service.	Free the disk from SDRS or select another disk.
400	EVS.2093	operation failed because the volume is not EVS	The disk is not an EVS disk.	This operation cannot be performed because the disk is not an EVS disk.
400	EVS.2094	system image is not support to create Multiattach/shareable volume !	A shared disk cannot be created from a system disk image.	A shared disk cannot be created from a system disk image.
400	EVS.2096	Target volumeType[%s] is not matched with snapshot[%s] !	When a disk is created from a snapshot, the disk type of the snapshot's source disk is inconsistent with that of the new disk.	Ensure that the disk type of the snapshot's source disk is consistent with that of the new disk.
500	EVS.2105	Volume can not be reverted, because the encrypt volume's __system__cmkid is not exist!	The ID of the CMK used to encrypt the disk does not exist, or has been deleted and cannot be restored.	Contact customer service.
400	EVS.2108	Request body is invalid.	Request conversion error.	Check whether the request body is correct.
400	EVS.2130	Volume is backing-up, forbidden deleting!	Failed to delete the disk because the snapshot is in the <b>backing-up</b> state when a disk backup is being created.	Wait until the backup is created or contact customer service.



Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.213 1	Query server info from ecs fail	Failed to query the server details.	Try again later or contact customer service.
400	EVS.213 4	call ecs api - attach volume fail.	Failed to attach the disk.	Try again later or contact customer service.
400	EVS.214 2	invalid filter limit, can not greater than 1000.	Request parameter <b>limit</b> cannot be greater than <b>1000</b> .	Ensure that the <b>limit</b> value ranges from <b>1</b> to <b>1000</b> . The default value is <b>1000</b> .
401	EVS.214 3	You need to create an agency for this project for the first time ever	The account does not have the encryption permission.	Create an agency.
403	EVS.214 4	Your account is frozen and resources cannot be used.	Insufficient permission because the account is frozen.	Check whether either of the following conditions exists: (If there are no such conditions, contact customer service.) <ul style="list-style-type: none"> <li>• The account does not pass real-name authentication.</li> <li>• The account is in arrears.</li> </ul>

Status Code	Error Code	Error Message	Error Description	Solution
403	EVS.2145	Your account is suspended and resources cannot be used.	Insufficient permission because the account is suspended.	Check whether any of the following conditions exists: (If there are no such conditions, contact customer service.) <ul style="list-style-type: none"><li>• The account payment method is not complete.</li><li>• The account does not pass real-name authentication.</li><li>• The account is in arrears.</li></ul>
400	EVS.5400	Malformed request body.	Incorrect request body parameter and format.	Check whether the parameters and format of the request body are correct.
400	EVS.5400	Malformed request url.	Incorrect request URL parameter and format.	Check whether the parameters and format of the request URL are correct.
400	EVS.5400	Request body and URI mismatch.	Request body and URI mismatch.	Check whether the request body and URI belong to the same API.
400	EVS.5400	Invalid imageRef provided.	The image is unavailable.	Select another image.
400	EVS.5400	Must specify a valid status.	The disk status is incorrect.	Specify a disk that is in the correct state.
400	EVS.5400	offset param must be an integer.	The value of parameter <b>offset</b> must be an integer.	Set the value of parameter <b>offset</b> to an integer.
400	EVS.5400	limit param must be an integer.	The value of parameter <b>limit</b> must be set to an integer.	Set the value of parameter <b>limit</b> to an integer.

Status Code	Error Code	Error Message	Error Description	Solution
400	EVS.5400	limit param must be positive.	The value of parameter <b>limit</b> must be a positive number.	Ensure that the <b>limit</b> value is an integer ranging from <b>1</b> to <b>1000</b> . The default value is <b>1000</b> .
401	EVS.5401	Authentication required.	This operation is unauthorized.	Call the API after authorization.
403	EVS.5403	Policy check failed.	Insufficient permission.	Add the permission and try again.
403	EVS.5403	metadata can not be operated.	No operation permission.	Modifying parameter <b>metadata</b> is forbidden.
404	EVS.5404	Resource(Volume, Snapshot, Backup .etc) could not be found.	Resources, such as the disk, snapshot, and backup, do not exist.	Check whether the resources are available.
413	EVS.5413	Insufficient volume quota.	Insufficient disk quotas.	Check whether the disk capacity and quantity quotas are sufficient.
500	EVS.5500	Internal server error.	Internal server error.	Try again later or contact customer service.
503	EVS.5503	Service unavailable.	The service is unavailable.	Try again later or contact customer service.
400	Common.0011	query job fail.	Incorrect tenant ID. The tenant ID is the same as the project ID.	Use the correct tenant ID and ensure that the tenant has desired permissions. The tenant ID is the same as the project ID.
400	Common.0011	No jobs found.	<b>jobId</b> is empty.	Enter the correct <b>jobId</b> value.

Status Code	Error Code	Error Message	Error Description	Solution
400	Common.0011	query job fail.	Failed to query JobVO using <b>jobId</b> .	Check whether the <b>jobId</b> value is correct. If the <b>jobId</b> value is correct, check whether the request is delivered to the target EVS service node. If the request has been delivered, contact customer service to locate the fault. If the request has not been delivered, contact customer service to deliver the request to the target EVS service node.
400	Common.0013	Invalid token in the header.	Failed to parse the token because the token expires or the token string is incomplete.	Obtain the token again and ensure that the token string is complete.
400	Common.0018	Invalid token in the header	The project ID in the URI is different from the project ID in the token.	Ensure that the project ID in the URI is the same as that in the token and try again.

## A.2 Status Codes

- Normal

Status Code	Description
200	OK
201	Created
202	Accepted
204	No Content

- Abnormal

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
405	Method Not Allowed
406	Not Acceptable
407	Proxy Authentication Required
408	Request Timeout
409	Conflict
413	overLimit
415	badMediaType
500	Internal Server Error
501	Not Implemented
502	Bad Gateway
503	Service Unavailable
504	Gateway Timeout

### A.3 EVS Disk Status

EVS Disk Status (API)	EVS Disk Status (Console)	Description
creating	Creating	The EVS disk is being created.
available	Available	The EVS disk has not been attached to any server, so you can attach it.
in-use	In-use	The EVS disk has been attached to a server and is in use.
error	Error	An error occurs when you try to create an EVS disk.
attaching	Attaching	The EVS disk is being attached.

<b>EVS Disk Status (API)</b>	<b>EVS Disk Status (Console)</b>	<b>Description</b>
detaching	Detaching	The EVS disk is being detached.
restoring-backup	Restoring	The EVS disk is being restored from a backup.
backing-up	Backing up	A backup is being created for the EVS disk.
error_restoring	Restoration failed	An error occurs when you try to restore the EVS disk from a backup.
uploading	Uploading	Data on the EVS disk is being uploaded to an image. This status occurs when you create an image from a server.
downloading	Downloading	Data is being downloaded from an image to the EVS disk. This status occurs when you create a server.
extending	Expanding	The capacity of the EVS disk is being expanded.
error_extending	Expansion failed	An error occurs when you try to expand the capacity of the EVS disk.
deleting	Deleting	The EVS disk is being deleted.
error_deleting	Deletion failed	An error occurs when you try to delete the EVS disk.
rollbacking	Rolling back	Data on the EVS disk is being restored from a snapshot. <b>NOTE</b> <ul style="list-style-type: none"><li>• When you roll back a snapshot, you can only restore the data to the original disk. Data restoration to a specific disk is not possible.</li><li>• A snapshot can only be rolled back when the original disk is in the <b>available</b> or <b>error_rollbacking</b> state.</li></ul>
error_rollbacking	Rollback failed	An error occurs when a snapshot is being rolled back.

## A.4 EVS Snapshot Status

EVS Snapshot Status	Description
creating	The EVS snapshot is being created.
available	The EVS snapshot is successfully created.
error	An error occurs when you try to create an EVS snapshot.
deleting	The EVS snapshot is being deleted.
error_deleting	An error occurs when you try to delete an EVS snapshot.
rollbacking	The EVS snapshot is rolling back data. <b>NOTE</b> <ul style="list-style-type: none"><li>When you roll back a snapshot to an EVS disk, you can only roll back the snapshot to the source EVS disk. Rollback to a specified disk is not possible.</li><li>You can roll back an EVS disk from a snapshot only when the disk is in the <b>available</b> or <b>error_rollbacking</b> state.</li></ul>
backing-up	The EVS snapshot is being created from a backup via a native OpenStack API. The system is automatically creating the EVS snapshot when an EVS disk is created from a backup via an API.

## A.5 EVS Replication Pair Status (Deprecated)

EVS Replication Pair Status	Description
creating	The EVS replication pair is being created.
available	The EVS replication pair is successfully created and is available for use.
error	An error occurs when you try to create an EVS replication pair.
deleting	The EVS replication pair is being deleted.

<b>EVS Replication Pair Status</b>	<b>Description</b>
error_deleting	An error occurs when you try to delete an EVS replication pair.

<b>EVS Replication Pair Replication Status</b>	<b>Description</b>
active	The replication status of the EVS replication pair is normal, and the data in the production disk is consistent with the data in the DR disk.
active-stopped	The replication status of the EVS replication pair is paused, and the data in the production disk is consistent with the data in the DR disk.
copying	The data in the two disks of the EVS replication pair is being synchronized.
inactive	The replication status of the EVS replication pair is paused, or the data replication is interrupted. Data in the two disks is inconsistent and needs to be synchronized.
error	The replication status of the EVS replication pair becomes abnormal.

## A.6 Replication Consistency Group Status (Deprecated)

<b>Replication Consistency Group Status</b>	<b>Description</b>
creating	The replication consistency group is being created.
available	The replication consistency group is successfully created and is available for use.
error	An error occurs when you try to create a replication consistency group.
deleting	The replication consistency group is being deleted.
updating	The replication consistency group is being updated. The update includes adding EVS replication pairs to and deleting EVS replication pairs from the replication consistency group.



Replication Consistency Group Status	Description
reversing	The replication consistency group is being migrated as planned.
error_reversing	An error occurs during a planned migration of the replication consistency group.
failovering	The failover of the replication consistency group is in progress.
failovered	The replication consistency group failover is successful.
error_failovering	An error occurs during a failover of the replication consistency group.
error_deleting	An error occurs during the deletion of the replication consistency group.

Replication Consistency Group Replication Status	Description
active	The replication status of the replication consistency group is normal, and the data in production disks is consistent with the data in DR disks.
active-stopped	The replication status of the replication consistency group is paused, and the data between production disks and DR disks within the group is inconsistent.
copying	The data of the replication consistency group is being synchronized.
inactive	The replication status of the replication consistency group is paused. The data between production disks and DR disks within the group is inconsistent and needs to be synchronized.
error	The replication status of the replication consistency group becomes abnormal.

## A.7 Details of EVS Replication failure\_detail Values (Deprecated)

### EVS Replication Pair

**Table A-1** Details of the failure\_detail values for EVS replication pairs

failure_detail Value	Description	Cause	Solution
37100041	Failed to create the EVS replication pair because the production disk capacity is inconsistent with the DR disk capacity.	The production disk capacity is inconsistent with the DR disk capacity.	Ensure that the capacities of the production and DR disks are consistent before you create the EVS replication pair.
37100043	The operation fails because messages failed to be sent to the peer AZ.	A communication error occurred.	Contact technical support to check whether the link status is normal.
37100044	Failed to create the EVS replication pair because the specified production disk is a lazyloading EVS disk.	Lazyloading EVS disks cannot be used as member disks of EVS replication pairs.	Wait until the lazyloading process is complete and try again. If the fault persists, contact technical support.
37100045	Failed to create the EVS replication pair because the specified DR disk is a lazyloading EVS disk.	Lazyloading EVS disks cannot be used as member disks of EVS replication pairs.	Wait until the lazyloading process is complete and try again. If the fault persists, contact technical support.
37100048	Failed to create the EVS replication pair because the specified production disk does not exist.	The specified production disk does not exist.	Specify an existing production disk.
37100050	Failed to create the EVS replication pair because the specified DR disk does not exist.	The specified DR disk does not exist.	Specify an existing DR disk.

failure_detail Value	Description	Cause	Solution
37100053	Failed to create the EVS replication pair because the specified production disk has been used in another EVS replication pair.	The specified production disk is the member disk in another EVS replication pair.	Specify a production disk that has not been used by another EVS replication pair.
37100054	Failed to create the EVS replication pair because the specified DR disk has been used in another EVS replication pair.	The specified DR disk is the member disk in another EVS replication pair.	Specify a DR disk that has not been used by another EVS replication pair.
37100058	Failed to create the EVS replication pair because the DR disk has been attached to a server and the server is in the <b>Running</b> state.	The specified DR disk has been attached to a server and the server is in the <b>Running</b> state.	Stop the server , or specify a DR disk that has not been attached to any server.
37100177	Failed to create the EVS replication pair because the storage pool status of the primary AZ is abnormal.	The storage pool status of the primary AZ is abnormal.	Create the EVS replication pair when the storage pool status is normal. If the fault persists, contact technical support.
37100178	Failed to create the EVS replication pair because the storage pool status of the secondary AZ is abnormal.	The storage pool status of the secondary AZ is abnormal.	Create the EVS replication pair when the storage pool status is normal. If the fault persists, contact technical support.
37000212	System internal processing failure.	An internal system error occurred.	Contact technical support.
37000216	The system is busy. Try again later.	The system is busy. Try again later.	Try again later. If the fault persists, contact technical support.

## Replication Consistency Group

**Table A-2** Details of the failure\_detail values for replication consistency groups

failure_detail Value	Description	Cause	Solution
37100017	Failed to create the replication consistency group because the number of replication consistency groups in the primary AZ has reached the upper limit.	The number of replication consistency groups in the primary AZ has reached the upper limit.	Contact technical support.
37100043	The operation fails because messages failed to be sent to the peer AZ.	The communication between the primary AZ and secondary AZ fails.	Contact technical support to check whether the link status is normal.
37100159	Failed to create the replication consistency group because the number of replication consistency groups in the secondary AZ has reached the upper limit.	The number of replication consistency groups in the secondary AZ has reached the upper limit.	Contact technical support.
37000212	System internal processing failure.	An internal system error occurred.	Contact technical support.
37000216	The system is busy. Try again later.	The system is busy. Try again later.	Try again later. If the fault persists, contact technical support.

## A.8 API Actions

This topic describes only the authorization information of EVS v2 APIs. For the v3 APIs that provide the same functions as their v2 APIs, their authorization information is the same as that of the v2 APIs.

For example, the v2 API for creating disks is POST /v2/{project\_id}/cloudvolumes, and the v3 API for creating disks is POST /v3/{project\_id}/cloudvolumes. The authorization information of both APIs is the same.

In the following tables, √ indicates that the item is supported, and × indicates that the item is not supported.

## API Version Query

Permission	API	Action
Query API versions (OpenStack Cinder API).	GET /	None
Query the API version (OpenStack Cinder API).	GET /{api_version}	None

## EVS Disk

Permission	API	Action
Create EVS disks.	POST /v2/{project_id}/cloudvolumes	evs:volumes:create
Create EVS disks (OpenStack Cinder API).	POST /v2/{project_id}/volumes	<ul style="list-style-type: none"> <li>Create empty EVS disks. evs:volumes:create evs:volumes:get</li> <li>Create EVS disks from images. evs:volumes:create ims:images:get evs:volumes:get</li> <li>Create EVS disks from snapshots. evs:volumes:create evs:snapshots:get evs:volumes:get</li> </ul>
Expand the capacity of an EVS disk.	POST /v2/{project_id}/cloudvolumes/{volume_id}/action	evs:volumes:extend
Query EVS disks.	GET /v2/{project_id}/cloudvolumes	evs:volumes:list
Query EVS disks (OpenStack Cinder API).	GET /v2/{project_id}/volumes	evs:volumes:list
Query details of all EVS disks.	GET /v2/{project_id}/cloudvolumes/detail	evs:volumes:list
Querying Details About All Disks	GET /v2/{project_id}/os-vendor-volumes/detail	evs:volumes:list
Query details of all EVS disks (OpenStack Cinder API).	GET /v2/{project_id}/volumes/detail	evs:volumes:list

Permission	API	Action
Query details of an EVS disk.	GET /v2/{project_id}/os-vendor-volumes/{volume_id}	evs:volumes:get
Query details of an EVS disk (OpenStack Cinder API).	GET /v2/{project_id}/volumes/{volume_id}	evs:volumes:get
Delete an EVS disk.	DELETE /v2/{project_id}/cloudvolumes/{volume_id}	evs:volumes:delete
Delete an EVS disk (OpenStack Cinder API).	DELETE /v2/{project_id}/volumes/{volume_id}	evs:volumes:delete evs:volumes:get
Update EVS disk information.	PUT /v2/{project_id}/cloudvolumes/{volume_id}	evs:volumes:update
Update EVS disk information (OpenStack Cinder API).	PUT /v2/{project_id}/volumes/{volume_id}	evs:volumes:update evs:volumes:get
Update one piece of EVS disk metadata (OpenStack Cinder API).	PUT /v2/{project_id}/volumes/{volume_id}/metadata/{key}	evs:volumes:update evs:volumes:get
Update the metadata of an EVS disk (OpenStack Cinder API).	PUT /v2/{project_id}/volumes/{volume_id}/metadata	evs:volumes:update evs:volumes:get
Query one piece of EVS disk metadata (OpenStack Cinder API).	GET /v2/{project_id}/volumes/{volume_id}/metadata/{key}	evs:volumes:get
Delete one piece of EVS disk metadata (OpenStack Cinder API).	DELETE /v2/{project_id}/volumes/{volume_id}/metadata/{key}	evs:volumes:delete evs:volumes:get
Query the metadata of an EVS disk (OpenStack Cinder API).	GET /v2/{project_id}/volumes/{volume_id}/metadata/{key}	evs:volumes:get
Add the metadata of an EVS disk (OpenStack Cinder API).	POST /v2/{project_id}/volumes/{volume_id}/metadata	evs:volumes:update evs:volumes:get
Query EVS disk types (OpenStack Cinder API).	GET /v2/{project_id}/types	evs:types:get
Query details of an EVS disk type (OpenStack Cinder API).	GET /v2/{project_id}/types/{type_id}	evs:types:get

Permission	API	Action
Query tenant quotas (OpenStack Cinder API).	GET /v2/{project_id}/os-quota-sets/{project_id}	evs:quotas:get
Query extension APIs (OpenStack Cinder API).	GET /v2/{project_id}/extensions	None
Query information of all AZs (OpenStack Cinder API).	GET /v2/{project_id}/os-availability-zone	None

## EVS Disk Actions

Permission	API	Action
Expand the capacity of an EVS disk (OpenStack Cinder API).	POST /v2/{project_id}/volumes/{volume_id}/action action="os-extend"	evs:volumes:extend evs:volumes:get
Export the EVS disk data as an image (OpenStack Cinder API).	POST /v2/{project_id}/volumes/{volume_id}/action action="os-volume_upload_image"	evs:volumes:uploadImage
Attach an EVS disk (OpenStack Cinder API).	POST /v2/{project_id}/volumes/{volume_id}/action action="os-attach"	evs:volumes:attach evs:volumes:get
Detach an EVS disk (OpenStack Cinder API).	POST /v2/{project_id}/volumes/{volume_id}/action action="os-detach"	evs:volumes:detach evs:volumes:get
Reserve an EVS disk (OpenStack Cinder API).	POST /v2/{project_id}/volumes/{volume_id}/action action="os-reserve"	evs:volumes:attach
Cancel reservation of an EVS disk (OpenStack Cinder API).	POST /v2/{project_id}/volumes/{volume_id}/action action="os-unreserve"	evs:volumes:attach
Set the bootable flag for an EVS disk (OpenStack Cinder API).	POST /v2/{project_id}/volumes/{volume_id}/action action="os-set_bootable"	evs:volumes:update

Permission	API	Action
Set the read-only attribute for an EVS disk (OpenStack Cinder API).	POST /v2/{project_id}/volumes/{volume_id}/action action="os-update_readonly_flag"	evs:volumes:update

## EVS Snapshot

Permission	API	Action
Create an EVS snapshot (OpenStack Cinder API).	POST /v2/{project_id}/snapshots	evs:snapshots:create evs:volumes:get
Query EVS snapshots (OpenStack Cinder API).	GET /v2/{project_id}/snapshots	evs:snapshots:list
Query details of EVS snapshots (OpenStack Cinder API).	GET /v2/{project_id}/snapshots/detail	evs:snapshots:list
Update an EVS snapshot (OpenStack Cinder API).	PUT /v2/{project_id}/snapshots/{snapshot_id}	evs:snapshots:update evs:snapshots:get
Query details about a single EVS snapshot (OpenStack Cinder API).	GET /v2/{project_id}/snapshots/{snapshot_id}	evs:snapshots:get
Delete an EVS snapshot (OpenStack Cinder API).	DELETE /v2/{project_id}/snapshots/{snapshot_id}	evs:snapshots:delete evs:snapshots:get evs:volumes:get
Roll back a snapshot to an EVS disk.	POST /v2/{project_id}/os-vendor-snapshots/{snapshot_id}/rollback	evs:snapshots:rollback evs:snapshots:get evs:volumes:get
Add the metadata of an EVS snapshot (OpenStack Cinder API).	POST /v2/{project_id}/snapshots/{snapshot_id}/metadata	evs:snapshots:update evs:snapshots:get
Query the metadata of an EVS snapshot (OpenStack Cinder API).	GET /v2/{project_id}/snapshots/{snapshot_id}/metadata	evs:snapshots:get
Update one piece of EVS snapshot metadata (OpenStack Cinder API).	PUT /v2/{project_id}/snapshots/{snapshot_id}/metadata/{key}	evs:snapshots:update evs:snapshots:get



Permission	API	Action
Update the metadata of an EVS snapshot (OpenStack Cinder API).	PUT /v2/{project_id}/snapshots/{snapshot_id}/metadata	evs:snapshots:update evs:snapshots:get
Query one piece of EVS snapshot metadata (OpenStack Cinder API).	GET /v2/{project_id}/snapshots/{snapshot_id}/metadata/{key}	evs:snapshots:get
Delete one piece of EVS snapshot metadata (OpenStack Cinder API).	DELETE /v2/{project_id}/snapshots/{snapshot_id}/metadata/{key}	evs:snapshots:delete evs:snapshots:get

## A.9 Obtaining a Project ID

A project ID is required for some URLs when an API is called. Therefore, you need to obtain a project ID in advance. The steps are as follows:

1. Obtain the token.

For details, see [Token Authentication](#).

2. Obtain a project ID.

The API for obtaining the project ID is **GET https://iam.eu-west-0.myhuaweicloud.com/v3/projects**.

Add **X-Auth-Token** to the request header and set its value to the token obtained in the preceding step.

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

```
{
  "links": {},
  "projects": [
    {
      "is_domain": ,
      "description": "",
      "links": {},
      "enabled": true,
      "id": "", // Project ID
      "parent_id": "",
      "domain_id": "",
      "name": ""
    },
    ...
  ]
}
```

## A.10 Obtaining an Account ID

An account ID is required for some URLs when an API is called. To obtain an account ID, perform the following operations:

1. Log in to the management console.
2. Click the username in the upper right corner and select **My Credentials** from the drop-down list.

On the **My Credentials** page, view **Account ID**.

# B Change History

---

Released On	Description
2018-12-30	This issue is the first official release.