

Cloud Backup and Recovery

API Reference

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1 Before You Start

- [1.1 Overview](#)
- [1.2 API Calling](#)
- [1.3 Endpoints](#)
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1.1 Overview

Welcome to *Cloud Backup and Recovery API Reference*. Cloud Backup and Recovery (CBR) allows you to back up Elastic Cloud Servers (ECSs), Bare Metal Servers (BMSs), and Elastic Volume Service (EVS) disks, as well as on-premises VMware virtual environments with ease. If there is a virus attack, accidental deletion, or software or hardware fault, data can be restored to any point in the past when the data was backed up. With CBR, you can back up and restore data on the cloud, or synchronize on-premises data to the cloud for future restoration.

You can use APIs provided in this document to perform operations on CBR, such as creating and deleting a vault, and creating a policy. For details about all supported operations, see [2 API Overview](#).

Before calling CBR APIs, ensure that you have fully understood relevant concepts. For details, see [Service Overview](#).

1.2 API Calling

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

1.3 Endpoints

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

1.4 Constraints

For more constraints, see API description.

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**

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

For details, see [Region and AZ](#).
- **AZ**

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

Enterprise projects group and manage resources across regions. Resources in different enterprise projects are logically isolated.

For details about enterprise projects and about how to obtain enterprise project IDs, see [Enterprise Management User Guide](#).

2 API Overview

CBR APIs allow you to use all functions provided by CBR.

Table 2-1 API description

Type	Description
Task	Query the task list and the information about a single task.
Vault	Create and query vaults and apply policies to the vaults.
Backup sharing	Share backups with other users. You can perform operations related to backup sharing through this type of APIs.
Restore point	Back up and replicate vaults, and query the time when backups are created.
Backup	Query and synchronize backups, and use backups to restore data.
Policy	Vaults with applied policies can be backed up periodically. You can create, modify, and query policies through policy-related APIs.
Tag	Add, edit, or delete tags for vaults. Vault tags are used to filter and manage vaults only.

3 Calling APIs

3.1 Making an API Request

3.2 Authentication

3.3 Response

3.1 Making an API Request

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

Request URI

A request URI is in the following format:

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

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

Table 3-1 URI parameter description

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

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

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

`https://iam.myhuaweicloud.eu/v3/auth/tokens`

 **NOTE**

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

Request Methods

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

Table 3-2 HTTP methods

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

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

`POST https://iam.myhuaweicloud.eu/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 https is 443 .	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the type (or format) of the message body. The default value application/json is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in 7.3 Obtaining a Project ID .	No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario.	e9993fc787d94b6c886cbaa340f9c0f4

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 X-Subject-Token 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 [3.2 Authentication](#).

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

```
POST https://iam.myhuaweicloud.eu/v3/auth/tokens
Content-Type: application/json
```

(Optional) Request Body

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

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

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

A cloud service can be deployed as either a project-level service or global service.

- For a project-level service, you need to obtain a project-level token. When you call the API, set **auth.scope** in the request body to **project**.
- For a global service, you need to obtain a global token. When you call the API, set **auth.scope** in the request body to **domain**.

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

```
{
  "auth": {
```

```

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

```

After a token is obtained, the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```

POST https://iam.myhuaweicloud.eu/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 [7.1 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.

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
→ MIIVXQVJKoZIhvcNAQcCoIIYJCCEoCAQExDTALBglghkgBZQMEAgEwgharBgkqhkiG9w0BBwGgghacBIIWmHsidG9rZW4iOnsiZXhwaXJlc19hdCI6ijlwMTktMDItMTNUMC
fj3KIs6YgKnpVNRbW2eZ5eb78SZ0kqjACgkklQ01wi4JlGzrpd18LGXK5tdfq4lqHCYb8P4NaY0NYejcAgzJVeFYtLWT1GSO0zxKZmlQHJQ82HBqHdglZO9fuEbL5dMhdavj+33wEI
xHRC9I87o+k9-
j+CMZSEB7bUGd5Uj6eRASXI1jipPEGA270g1FruooL6jqglFkNPQuFSOUB+uSsttVwRtNfsC+qTp22Rkd5MCqFGQ8LcuUxC3a+9CMBnOintWW7oeRUVhVpxk8pxiX1wTEboX-
RzT6MUbvpvGw-oPNFYxJECKnoH3HRozv0vN--n5d6Nbxg==

x-xss-protection → 1; mode=block;
    
```

(Optional) Response Body

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

The following is part of the response body for the API used to [obtain a user token](#).

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

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

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

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

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

4 CBR APIs

- [4.1 Tasks](#)
- [4.2 Backup Sharing](#)
- [4.3 Restore Points](#)
- [4.4 Vaults](#)
- [4.5 Backups](#)
- [4.6 Policies](#)
- [4.7 Protection](#)
- [4.8 Tags](#)

4.1 Tasks

4.1.1 Querying a Single Task

Function

This API is used to query a task by task ID.

URI

GET /v3/{project_id}/operation-logs/{operation_log_id}

Table 4-1 Path Parameters

Parameter	Mandatory	Type	Description
operation_log_id	Yes	String	Task ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-3 Response body parameters

Parameter	Type	Description
operation_log	OperationLog object	

Table 4-4 OperationLog

Parameter	Type	Description
checkpoint_id	String	Backup record ID
created_at	String	Creation time, for example, 2020-02-23T01:00:32Z
ended_at	String	Task end time, for example, 2020-02-23T01:00:32Z
error_info	OpErrorInfo object	Task error message
extra_info	OpExtraInfo object	Task extension information
id	String	Task ID

Parameter	Type	Description
operation_type	String	Task type Enumeration values: <ul style="list-style-type: none"> • backup • copy • replication • restore • delete • sync • vault_delete • remove_resource
policy_id	String	Policy ID
project_id	String	Project ID
provider_id	String	Backup provider ID, which specifies whether the backup object is a server or disk
started_at	String	Task start time, for example, 2020-02-23T01:00:32Z
status	String	Task status Enumeration values: <ul style="list-style-type: none"> • success • skipped • failed • running • timeout • waiting
updated_at	String	Modification time, for example, 2020-02-23T01:00:32Z
vault_id	String	ID of the vault with which the target resource is associated
vault_name	String	Name of the vault with which the target resource is associated

Table 4-5 OpErrorInfo

Parameter	Type	Description
code	String	For details, see Error Codes .
message	String	Error message

Table 4-6 OpExtraInfo

Parameter	Type	Description
backup	OpExtendInfoBackup object	Extended parameters of backup
common	OpExtendInfoCommon object	Common parameters
delete	OpExtendInfoDelete object	Extended parameters of deletion
sync	OpExtendInfoSync object	Extended parameters of synchronization
remove_resources	OpExtendInfoRemoveResources object	Extended parameters of removing resources from a vault
resource	Resource object	Resource information
restore	OpExtendInfoRestore object	Extended parameters of restoration
vault_delete	OpExtendInfoVaultDelete object	Extended parameters of deleting a vault

Table 4-7 OpExtendInfoBackup

Parameter	Type	Description
app_consistency_error_code	String	Error code returned if application-consistent backup fails. For details, see Error Codes .
app_consistency_error_message	String	Error message returned if application-consistent backup fails
app_consistency_status	String	Application-consistent backup status, which can be set to 0 (non-application-consistent backup) or 1 (application-consistent backup) Enumeration values: <ul style="list-style-type: none"> • 0 • 1
backup_id	String	Backup ID

Parameter	Type	Description
backup_name	String	Backup name
incremental	String	Whether incremental backup is used Enumeration values: <ul style="list-style-type: none"> • "true" • "false"

Table 4-8 OpExtendInfoCommon

Parameter	Type	Description
progress	Integer	Progress of the query task. The value ranges from 0 to 100 . Minimum: 0 Maximum: 100
request_id	String	Request ID
task_id	String	Backup task ID

Table 4-9 OpExtendInfoDelete

Parameter	Type	Description
backup_id	String	Backup ID
backup_name	String	Backup name

Table 4-10 OpExtendInfoSync

Parameter	Type	Description
sync_backup_num	Integer	Number of synchronized backups
delete_backup_num	Integer	Number of deleted backups
err_sync_backup_num	Integer	Number of backups that fail to be synchronized

Table 4-11 OpExtendInfoRemoveResources

Parameter	Type	Description
fail_count	Integer	Number of resources that fail to be deleted
total_count	Integer	Number of deleted backups
resources	Array of Resource objects	

Table 4-12 Resource

Parameter	Type	Description
id	String	ID of the vault resource type
name	String	Name of the resource to be backed up. The value consists of 0 to 255 characters. Minimum: 0 Maximum: 255
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo

Table 4-13 OpExtendInfoRestore

Parameter	Type	Description
backup_id	String	Backup ID
backup_name	String	Backup name
target_resource_id	String	ID of the resource to be restored
target_resource_name	String	Name of the resource to be restored

Table 4-14 OpExtendInfoVaultDelete

Parameter	Type	Description
fail_count	Integer	Number of resources that fail to be deleted in this task
total_count	Integer	Number of backups deleted in this task

Status code: 404

Table 4-15 Response body parameters

Parameter	Type	Description
error_code	String	For details, see Error Codes .
error_msg	String	Error message

Example Requests

```
GET https://{endpoint}/v3/{project_id}/operation-logs/{operation_log_id}
```

Example Responses

Status code: 200

OK

```
{
  "operation_log" : {
    "status" : "success",
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "checkpoint_id" : "b432511f-d889-428f-8b0e-5f47c524c6b6",
    "updated_at" : "2019-05-23T14:35:23.584418",
    "error_info" : {
      "message" : "",
      "code" : ""
    }
  },
  "vault_id" : null,
  "started_at" : "2019-05-23T14:31:36.007230",
  "id" : "4827f2da-b008-4507-ab7d-42d0df5ed912",
  "extra_info" : {
    "resource" : {
      "type" : "OS::Nova::Server",
      "id" : "1dab32fa-ebf2-415a-ab0b-eabe6353bc86",
      "name" : "ECS-0001"
    }
  },
  "backup" : {
    "backup_name" : "manualbk_1234",
    "backup_id" : "0e5d0ef6-7f0a-4890-b98c-cb12490e31c1"
  },
  "common" : {
    "progress" : 100,
    "request_id" : "req-cdb98cc4-e87b-4f40-9b4a-57ec036620bc"
  }
},
  "ended_at" : "2019-05-23T14:35:23.511155",
  "created_at" : "2019-05-23T14:31:36.039365",
  "operation_type" : "backup",
  "vault_name" : null,
  "project_id" : "04f1829c788037ac2fb8c01eb2b04b95",
  "policy_id" : null
}
```

Status code: 404

The task ID does not exist.

```
{
  "error_code" : "BackupService.6500",
```

```
"error_msg" : "Operation log does not exist."
}
```

Status Codes

Status Code	Description
200	OK
404	The task ID does not exist.

Error Codes

See [Error Codes](#).

4.1.2 Querying the Task List

Function

This API is used to query the task list.

URI

GET /v3/{project_id}/operation-logs

Table 4-16 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-17 Query Parameters

Parameter	Mandatory	Type	Description
end_time	No	String	End time of a task, in %YYYY-%mm-%ddT%HH:%MM:%SSZ format. For example, 2018-02-01T12:00:00Z .
limit	No	Integer	Number of records displayed per page. The value must be a positive integer. Minimum: 1
offset	No	Integer	Offset value. The value must be a positive integer. Minimum: 1

Parameter	Mandatory	Type	Description
operation_type	No	String	Task type Enumeration values: <ul style="list-style-type: none"> • backup • copy • replication • delete • restore • vault_delete • remove_resource • sync
provider_id	No	String	Backup provider ID, which specifies whether the backup object is a server or disk
resource_id	No	String	Backup resource ID
resource_name	No	String	Backup resource name
start_time	No	String	Start time of a task, in %YYYY-%mm-%ddT%HH:%MM:%SSZ format. For example, 2018-01-01T12:00:00Z .
status	No	String	Task status Enumeration values: <ul style="list-style-type: none"> • success • skipped • failed • running • timeout • waiting
vault_id	No	String	ID of the vault with which the target resource is associated
vault_name	No	String	Name of the vault with which the target resource is associated

Request Parameters

Table 4-18 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-19 Response body parameters

Parameter	Type	Description
operation_logs	Array of OperationLog objects	Task list
count	Integer	Number of tasks
limit	Integer	Number of records displayed on each page Minimum: 1 Maximum: 1000 Default: 1000
offset	Integer	Offset where the query starts Minimum: 0 Default: 0

Table 4-20 OperationLog

Parameter	Type	Description
checkpoint_id	String	Backup record ID
created_at	String	Creation time, for example, 2020-02-23T01:00:32Z
ended_at	String	Task end time, for example, 2020-02-23T01:00:32Z

Parameter	Type	Description
error_info	OpErrorInfo object	Task error message
extra_info	OpExtraInfo object	Task extension information
id	String	Task ID
operation_type	String	Task type Enumeration values: <ul style="list-style-type: none"> • backup • copy • replication • restore • delete • sync • vault_delete • remove_resource
policy_id	String	Policy ID
project_id	String	Project ID
provider_id	String	Backup provider ID, which specifies whether the backup object is a server or disk
started_at	String	Task start time, for example, 2020-02-23T01:00:32Z
status	String	Task status Enumeration values: <ul style="list-style-type: none"> • success • skipped • failed • running • timeout • waiting
updated_at	String	Modification time, for example, 2020-02-23T01:00:32Z
vault_id	String	ID of the vault with which the target resource is associated
vault_name	String	Name of the vault with which the target resource is associated

Table 4-21 OpErrorInfo

Parameter	Type	Description
code	String	For details, see Error Codes .
message	String	Error message

Table 4-22 OpExtralInfo

Parameter	Type	Description
backup	OpExtendInfoBckup object	Extended parameters of backup
common	OpExtendInfoCommon object	Common parameters
delete	OpExtendInfoDelete object	Extended parameters of deletion
sync	OpExtendInfoSync object	Extended parameters of synchronization
remove_resources	OpExtendInfoRemoveResources object	Extended parameters of removing resources from a vault
resource	Resource object	Resource information
restore	OpExtendInfoRestore object	Extended parameters of restoration
vault_delete	OpExtendInfoVaultDelete object	Extended parameters of deleting a vault

Table 4-23 OpExtendInfoBckup

Parameter	Type	Description
app_consistency_error_code	String	Error code returned if application-consistent backup fails. For details, see Error Codes .
app_consistency_error_message	String	Error message returned if application-consistent backup fails

Parameter	Type	Description
app_consistency_status	String	Application-consistent backup status, which can be set to 0 (non-application-consistent backup) or 1 (application-consistent backup) Enumeration values: <ul style="list-style-type: none"> • 0 • 1
backup_id	String	Backup ID
backup_name	String	Backup name
incremental	String	Whether incremental backup is used Enumeration values: <ul style="list-style-type: none"> • "true" • "false"

Table 4-24 OpExtendInfoCommon

Parameter	Type	Description
progress	Integer	Progress of the query task. The value ranges from 0 to 100 . Minimum: 0 Maximum: 100
request_id	String	Request ID
task_id	String	Backup task ID

Table 4-25 OpExtendInfoDelete

Parameter	Type	Description
backup_id	String	Backup ID
backup_name	String	Backup name

Table 4-26 OpExtendInfoSync

Parameter	Type	Description
sync_backup_num	Integer	Number of synchronized backups

Parameter	Type	Description
delete_backup_num	Integer	Number of deleted backups
err_sync_backup_num	Integer	Number of backups that fail to be synchronized

Table 4-27 OpExtendInfoRemoveResources

Parameter	Type	Description
fail_count	Integer	Number of resources that fail to be deleted
total_count	Integer	Number of deleted backups
resources	Array of Resource objects	

Table 4-28 Resource

Parameter	Type	Description
id	String	ID of the vault resource type
name	String	Name of the resource to be backed up. The value consists of 0 to 255 characters. Minimum: 0 Maximum: 255
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo

Table 4-29 OpExtendInfoRestore

Parameter	Type	Description
backup_id	String	Backup ID
backup_name	String	Backup name
target_resource_id	String	ID of the resource to be restored
target_resource_name	String	Name of the resource to be restored

Table 4-30 OpExtendInfoVaultDelete

Parameter	Type	Description
fail_count	Integer	Number of resources that fail to be deleted in this task
total_count	Integer	Number of backups deleted in this task

Status code: 404

Table 4-31 Response body parameters

Parameter	Type	Description
operation_logs	Array of OperationLog objects	Task list
count	Integer	Number of tasks
limit	Integer	Number of records displayed on each page Minimum: 1 Maximum: 1000 Default: 1000
offset	Integer	Offset where the query starts Minimum: 0 Default: 0

Table 4-32 OperationLog

Parameter	Type	Description
checkpoint_id	String	Backup record ID
created_at	String	Creation time, for example, 2020-02-23T01:00:32Z
ended_at	String	Task end time, for example, 2020-02-23T01:00:32Z
error_info	OpErrorInfo object	Task error message
extra_info	OpExtraInfo object	Task extension information
id	String	Task ID

Parameter	Type	Description
operation_type	String	Task type Enumeration values: <ul style="list-style-type: none"> • backup • copy • replication • restore • delete • sync • vault_delete • remove_resource
policy_id	String	Policy ID
project_id	String	Project ID
provider_id	String	Backup provider ID, which specifies whether the backup object is a server or disk
started_at	String	Task start time, for example, 2020-02-23T01:00:32Z
status	String	Task status Enumeration values: <ul style="list-style-type: none"> • success • skipped • failed • running • timeout • waiting
updated_at	String	Modification time, for example, 2020-02-23T01:00:32Z
vault_id	String	ID of the vault with which the target resource is associated
vault_name	String	Name of the vault with which the target resource is associated

Table 4-33 OpErrorInfo

Parameter	Type	Description
code	String	For details, see Error Codes .
message	String	Error message

Table 4-34 OpExtralInfo

Parameter	Type	Description
backup	OpExtendInfoBackup object	Extended parameters of backup
common	OpExtendInfoCommon object	Common parameters
delete	OpExtendInfoDelete object	Extended parameters of deletion
sync	OpExtendInfoSync object	Extended parameters of synchronization
remove_resources	OpExtendInfoRemoveResources object	Extended parameters of removing resources from a vault
resource	Resource object	Resource information
restore	OpExtendInfoRestore object	Extended parameters of restoration
vault_delete	OpExtendInfoVaultDelete object	Extended parameters of deleting a vault

Table 4-35 OpExtendInfoBackup

Parameter	Type	Description
app_consistency_error_code	String	Error code returned if application-consistent backup fails. For details, see Error Codes .
app_consistency_error_message	String	Error message returned if application-consistent backup fails
app_consistency_status	String	Application-consistent backup status, which can be set to 0 (non-application-consistent backup) or 1 (application-consistent backup) Enumeration values: <ul style="list-style-type: none"> • 0 • 1
backup_id	String	Backup ID

Parameter	Type	Description
backup_name	String	Backup name
incremental	String	Whether incremental backup is used Enumeration values: <ul style="list-style-type: none"> • "true" • "false"

Table 4-36 OpExtendInfoCommon

Parameter	Type	Description
progress	Integer	Progress of the query task. The value ranges from 0 to 100 . Minimum: 0 Maximum: 100
request_id	String	Request ID
task_id	String	Backup task ID

Table 4-37 OpExtendInfoDelete

Parameter	Type	Description
backup_id	String	Backup ID
backup_name	String	Backup name

Table 4-38 OpExtendInfoSync

Parameter	Type	Description
sync_backup_num	Integer	Number of synchronized backups
delete_backup_num	Integer	Number of deleted backups
err_sync_backup_num	Integer	Number of backups that fail to be synchronized

Table 4-39 OpExtendInfoRemoveResources

Parameter	Type	Description
fail_count	Integer	Number of resources that fail to be deleted
total_count	Integer	Number of deleted backups
resources	Array of Resource objects	

Table 4-40 Resource

Parameter	Type	Description
id	String	ID of the vault resource type
name	String	Name of the resource to be backed up. The value consists of 0 to 255 characters. Minimum: 0 Maximum: 255
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo

Table 4-41 OpExtendInfoRestore

Parameter	Type	Description
backup_id	String	Backup ID
backup_name	String	Backup name
target_resource_id	String	ID of the resource to be restored
target_resource_name	String	Name of the resource to be restored

Table 4-42 OpExtendInfoVaultDelete

Parameter	Type	Description
fail_count	Integer	Number of resources that fail to be deleted in this task
total_count	Integer	Number of backups deleted in this task

Example Requests

GET https://{endpoint}/v3/{project_id}/operation-logs

Example Responses

Status code: 200

OK

```
{
  "count" : 1,
  "operation_logs" : [ {
    "status" : "success",
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "checkpoint_id" : "b432511f-d889-428f-8b0e-5f47c524c6b6",
    "updated_at" : "2019-05-23T14:35:23.584418",
    "error_info" : {
      "message" : "",
      "code" : ""
    },
    },
    "vault_id" : null,
    "started_at" : "2019-05-23T14:31:36.007230",
    "id" : "4827f2da-b008-4507-ab7d-42d0df5ed912",
    "extra_info" : {
      "resource" : {
        "type" : "OS::Nova::Server",
        "id" : "1dab32fa-ebf2-415a-ab0b-eabe6353bc86",
        "name" : "ECS-0001"
      },
    },
    "backup" : {
      "backup_name" : "manualbk_backup",
      "backup_id" : "0e5d0ef6-7f0a-4890-b98c-cb12490e31c1"
    },
    "common" : {
      "progress" : 100,
      "request_id" : "req-cdb98cc4-e87b-4f40-9b4a-57ec036620bc"
    }
  },
  "ended_at" : "2019-05-23T14:35:23.511155",
  "created_at" : "2019-05-23T14:31:36.039365",
  "operation_type" : "backup",
  "vault_name" : null,
  "project_id" : "04f1829c788037ac2fb8c01eb2b04b95",
  "policy_id" : null
} ] }
```

Status Codes

Status Code	Description
200	OK
404	Not Found

Error Codes

See [Error Codes](#).

4.2 Backup Sharing

4.2.1 Adding a Share Member

Function

This API is used to add a member with whom the backup can be shared. Only cloud server backups can be shared among tenants in the same region.

URI

POST /v3/{project_id}/backups/{backup_id}/members

Table 4-43 Path Parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-44 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-45 Request body parameters

Parameter	Mandatory	Type	Description
members	Yes	Array of strings	Project IDs of the backup share members to be added

Response Parameters

Status code: 200

Table 4-46 Response body parameters

Parameter	Type	Description
members	Array of Member objects	Response parameters of adding a backup share member
count	Integer	Number of share members that the backup is shared to

Table 4-47 Member

Parameter	Type	Description
status	String	Backup sharing status Enumeration values: <ul style="list-style-type: none"> • pending • accepted • rejected
created_at	String	Backup sharing time, for example, 2020-02-05T10:38:34.209782
updated_at	String	Update time, for example, 2020-02-05T10:38:34.209782
backup_id	String	Backup ID
image_id	String	ID of the image created by using the accepted shared backup
dest_project_id	String	ID of the project with which the backup is shared
vault_id	String	ID of the vault where the shared backup is stored
id	String	ID of the shared record

Example Requests

```
POST https://{endpoint}/v3/0605767b5780d5762fc5c0118072a564/backups/0b07081e-3ec7-4e77-8571-54e2947da422/members
```

```
{
  "members" : [ "075e6035d300d48c2fd0c00b78b71ebf" ]
}
```

Example Responses

Status code: 200

OK

```
{
  "members": [ {
    "status": "pending",
    "image_id": null,
    "backup_id": "0b07081e-3ec7-4e77-8571-54e2947da422",
    "vault_id": null,
    "dest_project_id": "075e6035d300d48c2fd0c00b78b71ebf",
    "created_at": "2020-02-05T10:38:34.209782",
    "updated_at": null,
    "id": "3c5a3015-c3a0-4dc6-a1e2-917b90f62319"
  } ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.2.2 Updating the Share Member Status

Function

This API is used to update the status of a backup share member.

URI

PUT /v3/{project_id}/backups/{backup_id}/members/{member_id}

Table 4-48 Path Parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID
member_id	Yes	String	Member ID, which is the same ID as in project ID.
project_id	Yes	String	Project ID

Request Parameters

Table 4-49 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-50 Request body parameters

Parameter	Mandatory	Type	Description
status	Yes	String	Status of a shared backup Enumeration values: <ul style="list-style-type: none"> • accepted • pending • rejected
vault_id	No	String	Vault in which the shared backup is to be stored. Only UUID is supported. When updating the status of a backup sharing member, if the backup is accepted, vault_id must be specified. If the backup is rejected, vault_id is not required.

Response Parameters

Status code: 200

Table 4-51 Response body parameters

Parameter	Type	Description
member	Member object	Response parameters of querying the details of a backup share member

Table 4-52 Member

Parameter	Type	Description
status	String	Backup sharing status Enumeration values: <ul style="list-style-type: none"> ● pending ● accepted ● rejected
created_at	String	Backup sharing time, for example, 2020-02-05T10:38:34.209782
updated_at	String	Update time, for example, 2020-02-05T10:38:34.209782
backup_id	String	Backup ID
image_id	String	ID of the image created by using the accepted shared backup
dest_project_id	String	ID of the project with which the backup is shared
vault_id	String	ID of the vault where the shared backup is stored
id	String	ID of the shared record

Example Requests

```
PUT https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/backups/a5200268-74a5-4806-acc6-95793ab0228b/members/f841e01fd2b14e7fa41b6ae7aa6b0594
```

```
{
  "status": "accepted",
  "vault_id": "4b27c05b-8ad7-48c6-a886-526666c035f0"
}
```

Example Responses

Status code: 200

OK

```
{
  "member": {
    "status": "accepted",
    "image_id": null,
    "backup_id": "17c9acd8-3af3-4401-bab9-ff1cfac15561",
    "vault_id": "4b27c05b-8ad7-48c6-a886-526666c035f0",
    "dest_project_id": "0761021b8900d2622f38c0115db0b331",
    "created_at": "2020-02-24T09:36:00.479033",
    "updated_at": null,
    "id": "824a90b3-c562-448b-ab04-60ea4a97cf60"
  }
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.2.3 Querying Share Member Details

Function

This API is used to obtain the details of a backup share member.

URI

GET /v3/{project_id}/backups/{backup_id}/members/{member_id}

Table 4-53 Path Parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID
member_id	Yes	String	Member ID, which is the project ID of the tenant who receives the shared backup.
project_id	Yes	String	Project ID

Request Parameters

Table 4-54 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-55 Response body parameters

Parameter	Type	Description
member	Member object	Response parameters of querying the details of a backup share member

Table 4-56 Member

Parameter	Type	Description
status	String	Backup sharing status Enumeration values: <ul style="list-style-type: none"> • pending • accepted • rejected
created_at	String	Backup sharing time, for example, 2020-02-05T10:38:34.209782
updated_at	String	Update time, for example, 2020-02-05T10:38:34.209782
backup_id	String	Backup ID
image_id	String	ID of the image created by using the accepted shared backup
dest_project_id	String	ID of the project with which the backup is shared
vault_id	String	ID of the vault where the shared backup is stored
id	String	ID of the shared record

Example Requests

GET https://{endpoint}/v3/{project_id}/backups/{backup_id}/members/{member_id}

Example Responses

Status code: 200

OK

```
{
  "member": {
    "status": "accepted",
```

```

"image_id" : null,
"backup_id" : "17c9acd8-3af3-4401-bab9-ff1cfac15561",
"vault_id" : "4b27c05b-8ad7-48c6-a886-526666c035f0",
"dest_project_id" : "0761021b8900d2622f38c0115db0b331",
"created_at" : "2020-02-24T09:36:00.479033",
"updated_at" : null,
"id" : "824a90b3-c562-448b-ab04-60ea4a97cf60"
}
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.2.4 Obtaining the Share Member List

Function

This API is used to obtain the list of backup share members.

URI

GET /v3/{project_id}/backups/{backup_id}/members

Table 4-57 Path Parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID
project_id	Yes	String	Project ID

Table 4-58 Query Parameters

Parameter	Mandatory	Type	Description
dest_project_id	No	String	ID of the project with which the backup is shared
image_id	No	String	ID of the image created from the accepted backup
limit	No	Integer	Number of records displayed per page. The value must be a positive integer.

Parameter	Mandatory	Type	Description
marker	No	String	ID of the last record displayed on the previous page. Only UUID is supported.
offset	No	Integer	Offset value, which is a positive integer.
sort	No	String	A group of properties separated by commas (,) and sorting directions. The value format is [:],[:], where the value of direction is asc (in ascending order) or desc (in descending order). If the parameter direction is not specified, the default sorting direction is desc . The value of sort contains a maximum of 255 characters.
status	No	String	Status of a shared backup
vault_id	No	String	ID of the vault where the shared backup is stored. Only UUID is supported.

Request Parameters

Table 4-59 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-60 Response body parameters

Parameter	Type	Description
members	Array of Member objects	Response parameters of adding a backup share member
count	Integer	Number of share members that the backup is shared to

Table 4-61 Member

Parameter	Type	Description
status	String	Backup sharing status Enumeration values: <ul style="list-style-type: none"> • pending • accepted • rejected
created_at	String	Backup sharing time, for example, 2020-02-05T10:38:34.209782
updated_at	String	Update time, for example, 2020-02-05T10:38:34.209782
backup_id	String	Backup ID
image_id	String	ID of the image created by using the accepted shared backup
dest_project_id	String	ID of the project with which the backup is shared
vault_id	String	ID of the vault where the shared backup is stored
id	String	ID of the shared record

Example Requests

```
GET https://{endpoint}/v3/{project_id}/backups/{backup_id}/members
```

Example Responses

Status code: 200

OK

```
{
  "members": [ {
    "status": "pending",
    "image_id": null,
```

```

"backup_id" : "0b07081e-3ec7-4e77-8571-54e2947da422",
"vault_id" : null,
"dest_project_id" : "075e6035d300d48c2fd0c00b78b71ebf",
"created_at" : "2020-02-05T10:38:34.209782",
"updated_at" : null,
"id" : "3c5a3015-c3a0-4dc6-a1e2-917b90f62319"
}],
"count" : 50
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.2.5 Deleting a Specified Share Member

Function

This API is used to delete a specified backup share member.

URI

DELETE /v3/{project_id}/backups/{backup_id}/members/{member_id}

Table 4-62 Path Parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID
member_id	Yes	String	Member ID, which is the same ID as in project ID.
project_id	Yes	String	Project ID

Request Parameters

Table 4-63 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

None

Example Requests

```
DELETE https://{endpoint}/v3/{project_id}/backups/{backup_id}/members/{member_id}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

4.3 Restore Points

4.3.1 Querying a Restore Point

Function

This API is used to query a specified restore point based on its ID.

URI

```
GET /v3/{project_id}/checkpoints/{checkpoint_id}
```

Table 4-64 Path Parameters

Parameter	Mandatory	Type	Description
checkpoint_id	Yes	String	Restore point ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-65 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-66 Response body parameters

Parameter	Type	Description
checkpoint	CheckpointCreate object	Restore point information

Table 4-67 CheckpointCreate

Parameter	Type	Description
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
id	String	Restore point ID
project_id	String	Project ID

Parameter	Type	Description
status	String	Status Enumeration values: <ul style="list-style-type: none"> • available • deleting • protecting • deleted • error-deleting • error
vault	CheckpointPlanCreate object	Vault information
extra_info	CheckpointExtraInfoResp object	

Table 4-68 CheckpointPlanCreate

Parameter	Type	Description
id	String	Vault ID
name	String	Vault name
resources	Array of CheckpointResourceResp objects	Backup objects
skipped_resources	Array of CheckpointCreateSkippedResource objects	Resources skipped during backup

Table 4-69 CheckpointResourceResp

Parameter	Type	Description
extra_info	String	Extra information of the resource
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up

Parameter	Type	Description
protect_status	String	Protected status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing
resource_size	String	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	String	Backup size
backup_count	String	Number of backups

Table 4-70 CheckpointCreateSkippedResource

Parameter	Type	Description
id	String	Resource ID
type	String	Resource type
name	String	Resource name
code	String	For details, see Error Codes .
reason	String	Reason for the skipping. For example, the resource is being backed up.

Table 4-71 CheckpointExtraInfoResp

Parameter	Type	Description
name	String	Backup name
description	String	Backup description
retention_duration	Integer	Number of days that backups can be retained

Example Requests

```
GET https://{endpoint}/v3/4229d7a45436489f8c3dc2b1d35d4987/checkpoints/8b0851a8-adf3-4f4c-a914-dead08bf9664
```

Example Responses

Status code: 200

Response body of querying a restore point

```
{
  "checkpoint" : {
    "status" : "available",
    "created_at" : "2019-05-10T07:59:12.036982",
    "vault" : {
      "id" : "3b5816b5-f29c-4172-9d9a-76c719a659ce",
      "resources" : [ {
        "name" : "ecs-1f0f-0002",
        "resource_size" : "40",
        "protect_status" : "available",
        "type" : "OS::Nova::Server",
        "id" : "94eba8b2-acc9-4d82-badc-127144cc5526",
        "extra_info" : null
      } ],
      "name" : "vault-be94"
    },
    "project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
    "id" : "8b0851a8-adf3-4f4c-a914-dead08bf9664",
    "extra_info" : null
  }
}
```

Status Codes

Status Code	Description
200	Response body of querying a restore point

Error Codes

See [Error Codes](#).

4.3.2 Creating a Restore Point

Function

This API is used to back up a vault and generate a restore point.

URI

POST /v3/{project_id}/checkpoints

Table 4-72 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-73 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-74 Request body parameters

Parameter	Mandatory	Type	Description
checkpoint	Yes	VaultBackup object	Parameters for backing up the vault

Table 4-75 VaultBackup

Parameter	Mandatory	Type	Description
parameters	No	CheckpointParam object	Parameters
vault_id	Yes	String	Vault ID

Table 4-76 CheckpointParam

Parameter	Mandatory	Type	Description
auto_trigger	No	Boolean	Whether automatic triggering is enabled. Possible values are true (yes) and false (no). Default: false

Parameter	Mandatory	Type	Description
description	No	String	Backup description Minimum: 0 Maximum: 255
incremental	No	Boolean	Whether the backup is an incremental backup. Possible values are true (yes) and false (no). Default: true
name	No	String	Backup name Minimum: 1 Maximum: 64
resources	No	Array of strings	UUID list of resources to be backed up
resource_details	No	Array of Resource objects	Resource details

Table 4-77 Resource

Parameter	Mandatory	Type	Description
id	Yes	String	ID of the vault resource type
name	No	String	Name of the resource to be backed up. The value consists of 0 to 255 characters. Minimum: 0 Maximum: 255
type	Yes	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo

Response Parameters

Status code: 200

Table 4-78 Response body parameters

Parameter	Type	Description
checkpoint	CheckpointCreate object	Restore point information

Table 4-79 CheckpointCreate

Parameter	Type	Description
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
id	String	Restore point ID
project_id	String	Project ID
status	String	Status Enumeration values: <ul style="list-style-type: none"> • available • deleting • protecting • deleted • error-deleting • error
vault	CheckpointPlanCreate object	Vault information
extra_info	CheckpointExtraInfoResp object	

Table 4-80 CheckpointPlanCreate

Parameter	Type	Description
id	String	Vault ID
name	String	Vault name
resources	Array of CheckpointResourceResp objects	Backup objects

Parameter	Type	Description
skipped_resources	Array of CheckpointCreateSkippedResource objects	Resources skipped during backup

Table 4-81 CheckpointResourceResp

Parameter	Type	Description
extra_info	String	Extra information of the resource
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up
protect_status	String	Protected status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing
resource_size	String	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	String	Backup size
backup_count	String	Number of backups

Table 4-82 CheckpointCreateSkippedResource

Parameter	Type	Description
id	String	Resource ID
type	String	Resource type
name	String	Resource name
code	String	For details, see Error Codes .

Parameter	Type	Description
reason	String	Reason for the skipping. For example, the resource is being backed up.

Table 4-83 CheckpointExtraInfoResp

Parameter	Type	Description
name	String	Backup name
description	String	Backup description
retention_duration	Integer	Number of days that backups can be retained

Example Requests

Creating backups

POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/checkpoints

```
{
  "checkpoint" : {
    "parameters" : {
      "auto_trigger" : true,
      "description" : "backup_description",
      "incremental" : true,
      "name" : "backup_name",
      "resources" : [ "94eba8b2-acc9-4d82-badc-127144cc5526" ]
    },
    "vault_id" : "3b5816b5-f29c-4172-9d9a-76c719a659ce"
  }
}
```

Example Responses

Status code: 200

The checkpoint information returned after performing the backup

```
{
  "checkpoint" : {
    "status" : "protecting",
    "created_at" : "2019-05-10T07:59:12.733403",
    "vault" : {
      "skipped_resources" : [ ],
      "id" : "3b5816b5-f29c-4172-9d9a-76c719a659ce",
      "resources" : [ {
        "name" : "ecs-1f0f-0002",
        "resource_size" : "40",
        "protect_status" : "available",
        "type" : "OS::Nova::Server",
        "id" : "94eba8b2-acc9-4d82-badc-127144cc5526",
        "extra_info" : null
      } ],
      "name" : "vault-be94"
    },
    "project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
  }
}
```



```

    "id" : "8b0851a8-adf3-4f4c-a914-dead08bf9664",
    "extra_info" : {
      "retention_duration" : -1,
      "name" : "backup_name",
      "description" : "backup_description"
    }
  }
}

```

Status Codes

Status Code	Description
200	The checkpoint information returned after performing the backup

Error Codes

See [Error Codes](#).

4.4 Vaults

4.4.1 Creating a Vault

Function

This API is used to create a vault.

URI

POST /v3/{project_id}/vaults

Table 4-84 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-85 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-86 Request body parameters

Parameter	Mandatory	Type	Description
vault	Yes	VaultCreate object	Parameters for creating a vault

Table 4-87 VaultCreate

Parameter	Mandatory	Type	Description
backup_policy_id	No	String	Backup policy ID. If the value of this parameter is null, automatic backup is not performed.
billing	Yes	BillingCreate object	Parameter information for creation
description	No	String	User-defined vault description Minimum: 0 Maximum: 64
name	Yes	String	Vault name Minimum: 1 Maximum: 64
resources	Yes	Array of ResourceCreate objects	Associated resources. Set this parameter to [] if no resources are associated when creating a vault.
tags	No	Array of Tag objects	Tag list This list cannot be an empty list. The list can contain up to 10 keys. Keys in this list must be unique.

Parameter	Mandatory	Type	Description
auto_bind	No	Boolean	Whether automatic association is supported
bind_rules	No	VaultBindRules object	Rules for automatic association
auto_expand	No	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.

Table 4-88 BillingCreate

Parameter	Mandatory	Type	Description
cloud_type	No	String	Cloud type, which can be public or hybrid
consistent_level	Yes	String	Vault specification, which can be crash_consistent (crash consistent backup) or app_consistent (application consistency backup)
object_type	Yes	String	Object type, which can be server , disk , or turbo
protect_type	Yes	String	Protection type, which can be backup or replication
size	Yes	Integer	Capacity, in GB Minimum: 1 Maximum: 10485760
charging_mode	No	String	Billing mode, which can be post_paid (pay-per-use) or pre_paid (yearly/monthly). The default value is post_paid . Default: post_paid

Parameter	Mandatory	Type	Description
period_type	No	String	Package type. This parameter is mandatory if charging_mode is set to pre_paid . Possible values are year (yearly) or month (monthly). Enumeration values: <ul style="list-style-type: none"> • year • month
period_num	No	Integer	Required duration for the package. This parameter is mandatory if charging_mode is set to pre_paid .
is_auto_renew	No	Boolean	Whether to automatically renew the subscription after expiration. By default, it is not renewed. Default: false
is_auto_pay	No	Boolean	Whether the fee is automatically deducted from the customer's account balance after an order is submitted. The non-automatic payment mode is used by default. Default: false
console_url	No	String	Redirection URL Minimum: 1 Maximum: 255

Table 4-89 ResourceCreate

Parameter	Mandatory	Type	Description
id	Yes	String	ID of the resource to be backed up
type	Yes	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo

Parameter	Mandatory	Type	Description
name	No	String	Resource name Minimum: 0 Maximum: 255

Table 4-90 VaultBindRules

Parameter	Mandatory	Type	Description
tags	No	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-91 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/) It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).

Parameter	Mandatory	Type	Description
value	No	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Response Parameters

Status code: 200

Table 4-92 Response body parameters

Parameter	Type	Description
vault	VaultCreateResource object	Objects returned after a vault query

Table 4-93 VaultCreateResource

Parameter	Type	Description
billing	Billing object	Operations information
description	String	<p>User-defined vault description</p> <p>Minimum: 0</p> <p>Maximum: 255</p>
id	String	Vault ID

Parameter	Type	Description
name	String	Vault name Minimum: 1 Maximum: 64
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of ResourceRes p objects	Vault resources
tags	Array of Tag objects	Vault tags
auto_bind	Boolean	Whether to enable automatic association. Its default value is false (not enable).
bind_rules	VaultBindRul es object	Association rules
user_id	String	User ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.

Table 4-94 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be post_paid (pay-per-use) or pre_paid (yearly/monthly). The default value is post_paid .
cloud_type	String	Cloud type, which can be public or hybrid
consistent_level	String	Vault specification, which can be crash_consistent (crash consistent backup) or app_consistent (application consistency backup)
object_type	String	Object type, which can be server , disk , or turbo
order_id	String	Order ID
product_id	String	Product ID

Parameter	Type	Description
protect_type	String	Protection type, which can be backup or replication
size	Integer	Capacity, in GB Minimum: 1 Maximum: 10485760
spec_code	String	Specification code Server backup vault: vault.backup.server.normal ; Disk backup vault: vault.backup.volume.normal ; File system backup vault: vault.backup.turbo.normal
status	String	Vault status Enumeration values: <ul style="list-style-type: none"> • available • lock • frozen • deleting • error
storage_unit	String	Name of the bucket for the vault
used	Integer	Used capacity, in MB.
frozen_scene	String	Scenario when an account is frozen

Table 4-95 ResourceResp

Parameter	Type	Description
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up Minimum: 0 Maximum: 255
protect_status	String	Protection status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing

Parameter	Type	Description
size	Integer	Allocated capacity for the associated resources, in GB
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-96 VaultBindRules

Parameter	Type	Description
tags	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-97 Tag

Parameter	Type	Description
key	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string.</p> <p>Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>

Parameter	Type	Description
value	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.)</p>

Status code: 400

Table 4-98 Response body parameters

Parameter	Type	Description
error_code	String	For details, see Error Codes .
error_msg	String	Error message

Example Requests

- Creating a server backup vault, associating resources, and adding tags

POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults

```
{
  "vault" : {
    "billing" : {
      "consistent_level" : "crash_consistent",
      "object_type" : "disk",
      "protect_type" : "backup",
      "size" : 40,
      "charging_mode" : "post_paid",
      "is_auto_renew" : false,
      "is_auto_pay" : false
    },
    "name" : "test",
    "resources" : [ ]
  }
}
```

- Creating a disk backup vault (with mandatory parameters only)

POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults

```
{
  "vault" : {
```

```

"backup_policy_id" : "6dd81d7d-a4cb-443e-b8ed-1af0bd3a261b",
"billing" : {
  "cloud_type" : "public",
  "consistent_level" : "crash_consistent",
  "object_type" : "server",
  "protect_type" : "backup",
  "size" : 100,
  "charging_mode" : "post_paid",
  "is_auto_renew" : false,
  "is_auto_pay" : false,
  "console_url" : "https://console.demo.com/cbr/?
agencyId=97fcd896b7914cb98f553a087232e243&region=testregion/cbr/manager/csbs/vaultList"
},
"description" : "vault_description",
"name" : "vault_name",
"resources" : [ {
  "extra_info" : {
    "exclude_volumes" : [ "43a320a5-3efd-4568-b1aa-8dd9183cc64b" ]
  },
  "id" : "23a320a5-3efd-4568-b1aa-8dd9183cc64c",
  "type" : "OS::Nova::Server"
} ],
"tags" : [ {
  "key" : "key01",
  "value" : "value01"
} ],
"enterprise_project_id" : "0"
}
}

```

Example Responses

Status code: 200

OK

```

{
  "vault" : {
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "description" : "vault_description",
    "tags" : [ {
      "value" : "value01",
      "key" : "key01"
    } ],
    "enterprise_project_id" : "0",
    "auto_bind" : false,
    "id" : "ad7627ae-5b0b-492e-b6bd-cd809b745197",
    "user_id" : "38d65be2ecd840d19046e239e841a734",
    "name" : "vault_name",
    "billing" : {
      "status" : "available",
      "used" : 0,
      "protect_type" : "backup",
      "order_id" : null,
      "object_type" : "server",
      "allocated" : 40,
      "spec_code" : "vault.backup.server.normal",
      "size" : 100,
      "cloud_type" : "public",
      "product_id" : null,
      "consistent_level" : "crash_consistent",
      "storage_unit" : null,
      "charging_mode" : "post_paid"
    },
    "created_at" : "2019-05-23T12:51:10.071232",
    "project_id" : "fc347bc64ccd4589ae52e4f44b7433c7",
    "resources" : [ {
      "name" : "ecs-b977-0002",
      "backup_size" : 0,

```

```

"protect_status" : "available",
"backup_count" : 0,
"extra_info" : {
  "include_volumes" : [ {
    "os_version" : "CentOS 7.6 64bit",
    "id" : "73ee8446-bce7-4371-9650-b440b5f4c1d0"
  } ]
},
"type" : "OS::Nova::Server",
"id" : "23a320a5-3efd-4568-b1aa-8dd9183cc64c",
"size" : 40
} ]
}
}

```

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See [Error Codes](#).

4.4.2 Querying a Specified Vault

Function

This API is used to query a specified vault based on its ID.

URI

GET /v3/{project_id}/vaults/{vault_id}

Table 4-99 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Vault ID

Request Parameters

Table 4-100 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-101 Response body parameters

Parameter	Type	Description
vault	Vault object	Objects returned after the query by a vault

Table 4-102 Vault

Parameter	Type	Description
billing	Billing object	Operation info
description	String	User-defined vault description Minimum: 0 Maximum: 255
id	String	Vault ID
name	String	Vault name Minimum: 1 Maximum: 64
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of ResourceRes p objects	Vault resources
tags	Array of Tag objects	Vault tags

Parameter	Type	Description
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is false (not enabled).
bind_rules	VaultBindRules object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.

Table 4-103 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be post_paid (pay-per-use) or pre_paid (yearly/monthly). The default value is post_paid .
cloud_type	String	Cloud type, which can be public or hybrid
consistent_level	String	Vault specification, which can be crash_consistent (crash consistent backup) or app_consistent (application consistency backup)
object_type	String	Object type, which can be server , disk , or turbo
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be backup or replication
size	Integer	Capacity, in GB Minimum: 1 Maximum: 10485760
spec_code	String	Specification code Server backup vault: vault.backup.server.normal ; Disk backup vault: vault.backup.volume.normal ; File system backup vault: vault.backup.turbo.normal

Parameter	Type	Description
status	String	Vault status Enumeration values: <ul style="list-style-type: none"> • available • lock • frozen • deleting • error
storage_unit	String	Name of the bucket for the vault
used	Integer	Used capacity, in MB.
frozen_scene	String	Scenario when an account is frozen

Table 4-104 ResourceResp

Parameter	Type	Description
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up Minimum: 0 Maximum: 255
protect_status	String	Protection status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing
size	Integer	Allocated capacity for the associated resources, in GB
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-105 VaultBindRules

Parameter	Type	Description
tags	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-106 Tag

Parameter	Type	Description
key	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string.</p> <p>Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>
value	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Status code: 404

Table 4-107 Response body parameters

Parameter	Type	Description
vault	Vault object	Objects returned after the query by a vault

Table 4-108 Vault

Parameter	Type	Description
billing	Billing object	Operation info
description	String	User-defined vault description Minimum: 0 Maximum: 255
id	String	Vault ID
name	String	Vault name Minimum: 1 Maximum: 64
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of ResourceRes p objects	Vault resources
tags	Array of Tag objects	Vault tags
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is false (not enabled).
bind_rules	VaultBindRul es object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.

Table 4-109 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be post_paid (pay-per-use) or pre_paid (yearly/monthly). The default value is post_paid .
cloud_type	String	Cloud type, which can be public or hybrid

Parameter	Type	Description
consistent_level	String	Vault specification, which can be crash_consistent (crash consistent backup) or app_consistent (application consistency backup)
object_type	String	Object type, which can be server , disk , or turbo
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be backup or replication
size	Integer	Capacity, in GB Minimum: 1 Maximum: 10485760
spec_code	String	Specification code Server backup vault: vault.backup.server.normal ; Disk backup vault: vault.backup.volume.normal ; File system backup vault: vault.backup.turbo.normal
status	String	Vault status Enumeration values: <ul style="list-style-type: none"> • available • lock • frozen • deleting • error
storage_unit	String	Name of the bucket for the vault
used	Integer	Used capacity, in MB.
frozen_scene	String	Scenario when an account is frozen

Table 4-110 ResourceResp

Parameter	Type	Description
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up Minimum: 0 Maximum: 255

Parameter	Type	Description
protect_status	String	Protection status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing
size	Integer	Allocated capacity for the associated resources, in GB
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-111 VaultBindRules

Parameter	Type	Description
tags	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-112 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/) It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).

Parameter	Type	Description
value	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Example Requests

```
GET https://{endpoint}/v3/{project_id}/vaults/{vault_id}
```

Example Responses

Status code: 200

OK

```
{
  "vault": {
    "id": "2b076f26-391f-40fa-bf71-a798940faccf",
    "name": "sdk-vault1595581958",
    "description": null,
    "resources": [ ],
    "provider_id": "0daac4c5-6707-4851-97ba-169e36266b66",
    "created_at": "2020-07-24T09:12:49.491874",
    "project_id": "0605767b5780d5762fc5c0118072a564",
    "enterprise_project_id": "0",
    "auto_bind": true,
    "bind_rules": { },
    "auto_expand": false,
    "user_id": "aa2999fa5ae640f28926f8fd79188934",
    "billing": {
      "allocated": 0,
      "cloud_type": "public",
      "consistent_level": "crash_consistent",
      "frozen_scene": null,
      "charging_mode": "post_paid",
      "order_id": null,
      "product_id": null,
      "protect_type": "backup",
      "object_type": "server",
      "spec_code": "vault.backup.server.normal",
      "used": 0,
      "storage_unit": null,
      "status": "available",
      "size": 40
    }
  }
}
```

```

"tags" : [ {
  "key" : "fds",
  "value" : null
} ]
}
}

```

Status Codes

Status Code	Description
200	OK
404	Not Found

Error Codes

See [Error Codes](#).

4.4.3 Querying the Vault List

Function

This API is used to query the vault list.

URI

GET /v3/{project_id}/vaults

Table 4-113 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-114 Query Parameters

Parameter	Mandatory	Type	Description
cloud_type	No	String	Cloud type, which can be public or hybrid
id	No	String	Vault ID
limit	No	Integer	Number of records displayed per page. The value must be a positive integer. Minimum: 1 Maximum: 1000

Parameter	Mandatory	Type	Description
name	No	String	Vault name
object_type	No	String	Object type, which can be server, disk, or turbo
offset	No	Integer	Offset value. The value must be a positive integer.
policy_id	No	String	Policy ID
protect_type	No	String	Protection type, which can be backup or replication
resource_ids	No	String	Resource ID
status	No	String	Status

Request Parameters

Table 4-115 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-116 Response body parameters

Parameter	Type	Description
vaults	Array of Vault objects	Vault instance list
count	Integer	Number of vaults
limit	Integer	Number of records displayed on each page Minimum: 1 Maximum: 1000 Default: 1000

Parameter	Type	Description
offset	Integer	Offset where the query starts Minimum: 0 Default: 0

Table 4-117 Vault

Parameter	Type	Description
billing	Billing object	Operation info
description	String	User-defined vault description Minimum: 0 Maximum: 255
id	String	Vault ID
name	String	Vault name Minimum: 1 Maximum: 64
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of ResourceRes p objects	Vault resources
tags	Array of Tag objects	Vault tags
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is false (not enabled).
bind_rules	VaultBindRul es object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.

Table 4-118 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be post_paid (pay-per-use) or pre_paid (yearly/monthly). The default value is post_paid .
cloud_type	String	Cloud type, which can be public or hybrid
consistent_level	String	Vault specification, which can be crash_consistent (crash consistent backup) or app_consistent (application consistency backup)
object_type	String	Object type, which can be server , disk , or turbo
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be backup or replication
size	Integer	Capacity, in GB Minimum: 1 Maximum: 10485760
spec_code	String	Specification code Server backup vault: vault.backup.server.normal ; Disk backup vault: vault.backup.volume.normal ; File system backup vault: vault.backup.turbo.normal
status	String	Vault status Enumeration values: <ul style="list-style-type: none"> • available • lock • frozen • deleting • error
storage_unit	String	Name of the bucket for the vault
used	Integer	Used capacity, in MB.
frozen_scene	String	Scenario when an account is frozen

Table 4-119 ResourceResp

Parameter	Type	Description
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up Minimum: 0 Maximum: 255
protect_status	String	Protection status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing
size	Integer	Allocated capacity for the associated resources, in GB
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-120 VaultBindRules

Parameter	Type	Description
tags	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-121 Tag

Parameter	Type	Description
key	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string.</p> <p>Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>
value	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Example Requests

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

Example Responses

Status code: 200

OK

```
{
  "vaults": [ {
    "id": "a335f9e1-1628-4c64-a7be-38656e5ec19c",
    "name": "vault-8538",
    "description": null,
    "resources": [ ],
    "provider_id": "0daac4c5-6707-4851-97ba-169e36266b66",
    "created_at": "2020-09-04T06:57:37.343535",
    "project_id": "0605767b5780d5762fc5c0118072a564",
    "enterprise_project_id": "0",
    "auto_bind": false,
  }
]
```

```

"bind_rules" : { },
"auto_expand" : false,
"user_id" : "aa2999fa5ae640f28926f8fd79188934",
"billing" : {
  "allocated" : 0,
  "cloud_type" : "public",
  "consistent_level" : "crash_consistent",
  "frozen_scene" : null,
  "charging_mode" : "post_paid",
  "order_id" : null,
  "product_id" : null,
  "protect_type" : "backup",
  "object_type" : "server",
  "spec_code" : "vault.backup.server.normal",
  "used" : 0,
  "storage_unit" : null,
  "status" : "available",
  "size" : 100
},
"tags" : [ ]
}],
"count" : 50
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.4.4 Modifying a Vault

Function

This API is used to modify a vault based on its ID.

URI

PUT /v3/{project_id}/vaults/{vault_id}

Table 4-122 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Vault ID

Request Parameters

Table 4-123 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-124 Request body parameters

Parameter	Mandatory	Type	Description
vault	Yes	VaultUpdate object	Request body of modifying a vault

Table 4-125 VaultUpdate

Parameter	Mandatory	Type	Description
billing	No	BillingUpdate object	Bill information
name	No	String	Vault name Minimum: 1 Maximum: 64
auto_bind	No	Boolean	Whether automatic association is supported
bind_rules	No	VaultBindRules object	
auto_expand	No	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	No	Boolean	Exception notification function Default: true

Parameter	Mandatory	Type	Description
threshold	No	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold and smn_notify is true, an exception notification is sent. Minimum: 1 Maximum: 100 Default: 80

Table 4-126 BillingUpdate

Parameter	Mandatory	Type	Description
consistent_level	No	String	Vault specifications Enumeration values: <ul style="list-style-type: none"> • app_consistent • crash_consistent
size	No	Integer	Vault size, in GB Minimum: 1 Maximum: 10485760

Table 4-127 VaultBindRules

Parameter	Mandatory	Type	Description
tags	No	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-128 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string. Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>
value	No	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string. Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Response Parameters

Status code: 200

Table 4-129 Response body parameters

Parameter	Type	Description
vault	Vault object	Objects returned after the query by a vault

Table 4-130 Vault

Parameter	Type	Description
billing	Billing object	Operation info
description	String	User-defined vault description Minimum: 0 Maximum: 255
id	String	Vault ID
name	String	Vault name Minimum: 1 Maximum: 64
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of ResourceRes p objects	Vault resources
tags	Array of Tag objects	Vault tags
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is false (not enabled).
bind_rules	VaultBindRul es object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.

Table 4-131 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be post_paid (pay-per-use) or pre_paid (yearly/monthly). The default value is post_paid .
cloud_type	String	Cloud type, which can be public or hybrid
consistent_level	String	Vault specification, which can be crash_consistent (crash consistent backup) or app_consistent (application consistency backup)
object_type	String	Object type, which can be server , disk , or turbo
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be backup or replication
size	Integer	Capacity, in GB Minimum: 1 Maximum: 10485760
spec_code	String	Specification code Server backup vault: vault.backup.server.normal ; Disk backup vault: vault.backup.volume.normal ; File system backup vault: vault.backup.turbo.normal
status	String	Vault status Enumeration values: <ul style="list-style-type: none"> • available • lock • frozen • deleting • error
storage_unit	String	Name of the bucket for the vault
used	Integer	Used capacity, in MB.
frozen_scene	String	Scenario when an account is frozen

Table 4-132 ResourceResp

Parameter	Type	Description
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up Minimum: 0 Maximum: 255
protect_status	String	Protection status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing
size	Integer	Allocated capacity for the associated resources, in GB
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-133 VaultBindRules

Parameter	Type	Description
tags	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-134 Tag

Parameter	Type	Description
key	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string.</p> <p>Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>
value	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Example Requests

```
PUT https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults/79bd9daa-884f-4f84-b8fe-235d58cd927d
```

```
{
  "vault": {
    "billing": {
      "size": 200
    },
    "name": "vault_name02"
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "vault": {
```

```

"name" : "vault_name02",
"billing" : {
  "status" : "available",
  "used" : 0,
  "protect_type" : "backup",
  "order_id" : null,
  "object_type" : "server",
  "allocated" : 40,
  "spec_code" : "vault.backup.server.normal",
  "size" : 200,
  "cloud_type" : "public",
  "product_id" : null,
  "consistent_level" : "crash_consistent",
  "storage_unit" : null,
  "charging_mode" : "post_paid"
},
"tags" : [ {
  "value" : "value01",
  "key" : "key01"
} ],
"created_at" : "2019-05-08T09:31:21.840431",
"project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
"enterprise_project_id" : "0",
"id" : "2402058d-8373-4b0a-b848-d3c0dfdc71a8",
"resources" : [ {
  "name" : "ecs-1f0f-0003",
  "protect_status" : "available",
  "extra_info" : {
    "exclude_volumes" : [ "bdef09bb-293f-446a-88a4-86e9f14408c4" ]
  },
  "type" : "OS::Nova::Server",
  "id" : "97595625-198e-4e4d-879b-9d53f68ba551",
  "size" : 40
} ],
"description" : "vault_description"
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.4.5 Deleting a Vault

Function

This API is used to delete vaults. Once a vault is deleted, all backups in the vault are cleared.

URI

DELETE /v3/{project_id}/vaults/{vault_id}

Table 4-135 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Vault ID

Request Parameters

Table 4-136 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

None

Example Requests

DELETE https://{endpoint}/v3/{project_id}/vaults/{vault_id}

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

4.4.6 Dissociating Resources

Function

This API is used to dissociate resources from a vault.

URI

POST /v3/{project_id}/vaults/{vault_id}/removeresources

Table 4-137 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Vault ID

Request Parameters

Table 4-138 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-139 Request body parameters

Parameter	Mandatory	Type	Description
resource_ids	Yes	Array of strings	List of resource IDs to be removed

Response Parameters

Status code: 200

Table 4-140 Response body parameters

Parameter	Type	Description
remove_resource_ids	Array of strings	Removed resource IDs

Example Requests

```
POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults/79bd9daa-884f-4f84-b8fe-235d58cd927d/associatepolicy
```

```
{
  "resource_ids" : [ "97595625-198e-4e4d-879b-9d53f68ba551" ]
}
```

Example Responses

Status code: 200

OK

```
{
  "remove_resource_ids" : [ "97595625-198e-4e4d-879b-9d53f68ba551" ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.4.7 Associating Resources

Function

This API is used to associate resources with a vault.

URI

POST /v3/{project_id}/vaults/{vault_id}/addresources

Table 4-141 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Vault ID

Request Parameters

Table 4-142 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-143 Request body parameters

Parameter	Mandatory	Type	Description
resources	Yes	Array of ResourceCreate objects	Resource list

Table 4-144 ResourceCreate

Parameter	Mandatory	Type	Description
id	Yes	String	ID of the resource to be backed up
type	Yes	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
name	No	String	Resource name Minimum: 0 Maximum: 255

Response Parameters

Status code: 200

Table 4-145 Response body parameters

Parameter	Type	Description
add_resource_ids	Array of strings	List of resource IDs that have been added

Example Requests

```
POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults/79bd9daa-884f-4f84-b8fe-235d58cd927d/addresources
```

```
{
  "resources": [ {
    "extra_info": {
      "exclude_volumes": [ "bdef09bb-293f-446a-88a4-86e9f14408c4" ]
    },
    "id": "97595625-198e-4e4d-879b-9d53f68ba551",
    "type": "OS::Nova::Server"
  } ]
}
```

Example Responses

Status code: 200

OK

```
{
  "add_resource_ids": [ "97595625-198e-4e4d-879b-9d53f68ba551" ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.4.8 Applying a Policy to a Vault

Function

This API is used to apply a policy to a vault.

URI

```
POST /v3/{project_id}/vaults/{vault_id}/associatepolicy
```


Table 4-146 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Vault ID

Request Parameters

Table 4-147 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-148 Request body parameters

Parameter	Mandatory	Type	Description
policy_id	No	String	Policy ID. Specify either policy_id or add_policy_ids in a request.

Response Parameters

Status code: 200

Table 4-149 Response body parameters

Parameter	Type	Description
associate_policy	VaultPolicyResp object	Details of applying a policy to a vault

Table 4-150 VaultPolicyResp

Parameter	Type	Description
policy_id	String	Configured policy ID
vault_id	String	Vault ID for configuring the policy ID

Example Requests

```
POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults/79bd9daa-884f-4f84-
b8fe-235d58cd927d/associatepolicy
{
  "policy_id" : "7075c397-25a0-43e2-a83a-bb16eaca3ee5"
}
```

Example Responses

Status code: 200

OK

```
{
  "associate_policy" : {
    "vault_id" : "2402058d-8373-4b0a-b848-d3c0dfdc71a8",
    "policy_id" : "7075c397-25a0-43e2-a83a-bb16eaca3ee5"
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.4.9 Removing a Policy from a Vault

Function

This API is used to remove a policy from a vault.

URI

POST /v3/{project_id}/vaults/{vault_id}/dissociatepolicy

Table 4-151 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Vault ID

Request Parameters

Table 4-152 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-153 Request body parameters

Parameter	Mandatory	Type	Description
policy_id	Yes	String	Policy ID

Response Parameters

Status code: 200

Table 4-154 Response body parameters

Parameter	Type	Description
dissociate_policy	VaultPolicyResp object	Details of removing a policy from a vault

Table 4-155 VaultPolicyResp

Parameter	Type	Description
policy_id	String	Configured policy ID
vault_id	String	Vault ID for configuring the policy ID

Example Requests

```
POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults/79bd9daa-884f-4f84-b8fe-235d58cd927d/dissociatepolicy
{
  "policy_id" : "7075c397-25a0-43e2-a83a-bb16eaca3ee5"
}
```

Example Responses

Status code: 200

OK

```
{
  "dissociate_policy" : {
    "vault_id" : "2402058d-8373-4b0a-b848-d3c0dfdc71a8",
    "policy_id" : "7075c397-25a0-43e2-a83a-bb16eaca3ee5"
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.4.10 Migrating Resources

Function

This API is used to associate resources with another vault and migrate the resource backups to that destination vault.

URI

POST /v3/{project_id}/vaults/{vault_id}/migrateresources

Table 4-156 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	
vault_id	Yes	String	

Request Parameters

Table 4-157 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-158 Request body parameters

Parameter	Mandatory	Type	Description
destination_vault_id	Yes	String	Destination vault
resource_ids	Yes	Array of strings	ID of the resource to be migrated

Response Parameters

Status code: 200

Table 4-159 Response body parameters

Parameter	Type	Description
migrated_resources	Array of strings	

Example Requests

```
POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults/79bd9daa-884f-4f84-b8fe-235d58cd927d/migrateresources
{
  "resource_ids" : [ "abcdde3f-e0e3-403a-b690-fc259dd70008" ],
  "destination_vault_id" : "fe578a6c-d1a8-4790-bd52-5954af4d446c"
}
```

Example Responses

Status code: 200

OK

```
{
  "migrated_resources" : [ "fe578a6c-d1a8-4790-bd52-5954af4d446c" ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.5 Backups

4.5.1 Synchronizing a Backup

Function

This API is used to synchronize on-premises VMware backups.

URI

POST /v3/{project_id}/backups/sync

Table 4-160 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-161 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-162 Request body parameters

Parameter	Mandatory	Type	Description
sync	Yes	Array of BackupSync objects	List of backups to be imported

Table 4-163 BackupSync

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID
backup_name	Yes	String	Backup name Minimum: 1 Maximum: 64
bucket_name	Yes	String	Bucket name
image_path	Yes	String	Path to the backup chain on the storage unit
resource_id	Yes	String	ID of the object to be backed up
resource_name	Yes	String	Backup object name
resource_type	Yes	String	Resource type of the backup object Default: OS::Native::Server
created_at	Yes	Integer	Backup time, in seconds. For example, 1548898428 .

Response Parameters

Status code: 200

Table 4-164 Response body parameters

Parameter	Type	Description
sync	Array of BackupSyncRespBody objects	Return information of the API for importing backups

Table 4-165 BackupSyncRespBody

Parameter	Type	Description
backup_id	String	Backup ID
operation_log_id	String	Import task ID

Example Requests

```
POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/backups/sync
{
  "sync": [ {
    "backup_id": "1f9e6b47-7655-4a19-b563-21b4ef023025",
    "resource_id": "96f7512d-239d-3f31-80cf-d1ce041df9a6",
    "resource_name": "resource_name",
    "resource_type": "OS::Native::Server",
    "bucket_name": "1555230361623e4ce4700dab84b7d8169a5eaec05227d",
    "image_path": "6abec15e-7baf-4d79-b5a9-6b98a2da7020/cfe0295c-5939-4b31-96cd-161b4725e7ad/cfe0295c-5939-4b31-96cd-161b4725e7ad",
    "created_at": 1553587260,
    "backup_name": "backup_name"
  } ]
}
```

Example Responses

Status code: 200

OK

```
{
  "sync": [ {
    "backup_id": "1f9e6b47-7655-4a19-b563-21b4ef023025",
    "operation_log_id": "154f0a9d-ba53-4e91-a3e2-a918710a9e0d"
  } ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.5.2 Querying a Specified Backup

Function

This API is used to query the backup of a specific ID.

URI

GET /v3/{project_id}/backups/{backup_id}

Table 4-166 Path Parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-167 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-168 Response body parameters

Parameter	Type	Description
backup	BackupResp object	Backup

Table 4-169 BackupResp

Parameter	Type	Description
checkpoint_id	String	Restore point ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
description	String	Backup description
expired_at	String	Expiration time, for example, 2020-02-05T10:38:34.209782

Parameter	Type	Description
extend_info	BackupExtendInfo object	Extended information
id	String	Backup ID
image_type	String	Backup type, which can be backup or replication .
name	String	Backup name
parent_id	String	Parent backup ID
project_id	String	Project ID
protected_at	String	Backup time
resource_az	String	Resource availability zone
resource_id	String	Resource ID
resource_name	String	Resource name
resource_size	Integer	Resource size, in GB
resource_type	String	Resource type, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
status	String	Backup status Enumeration values: <ul style="list-style-type: none"> • available • protecting • deleting • restoring • error • waiting_protect • waiting_delete • waiting_restore
updated_at	String	Update time, for example, 2020-02-05T10:38:34.209782
vault_id	String	Vault ID

Parameter	Type	Description
provider_id	String	Backup provider ID, which is used to distinguish backup objects. The value can be as follows: 0daac4c5-6707-4851-97ba-169e36266b66 indicates that backup objects are cloud servers; d1603440-187d-4516-af25-121250c7cc97 indicates that backup objects are cloud disks; 3f3c3220-245c-4805-b811-758870015881 indicates that backup objects are SFS Turbo file systems; a13639de-00be-4e94-af30-26912d75e4a2 indicates that backup objects are hybrid cloud VMware backups.
children	Array of BackupResp objects	

Table 4-170 BackupExtendInfo

Parameter	Type	Description
auto_trigger	Boolean	Whether the backup is automatically generated
bootable	Boolean	Whether the backup is a system disk backup
incremental	Boolean	Whether the backup is an incremental backup
snapshot_id	String	Snapshot ID of the disk backup
support_lld	Boolean	Whether to allow lazyloading for fast restoration
supported_restore_mode	String	Restoration mode. Possible values are na , snapshot , and backup . snapshot indicates the backup can be used to create a full-server image. backup indicates the data is restored from backups of the EVS disks of the server. na indicates the backup can only be used to create new resources but cannot be used for restoration. Default: na Enumeration values: <ul style="list-style-type: none"> ● na ● backup ● snapshot

Parameter	Type	Description
os_images_data	Array of ImageData objects	ID list of images created using backups
contain_system_disk	Boolean	Whether the VM backup data contains system disk data
encrypted	Boolean	Whether the backup is encrypted
system_disk	Boolean	Whether the disk is a system disk

Table 4-171 ImageData

Parameter	Type	Description
image_id	String	Image ID

Table 4-172 ReplicationRecordsExtraInfo

Parameter	Type	Description
progress	Integer	Replication progress
fail_code	String	Error code. This field is empty if the operation is successful.
fail_reason	String	Error cause
auto_trigger	Boolean	Whether replication is automatically scheduled
destination_vault_id	String	Destination vault ID

Example Requests

```
GET https://{endpoint}/v3/{project_id}/backups/{backup_id}
```

Example Responses

Status code: 200

OK

```
{
  "backup": {
    "provider_id": "0daac4c5-6707-4851-97ba-169e36266b66",
    "checkpoint_id": "8b0851a8-adf3-4f4c-a914-dead08bf9664",
    "enterprise_project_id": "0",
    "updated_at": null,
    "vault_id": "3b5816b5-f29c-4172-9d9a-76c719a659ce",
    "id": "6df2b54c-dd62-4059-a07c-1b8f24f2725d",
    "resource_az": "az1.dc1",
  }
}
```

```

"image_type": "backup",
"resource_id": "94eba8b2-acc9-4d82-badc-127144cc5526",
"resource_size": 40,
"children": [ {
  "provider_id": "0daac4c5-6707-4851-97ba-169e36266b66",
  "checkpoint_id": "8b0851a8-adf3-4f4c-a914-dead08bf9664",
  "updated_at": null,
  "vault_id": "3b5816b5-f29c-4172-9d9a-76c719a659ce",
  "id": "5d822633-2bbf-4af8-a16e-5ab1c7705235",
  "resource_az": null,
  "image_type": "backup",
  "resource_id": "eccbcfdd-f843-4bbb-b2c0-a5ce861f9376",
  "resource_size": 40,
  "children": [ ],
  "parent_id": "6df2b54c-dd62-4059-a07c-1b8f24f2725d",
  "extend_info": {
    "auto_trigger": true,
    "supported_restore_mode": null,
    "os_images_data": null,
    "snapshot_id": "5230a977-1a94-4092-8edd-519303a44cda",
    "bootable": true,
    "support_llid": null,
    "encrypted": true
  },
  "project_id": "4229d7a45436489f8c3dc2b1d35d4987",
  "status": "available",
  "resource_name": "ecs-1f0f-0002",
  "description": null,
  "expired_at": null,
  "name": "autobk_a843_ecs-1f0f-0002",
  "created_at": "2019-05-10T07:59:59.450700",
  "protected_at": null,
  "resource_type": "OS::Cinder::Volume"
} ],
"parent_id": null,
"extend_info": {
  "auto_trigger": true,
  "supported_restore_mode": "backup",
  "os_images_data": null,
  "contain_system_disk": true,
  "snapshot_id": null,
  "bootable": null,
  "support_llid": true
},
"project_id": "4229d7a45436489f8c3dc2b1d35d4987",
"status": "available",
"resource_name": "ecs-1f0f-0002",
"description": "backup_description",
"expired_at": null,
"name": "backup_name",
"created_at": "2019-05-10T07:59:12.084695",
"protected_at": null,
"resource_type": "OS::Nova::Server"
}
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.5.3 Querying All Backups

Function

This API is used to query all backups.

URI

GET /v3/{project_id}/backups

Table 4-173 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-174 Query Parameters

Parameter	Mandatory	Type	Description
checkpoint_id	No	String	Restore point ID
dec	No	Boolean	Dedicated cloud
end_time	No	String	Time when the backup ends, in %YYYY-%mm-%ddT%HH:%MM:%SSZ format. For example, 2018-02-01T12:00:00Z .
image_type	No	String	Backup type, which can be backup or replication .
limit	No	Integer	Number of records displayed per page. The value must be a positive integer.
marker	No	String	ID of the last record displayed on the previous page
member_status	No	String	Backup sharing status Enumeration values: <ul style="list-style-type: none"> • pending • accepted • rejected
name	No	String	Backup name

Parameter	Mandatory	Type	Description
offset	No	Integer	Offset value. The value must be a positive integer.
own_type	No	String	Owning type of a backup. private backups are queried by default. Default: private Enumeration values: <ul style="list-style-type: none"> • all_granted • private • shared
parent_id	No	String	Parent backup ID
resource_az	No	String	AZ-based filtering is supported.
resource_id	No	String	Resource ID
resource_name	No	String	Resource name
resource_type	No	String	Resource type, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
sort	No	String	A group of properties separated by commas (,) and sorting directions. The value format is [:],[:], where the value of direction is asc (in ascending order) or desc (in descending order). If the parameter direction is not specified, the default sorting direction is desc . The value of sort contains a maximum of 255 characters. The value range of key is as follows: [created_at, updated_at, name, status, protected_at, id]
start_time	No	String	Time when the backup starts, in %YYYY-%mm-%ddT%HH:%MM:%SSZ format. For example, 2018-02-01T12:00:00Z .

Parameter	Mandatory	Type	Description
status	No	String	Status When the API is called, multiple statuses can be transferred for filtering, for example, status=available&status=error . Enumeration values: <ul style="list-style-type: none"> • available • protecting • deleting • restoring • error • waiting_protect • waiting_delete • waiting_restore
used_percent	No	String	Backups are filtered based on the occupied vault capacity. The value ranges from 1 to 100 . For example, if used_percent is set to 80 , all backups who occupied 80% or more of the vault capacity are displayed.
vault_id	No	String	Vault ID

Request Parameters

Table 4-175 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-176 Response body parameters

Parameter	Type	Description
backups	Array of BackupResp objects	Backup list
count	Integer	Number of backups
offset	Integer	Offset where the query starts Minimum: 0 Default: 0
limit	Integer	Number of records displayed on each page Minimum: 1 Maximum: 1000 Default: 1000

Table 4-177 BackupResp

Parameter	Type	Description
checkpoint_id	String	Restore point ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
description	String	Backup description
expired_at	String	Expiration time, for example, 2020-02-05T10:38:34.209782
extend_info	BackupExtendInfo object	Extended information
id	String	Backup ID
image_type	String	Backup type, which can be backup or replication .
name	String	Backup name
parent_id	String	Parent backup ID
project_id	String	Project ID
protected_at	String	Backup time
resource_az	String	Resource availability zone
resource_id	String	Resource ID
resource_name	String	Resource name

Parameter	Type	Description
resource_size	Integer	Resource size, in GB
resource_type	String	Resource type, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
status	String	Backup status Enumeration values: <ul style="list-style-type: none"> • available • protecting • deleting • restoring • error • waiting_protect • waiting_delete • waiting_restore
updated_at	String	Update time, for example, 2020-02-05T10:38:34.209782
vault_id	String	Vault ID
provider_id	String	Backup provider ID, which is used to distinguish backup objects. The value can be as follows: 0daac4c5-6707-4851-97ba-169e36266b66 indicates that backup objects are cloud servers; d1603440-187d-4516-af25-121250c7cc97 indicates that backup objects are cloud disks; 3f3c3220-245c-4805-b811-758870015881 indicates that backup objects are SFS Turbo file systems; a13639de-00be-4e94-af30-26912d75e4a2 indicates that backup objects are hybrid cloud VMware backups.
children	Array of BackupResp objects	

Table 4-178 BackupExtendInfo

Parameter	Type	Description
auto_trigger	Boolean	Whether the backup is automatically generated
bootable	Boolean	Whether the backup is a system disk backup

Parameter	Type	Description
incremental	Boolean	Whether the backup is an incremental backup
snapshot_id	String	Snapshot ID of the disk backup
support_lld	Boolean	Whether to allow lazyloading for fast restoration
supported_restore_mode	String	Restoration mode. Possible values are na , snapshot , and backup . snapshot indicates the backup can be used to create a full-server image. backup indicates the data is restored from backups of the EVS disks of the server. na indicates the backup can only be used to create new resources but cannot be used for restoration. Default: na Enumeration values: <ul style="list-style-type: none"> • na • backup • snapshot
os_images_data	Array of ImageData objects	ID list of images created using backups
contain_system_disk	Boolean	Whether the VM backup data contains system disk data
encrypted	Boolean	Whether the backup is encrypted
system_disk	Boolean	Whether the disk is a system disk

Table 4-179 ImageData

Parameter	Type	Description
image_id	String	Image ID

Table 4-180 ReplicationRecordsExtraInfo

Parameter	Type	Description
progress	Integer	Replication progress
fail_code	String	Error code. This field is empty if the operation is successful.
fail_reason	String	Error cause

Parameter	Type	Description
auto_trigger	Boolean	Whether replication is automatically scheduled
destination_vault_id	String	Destination vault ID

Example Requests

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

Example Responses

Status code: 200

OK

```
{
  "count" : 2,
  "backups" : [ {
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "checkpoint_id" : "1fced58b-2a31-4851-bcbb-96216f83ce99",
    "updated_at" : "2020-02-21T07:07:25.113761",
    "vault_id" : "cca85ea5-00a4-418d-9222-bd83985bc515",
    "id" : "b1c4afd9-e7a6-4888-9010-c2bac3aa7910",
    "resource_az" : "br-iaas-odin1a",
    "image_type" : "backup",
    "resource_id" : "1a503932-ee8f-4dd5-8248-8dfb57e584c5",
    "resource_size" : 40,
    "children" : [ ],
    "extend_info" : {
      "auto_trigger" : true,
      "supported_restore_mode" : "backup",
      "contain_system_disk" : true,
      "support_lld" : true,
      "system_disk" : false
    },
    "project_id" : "0605767b5780d5762fc5c0118072a564",
    "status" : "available",
    "resource_name" : "test001-02",
    "description" : "",
    "expired_at" : "2020-05-21T07:00:54.060493",
    "name" : "autobk_b629",
    "created_at" : "2020-02-21T07:00:54.065135",
    "resource_type" : "OS::Nova::Server"
  }, {
    "provider_id" : "d1603440-187d-4516-af25-121250c7cc97",
    "checkpoint_id" : "f64c351f-769f-4c04-8806-fd90a59e9b12",
    "updated_at" : "2020-02-21T07:09:37.767084",
    "vault_id" : "79bd9daa-884f-4f84-b8fe-235d58cd927d",
    "id" : "5606aab5-2dc2-4498-8144-dc848d099af5",
    "resource_az" : "br-iaas-odin1a",
    "image_type" : "backup",
    "resource_id" : "54f7ccbc-072f-4ec5-a7b7-b24dabdb4539",
    "resource_size" : 40,
    "children" : [ ],
    "extend_info" : {
      "auto_trigger" : true,
      "snapshot_id" : "e3def9a8-e4b4-4c12-b132-f4ba8ce9a34f",
      "bootable" : true,
      "support_lld" : true,
      "encrypted" : false,
      "system_disk" : false
    },
  }
],
}
```

```
"project_id" : "0605767b5780d5762fc5c0118072a564",  
"status" : "available",  
"resource_name" : "qsy_000",  
"description" : "",  
"expired_at" : "2020-03-22T07:00:34.877896",  
"name" : "autobk_6809",  
"created_at" : "2020-02-21T07:00:34.882174",  
"resource_type" : "OS::Cinder::Volume"  
}]  
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.5.4 Deleting a Backup

Function

This API is used to delete a single backup.

URI

DELETE /v3/{project_id}/backups/{backup_id}

Table 4-181 Path Parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	ID of the backup to be deleted
project_id	Yes	String	Project ID

Request Parameters

Table 4-182 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

None

Example Requests

```
DELETE https://{endpoint}/v3/{project_id}/backups/{backup_id}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

4.5.5 Restoring a Backup

Function

This API is used to restore backup data.

URI

```
POST /v3/{project_id}/backups/{backup_id}/restore
```

Table 4-183 Path Parameters

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Backup ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-184 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-185 Request body parameters

Parameter	Mandatory	Type	Description
restore	Yes	BackupRestore object	Request body of restoring a backup

Table 4-186 BackupRestore

Parameter	Mandatory	Type	Description
mappings	No	Array of BackupRestoreServerMapping objects	Restored mapping relationship. This parameter is mandatory for VM restoration and optional for disk restoration.
power_on	No	Boolean	Whether the server is powered on after restoration. By default it is powered on after restoration. Default: true
server_id	No	String	ID of the target VM to be restored. This parameter is mandatory for VM restoration.

Parameter	Mandatory	Type	Description
volume_id	No	String	ID of the target disk to be restored. This parameter is mandatory for disk restoration.

Table 4-187 BackupRestoreServerMapping

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Disk backup ID
volume_id	Yes	String	ID of the disk to which data is restored

Response Parameters

None

Example Requests

```
POST https://{endpoint}/v3/{f841e01fd2b14e7fa41b6ae7aa6b0594}/backups/a5200268-74a5-4806-acc6-95793ab0228b/restore
{
  "restore": {
    "mappings": [ {
      "backup_id": "5d822633-2bbf-4af8-a16e-5ab1c7705235",
      "volume_id": "eccbcfdd-f843-4bbb-b2c0-a5ce861f9376"
    } ],
    "power_on": true,
    "server_id": "94eba8b2-acc9-4d82-badc-127144cc5526"
  }
}
```

Example Responses

None

Status Codes

Status Code	Description
202	Accepted

Error Codes

See [Error Codes](#).

4.6 Policies

4.6.1 Creating a Policy

Function

This API is used to create a policy. Policies are classified into backup policies and replication policies.

URI

POST /v3/{project_id}/policies

Table 4-188 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-189 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-190 Request body parameters

Parameter	Mandatory	Type	Description
policy	Yes	PolicyCreate object	Request body for creating a policy

Table 4-191 PolicyCreate

Parameter	Mandatory	Type	Description
enabled	No	Boolean	Whether to enable the policy Default: true
name	Yes	String	Specifies the policy name. The value consists of 1 to 64 characters and can contain only letters, digits, underscores (_), and hyphens (-). Minimum: 1 Maximum: 64
operation_definition	Yes	PolicyODCreate object	Scheduling parameter
operation_type	Yes	String	Protection type, which can be backup or replication
trigger	Yes	PolicyTriggerReq object	Time rule for the policy execution

Table 4-192 PolicyODCreate

Parameter	Mandatory	Type	Description
day_backups	No	Integer	Specifies the number of retained daily backups. The latest backup of each day is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Parameter	Mandatory	Type	Description
max_backups	No	Integer	<p>Maximum number of retained backups. The value can be -1 or ranges from 0 to 99999. If the value is set to -1, the backups will not be cleared even though the configured retained backup quantity is exceeded. If this parameter and retention_duration_days are both left blank, the backups will be retained permanently.</p> <p>Minimum: 1 Maximum: 99999 Default: -1</p>
month_backups	No	Integer	<p>Specifies the number of retained monthly backups. The latest backup of each month is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups. The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.</p> <p>Minimum: 0 Maximum: 100</p>
retention_duration_days	No	Integer	<p>Duration of retaining a backup, in days. The maximum value is 99999. -1 indicates that the backups will not be cleared based on the retention duration. If this parameter and max_backups are left blank at the same time, the backups will be retained permanently.</p> <p>Minimum: 1 Maximum: 99999 Default: -1</p>

Parameter	Mandatory	Type	Description
timezone	No	String	Time zone where the user is located, for example, UTC +08:00. Set this parameter if you have configured any of the parameters: day_backups , week_backups , month_backups , year_backups .
week_backups	No	Integer	Specifies the number of retained weekly backups. The latest backup of each week is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.
year_backups	No	Integer	Specifies the number of retained yearly backups. The latest backup of each year is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Table 4-193 PolicyTriggerReq

Parameter	Mandatory	Type	Description
properties	Yes	PolicyTriggerPropertiesReq object	Scheduler attributes

Table 4-194 PolicyTriggerPropertiesReq

Parameter	Mandatory	Type	Description
pattern	Yes	Array of strings	Scheduling rule of the scheduler. A maximum of 24 rules can be configured. The scheduling rule complies with iCalendar RFC 2445, but it supports only the FREQ , BYDAY , BYHOUR , BYMINUTE , and INTERVAL parameters. FREQ can be set only to WEEKLY or DAILY . BYDAY can be set to MO , TU , WE , TH , FR , SA , and SU (seven days of a week). BYHOUR ranges from 0 to 23 hours. BYMINUTE ranges from 0 to 59 minutes. The scheduling interval cannot be less than 1 hour. A maximum of 24 time points are allowed in a day. For example, if the scheduling time is 14:00 (UTC) from Monday to Sunday, set the scheduling rule as follows: FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00 . If the scheduling time is 14:00 (UTC +8) every day, set the scheduling rule as follows: FREQ=DAILY;INTERVAL=1;BYHOUR=6;BYMINUTE=00

Response Parameters

Status code: 200

Table 4-195 Response body parameters

Parameter	Type	Description
policy	Policy object	Response to the request for creating a policy

Table 4-196 Policy

Parameter	Type	Description
enabled	Boolean	Whether the policy is enabled
id	String	Policy ID
name	String	Policy Name
operation_definition	PolicyODCreate object	Policy attributes
operation_type	String	Protection type, which can be backup or replication Enumeration values: <ul style="list-style-type: none"> • backup
trigger	PolicyTriggerResp object	Time scheduling rule for the policy
associated_vaults	Array of PolicyAssociateVault objects	Associated vault

Table 4-197 PolicyODCreate

Parameter	Type	Description
day_backups	Integer	Specifies the number of retained daily backups. The latest backup of each day is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Parameter	Type	Description
max_backups	Integer	<p>Maximum number of retained backups. The value can be -1 or ranges from 0 to 99999. If the value is set to -1, the backups will not be cleared even though the configured retained backup quantity is exceeded. If this parameter and retention_duration_days are both left blank, the backups will be retained permanently.</p> <p>Minimum: 1 Maximum: 99999 Default: -1</p>
month_backups	Integer	<p>Specifies the number of retained monthly backups. The latest backup of each month is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups. The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.</p> <p>Minimum: 0 Maximum: 100</p>
retention_duration_days	Integer	<p>Duration of retaining a backup, in days. The maximum value is 99999. -1 indicates that the backups will not be cleared based on the retention duration. If this parameter and max_backups are left blank at the same time, the backups will be retained permanently.</p> <p>Minimum: 1 Maximum: 99999 Default: -1</p>
timezone	String	<p>Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: day_backups, week_backups, month_backups, year_backups.</p>
week_backups	Integer	<p>Specifies the number of retained weekly backups. The latest backup of each week is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups. The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.</p>

Parameter	Type	Description
year_backups	Integer	Specifies the number of retained yearly backups. The latest backup of each year is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Table 4-198 PolicyTriggerResp

Parameter	Type	Description
id	String	Scheduler ID
name	String	Scheduler name
properties	PolicyTriggerPropertiesResp object	Scheduler attributes
type	String	Scheduler type. Currently, only time (periodic scheduling) is supported. Enumeration values: <ul style="list-style-type: none"> • time

Table 4-199 PolicyTriggerPropertiesResp

Parameter	Type	Description
pattern	Array of strings	Scheduling rule of the scheduler. A maximum of 24 rules can be configured. The scheduling rule complies with iCalendar RFC 2445, but it supports only the FREQ , BYDAY , BYHOUR , BYMINUTE , and INTERVAL parameters. FREQ can be set only to WEEKLY or DAILY . BYDAY can be set to MO , TU , WE , TH , FR , SA , and SU (seven days of a week). BYHOUR ranges from 0 to 23 hours. BYMINUTE ranges from 0 to 59 minutes. The scheduling interval cannot be less than 1 hour. A maximum of 24 time points are allowed in a day. For example, if the scheduling time is 14:00 (UTC) from Monday to Sunday, set the scheduling rule as follows: FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00 . If the scheduling time is 14:00 (UTC+8) every day, set the scheduling rule as follows: FREQ=DAILY;INTERVAL=1;BYHOUR=6;BYMINUTE=00
start_time	String	Start time of the scheduler, for example, 2020-01-08 09:59:49

Table 4-200 PolicyAssociateVault

Parameter	Type	Description
destination_vault_id	String	ID of the associated remote vault
vault_id	String	Vault ID

Example Requests

POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/policies

```
{
  "policy" : {
    "enabled" : true,
    "name" : "policy001",
    "operation_definition" : {
      "day_backups" : 0,
      "month_backups" : 0,
      "retention_duration_days" : 1,
      "timezone" : "UTC+08:00",
      "week_backups" : 0,
      "year_backups" : 0
    },
    "operation_type" : "backup",
    "trigger" : {
```

```

    "properties" : {
      "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ]
    }
  }
}

```

Example Responses

Status code: 200

OK

```

{
  "policy" : {
    "name" : "policy001",
    "associated_vaults" : null,
    "enabled" : true,
    "trigger" : {
      "properties" : {
        "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ],
        "start_time" : "2019-05-08 06:57:05"
      },
      "type" : "time",
      "id" : "d67269a6-5369-42d7-8150-5254bd446328",
      "name" : "default"
    },
    "operation_definition" : {
      "retention_duration_days" : 1,
      "year_backups" : 0,
      "day_backups" : 0,
      "month_backups" : 0,
      "week_backups" : 0,
      "timezone" : "UTC+08:00"
    },
    "operation_type" : "backup",
    "id" : "cbb3ce6f-3332-4e7c-b98e-77290d8471ff"
  }
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.6.2 Querying a Single Policy

Function

This API is used to query a single policy.

URI

GET /v3/{project_id}/policies/{policy_id}

Table 4-201 Path Parameters

Parameter	Mandatory	Type	Description
policy_id	Yes	String	Policy ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-202 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token. Default: MIIDkgYJKoZIhvc-NAQcCoIIDgzCCXXXX...

Response Parameters

Status code: 200

Table 4-203 Response body parameters

Parameter	Type	Description
policy	Policy object	Response to the request for creating a policy

Table 4-204 Policy

Parameter	Type	Description
enabled	Boolean	Whether the policy is enabled
id	String	Policy ID
name	String	Policy Name
operation_definition	PolicyOperationDefinition object	Policy attributes

Parameter	Type	Description
operation_type	String	Protection type, which can be backup or replication Enumeration values: <ul style="list-style-type: none"> • backup
trigger	PolicyTriggerResp object	Time scheduling rule for the policy
associated_vaults	Array of PolicyAssociateVault objects	Associated vault

Table 4-205 PolicyoODCreate

Parameter	Type	Description
day_backups	Integer	Specifies the number of retained daily backups. The latest backup of each day is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100
max_backups	Integer	Maximum number of retained backups. The value can be -1 or ranges from 0 to 99999 . If the value is set to -1 , the backups will not be cleared even though the configured retained backup quantity is exceeded. If this parameter and retention_duration_days are both left blank, the backups will be retained permanently. Minimum: 1 Maximum: 99999 Default: -1

Parameter	Type	Description
month_backups	Integer	Specifies the number of retained monthly backups. The latest backup of each month is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100
retention_duration_days	Integer	Duration of retaining a backup, in days. The maximum value is 99999 . -1 indicates that the backups will not be cleared based on the retention duration. If this parameter and max_backups are left blank at the same time, the backups will be retained permanently. Minimum: 1 Maximum: 99999 Default: -1
timezone	String	Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: day_backups , week_backups , month_backups , year_backups .
week_backups	Integer	Specifies the number of retained weekly backups. The latest backup of each week is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.
year_backups	Integer	Specifies the number of retained yearly backups. The latest backup of each year is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Table 4-206 PolicyTriggerResp

Parameter	Type	Description
id	String	Scheduler ID
name	String	Scheduler name
properties	PolicyTriggerPropertiesResp object	Scheduler attributes
type	String	Scheduler type. Currently, only time (periodic scheduling) is supported. Enumeration values: <ul style="list-style-type: none"> time

Table 4-207 PolicyTriggerPropertiesResp

Parameter	Type	Description
pattern	Array of strings	Scheduling rule of the scheduler. A maximum of 24 rules can be configured. The scheduling rule complies with iCalendar RFC 2445, but it supports only the FREQ , BYDAY , BYHOUR , BYMINUTE , and INTERVAL parameters. FREQ can be set only to WEEKLY or DAILY . BYDAY can be set to MO , TU , WE , TH , FR , SA , and SU (seven days of a week). BYHOUR ranges from 0 to 23 hours. BYMINUTE ranges from 0 to 59 minutes. The scheduling interval cannot be less than 1 hour. A maximum of 24 time points are allowed in a day. For example, if the scheduling time is 14:00 (UTC) from Monday to Sunday, set the scheduling rule as follows: FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00 . If the scheduling time is 14:00 (UTC+8) every day, set the scheduling rule as follows: FREQ=DAILY;INTERVAL=1;BYHOUR=6;BYMINUTE=00
start_time	String	Start time of the scheduler, for example, 2020-01-08 09:59:49

Table 4-208 PolicyAssociateVault

Parameter	Type	Description
destination_vault_id	String	ID of the associated remote vault
vault_id	String	Vault ID

Example Requests

```
GET https://{endpoint}/v3/{project_id}/policies/{policy_id}
```

Example Responses

Status code: 200

OK

```
{
  "policy": {
    "name": "policy001",
    "associated_vaults": [ ],
    "enabled": true,
    "trigger": {
      "properties": {
        "pattern": [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ],
        "start_time": "2019-05-08 06:57:05"
      },
      "type": "time",
      "id": "d67269a6-5369-42d7-8150-5254bd446328",
      "name": "default"
    },
    "operation_definition": {
      "retention_duration_days": 1,
      "year_backups": 0,
      "day_backups": 0,
      "month_backups": 0,
      "week_backups": 0,
      "timezone": "UTC+08:00"
    },
    "operation_type": "backup",
    "id": "cbb3ce6f-3332-4e7c-b98e-77290d8471ff"
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.6.3 Querying the Policy List

Function

This API is used to query the policy list.

URI

GET /v3/{project_id}/policies

Table 4-209 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-210 Query Parameters

Parameter	Mandatory	Type	Description
operation_type	No	String	Policy type Enumeration values: <ul style="list-style-type: none"> • backup • replication
vault_id	No	String	Vault ID

Request Parameters

Table 4-211 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

Status code: 200

Table 4-212 Response body parameters

Parameter	Type	Description
policies	Array of Policy objects	
count	Integer	Total number of policies

Table 4-213 Policy

Parameter	Type	Description
enabled	Boolean	Whether the policy is enabled
id	String	Policy ID
name	String	Policy Name
operation_definition	PolicyODCreate object	Policy attributes
operation_type	String	Protection type, which can be backup or replication Enumeration values: <ul style="list-style-type: none"> backup
trigger	PolicyTriggerResp object	Time scheduling rule for the policy
associated_vaults	Array of PolicyAssociateVault objects	Associated vault

Table 4-214 PolicyoDCreate

Parameter	Type	Description
day_backups	Integer	Specifies the number of retained daily backups. The latest backup of each day is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Parameter	Type	Description
max_backups	Integer	<p>Maximum number of retained backups. The value can be -1 or ranges from 0 to 99999. If the value is set to -1, the backups will not be cleared even though the configured retained backup quantity is exceeded. If this parameter and retention_duration_days are both left blank, the backups will be retained permanently.</p> <p>Minimum: 1 Maximum: 99999 Default: -1</p>
month_backups	Integer	<p>Specifies the number of retained monthly backups. The latest backup of each month is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups. The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.</p> <p>Minimum: 0 Maximum: 100</p>
retention_duration_days	Integer	<p>Duration of retaining a backup, in days. The maximum value is 99999. -1 indicates that the backups will not be cleared based on the retention duration. If this parameter and max_backups are left blank at the same time, the backups will be retained permanently.</p> <p>Minimum: 1 Maximum: 99999 Default: -1</p>
timezone	String	<p>Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: day_backups, week_backups, month_backups, year_backups.</p>
week_backups	Integer	<p>Specifies the number of retained weekly backups. The latest backup of each week is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups. The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.</p>

Parameter	Type	Description
year_backups	Integer	Specifies the number of retained yearly backups. The latest backup of each year is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Table 4-215 PolicyTriggerResp

Parameter	Type	Description
id	String	Scheduler ID
name	String	Scheduler name
properties	PolicyTriggerPropertiesResp object	Scheduler attributes
type	String	Scheduler type. Currently, only time (periodic scheduling) is supported. Enumeration values: <ul style="list-style-type: none"> • time

Table 4-216 PolicyTriggerPropertiesResp

Parameter	Type	Description
pattern	Array of strings	Scheduling rule of the scheduler. A maximum of 24 rules can be configured. The scheduling rule complies with iCalendar RFC 2445, but it supports only the FREQ , BYDAY , BYHOUR , BYMINUTE , and INTERVAL parameters. FREQ can be set only to WEEKLY or DAILY . BYDAY can be set to MO , TU , WE , TH , FR , SA , and SU (seven days of a week). BYHOUR ranges from 0 to 23 hours. BYMINUTE ranges from 0 to 59 minutes. The scheduling interval cannot be less than 1 hour. A maximum of 24 time points are allowed in a day. For example, if the scheduling time is 14:00 (UTC) from Monday to Sunday, set the scheduling rule as follows: FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00 . If the scheduling time is 14:00 (UTC+8) every day, set the scheduling rule as follows: FREQ=DAILY;INTERVAL=1;BYHOUR=6;BYMINUTE=00
start_time	String	Start time of the scheduler, for example, 2020-01-08 09:59:49

Table 4-217 PolicyAssociateVault

Parameter	Type	Description
destination_vault_id	String	ID of the associated remote vault
vault_id	String	Vault ID

Example Requests

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

Example Responses

Status code: 200

OK

```
{
  "policies" : [ {
    "name" : "policy001",
    "associated_vaults" : [ ],
    "enabled" : true,
    "trigger" : {
      "properties" : {
```

```

    "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ],
    "start_time" : "2019-05-08 06:57:05"
  },
  "type" : "time",
  "id" : "d67269a6-5369-42d7-8150-5254bd446328",
  "name" : "default"
},
"operation_definition" : {
  "retention_duration_days" : 1,
  "year_backups" : 0,
  "day_backups" : 0,
  "month_backups" : 0,
  "week_backups" : 0,
  "timezone" : "UTC+08:00"
},
"operation_type" : "backup",
"id" : "cbb3ce6f-3332-4e7c-b98e-77290d8471ff"
}],
"count" : 10
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.6.4 Modifying a Policy

Function

This API is used to modify a policy.

URI

PUT /v3/{project_id}/policies/{policy_id}

Table 4-218 Path Parameters

Parameter	Mandatory	Type	Description
policy_id	Yes	String	Policy ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-219 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Table 4-220 Request body parameters

Parameter	Mandatory	Type	Description
policy	Yes	PolicyUpdate object	Request body of modifying a policy

Table 4-221 PolicyUpdate

Parameter	Mandatory	Type	Description
enabled	No	Boolean	Whether to enable the policy Default: true
name	No	String	Policy Name Minimum: 1 Maximum: 64
operation_definition	No	PolicyODCreate object	Scheduling parameter
trigger	No	PolicyTriggerReq object	Time rule for the policy execution

Table 4-222 PolicyoODCreate

Parameter	Mandatory	Type	Description
day_backups	No	Integer	Specifies the number of retained daily backups. The latest backup of each day is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100
max_backups	No	Integer	Maximum number of retained backups. The value can be -1 or ranges from 0 to 99999 . If the value is set to -1 , the backups will not be cleared even though the configured retained backup quantity is exceeded. If this parameter and retention_duration_days are both left blank, the backups will be retained permanently. Minimum: 1 Maximum: 99999 Default: -1
month_backups	No	Integer	Specifies the number of retained monthly backups. The latest backup of each month is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Parameter	Mandatory	Type	Description
retention_duration_days	No	Integer	Duration of retaining a backup, in days. The maximum value is 99999 . -1 indicates that the backups will not be cleared based on the retention duration. If this parameter and max_backups are left blank at the same time, the backups will be retained permanently. Minimum: 1 Maximum: 99999 Default: -1
timezone	No	String	Time zone where the user is located, for example, UTC +08:00. Set this parameter if you have configured any of the parameters: day_backups , week_backups , month_backups , year_backups .
week_backups	No	Integer	Specifies the number of retained weekly backups. The latest backup of each week is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.
year_backups	No	Integer	Specifies the number of retained yearly backups. The latest backup of each year is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Table 4-223 PolicyTriggerReq

Parameter	Mandatory	Type	Description
properties	Yes	PolicyTriggerPropertiesReq object	Scheduler attributes

Table 4-224 PolicyTriggerPropertiesReq

Parameter	Mandatory	Type	Description
pattern	Yes	Array of strings	Scheduling rule of the scheduler. A maximum of 24 rules can be configured. The scheduling rule complies with iCalendar RFC 2445, but it supports only the FREQ , BYDAY , BYHOUR , BYMINUTE , and INTERVAL parameters. FREQ can be set only to WEEKLY or DAILY . BYDAY can be set to MO , TU , WE , TH , FR , SA , and SU (seven days of a week). BYHOUR ranges from 0 to 23 hours. BYMINUTE ranges from 0 to 59 minutes. The scheduling interval cannot be less than 1 hour. A maximum of 24 time points are allowed in a day. For example, if the scheduling time is 14:00 (UTC) from Monday to Sunday, set the scheduling rule as follows: FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00 . If the scheduling time is 14:00 (UTC +8) every day, set the scheduling rule as follows: FREQ=DAILY;INTERVAL=1;BYHOUR=6;BYMINUTE=00

Response Parameters

Status code: 200

Table 4-225 Response body parameters

Parameter	Type	Description
policy	Policy object	Response to the request for creating a policy

Table 4-226 Policy

Parameter	Type	Description
enabled	Boolean	Whether the policy is enabled
id	String	Policy ID
name	String	Policy Name
operation_definition	PolicyODCreate object	Policy attributes
operation_type	String	Protection type, which can be backup or replication Enumeration values: <ul style="list-style-type: none"> backup
trigger	PolicyTriggerResp object	Time scheduling rule for the policy
associated_vaults	Array of PolicyAssociateVault objects	Associated vault

Table 4-227 PolicyoDCreate

Parameter	Type	Description
day_backups	Integer	Specifies the number of retained daily backups. The latest backup of each day is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Parameter	Type	Description
max_backups	Integer	<p>Maximum number of retained backups. The value can be -1 or ranges from 0 to 99999. If the value is set to -1, the backups will not be cleared even though the configured retained backup quantity is exceeded. If this parameter and retention_duration_days are both left blank, the backups will be retained permanently.</p> <p>Minimum: 1 Maximum: 99999 Default: -1</p>
month_backups	Integer	<p>Specifies the number of retained monthly backups. The latest backup of each month is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups. The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.</p> <p>Minimum: 0 Maximum: 100</p>
retention_duration_days	Integer	<p>Duration of retaining a backup, in days. The maximum value is 99999. -1 indicates that the backups will not be cleared based on the retention duration. If this parameter and max_backups are left blank at the same time, the backups will be retained permanently.</p> <p>Minimum: 1 Maximum: 99999 Default: -1</p>
timezone	String	<p>Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: day_backups, week_backups, month_backups, year_backups.</p>
week_backups	Integer	<p>Specifies the number of retained weekly backups. The latest backup of each week is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups. The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory.</p>

Parameter	Type	Description
year_backups	Integer	Specifies the number of retained yearly backups. The latest backup of each year is saved in the long term. This parameter can be effective together with the maximum number of retained backups specified by max_backups . The value ranges from 0 to 100. If this parameter is configured, timezone is mandatory. Minimum: 0 Maximum: 100

Table 4-228 PolicyTriggerResp

Parameter	Type	Description
id	String	Scheduler ID
name	String	Scheduler name
properties	PolicyTriggerPropertiesResp object	Scheduler attributes
type	String	Scheduler type. Currently, only time (periodic scheduling) is supported. Enumeration values: <ul style="list-style-type: none"> • time

Table 4-229 PolicyTriggerPropertiesResp

Parameter	Type	Description
pattern	Array of strings	Scheduling rule of the scheduler. A maximum of 24 rules can be configured. The scheduling rule complies with iCalendar RFC 2445, but it supports only the FREQ , BYDAY , BYHOUR , BYMINUTE , and INTERVAL parameters. FREQ can be set only to WEEKLY or DAILY . BYDAY can be set to MO , TU , WE , TH , FR , SA , and SU (seven days of a week). BYHOUR ranges from 0 to 23 hours. BYMINUTE ranges from 0 to 59 minutes. The scheduling interval cannot be less than 1 hour. A maximum of 24 time points are allowed in a day. For example, if the scheduling time is 14:00 (UTC) from Monday to Sunday, set the scheduling rule as follows: FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00 . If the scheduling time is 14:00 (UTC+8) every day, set the scheduling rule as follows: FREQ=DAILY;INTERVAL=1;BYHOUR=6;BYMINUTE=00
start_time	String	Start time of the scheduler, for example, 2020-01-08 09:59:49

Table 4-230 PolicyAssociateVault

Parameter	Type	Description
destination_vault_id	String	ID of the associated remote vault
vault_id	String	Vault ID

Example Requests

```
PUT https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/policies/cbb3ce6f-3332-4e7c-b98e-77290d8471ff
```

```
{
  "policy": {
    "enabled": true,
    "name": "policy001",
    "operation_definition": {
      "day_backups": 0,
      "month_backups": 0,
      "max_backups": 1,
      "timezone": "UTC+08:00",
      "week_backups": 0,
      "year_backups": 0
    },
    "trigger": {
```

```

    "properties" : {
      "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ]
    }
  }
}

```

Example Responses

Status code: 200

OK

```

{
  "policy" : {
    "name" : "policy001",
    "associated_vaults" : [ ],
    "enabled" : true,
    "trigger" : {
      "properties" : {
        "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ],
        "start_time" : "2019-05-08 06:57:05"
      },
      "type" : "time",
      "id" : "d67269a6-5369-42d7-8150-5254bd446328",
      "name" : "default"
    },
    "operation_definition" : {
      "max_backups" : 1,
      "year_backups" : 0,
      "day_backups" : 0,
      "month_backups" : 0,
      "week_backups" : 0,
      "timezone" : "UTC+08:00"
    },
    "operation_type" : "backup",
    "id" : "cbb3ce6f-3332-4e7c-b98e-77290d8471ff"
  }
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.6.5 Deleting a Policy

Function

This API is used to delete a policy.

URI

DELETE /v3/{project_id}/policies/{policy_id}

Table 4-231 Path Parameters

Parameter	Mandatory	Type	Description
policy_id	Yes	String	Policy ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-232 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token The token can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the user token.

Response Parameters

None

Example Requests

DELETE https://{endpoint}/v3/{project_id}/policies/{policy_id}

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

4.7 Protection

4.7.1 Querying Protectable Resources

Function

Protection

URI

GET /v3/{project_id}/protectables/{protectable_type}/instances

Table 4-233 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Protection
protectable_type	Yes	String	Object type Enumeration values: <ul style="list-style-type: none"> • server • disk

Table 4-234 Query Parameters

Parameter	Mandatory	Type	Description
id	No	String	Filters by resource ID.
limit	No	Integer	Number of records displayed per page. A maximum of 50 records can be displayed on each page.
marker	No	String	ID of the last record displayed on the previous page
name	No	String	Filters by resource name.
offset	No	Integer	Offset value
server_id	No	String	Filters all disks that belong to the server based on the server ID. This parameter is mandatory only for users who have enabled enterprise multi-project.
status	No	String	Resource status

Request Parameters

None

Response Parameters

Status code: 200

Table 4-235 Response body parameters

Parameter	Type	Description
instances	Array of ProtectablesResp objects	Instance of querying protectable resources

Table 4-236 ProtectablesResp

Parameter	Type	Description
children	Array of objects	Child resource
detail	Object	Resource details
id	String	id
name	String	Resource name
protectable	ProtectableResult object	Whether backup is supported
size	Integer	Size of the resource, in GB
status	String	Resource status Enumeration values: <ul style="list-style-type: none"> • active • deleted • error
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo

Table 4-237 ProtectableResult

Parameter	Type	Description
code	String	Error code returned indicating backup is not supported
reason	String	Reason why backup is not supported
result	Boolean	Whether backup is supported

Parameter	Type	Description
vault	VaultGet object	Associated vault

Table 4-238 VaultGet

Parameter	Type	Description
billing	Billing object	Operation info
description	String	User-defined vault description Minimum: 0 Maximum: 255
id	String	Vault ID
name	String	Vault name Minimum: 1 Maximum: 64
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of ResourceRes p objects	Resource
tags	Array of TagsResp objects	Tag
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is false (not enabled).
bind_rules	VaultBindRul es object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
updated_at	String	Update time, for example, 2020-02-05T10:38:34.209782
version	String	Version

Table 4-239 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be post_paid (pay-per-use) or pre_paid (yearly/monthly). The default value is post_paid .
cloud_type	String	Cloud type, which can be public or hybrid
consistent_level	String	Vault specification, which can be crash_consistent (crash consistent backup) or app_consistent (application consistency backup)
object_type	String	Object type, which can be server , disk , or turbo
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be backup or replication
size	Integer	Capacity, in GB Minimum: 1 Maximum: 10485760
spec_code	String	Specification code Server backup vault: vault.backup.server.normal ; Disk backup vault: vault.backup.volume.normal ; File system backup vault: vault.backup.turbo.normal
status	String	Vault status Enumeration values: <ul style="list-style-type: none"> ● available ● lock ● frozen ● deleting ● error
storage_unit	String	Name of the bucket for the vault
used	Integer	Used capacity, in MB.
frozen_scene	String	Scenario when an account is frozen

Table 4-240 ResourceResp

Parameter	Type	Description
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up Minimum: 0 Maximum: 255
protect_status	String	Protection status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing
size	Integer	Allocated capacity for the associated resources, in GB
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-241 TagsResp

Parameter	Type	Description
key	String	Key It consists of up to 36 characters. It cannot be an empty string. It can contain only Chinese characters, letters, digits, hyphens, and underscores.
values	String	List of values It consists of up to 43 characters. It can be an empty string. It can contain only Chinese characters, letters, digits, hyphens, and underscores.

Table 4-242 VaultBindRules

Parameter	Type	Description
tags	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-243 Tag

Parameter	Type	Description
key	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string.</p> <p>Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>
value	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Example Requests

```
GET https://{endpoint}/v3/{project_id}/protectables/{protectable_type}/instances
```

Example Responses

Status code: 200

OK

```
{
  "instances": [ {
    "status": "ACTIVE",
    "children": [ {
      "status": "in-use",
      "name": "no_delete_for_cbr_interface-volume-0000",
      "detail": {
        "attachments": [ {
          "server_id": "55ecd8b8-1457-4a2a-a9df-53756a690082",
          "attachment_id": "e16631fa-0522-4ac8-8f78-19db435caf68",
          "volume_id": "13eb535f-8635-4faf-9f08-584d21e78f0a",
          "host_name": null,
          "attached_at": "2019-05-08T06:55:26.563986",
          "device": "/dev/vda",
          "id": "13eb535f-8635-4faf-9f08-584d21e78f0a"
        } ],
        "links": [ {
          "href": "https://volume.region1.com/v2/3aec9116a6a5487ca14987121d2818fe/volumes/13eb535f-8635-4faf-9f08-584d21e78f0a",
          "rel": "self"
        }, {
          "href": "https://volume.region1.com/3aec9116a6a5487ca14987121d2818fe/volumes/13eb535f-8635-4faf-9f08-584d21e78f0a",
          "rel": "bookmark"
        } ],
        "availability_zone": "AZ1",
        "os-vol-host-attr:host": "AZ1.xxxxx#kvm_fusionstorage",
        "encrypted": false,
        "updated_at": "2019-05-08T08:33:07.855484",
        "replication_status": "disabled",
        "snapshot_id": null,
        "id": "13eb535f-8635-4faf-9f08-584d21e78f0a",
        "size": 40,
        "user_id": "3204777a731c4ebea330350c04f41b92",
        "os-vol-tenant-attr:tenant_id": "3aec9116a6a5487ca14987121d2818fe",
        "os-vol-mig-status-attr:migstat": null,
        "metadata": {
          "policy": "2ecbcffd-08ba-43f7-bf8d-95daba753464",
          "readonly": "False",
          "attached_mode": "rw"
        },
        "status": "in-use",
        "volume_image_metadata": {
          "container_format": "bare",
          "min_ram": "0",
          "__account_code": "",
          "__os_bit": "64",
          "size": "2",
          "__os_version": "CentOS 7.2 64bit",
          "__backup_id": "",
          "__description": "",
          "__support_diskintensive": "true",
          "disk_format": "vhd",
          "__isregistered": "true",
          "__image_size": "3295645696",
          "__platform": "CentOS",
          "__root_origin": "file",
          "__originalimagename": "703eb90a-a65f-4c72-b4c1-f070a55d068b",
          "__quick_start": "true",
          "image_name": "CentOS7.2-cloudinit",
          "image_id": "703eb90a-a65f-4c72-b4c1-f070a55d068b",
          "__os_type": "Linux",
          "__image_location": "172.100.45.130:443:pcsimsf8bd00bf6c304d2e8cf4e2beb0aed702:703eb90a-a65f-4c72-b4c1-f070a55d068b",
          "min_disk": "40",
          "__data_origin": "file,jingxiang:CentOS-7.2-64bit.zvhd2",
          "__support_kvm": "true",
          "virtual_env_type": "FusionCompute",
          "__image_source_type": "uds",

```

```

    "_support_xen": "true",
    "checksum": "99914b932bd37a50b983c5e7c90ae93b",
    "_imagetype": "gold",
    "_productcode": ""
  },
  "description": null,
  "multiattach": false,
  "source_valid": null,
  "consistencygroup_id": null,
  "os-vol-mig-status-attr:name_id": null,
  "name": "no_delete_for_cbr_interface-volume-0000",
  "bootable": "true",
  "created_at": "2019-05-08T06:54:58.477749",
  "volume_type": "SATA",
  "shareable": false
},
"children": [ ],
"type": "OS::Cinder::Volume",
"id": "13eb535f-8635-4faf-9f08-584d21e78f0a",
"size": 40
}, {
  "status": "in-use",
  "name": "volume-f926-0001",
  "detail": {
    "attachments": [ {
      "server_id": "55ecd8b8-1457-4a2a-a9df-53756a690082",
      "attachment_id": "3b32cb75-bd96-493b-8fb2-13f063c876d5",
      "volume_id": "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
      "host_name": null,
      "attached_at": "2019-05-08T06:56:25.891730",
      "device": "/dev/vdb",
      "id": "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99"
    } ],
    "links": [ {
      "href": "https://volume.region1.com/v2/3aec9116a6a5487ca14987121d2818fe/volumes/8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
      "rel": "self"
    }, {
      "href": "https://volume.region1.com/3aec9116a6a5487ca14987121d2818fe/volumes/8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
      "rel": "bookmark"
    } ],
    "availability_zone": "AZ1",
    "os-vol-host-attr:host": "AZ1.xxxxx#FusionStorage",
    "encrypted": false,
    "updated_at": "2019-05-08T06:56:26.207240",
    "replication_status": "disabled",
    "snapshot_id": null,
    "id": "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
    "size": 10,
    "user_id": "f3d66502790d4ddaadef5056059ed8f4",
    "os-vol-tenant-attr:tenant_id": "3aec9116a6a5487ca14987121d2818fe",
    "os-vol-mig-status-attr:migstat": null,
    "metadata": {
      "policy": "cf3274fc-d23e-4c12-8be7-1e41b3c2faea",
      "readonly": "False",
      "attached_mode": "rw"
    }
  },
  "status": "in-use",
  "description": null,
  "multiattach": false,
  "source_valid": null,
  "consistencygroup_id": null,
  "os-vol-mig-status-attr:name_id": null,
  "name": "volume-f926-0001",
  "bootable": "false",
  "created_at": "2019-03-26T09:30:46.783578",
  "volume_type": "SATA",
  "shareable": false
}

```

```

    },
    "children" : [ ],
    "type" : "OS::Cinder::Volume",
    "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
    "size" : 10
  } ],
  "protectable" : {
    "vault" : null,
    "reason" : "",
    "code" : "",
    "result" : true
  },
  "name" : "no_delete_for_cbr_interface",
  "detail" : {
    "OS-EXT-STS:task_state" : null,
    "addresses" : {
      "94b88790-c906-4450-b7c2-1c2b1ea639bf" : [ {
        "OS-EXT-IPS-MAC:mac_addr" : "fa:16:3e:9b:9d:af",
        "version" : 4,
        "OS-EXT-IPS:port_id" : "f22f531a-d38a-480b-b59e-f7e5db0dcfcc",
        "addr" : "192.168.1.44",
        "OS-EXT-IPS:type" : "fixed"
      }, {
        "OS-EXT-IPS-MAC:mac_addr" : "fa:16:3e:9b:9d:af",
        "version" : 4,
        "OS-EXT-IPS:port_id" : "f22f531a-d38a-480b-b59e-f7e5db0dcfcc",
        "addr" : "100.78.0.199",
        "OS-EXT-IPS:type" : "floating"
      } ]
    },
    "OS-EXT-SRV-ATTR:ramdisk_id" : "",
    "image" : "",
    "enterprise_project_id" : "0",
    "updated" : "2019-05-08T06:57:02Z",
    "OS-EXT-SRV-ATTR:user_data" :
    "lyEvYmluL2Jhc2gKZWNObyAncm9vdDokNiQ5c1FaeXlkdnk5N1pGYXg5SWUpRTUpPRElGdGdjYnovTUdEZ1dad
    3E4VTM1dWE4MjQxTmtDTG1GRjJUUm1BdnZSQnNCLy93VER0aFVRNUt0Z1p6dUlrenp2NmQwYTAnIHwgY2h
    wYXNzd2QgLWUw7",
    "OS-EXT-STS:vm_state" : "active",
    "OS-EXT-SRV-ATTR:instance_name" : "instance-0004456e",
    "OS-EXT-SRV-ATTR:root_device_name" : "/dev/vda",
    "OS-SRV-USG:launched_at" : "2019-05-08T06:55:38.000000",
    "flavor" : {
      "vcpus" : "1",
      "disk" : "0",
      "ram" : "1024",
      "id" : "s3.small.1",
      "name" : "s3.small.1"
    },
    "id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
    "security_groups" : [ {
      "name" : "default"
    } ],
    "OS-SRV-USG:terminated_at" : null,
    "os-extended-volumes:volumes_attached" : [ {
      "device" : "/dev/vda",
      "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
      "delete_on_termination" : false,
      "bootIndex" : 0
    }, {
      "device" : "/dev/vdb",
      "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
      "delete_on_termination" : false,
      "bootIndex" : null
    } ],
    "user_id" : "f3d66502790d4ddaadef5056059ed8f4",
    "OS-EXT-SRV-ATTR:hostname" : "no-delete-for-cbr-interface",
    "OS-DCF:diskConfig" : "MANUAL",
    "accessIPv4" : "",

```



```

"accessIPv6" : "",
"OS-EXT-SRV-ATTR:reservation_id" : "r-kpb5xckf",
"progress" : 0,
"OS-EXT-STS:power_state" : 1,
"OS-EXT-AZ:availability_zone" : "AZ1",
"metadata" : {
  "metering.image_id" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
  "metering.imagetype" : "gold",
  "metering.resourcespeccode" : "s3.small.1.linux",
  "metering.cloudServiceType" : "sys.service.type.ec2",
  "virtual_env_type" : "FusionCompute",
  "image_name" : "CentOS7.2-cloudinit",
  "metering.resourcetype" : "1",
  "vpc_id" : "94b88790-c906-4450-b7c2-1c2b1ea639bf",
  "os_bit" : "64",
  "cascaded.instance_extrainfo" : "",
  "os_type" : "Linux",
  "charging_mode" : "0"
},
"status" : "ACTIVE",
"sys_tags" : [ {
  "value" : "0",
  "key" : "_sys_enterprise_project_id"
}],
"os:scheduler_hints" : { },
"hostId" : "179f22cafe6b951921bd6deb3b13a978df620427fb37bbb7c619de98",
"OS-EXT-SRV-ATTR:host" : "AZ1.xxxxxx",
"description" : "",
"tags" : [ ],
"key_name" : null,
"OS-EXT-SRV-ATTR:kernel_id" : "",
"locked" : false,
"OS-EXT-SRV-ATTR:hypervisor_hostname" : "nova003@36",
"name" : "no_delete_for_cbr_interface",
"OS-EXT-SRV-ATTR:launch_index" : 0,
"created" : "2019-05-08T06:55:22Z",
"tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
"host_status" : "UP",
"config_drive" : ""
},
"type" : "OS::Nova::Server",
"id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
"size" : 50
} ]
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.7.2 Querying a Specified Protectable Resource

Function

This API is used to query a specified resource that can be protected by its ID.

URI

GET /v3/{project_id}/protectables/{protectable_type}/instances/{instance_id}

Table 4-244 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Resource ID
project_id	Yes	String	Project ID
protectable_type	Yes	String	Protection type Enumeration values: <ul style="list-style-type: none"> • server • disk

Request Parameters

None

Response Parameters

Status code: 200

Table 4-245 Response body parameters

Parameter	Type	Description
instance	ProtectablesResp object	Resources that can be protected

Table 4-246 ProtectablesResp

Parameter	Type	Description
children	Array of objects	Child resource
detail	Object	Resource details
id	String	id
name	String	Resource name
protectable	ProtectableResult object	Whether backup is supported
size	Integer	Size of the resource, in GB

Parameter	Type	Description
status	String	Resource status Enumeration values: <ul style="list-style-type: none"> ● active ● deleted ● error
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo

Table 4-247 ProtectableResult

Parameter	Type	Description
code	String	Error code returned indicating backup is not supported
reason	String	Reason why backup is not supported
result	Boolean	Whether backup is supported
vault	VaultGet object	Associated vault

Table 4-248 VaultGet

Parameter	Type	Description
billing	Billing object	Operation info
description	String	User-defined vault description Minimum: 0 Maximum: 255
id	String	Vault ID
name	String	Vault name Minimum: 1 Maximum: 64
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of ResourceResp objects	Resource

Parameter	Type	Description
tags	Array of TagsResp objects	Tag
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is false (not enabled).
bind_rules	VaultBindRules object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
updated_at	String	Update time, for example, 2020-02-05T10:38:34.209782
version	String	Version

Table 4-249 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be post_paid (pay-per-use) or pre_paid (yearly/monthly). The default value is post_paid .
cloud_type	String	Cloud type, which can be public or hybrid
consistent_level	String	Vault specification, which can be crash_consistent (crash consistent backup) or app_consistent (application consistency backup)
object_type	String	Object type, which can be server , disk , or turbo
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be backup or replication

Parameter	Type	Description
size	Integer	Capacity, in GB Minimum: 1 Maximum: 10485760
spec_code	String	Specification code Server backup vault: vault.backup.server.normal ; Disk backup vault: vault.backup.volume.normal ; File system backup vault: vault.backup.turbo.normal
status	String	Vault status Enumeration values: <ul style="list-style-type: none"> • available • lock • frozen • deleting • error
storage_unit	String	Name of the bucket for the vault
used	Integer	Used capacity, in MB.
frozen_scene	String	Scenario when an account is frozen

Table 4-250 ResourceResp

Parameter	Type	Description
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up Minimum: 0 Maximum: 255
protect_status	String	Protection status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing
size	Integer	Allocated capacity for the associated resources, in GB

Parameter	Type	Description
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-251 TagsResp

Parameter	Type	Description
key	String	Key It consists of up to 36 characters. It cannot be an empty string. It can contain only Chinese characters, letters, digits, hyphens, and underscores.
values	String	List of values It consists of up to 43 characters. It can be an empty string. It can contain only Chinese characters, letters, digits, hyphens, and underscores.

Table 4-252 VaultBindRules

Parameter	Type	Description
tags	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-253 Tag

Parameter	Type	Description
key	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string.</p> <p>Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>
value	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Example Requests

```
GET https://{endpoint}/v3/{project_id}/protectables/{protectable_type}/instances/{instance_id}
```

Example Responses

Status code: 200

OK

```
{
  "instance": {
    "status": "ACTIVE",
    "children": [ {
      "status": "in-use",
      "name": "volume-f926-0001",
      "detail": {
        "attachments": [ {
          "server_id": "55ecd8b8-1457-4a2a-a9df-53756a690082",
          "attachment_id": "3b32cb75-bd96-493b-8fb2-13f063c876d5",
          "volume_id": "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
```

```

        "host_name" : null,
        "attached_at" : "2019-05-08T06:56:25.891730",
        "device" : "/dev/vdb",
        "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99"
    } ],
    "links" : [ {
        "href" : "https://volume.region1.com/v2/3aec9116a6a5487ca14987121d2818fe/volumes/8d3d519f-
d409-4be3-8a1f-9f7a5ecb7a99",
        "rel" : "self"
    }, {
        "href" : "https://volume.region1.com/3aec9116a6a5487ca14987121d2818fe/volumes/8d3d519f-
d409-4be3-8a1f-9f7a5ecb7a99",
        "rel" : "bookmark"
    } ],
    "availability_zone" : "AZ1",
    "os-vol-host-attr:host" : "AZ1.xxxxx#FusionStorage",
    "encrypted" : false,
    "updated_at" : "2019-05-08T06:56:26.207240",
    "replication_status" : "disabled",
    "snapshot_id" : null,
    "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
    "size" : 10,
    "user_id" : "f3d66502790d4ddaadef5056059ed8f4",
    "os-vol-tenant-attr:tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
    "os-vol-mig-status-attr:migstat" : null,
    "metadata" : {
        "policy" : "cf3274fc-d23e-4c12-8be7-1e41b3c2faea",
        "readonly" : "False",
        "attached_mode" : "rw"
    },
    "status" : "in-use",
    "description" : null,
    "multiattach" : false,
    "source_volid" : null,
    "consistencygroup_id" : null,
    "os-vol-mig-status-attr:name_id" : null,
    "name" : "volume-f926-0001",
    "bootable" : "false",
    "created_at" : "2019-03-26T09:30:46.783578",
    "volume_type" : "SATA",
    "shareable" : false
},
"children" : [ ],
"type" : "OS::Cinder::Volume",
"id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
"size" : 10
}, {
    "status" : "in-use",
    "name" : "no_delete_for_cbr_interface-volume-0000",
    "detail" : {
        "attachments" : [ {
            "server_id" : "55eccd8b8-1457-4a2a-a9df-53756a690082",
            "attachment_id" : "e16631fa-0522-4ac8-8f78-19db435caf68",
            "volume_id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
            "host_name" : null,
            "attached_at" : "2019-05-08T06:55:26.563986",
            "device" : "/dev/vda",
            "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a"
        } ],
        "links" : [ {
            "href" : "https://volume.region1.com/v2/3aec9116a6a5487ca14987121d2818fe/volumes/
13eb535f-8635-4faf-9f08-584d21e78f0a",
            "rel" : "self"
        }, {
            "href" : "https://volume.region1.com/3aec9116a6a5487ca14987121d2818fe/volumes/
13eb535f-8635-4faf-9f08-584d21e78f0a",
            "rel" : "bookmark"
        } ],
        "availability_zone" : "AZ1",

```



```

"os-vol-host-attr:host" : "AZ1.xxxxxx#kvm_fusionstorage",
"encrypted" : false,
"updated_at" : "2019-05-08T08:33:07.855484",
"replication_status" : "disabled",
"snapshot_id" : null,
"id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
"size" : 40,
"user_id" : "3204777a731c4e8ea330350c04f41b92",
"os-vol-tenant-attr:tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
"os-vol-mig-status-attr:migstat" : null,
"metadata" : {
  "policy" : "2ecbcffd-08ba-43f7-bf8d-95daba753464",
  "readonly" : "False",
  "attached_mode" : "rw"
},
"status" : "in-use",
"volume_image_metadata" : {
  "container_format" : "bare",
  "min_ram" : "0",
  "__account_code" : "",
  "__os_bit" : "64",
  "size" : "2",
  "__os_version" : "CentOS 7.2 64bit",
  "__backup_id" : "",
  "__description" : "",
  "__support_diskintensive" : "true",
  "disk_format" : "vhd",
  "__isregistered" : "true",
  "__image_size" : "3295645696",
  "__platform" : "CentOS",
  "__root_origin" : "file",
  "__originalimagename" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
  "__quick_start" : "true",
  "image_name" : "CentOS7.2-cloudinit",
  "image_id" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
  "__os_type" : "Linux",
  "__image_location" : "172.100.45.130:443:pcsimsf8bd00bf6c304d2e8cf4e2beb0aed702:703eb90a-a65f-4c72-b4c1-f070a55d068b",
  "min_disk" : "40",
  "__data_origin" : "file,jingxiang:CentOS-7.2-64bit.zvh2",
  "__support_kvm" : "true",
  "virtual_env_type" : "FusionCompute",
  "__image_source_type" : "uds",
  "__support_xen" : "true",
  "checksum" : "99914b932bd37a50b983c5e7c90ae93b",
  "__imagetype" : "gold",
  "__productcode" : ""
},
"description" : null,
"multiattach" : false,
"source_volid" : null,
"consistencygroup_id" : null,
"os-vol-mig-status-attr:name_id" : null,
"name" : "no_delete_for_cbr_interface-volume-0000",
"bootable" : "true",
"created_at" : "2019-05-08T06:54:58.477749",
"volume_type" : "SATA",
"shareable" : false
},
"children" : [ ],
"type" : "OS::Cinder::Volume",
"id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
"size" : 40
} ],
"protectable" : {
  "vault" : null,
  "reason" : "",
  "code" : "",
  "result" : true
}

```

```

},
"name" : "no_delete_for_cbr_interface",
"detail" : {
  "OS-EXT-STS:task_state" : null,
  "addresses" : {
    "94b88790-c906-4450-b7c2-1c2b1ea639bf" : [ {
      "OS-EXT-IPS-MAC:mac_addr" : "fa:16:3e:9b:9d:af",
      "version" : 4,
      "addr" : "192.168.1.44",
      "OS-EXT-IPS:type" : "fixed"
    }, {
      "OS-EXT-IPS-MAC:mac_addr" : "fa:16:3e:9b:9d:af",
      "version" : 4,
      "addr" : "100.78.0.199",
      "OS-EXT-IPS:type" : "floating"
    }
  ]
},
"links" : [ {
  "href" : "https://compute.region1.com/v2.1/3aec9116a6a5487ca14987121d2818fe/servers/55ecd8b8-1457-4a2a-a9df-53756a690082",
  "rel" : "self"
}, {
  "href" : "https://compute.region1.com/3aec9116a6a5487ca14987121d2818fe/servers/55ecd8b8-1457-4a2a-a9df-53756a690082",
  "rel" : "bookmark"
} ],
"image" : "",
"OS-EXT-STS:vm_state" : "active",
"OS-EXT-SRV-ATTR:instance_name" : "instance-0004456e",
"OS-SRV-USG:launched_at" : "2019-05-08T06:55:38.000000",
"flavor" : {
  "id" : "s3.small.1",
  "links" : [ {
    "href" : "https://compute.region1.com/3aec9116a6a5487ca14987121d2818fe/flavors/s3.small.1",
    "rel" : "bookmark"
  } ]
},
"id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
"security_groups" : [ {
  "name" : "default"
} ],
"user_id" : "f3d66502790d4ddaadef5056059ed8f4",
"OS-DCF:diskConfig" : "MANUAL",
"accessIPv4" : "",
"accessIPv6" : "",
"progress" : 0,
"OS-EXT-STS:power_state" : 1,
"OS-EXT-AZ:availability_zone" : "AZ1",
"config_drive" : "",
"status" : "ACTIVE",
"updated" : "2019-05-08T06:57:02Z",
"hostId" : "179f22cafe6b951921bd6deb3b13a978df620427fb37bbb7c619de98",
"OS-EXT-SRV-ATTR:host" : "AZ1.xxxxxx",
"OS-SRV-USG:terminated_at" : null,
"key_name" : null,
"OS-EXT-SRV-ATTR:hypervisor_hostname" : "nova003@36",
"name" : "no_delete_for_cbr_interface",
"created" : "2019-05-08T06:55:22Z",
"tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
"os-extended-volumes:volumes_attached" : [ {
  "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99"
} ],
{id" : "13eb535f-8635-4faf-9f08-584d21e78f0a"
} ],
"metadata" : {
  "metering.image_id" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
  "metering.imagetype" : "gold",
  "metering.resourcespeccode" : "s3.small.1.linux",
  "metering.cloudServiceType" : "sys.service.type.ec2",

```

```

"virtual_env_type" : "FusionCompute",
"image_name" : "CentOS7.2-cloudinit",
"metering.resourcetype" : "1",
"vpc_id" : "94b88790-c906-4450-b7c2-1c2b1ea639bf",
"os_bit" : "64",
"cascaed.instance_extrainfo" : "",
"os_type" : "Linux",
"charging_mode" : "0"
}
},
"type" : "OS::Nova::Server",
"id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
"size" : 50
}
}

```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

4.8 Tags

4.8.1 Querying Vault Resources

Function

This API is used to filter resources by tag. Tag Management Service (TMS) uses this API to filter and list resources of each service by tag. These services must have the query capabilities.

URI

POST /v3/{project_id}/vault/resource_instances/action

Table 4-254 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-255 Request body parameters

Parameter	Mandatory	Type	Description
without_any_tag	No	Boolean	If this parameter is set to true , all resources without tags are queried. In this case, the tag , not_tags , tags_any , and not_tags_any fields are ignored.
tags	No	Array of TagsReq objects	List of included tags. Backups with these tags will be filtered. This list cannot be an empty list. The list can contain up to 10 keys. Keys in this list must be unique. The response returns resources containing any tags in this list. Keys in this list are in an AND relationship while values in each key-value structure is in an OR relationship. If no tag filtering condition is specified, full data is returned.
tags_any	No	Array of TagsReq objects	List of tags. Backups with any tags in this list will be filtered. This list cannot be an empty list. The list can contain up to 10 keys. Keys in this list must be unique. The response returns resources containing any tags in this list. Keys in this list are in an OR relationship while values in each key-value structure is in an OR relationship. If no tag filtering condition is specified, full data is returned.

Parameter	Mandatory	Type	Description
not_tags	No	Array of TagsReq objects	<p>List of excluded tags. Backups without these tags will be filtered.</p> <p>This list cannot be an empty list.</p> <p>The list can contain up to 10 keys.</p> <p>Keys in this list must be unique.</p> <p>The response returns resources containing no tags in this list. Keys in this list are in an AND relationship while values in each key-value structure is in an OR relationship.</p> <p>If no tag filtering condition is specified, full data is returned.</p>
not_tags_any	No	Array of TagsReq objects	<p>List of tags. Backups without any tags in this list will be filtered.</p> <p>This list cannot be an empty list.</p> <p>The list can contain up to 10 keys.</p> <p>Keys in this list must be unique.</p> <p>The response returns resources without any tags in this list. Keys in this list are in an OR relationship while values in each key-value structure is in an OR relationship.</p> <p>If no tag filtering condition is specified, full data is returned.</p>

Parameter	Mandatory	Type	Description
sys_tags	No	Array of SysTags objects	<p>Only users with the op_service permission can use this field to filter resources.</p> <p>Currently, TMS calls can only one tag structure.</p> <p>key: _sys_enterprise_project_id</p> <p>values: List of enterprise project IDs</p> <p>Currently, key contains only one value. 0 indicates the default enterprise project.</p> <p>sys_tags and tenant tag filtering conditions (tags, tags_any, not_tags, and not_tags_any) cannot be used at the same time.</p> <p>If no sys_tags exists, use other tag APIs for filtering. If no tag filtering condition is specified, full data is returned.</p> <p>This list cannot be an empty list.</p>
limit	No	String	<p>Query count. (This parameter is not displayed when action is set to count.) If action is set to filter, the value defaults to 1000. The value ranges from 1 to 1000. If you set a value not within this range, an error will be reported. The number of returned records does not exceed the value of limit.</p>
offset	No	String	<p>Index position. (This parameter is not displayed when action is set to count.) If action is set to filter, the value defaults to 0 and the minimum value of offset is 0. The first record in the query result is the offset+1 record that meets the query criteria.</p>

Parameter	Mandatory	Type	Description
action	Yes	String	Operation identifier. Possible values are filter and count . The value filter indicates pagination query. The value count indicates that the total number of query results meeting the search criteria will be returned.
matches	No	Array of Match objects	List of query criteria supported by resources This list cannot be an empty list. Keys in this list must be unique.
cloud_type	No	String	Cloud type Enumeration values: <ul style="list-style-type: none"> • public • hybrid
object_type	No	String	Resource type Enumeration values: <ul style="list-style-type: none"> • server • disk

Table 4-256 TagsReq

Parameter	Mandatory	Type	Description
key	Yes	String	Key It contains a maximum of 127 Unicode characters. A tag key cannot be an empty string. Spaces before and after a key will be deprecated.

Parameter	Mandatory	Type	Description
values	Yes	Array of strings	<p>List of values</p> <p>The list can contain up to 10 values.</p> <p>A tag value contains up to 255 Unicode characters. Spaces before and after a key will be deprecated.</p> <p>Values in this list must be unique.</p> <p>Values in this list are in an OR relationship.</p> <p>This list can be empty and each value can be an empty character string.</p> <p>If this list is left blank, it indicates that all values are included.</p> <p>The asterisk (*) is a reserved character in the system. If the value starts with *, it indicates that fuzzy match is performed based on the value following *. The value cannot contain only asterisks.</p>

Table 4-257 SysTags

Parameter	Mandatory	Type	Description
key	Yes	String	<p>Key Key of the system tag, which is obtained from the whitelist and cannot be defined randomly. Currently, only the _sys_enterprise_project_id field is supported, and the corresponding value indicates the enterprise project ID.</p>
values	Yes	Array of strings	<p>List of values Currently, only the enterprise project ID is used. The default enterprise project ID is 0.</p>

Table 4-258 Match

Parameter	Mandatory	Type	Description
key	Yes	String	Key A key can only be set to resource_name , indicating the resource name.
value	Yes	String	Value A value consists of up to 255 characters. If key is set to resource_name , an empty character string indicates exact match and any non-empty string indicates fuzzy match.

Response Parameters

Status code: 200

Table 4-259 Response body parameters

Parameter	Type	Description
resources	Array of TagResource objects	List of matched resources (This parameter is not displayed if action is set to count .)
total_count	Integer	Total number of matched resources

Table 4-260 TagResource

Parameter	Type	Description
resource_id	String	Resource ID
resource_detail	Array of Vault objects	Resource details
tags	Array of Tag objects	Tag list. If there is no tag, an empty array is used by default.
resource_name	String	Resource name

Parameter	Type	Description
sys_tags	Array of SysTag objects	Only users with the op_service permission can obtain this field. Currently, only resource_tag is included. key: _sys_enterprise_project_id value: enterprise project ID. Value 0 indicates the default enterprise project. This field is not returned in the non-op_service scenario.

Table 4-261 Vault

Parameter	Type	Description
billing	Billing object	Operation info
description	String	User-defined vault description Minimum: 0 Maximum: 255
id	String	Vault ID
name	String	Vault name Minimum: 1 Maximum: 64
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of ResourceRes p objects	Vault resources
tags	Array of Tag objects	Vault tags
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is false (not enabled).
bind_rules	VaultBindRul es object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, 2020-02-05T10:38:34.209782

Parameter	Type	Description
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.

Table 4-262 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be post_paid (pay-per-use) or pre_paid (yearly/monthly). The default value is post_paid .
cloud_type	String	Cloud type, which can be public or hybrid
consistent_level	String	Vault specification, which can be crash_consistent (crash consistent backup) or app_consistent (application consistency backup)
object_type	String	Object type, which can be server , disk , or turbo
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be backup or replication
size	Integer	Capacity, in GB Minimum: 1 Maximum: 10485760
spec_code	String	Specification code Server backup vault: vault.backup.server.normal ; Disk backup vault: vault.backup.volume.normal ; File system backup vault: vault.backup.turbo.normal
status	String	Vault status Enumeration values: <ul style="list-style-type: none"> • available • lock • frozen • deleting • error
storage_unit	String	Name of the bucket for the vault

Parameter	Type	Description
used	Integer	Used capacity, in MB.
frozen_scene	String	Scenario when an account is frozen

Table 4-263 ResourceResp

Parameter	Type	Description
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up Minimum: 0 Maximum: 255
protect_status	String	Protection status Enumeration values: <ul style="list-style-type: none"> • available • error • protecting • restoring • removing
size	Integer	Allocated capacity for the associated resources, in GB
type	String	Type of the resource to be backed up, which can be OS::Nova::Server , OS::Cinder::Volume , OS::Ironic::BareMetalServer , OS::Native::Server , or OS::Sfs::Turbo
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-264 VaultBindRules

Parameter	Type	Description
tags	Array of Tag objects	Filters automatically associated resources by tag.

Table 4-265 Tag

Parameter	Type	Description
key	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string.</p> <p>Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>
value	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Table 4-266 SysTag

Parameter	Type	Description
key	String	<p>Key Key of the system tag, which is obtained from the whitelist and cannot be defined randomly. Currently, only the _sys_enterprise_project_id field is supported, and the corresponding value indicates the enterprise project ID.</p>
value	String	<p>Value Currently, only the enterprise project ID is used. The default enterprise project ID is 0.</p>

Status code: 400

Table 4-267 Response body parameters

Parameter	Type	Description
error_code	String	For details, see Error Codes .
error_msg	String	Error message

Example Requests

```
POST https://{endpoint}/v3/{project_id}/vault/resource_instances/action
{
  "tags": [ {
    "key": "string",
    "values": [ "vaule" ]
  } ],
  "action": "filter"
}
```

Example Responses

Status code: 200

OK

```
{
  "tags": [ {
    "key": "string",
    "value": null
  } ]
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See [Error Codes](#).

4.8.2 Batch Adding or Deleting Tags of a Vault

Function

This API is used to batch add or delete tags for a specified instance. TMS uses this API to manage service resource tags. A resource can have a maximum of 10 tags. This API is idempotent. If there are duplicate keys in the request body when you add tags, an error is reported. If a to-be-added tag has the same key as an existing tag, the tag will be added and overwrite the existing tag. When deleting

tags, you can upload duplicate keys. When deleting tags, if some tags do not exist, the deletion is considered to be successful by default. The character set of the tags will not be verified. A key and a value can individually consist of up to 127 and 255 characters. When you delete tags, the tags structure cannot be missing, and the key cannot be left blank or be an empty string.

URI

POST /v3/{project_id}/vault/{vault_id}/tags/action

Table 4-268 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Resource ID

Request Parameters

Table 4-269 Request body parameters

Parameter	Mandatory	Type	Description
tags	No	Array of Tag objects	Tag list This list cannot be an empty list. The list can contain up to 10 keys. Keys in this list must be unique.
sys_tags	No	Array of SysTag objects	System tag list This field is available only to the op_service permission. Choose either this field or tags . Currently, TMS calls contain only one resource_tag structure. The key is fixed at as_sys_enterprise_project_id . The value is the UUID or 0 . Value 0 indicates the default enterprise project. Currently, only the create operation is supported.

Parameter	Mandatory	Type	Description
action	Yes	String	Operation to be performed. The value can be set to create or delete only. Enumeration values: <ul style="list-style-type: none"> • create • delete

Response Parameters

Status code: 400

Table 4-270 Response body parameters

Parameter	Type	Description
error_code	String	For details, see Error Codes .
error_msg	String	Error message

Example Requests

Example request

POST https://{endpoint}/v3/{project_id}/vault/{vault_id}/tags/action

```
{
  "tags": [ {
    "key": "string",
    "value": "string"
  }, {
    "key": "string1",
    "value": "string2"
  } ],
  "action": "create"
}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	Bad Request

Error Codes

See [Error Codes](#).

4.8.3 Adding a Tag to an Associated Resource

Function

This API is used to add a tag to an associated resource. A resource can have a maximum of 10 tags. This API is idempotent. If a to-be-added tag has the same key as an existing tag, the tag will be added and overwrite the existing tag.

URI

POST /v3/{project_id}/vault/{vault_id}/tags

Table 4-271 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Resource ID

Request Parameters

Table 4-272 Request body parameters

Parameter	Mandatory	Type	Description
tag	No	Tag object	Tag

Table 4-273 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string. Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>
value	No	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string. Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Response Parameters

Status code: 400

Table 4-274 Response body parameters

Parameter	Type	Description
error_code	String	For details, see Error Codes .
error_msg	String	Error message

Example Requests

Example request

```
POST https://{endpoint}/v3/{project_id}/vault/{vault_id}/tags
{
  "tag": {
    "key": "key1",
    "value": "key2"
  }
}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	Bad Request

Error Codes

See [Error Codes](#).

4.8.4 Deleting a Tag from an Associated Resource

Function

This API is used to delete a tag from an associated resource. The API is idempotent. When you delete a nonexistent tag, error code 404 will be returned. Tag keys cannot be empty or be empty character strings.

URI

DELETE /v3/{project_id}/vault/{vault_id}/tags/{key}

Table 4-275 Path Parameters

Parameter	Mandatory	Type	Description
key	Yes	String	The key cannot be left blank or be an empty string. The key length and character set are not verified. Keys are verified and used after the spaces before and after them are deleted. Even invalid tags at the bottom layer can be deleted.
project_id	Yes	String	Project ID
vault_id	Yes	String	Resource ID

Request Parameters

None

Response Parameters

Status code: 400

Table 4-276 Response body parameters

Parameter	Type	Description
error_code	String	For details, see Error Codes .
error_msg	String	Error message

Example Requests

DELETE https://{endpoint}/v3/{project_id}/vault/{vault_id}/tags/{key}

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	Bad Request

Error Codes

See [Error Codes](#).

4.8.5 Querying Tags of an Associated Resource

Function

This API is used to query tags of a specified resource. TMS uses this API to query all tags of a specified resource.

URI

GET /v3/{project_id}/vault/{vault_id}/tags

Table 4-277 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
vault_id	Yes	String	Resource ID

Request Parameters

None

Response Parameters

Status code: 200

Table 4-278 Response body parameters

Parameter	Type	Description
tags	Array of Tag objects	Tag list Keys in the tag list must be unique.
sys_tags	Array of SysTag objects	Only users with the op_service permission can obtain this field. Currently, only resource_tag is included. key: _sys_enterprise_project_id value: enterprise project ID. Value 0 indicates the default enterprise project. This field is not returned in the non-op_service scenario.

Table 4-279 Tag

Parameter	Type	Description
key	String	<p>Key</p> <p>It can contain a maximum of 36 characters.</p> <p>It cannot be an empty string.</p> <p>Spaces before and after a key will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), and underscores (_).</p>
value	String	<p>Value</p> <p>It is mandatory when a tag is added and optional when a tag is deleted.</p> <p>It can contain a maximum of 43 characters.</p> <p>It can be an empty string.</p> <p>Spaces before and after a value will be discarded.</p> <p>It cannot contain the following characters: ASCII (0-31), equal signs (=), asterisks (*), left angle brackets (<), right angle brackets (>), backslashes (\), commas (,), vertical bars (), and slashes (/)</p> <p>It can contain only Chinese characters, letters, digits, hyphens (-), underscores (_), and periods (.).</p>

Table 4-280 SysTag

Parameter	Type	Description
key	String	<p>Key Key of the system tag, which is obtained from the whitelist and cannot be defined randomly. Currently, only the _sys_enterprise_project_id field is supported, and the corresponding value indicates the enterprise project ID.</p>
value	String	<p>Value Currently, only the enterprise project ID is used. The default enterprise project ID is 0.</p>

Status code: 400

Table 4-281 Response body parameters

Parameter	Type	Description
error_code	String	For details, see Error Codes .
error_msg	String	Error message

Example Requests

```
GET https://{endpoint}/v3/{project_id}/vault/{vault_id}/tags
```

Example Responses

Status code: 200

OK

```
{
  "tags": [ {
    "key": "string",
    "value": ""
  } ]
}
```

Status code: 400

Bad Request

```
{
  "error_code": "BackupService.9900",
  "error_msg": "Invalid vault_id provided."
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See [Error Codes](#).

4.8.6 Querying Tags of a Vault Project

Function

This API is used to query a tenant's tag set in a specific region and of a specific instance type. TMS uses this API to list tags created by a tenant to facilitate tag creation and resource filtering on the console.

URI

GET /v3/{project_id}/vault/tags

Table 4-282 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

None

Response Parameters

Status code: 200

Table 4-283 Response body parameters

Parameter	Type	Description
tags	Array of TagsResp objects	Tag list

Table 4-284 TagsResp

Parameter	Type	Description
key	String	Key It consists of up to 36 characters. It cannot be an empty string. It can contain only Chinese characters, letters, digits, hyphens, and underscores.
values	String	List of values It consists of up to 43 characters. It can be an empty string. It can contain only Chinese characters, letters, digits, hyphens, and underscores.

Status code: 400

Table 4-285 Response body parameters

Parameter	Type	Description
error_code	String	For details, see Error Codes .
error_msg	String	Error message

Example Requests

GET https://{endpoint}/v3/{project_id}/vault/tags

Example Responses

Status code: 200

OK

```
{
  "tags": [ {
    "values": [ "b" ],
    "key": "a"
  }, {
    "values": [ "", "string" ],
    "key": "string"
  } ]
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See [Error Codes](#).

5 Application Cases

[5.1 Example 1: Creating an ECS Backup](#)

[5.2 Example 2: Implementing Automatic Backup for a Vault](#)

[5.3 Example 3: Querying Backups](#)

5.1 Example 1: Creating an ECS Backup

Scenarios

You can back up resources including cloud servers and disks. This section uses an ECS as an example to describe how to create a cloud server backup by calling APIs. For details on how to call APIs, see [3 Calling APIs](#).

Constraints

The vault created using this API is in pay-per-use billing mode.

Involved APIs

To create a cloud server backup, you need to create a vault for storing backups, associate the target server with the vault, and then back up the server. The following APIs are required:

- **Creating a Vault:** Create a container for storing backups.
- **Associating Resources:** Determine the cloud server or disk to be backed up.
- **Creating a Restore Point:** Create a backup.
- **Querying a Restore Point:** Confirm that a backup has been created.

Procedure

1. Create a vault.
 - a. Create a vault with simple configurations.
 - API
URI format: POST /v3/{project_id}/vaults

For details, see "Creating a Vault".

- Sample request

POST: `https://{endpoint}/v3/{project_id}/vaults`

Obtain the value of **{endpoint}** from "Regions and Endpoints".

Body:

```
{
  "vault": {
    "billing": {
      "cloud_type": "public",
      "consistent_level": "crash_consistent",
      "object_type": "server",
      "protect_type": "backup",
      "size": 200
    },
    "name": "my_vault",
    "resources": []
  }
}
```

- Sample response

```
{
  "vault": {
    "id": "ea7b8717-2543-478a-a92d-3ca7ee448f67",
    "name": "my_vault",
    "description": null,
    "resources": [],
    "provider_id": "0daac4c5-6707-4851-97ba-169e36266b66",
    "created_at": "2020-08-17T03:51:24.678916",
    "project_id": "0605767b5780d5762fc5c0118072a564",
    "enterprise_project_id": "0",
    "auto_bind": false,
    "bind_rules": {},
    "user_id": "aa2999fa5ae640f28926f8fd79188934",
    "billing": {
      "allocated": 0,
      "cloud_type": "public",
      "consistent_level": "crash_consistent",
      "frozen_scene": null,
      "charging_mode": "post_paid",
      "order_id": null,
      "product_id": null,
      "protect_type": "backup",
      "object_type": "server",
      "spec_code": "vault.backup.server.normal",
      "used": 0,
      "storage_unit": null,
      "status": "available",
      "size": 200
    },
    "tags": []
  }
}
```

- b. Create a pre-paid vault and associate it with a server.

- API

URI format: `POST /v3/{project_id}/vaults`

The used API is the same as that provided in [1.a](#).

- Sample request

POST: `https://{endpoint}/v3/{project_id}/vaults`

Obtain the value of **{endpoint}** from "Regions and Endpoints".

Body:

```
{
  "vault": {
    "billing": {
      "cloud_type": "public",
      "consistent_level": "crash_consistent",
      "object_type": "server",
      "protect_type": "backup",
      "size": 100,
      "charging_mode": "pre_paid",
      "period_type": "month",
      "period_num": 1,
      "is_auto_renew": false,
      "is_auto_pay": false
    },
    "description": "vault_description",
    "name": "vault_name",
    "resources": [
      {
        "id": "97595625-198e-4e4d-879b-9d53f68ba551",
        "type": "OS::Nova::Server"
      }
    ]
  }
}
```

- c. Record the vault ID in the response body.
2. Associate a server or disk with the vault.
 - a. Associate resources.

- API

URI format: POST /v3/{project_id}/vaults/{vault_id}/addressources
For details, see "Associating Resources".

- Sample request

POST: https://{endpoint}/v3/0605767b5780d5762fc5c0118072a564 / vaults/ea7b8717-2543-478a-a92d-3ca7ee448f67/addressources
Obtain the value of **{endpoint}** from "Regions and Endpoints".

Body:

```
{
  "resources": [
    {
      "id": "e8cc6bfd-d324-4b88-9109-9fb0ba70676f",
      "type": "OS::Nova::Server",
      "name": "server-4690-0002"
    }
  ]
}
```

- Sample response

```
{
  "add_resource_ids": [
    "e8cc6bfd-d324-4b88-9109-9fb0ba70676f"
  ]
}
```

- b. In the request body, select the ID of an ECS that is in the **Running** state and has not been associated with a vault.
3. Create a restore point.
 - a. Create a restore point.

- API

URI format: POST /v3/{project_id}/checkpoints
For details, see "Creating a Restore Point".

- Sample request

POST: `https://{endpoint}/v3/0605767b5780d5762fc5c0118072a564/checkpoints`

Obtain the value of **{endpoint}** from "Regions and Endpoints".

Body:

```
{
  "checkpoint": {
    "parameters": {
      "auto_trigger": false,
      "description": "backupauto",
      "incremental": true,
      "name": "backup_auto",
      "resources": ["e8cc6bfd-d324-4b88-9109-9fb0ba70676f"]
    },
    "vault_id": "ea7b8717-2543-478a-a92d-3ca7ee448f67"
  }
}
```

- Sample response

```
{
  "checkpoint": {
    "id": "d9ce6924-d753-4132-bd16-a9f8838ea7d2",
    "project_id": "0605767b5780d5762fc5c0118072a564",
    "status": "protecting",
    "vault": {
      "id": "ea7b8717-2543-478a-a92d-3ca7ee448f67",
      "name": "my_vault",
      "resources": [
        {
          "id": "e8cc6bfd-d324-4b88-9109-9fb0ba70676f",
          "type": "OS::Nova::Server",
          "name": "ecs-9f93-0002",
          "extra_info": "{}",
          "resource_size": "40",
          "backup_size": "0",
          "backup_count": "0",
          "protect_status": "available"
        }
      ],
      "skipped_resources": []
    },
    "created_at": "2020-08-17T06:49:06.307378",
    "extra_info": {
      "name": "backup_auto",
      "description": "backupauto",
      "retention_duration": -1
    }
  }
}
```

- b. Record the ID of the restore point in the response message body.
4. Verify that the server is backed up successfully.

- API

URI format: `GET /v3/{project_id}/checkpoints/{checkpoint_id}`

For details, see .

Obtain the value of **{endpoint}** from "Regions and Endpoints".

- Sample request

GET: `https://{endpoint}/v3/0605767b5780d5762fc5c0118072a564/checkpoints/d9ce6924-d753-4132-bd16-a9f8838ea7d2`

- Sample response

```
{
  "checkpoint": {
    "id": "d9ce6924-d753-4132-bd16-a9f8838ea7d2",
    "project_id": "0605767b5780d5762fc5c0118072a564",
    "status": "available",
    "vault": null,
    "created_at": "2020-08-17T06:49:06.260790",
    "extra_info": null
  }
}
```

5.2 Example 2: Implementing Automatic Backup for a Vault

Scenarios

This section describes how to use APIs to set a backup policy and apply the policy to a vault for automatic backup.

Involved APIs

- Creating a Policy: Define when a backup task runs and how long the backups are retained.
- Applying a Policy to a Vault: Apply a policy to a vault.

Procedure

1. Create a backup policy.

- API

URI format: POST /v3/{project_id}/policies

For details, see "Creating a Policy".

- Sample request

POST: `https://{endpoint}/v3/0605767b5780d5762fc5c0118072a564/policies`

Obtain the value of **{endpoint}** from "Regions and Endpoints".

Body:

```
{
  "policy": {
    "name": "dh_test_policy",
    "trigger": {
      "properties": {
        "pattern":
["FREQ=WEEKLY;BYDAY=SU,MO,TU,WE,TH,FR,SA;BYHOUR=23;BYMINUTE=00"]
      }
    },
    "operation_definition": {
      "retention_duration_days": 30
    }
  }
}
```

- Sample response

```
{
  "policy": {
    "id": "30d7cf2d-14fc-415b-b7da-858b37f47250",
    "name": "dh_test_policy",
```

```

    "operation_type": "backup",
    "operation_definition": {
      "retention_duration_days": 30
    },
    "enabled": true,
    "trigger": {
      "id": "7954175b-ef2c-432c-b936-f6c83df7a593",
      "name": "default",
      "type": "time",
      "properties": {
        "pattern": [
          "FREQ=WEEKLY;BYDAY=SU,MO,TU,WE,TH,FR,SA;BYHOUR=23;BYMINUTE=00"
        ],
        "start_time": "2020-08-17 08:39:44"
      }
    },
    "associated_vaults": null
  }
}

```

2. Apply the policy to a vault.

- API

POST /v3/{project_id}/vaults/{vault_id}/associatepolicy

For details, see "Applying a Policy to a Vault".

- Sample request

POST: [https://{endpoint}/v3/0605767b5780d5762fc5c0118072a564 / vaults/ea7b8717-2543-478a-a92d-3ca7ee448f67/associatepolicy](https://{endpoint}/v3/0605767b5780d5762fc5c0118072a564/vaults/ea7b8717-2543-478a-a92d-3ca7ee448f67/associatepolicy)

Obtain the value of **{endpoint}** from "Regions and Endpoints".

Body:

```

{
  "policy_id": "30d7cf2d-14fc-415b-b7da-858b37f47250"
}

```

- Sample response

```

{
  "associate_policy": {
    "vault_id": "ea7b8717-2543-478a-a92d-3ca7ee448f67",
    "policy_id": "30d7cf2d-14fc-415b-b7da-858b37f47250"
  }
}

```

5.3 Example 3: Querying Backups

Scenarios

This section describes how to use APIs to query all backups of a tenant by page.

The operations described in this section include information query by page and data filtering and sorting. For details about the parameters, see "Querying All Backups".

Involved APIs

Querying backups involves the following APIs:

- [Querying backups based on a given limit and offset](#)
- [Querying backups based on a given resource type](#)

Procedure

1. Query backups based on a given **limit** and **offset**.

- API

URI format: GET /v3/{project_id}/backups

For details, see "Querying All Backups".

- Sample request

GET:https://{endpoint}/v3/0605767b5780d5762fc5c0118072a564/backups?limit=100&offset=0

Obtain the value of **{endpoint}** from "Regions and Endpoints".

- Sample response

```
{
  "backups": [
    .....
    {
      "children": [],
      "checkpoint_id": "e6aec7a9-7b03-4c1d-8a07-5983b53c53f3",
      "created_at": "2020-08-18T06:00:45.375070",
      "description": null,
      "expired_at": null,
      "extend_info": {
        "app_consistency": {
          "app_consistency": "0",
          "app_consistency_status": "0",
          "app_consistency_error_code": "0",
          "app_consistency_error_message": ""
        }
      },
      "auto_trigger": true,
      "bootable": null,
      "os_images_data": null,
      "progress": null,
      "snapshot_id": null,
      "support_ll": false,
      "supported_restore_mode": "backup",
      "system_disk": false,
      "contain_system_disk": true,
      "architecture": "x86_64"
    },
    "id": "62617971-839d-4d23-8dfd-4ca65c039bdf",
    "image_type": "backup",
    "name": "autobk_cf91_0003",
    "parent_id": null,
    "project_id": "0605767b5780d5762fc5c0118072a564",
    "protected_at": "2020-08-18T06:01:10.432117",
    "provider_id": "0daac4c5-6707-4851-97ba-169e36266b66",
    "resource_az": "br-iaas-odin1a",
    "resource_id": "d6bf7592-ca52-43a2-9979-e418d64b29bb",
    "resource_name": "xzl_ecs-0003-0001",
    "resource_size": 40,
    "resource_type": "OS::Nova::Server",
    "status": "available",
    "updated_at": "2020-08-18T06:06:44.928325",
    "vault_id": "1572bd27-e221-4f28-94ca-9777d232fcd7",
    "replication_records": []
  ],
  "count": 1663
}
```

2. Query backups based on a given resource type.

- API

URI format: GET /v3/{project_id}/backups

The used API is the same as that provided in [1](#).

– Sample request

GET: `https://{endpoint}/v3/0605767b5780d5762fc5c0118072a564/backups?resource_type=OS::Nova::Server&limit=5&offset=0`

Obtain the value of **{endpoint}** from "Regions and Endpoints".

– Sample response

```
{
  "backups": [
    .....
    {
      "children": [],
      "checkpoint_id": "e328d05e-4b28-4898-b8c1-2bfe6621ec03",
      "created_at": "2020-08-18T07:00:46.932061",
      "description": null,
      "expired_at": null,
      "extend_info": {
        "app_consistency": {
          "app_consistency": "0",
          "app_consistency_status": "0",
          "app_consistency_error_code": "0",
          "app_consistency_error_message": ""
        },
        "auto_trigger": true,
        "bootable": null,
        "os_images_data": null,
        "progress": null,
        "snapshot_id": null,
        "support_llid": false,
        "supported_restore_mode": "backup",
        "system_disk": false,
        "contain_system_disk": true,
        "architecture": "x86_64"
      },
      "id": "c892ed58-3a18-47c2-9e31-a1d543dc490a",
      "image_type": "backup",
      "name": "autobk_7234_0003",
      "parent_id": null,
      "project_id": "0605767b5780d5762fc5c0118072a564",
      "protected_at": "2020-08-18T07:01:12.675112",
      "provider_id": "0daac4c5-6707-4851-97ba-169e36266b66",
      "resource_az": "br-iaas-odin1a",
      "resource_id": "d6bf7592-ca52-43a2-9979-e418d64b29bb",
      "resource_name": "xzl_ecs-0003-0001",
      "resource_size": 40,
      "resource_type": "OS::Nova::Server",
      "status": "available",
      "updated_at": "2020-08-18T07:06:47.518054",
      "vault_id": "1572bd27-e221-4f28-94ca-9777d232fcd7",
      "replication_records": []
    }
  ],
  "count": 150
}
```

6 Permissions Policies and Supported Actions

[6.1 Introduction](#)

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6.1 Introduction

This section describes fine-grained permissions management for your CBR. If your Huawei Cloud account does not need individual IAM users, skip this section.

By default, new IAM users do not have permissions assigned. You need to add the users to one or more groups, and attach permissions policies or roles to these groups. Users inherit permissions from the groups to which they are added and can perform specified operations on cloud services based on the permissions.

You can grant users permissions by using roles and policies. Roles are a type of coarse-grained authorization mechanism that defines permissions related to user responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

NOTE

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

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

Supported Actions

CBR provides system-defined policies that can be directly used in IAM. You can also create custom policies and use them to supplement system-defined policies,

implementing more refined access control. Actions supported by policies are specific to APIs. The following are common concepts related to policies:

- Permissions: Statements in a policy that allow or deny certain operations.
- APIs: REST APIs that can be called by a user who has been granted specific permissions.
- Actions: Specific operations that are allowed or denied.
- Related actions: Actions on which a specific action depends to take effect. When assigning permissions for the action to a user, you also need to assign permissions for the related actions.

-  **NOTE**

The check mark (√) and cross symbol (x) indicate that an action takes effect or does not take effect for the corresponding type of projects.

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

- [Example] **Vault** includes actions supported by CBR vault APIs, such as APIs for creating, modifying, and deleting a vault, querying the vault list, as well as adding and removing resources.
- [Example] **Backup Sharing** includes actions supported by CBR backup sharing APIs, such as APIs for adding share members, obtaining the share member list, and updating the share member status.

6.2 Category of CBR Actions

Task

Permission	API	Action	IAM Project	Enterprise Project
Querying the task list	GET /v3/{project_id}/operation-logs	cbr:tasks:list	√	√
Querying a single task	GET /v3/{project_id}/operation-logs/{operation_log_id}	cbr:tasks:get	√	√

Protection

Permission	API	Action	Related Action	IAM Project	Enterprise Project
Querying protectable resources	GET /v3/{project_id}/protectables/{protectable_type}/instances	cbr:vaults:listProtectables	ecs:cloudServers:list evs:volumes:list	√	√
Querying a specified protectable resource	GET /v3/{project_id}/protectables/{protectable_type}/instances/{instance_id}	cbr:vaults:getProtectables	ecs:cloudServers:list evs:volumes:list	√	√
Querying the replication capability	GET /v3/{project_id}/replication-capabilities	cbr:backups:queryReplicationCapability	-	√	√

Vault

Permission	API	Action	Related Action	IAM Project	Enterprise Project
Applying a policy to a vault	POST /v3/{project_id}/vaults/{vault_id}/associatepolicy	cbr:vaults:associatePolicy	-	√	√
Querying a specified vault	GET /v3/{project_id}/vaults/{vault_id}	cbr:vaults:get	-	√	√
Modifying a vault	PUT /v3/{project_id}/vaults/{vault_id}	cbr:vaults:update	-	√	√

Permission	API	Action	Related Action	IAM Project	Enterprise Project
Deleting a vault	DELETE /v3/ {project_id}/ vaults/ {vault_id}	cbr:vaults:delete	-	√	√
Removing resources	POST /v3/ {project_id}/ vaults/ {vault_id}/ removeresources	cbr:vaults:removeResources	-	√	√
Associating resources	POST /v3/ {project_id}/ vaults/ {vault_id}/ addresources	cbr:vaults:addResources	ecs:cloudServers:list evs:volumes:list	√	√
Querying the vault list	GET /v3/ {project_id}/ vaults	cbr:vaults:list	-	√	√
Creating a vault	POST /v3/ {project_id}/ vaults	cbr:vaults:create	ecs:cloudServers:list evs:volumes:list	√	√
Removing a policy from a vault	POST /v3/ {project_id}/ vaults/ {vault_id}/ dissociatepolicy	cbr:vaults:dissociatePolicy	-	√	√

Restore Point

Permission	API	Action	Related Action	IAM Project	Enterprise Project
Synchronizing a restore point	POST /v3/ {project_id}/ checkpoints/ sync	cbr:vaults:sync	-	√	√

Permission	API	Action	Related Action	IAM Project	Enterprise Project
Creating a restore point	POST /v3/{project_id}/checkpoints	cbr:vaults:backup	ecs:cloudServers:list evs:volumes:list	√	√

Backup Sharing

Permission	API	Action	IAM Project	Enterprise Project
Adding a share member	POST /v3/{project_id}/backups/{backup_id}/members	cbr:member:create	√	√
Updating the share member status	PUT /v3/{project_id}/backups/{backup_id}/members/{member_id}	cbr:member:update	√	√
Querying details about a share member	GET /v3/{project_id}/backups/{backup_id}/members/{member_id}	cbr:member:get	√	√
Obtaining the share member list	GET /v3/{project_id}/backups/{backup_id}/members	cbr:member:list	√	√
Deleting a specified share member	DELETE /v3/{project_id}/backups/{backup_id}/members/{member_id}	cbr:member:delete	√	√

Backup

Permission	API	Action	Related Action	IAM Project	Enterprise Project
Querying all backups	GET /v3/{project_id}/backups	cbr:backups:list	-	√	√
Querying a specified backup	GET /v3/{project_id}/backups/{backup_id}	cbr:backups:get	-	√	√
Deleting a backup	DELETE /v3/{project_id}/backups/{backup_id}	cbr:backups:delete	-	√	√
Synchronizing a backup	POST /v3/{project_id}/backups/sync	cbr:backups:sync	-	√	√
Restoring data using a backup	POST /v3/{project_id}/backups/{backup_id}/restore	cbr:backups:restore	ecs:cloudServers:list evs:volumes:list	√	√

Policy

Permission	API	Action	IAM Project	Enterprise Project
Querying the policy list	GET /v3/{project_id}/policies	cbr:policies:list	√	√
Creating a policy	POST /v3/{project_id}/policies	cbr:policies:create	√	√
Querying a policy	GET /v3/{project_id}/policies/{policy_id}	cbr:policies:get	√	√

Permission	API	Action	IAM Project	Enterprise Project
Modifying a policy	PUT /v3/{project_id}/policies/{policy_id}	cbr:policies:update	√	√
Deleting a policy	DELETE /v3/{project_id}/policies/{policy_id}	cbr:policies:delete	√	√

Tag

Permission	API	Action	IAM Project	Enterprise Project
Querying the vault resource instances	POST /v3/{project_id}/vault/resource_instances/action	cbr:vaults:listResourceInstances	√	√
Batch adding or deleting vault resource tags	POST /v3/{project_id}/vault/{vault_id}/tags/action	cbr:vaults:bulkCreateOrDeleteTags	√	√
Adding a vault resource tag	POST /v3/{project_id}/vault/{vault_id}/tags	cbr:vaults:setTags	√	√
Deleting a vault resource tag	DELETE /v3/{project_id}/vault/{vault_id}/tags/{key}	cbr:vaults:deleteTags	√	√
Querying a vault resource tag	GET /v3/{project_id}/vault/{vault_id}/tags	cbr:vaults:getTags	√	√
Querying a vault project tag	GET /v3/{project_id}/vault/tags	cbr:vaults:listProjectTags	√	√

7 Appendix

[7.1 Status Codes](#)

[7.2 Error Codes](#)

[7.3 Obtaining a Project ID](#)

7.1 Status Codes

- Normal

Status Code	Description
200 OK	Specifies the normal response code for the GET and PUT operations.
201 Created	Specifies the normal response code for the POST operation.
202 Accepted	The request has been accepted for processing.
204 No Content	Specifies the normal response code for the DELETE operation.

- Abnormal

Status Code	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You need to enter the username and password to access the requested page.
403 Forbidden	Access to the requested page is forbidden.
404 Not Found	The server could not find the requested page.

Status Code	Description
405 Method Not Allowed	The method specified in the request is not allowed.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication so that the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	The request is not completed because of a service error.
501 Not Implemented	The request is not completed because the server does not support the requested function.
502 Bad Gateway	The request is not completed because the server receives an invalid request.
503 Service Unavailable	The request is not completed because the service is unavailable.
504 Gateway Timeout	A gateway timeout error occurs.

7.2 Error Codes

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.0001	No resource is available for backup.	No resource is available for backup.	Check whether resources are being backed up or contact technical support.
400	BackupService.1011	The destination project does not support replication.	The destination project does not support replication.	Contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.2001	Restoration cannot be executed because the size of the disk on the server is smaller than the backup size.	Restoration cannot be executed because the size of the disk on the server is smaller than the backup size.	Perform the operation according to the constraints.
400	BackupService.2002	The resource is being backed up. Restore the resource after the backup is complete.	The resource is being backed up. Restore the resource after the backup is complete.	Perform the operation according to the constraints.
400	BackupService.2003	Restoration to a different server is not allowed.	Restoration to a different server is not allowed.	Perform the operation according to the constraints.
400	BackupService.2005	Restoration is not allowed in the current backup status.	Restoration is not allowed in the current backup status.	Perform the operation according to the constraints.
400	BackupService.2006	An ECS backup cannot be restored to a BMS.	An ECS backup cannot be restored to a BMS.	Perform the operation according to the constraints.
400	BackupService.2007	A terminated ECS cannot be restored.	A terminated ECS cannot be restored.	Perform backups when the ECS status is Available.
400	BackupService.2008	Restoration is not allowed in the current ECS status.	Restoration is not allowed in the current ECS status.	Check the ECS status.
400	BackupService.2009	Restoration is not allowed in the current disk type.	Restoration is not allowed in the current disk type.	Perform the operation according to the constraints.
400	BackupService.2010	The resource is being restored.	The resource is being restored.	Try again later.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.2011	Restoration is not allowed in the current disk status.	Restoration is not allowed in the current disk status.	Check the disk status.
400	BackupService.2012	Restoration of some disks is not allowed.	Restoration of some disks is not allowed.	Contact technical support.
400	BackupService.2013	Backup data of a data disk cannot be restored to a system disk.	Backup data of a data disk cannot be restored to a system disk.	Use valid values for restoration parameters.
400	BackupService.2014	A BMS backup cannot be restored to an ECS.	A BMS backup cannot be restored to an ECS.	Select a proper backup for restoration.
400	BackupService.2015	Restoration is not allowed between different architectures.	Restoration is not allowed between different architectures.	Select a proper architecture for restoration.
400	BackupService.6001	The maximum number of this type of policies has been reached.	The maximum number of this type of policies has been reached.	Contact technical support.
400	BackupService.6003	The destination region cannot be changed because the policy has been applied to a replication vault.	The destination region cannot be changed because the policy has been applied to a replication vault.	Remove the policy from the vault and try again.
400	BackupService.6100	The maximum number of vault resources has been reached.	The maximum number of vault resources has been reached.	Create a new vault and associate resources with the new vault.
400	BackupService.6101	Invalid vault capacity.	Invalid vault capacity.	Use valid values for vault parameters.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6102	The vault does not support this resource type.	The vault does not support this resource type.	Use valid values for vault type parameters.
400	BackupService.6103	The resource has been associated with a vault.	The resource has been associated with a vault.	Use valid values for resource parameters.
400	BackupService.6104	Duplicate vault resources.	Duplicate vault resources.	Use valid values for resource parameters.
400	BackupService.6106	The vault already exists.	The vault already exists.	Use valid values for vault parameters.
400	BackupService.6107	Vault capacity expansion failed.	Vault capacity expansion failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6108	New resources cannot be associated with the vault.	New resources cannot be associated with the vault.	Try again. If the fault persists, contact technical support.
400	BackupService.6109	The bill does not exist.	The bill does not exist.	Contact technical support.
400	BackupService.6110	The vault cannot be updated.	The vault cannot be updated.	Try again. If the fault persists, contact technical support.
400	BackupService.6111	The vault cannot be deleted.	The vault cannot be deleted.	Try again. If the fault persists, contact technical support.
400	BackupService.6112	Invalid vault status.	Invalid vault status.	Perform the operation in the correct status.
400	BackupService.6113	Backup is not allowed in the current vault status.	Backup is not allowed in the current vault status.	Perform the operation in the correct status.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6114	The used capacity of the vault exceeds the maximum capacity.	The used capacity of the vault exceeds the maximum capacity.	Use vaults properly.
400	BackupService.6115	Failed to delete the backups of vault resources.	Failed to delete the backups of vault resources.	Try again. If the fault persists, contact technical support.
400	BackupService.6116	Unsupported resource type.	Unsupported resource type.	Enter a valid protect type value.
400	BackupService.6117	Unknown policy type.	Unknown policy type.	Enter a valid OperationType value.
400	BackupService.6118	Failed to check the destination vault.	Failed to check the destination vault.	Try again. If the fault persists, contact technical support.
400	BackupService.6119	The destination vault does not support replication.	The destination vault does not support replication.	Check whether the destination vault supports replication.
400	BackupService.6120	The destination vault does not exist.	The destination vault does not exist.	Check whether the destination vault exists.
400	BackupService.6121	Vault deletion failed.	Vault deletion failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6122	The resource type does not support replication.	The resource type does not support replication.	Check whether the resource type supports replication.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6123	Capacity expansion failed. There may be unprocessed capacity expansion orders or capacity expansion is in progress.	Capacity expansion failed. There may be unprocessed capacity expansion orders or capacity expansion is in progress.	Try again. If the fault persists, contact technical support.
400	BackupService.6124	Backup is not allowed for the current type of vaults.	Backup is not allowed for the current type of vaults.	Use different types of vaults properly.
400	BackupService.6125	A backup task is in progress.	A backup task is in progress.	Perform backups after the current backup task is complete.
400	BackupService.6126	Database backup is not allowed for this vault.	Database backup is not allowed for this vault.	Use different types of vaults properly.
400	BackupService.6127	This policy cannot be applied to this vault.	This policy cannot be applied to this vault.	Use different types of vaults properly.
400	BackupService.6128	Replication is not allowed for the current type of vaults.	Replication is not allowed for the current type of vaults.	Use a proper type of vault for replication.
400	BackupService.6129	The maximum capacity of the destination vault has been reached.	The maximum capacity of the destination vault has been reached.	Expand the vault capacity and then perform this operation.
400	BackupService.6130	The vault is being replicated.	The vault is being replicated.	Try again later.
400	BackupService.6131	The traffic record does not exist.	The traffic record does not exist.	Contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6133	The maximum number of vaults has been reached.	The maximum number of vaults has been reached.	Contact technical support.
400	BackupService.6134	Resources are being removed from the vault.	Resources are being removed from the vault.	Try again later.
400	BackupService.6135	The resource does not exist in the vault.	The resource does not exist in the vault.	Check whether the resource has been associated with the vault.
400	BackupService.6136	Backup policies cannot be applied with hybrid cloud backup vaults.	Backup policies cannot be applied with hybrid cloud backup vaults.	Contact technical support.
400	BackupService.6140	An encrypted disk cannot be specified as a system disk.	An encrypted disk cannot be specified as a system disk.	Perform the operation according to the constraints.
400	BackupService.6141	A SCSI disk cannot be specified as a system disk.	A SCSI disk cannot be specified as a system disk.	Perform the operation according to the constraints.
400	BackupService.6142	Maximum capacities of all vaults have been reached.	Maximum capacities of all vaults have been reached.	Expand vault capacities and try again.
400	BackupService.6201	The backup cannot be deleted.	The backup cannot be deleted.	Try again. If the fault persists, contact technical support.
400	BackupService.6202	Backups can be used for restoration only when the vault status is Available.	Backups can be used for restoration only when the vault status is Available.	Perform the operation in the correct status.
400	BackupService.6203	Performing backups.	Performing backups.	Perform backups after the current task is complete.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6204	The backup cannot be deleted because it has been used to create an image.	The backup cannot be deleted because it has been used to create an image.	Delete the created image and then delete the backup.
400	BackupService.6206	Metadata query is not allowed in the current backup status.	Metadata query is not allowed in the current backup status.	Try again later.
400	BackupService.6215	Backup is not allowed in the current resource status.	Backup is not allowed in the current resource status.	Check whether the resource can be backed up in the current status.
400	BackupService.6216	The backup cannot be deleted because it is in use.	The backup cannot be deleted because it is in use.	Try again later.
400	BackupService.6300	The resource type and backup provider do not match.	The resource type and backup provider do not match.	Contact technical support.
400	BackupService.6301	Invalid backup provider ID.	Invalid backup provider ID.	Use a valid provider ID.
400	BackupService.6400	Bucket creation failed.	Bucket creation failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6401	Failed to set the bucket quota.	Failed to set the bucket quota.	Try again. If the fault persists, contact technical support.
400	BackupService.6403	Failed to obtain bucket storage information.	Failed to obtain bucket storage information.	Try again. If the fault persists, contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6404	Bucket deletion failed.	Bucket deletion failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6405	Bucket object deletion failed.	Bucket object deletion failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6406	Failed to list bucket objects.	Failed to list bucket objects.	Try again. If the fault persists, contact technical support.
400	BackupService.6407	Failed to set the bucket ACL.	Failed to set the bucket ACL.	Try again. If the fault persists, contact technical support.
400	BackupService.6408	Failed to set the bucket policy.	Failed to set the bucket policy.	Try again. If the fault persists, contact technical support.
400	BackupService.6600	The maximum number of tags has been reached for the resource.	The maximum number of tags has been reached for the resource.	Delete some tags and try again.
400	BackupService.6700	Only cloud server backups can be shared.	Only cloud server backups can be shared.	Share cloud server backups.
400	BackupService.6701	The maximum number of backups that can be shared has been reached.	The maximum number of backups that can be shared has been reached.	Check whether the maximum number of backups that can be shared has been reached.
400	BackupService.6702	Only backups in the Available status can be shared.	Only backups in the Available status can be shared.	Share backups that are in the Available status.
400	BackupService.6703	The backup has been shared.	The backup has been shared.	Check whether the backup has already been shared to a user.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6704	Invalid project ID of the tenant for sharing.	Invalid project ID of the tenant for sharing.	Use a correct project ID for sharing.
400	BackupService.6706	Invalid update parameter value for the share member.	Invalid update parameter value for the share member.	Use valid values for update parameters.
400	BackupService.6707	Backup sharing is not allowed.	Backup sharing is not allowed.	Check whether backup sharing is supported.
400	BackupService.6708	Failed to update the status of a share member.	Failed to update the status of a share member.	Contact technical support.
400	BackupService.6709	Backup sharing is not allowed for cloud servers using encrypted disks.	Backup sharing is not allowed for cloud servers using encrypted disks.	Perform the operation according to the constraints.
400	BackupService.6710	The shared backup has been used to register an image.	The shared backup has been used to register an image.	Delete the image first.
400	BackupService.6711	Shared backup deletion failed.	Shared backup deletion failed.	Contact technical support.
400	BackupService.6712	Backup sharing is not allowed in the current vault status.	Backup sharing is not allowed in the current vault status.	Perform the operation according to the constraints.
400	BackupService.6713	The type of the vault accepting the shared backup and the backup resource type are different.	The type of the vault accepting the shared backup and the backup resource type are different.	The vault type and resource type must be the same.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6714	A shared backup cannot be shared to the same member again.	A shared backup cannot be shared to the same member again.	Perform the operation according to the constraints.
400	BackupService.7001	DESS disks cannot be backed up.	DESS disks cannot be backed up.	Perform the operation according to the constraints.
400	BackupService.7002	SCSI disks cannot be backed up.	SCSI disks cannot be backed up.	Perform the operation according to the constraints.
400	BackupService.7003	Backup is not allowed in the current disk status.	Backup is not allowed in the current disk status.	Perform the operation in the correct status.
400	BackupService.7004	Backup or restoration is not allowed for this disk.	Backup or restoration is not allowed for this disk.	Contact technical support.
400	BackupService.7006	The disk already exists in the vault.	The disk already exists in the vault.	Dissociate the disk from the vault and then perform this operation.
400	BackupService.7007	A disk created a long time ago cannot be backed up.	A disk created a long time ago cannot be backed up.	Replace the disk and perform backups.
400	BackupService.7008	Disks at the disaster recovery site cannot be restored.	Disks at the disaster recovery site cannot be restored.	Perform the operation in the correct status.
400	BackupService.7101	Backup is not allowed in the current server status.	Backup is not allowed in the current server status.	Perform the operation in the correct status.
400	BackupService.7102	The server has stopped.	The server has stopped.	Perform the operation in the correct status.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.7103	The server cannot be backed up.	The server cannot be backed up.	Contact technical support.
400	BackupService.7104	Backup is not allowed for servers using SCSI disks.	Backup is not allowed for servers using SCSI disks.	Detach the SCSI disks and then perform backups.
400	BackupService.7105	Inconsistent disk backends.	Inconsistent disk backends.	Contact technical support.
400	BackupService.7106	Shared disks cannot be backed up.	Shared disks cannot be backed up.	Perform the operation according to the constraints.
400	BackupService.7107	The maximum number of shared disks has been reached.	The maximum number of shared disks has been reached.	Exclude the shared disks and then perform backups.
400	BackupService.7108	Backup is not allowed for servers containing no disks.	Backup is not allowed for servers containing no disks.	Attach disks to the server and then perform backups.
400	BackupService.7109	BMSs cannot be backed up.	BMSs cannot be backed up.	Perform the operation according to the constraints.
400	BackupService.7110	The resource type and provider ID do not match.	The resource type and provider ID do not match.	Use a valid provider ID.
400	BackupService.7111	Backup is not allowed for servers using DESS disks.	Backup is not allowed for servers using DESS disks.	Detach DESS disks and then perform backups.
400	BackupService.7113	BMS local disks cannot be backed up.	BMS local disks cannot be backed up.	Exclude local disks and then perform backups.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.7114	Restoration to the source server running a different operating system is not allowed.	Restoration to the source server running a different operating system is not allowed.	Use valid values for restoration parameters.
400	BackupService.7115	The backup server and the destination server to be restored have different types.	The backup server and the destination server to be restored have different types.	Use valid values for restoration parameters.
400	BackupService.7116	The server has been associated with the vault.	The server has been associated with the vault.	Dissociate the server from the vault and then perform this operation.
400	BackupService.7117	Restoration is not allowed for disaster recovery site servers.	Restoration is not allowed for disaster recovery site servers.	Use valid values for restoration parameters.
400	BackupService.7200	Cloud databases are being backed up.	Cloud databases are being backed up.	Try again later.
400	BackupService.7201	The disk is not attached to any server.	The disk is not attached to any server.	Confirm and then try again.
400	BackupService.7203	The snapshot is not in the correct status.	The snapshot is not in the correct status.	Try again later.
400	BackupService.7204	The snapshot and disk do not match.	The snapshot and disk do not match.	Confirm and then try again.
400	BackupService.7300	The vault does not support synchronization.	The vault does not support synchronization.	Check whether the vault type supports synchronization.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.7301	The vault is not empty.	The vault is not empty.	Perform the operation according to the constraints.
400	BackupService.7302	Backups are being synchronized.	Backups are being synchronized.	Perform the operation according to the constraints.
400	BackupService.7303	The maximum number of vaults has been reached.	The maximum number of vaults has been reached.	Contact technical support.
400	BackupService.7501	SFS Turbo file systems are being backed up.	SFS Turbo file systems are being backed up.	Try again later.
400	BackupService.7502	Backup is not allowed in the current status of the SFS Turbo file system.	Backup is not allowed in the current status of the SFS Turbo file system.	Perform the operation in the correct status.
400	BackupService.7503	Backup is not allowed in the current sub-status of the SFS Turbo file system.	Backup is not allowed in the current sub-status of the SFS Turbo file system.	Perform the operation in the correct status.
400	BackupService.7504	Failed to freeze the SFS Turbo file system.	Failed to freeze the SFS Turbo file system.	Try again later.
400	BackupService.7505	Failed to unfreeze the SFS Turbo file system.	Failed to unfreeze the SFS Turbo file system.	Try again later.
400	BackupService.7506	Failed to execute tasks of the SFS Turbo file system.	Failed to execute tasks of the SFS Turbo file system.	Try again later or contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.7507	Restoration is not allowed because the SFS Turbo file system is different from when it is backed up.	Restoration is not allowed because the SFS Turbo file system is different from when it is backed up.	Perform the operation in the correct status.
400	BackupService.7508	SFS Turbo file system pre-restoration failed.	SFS Turbo file system pre-restoration failed.	Try again. If the fault persists, contact technical support.
400	BackupService.7509	SFS Turbo file system restoration failed.	SFS Turbo file system restoration failed.	Try again. If the fault persists, contact technical support.
400	BackupService.7510	SFS Turbo backups can only be restored to original SFS Turbo file systems.	SFS Turbo backups can only be restored to original SFS Turbo file systems.	Restore to the original SFS Turbo file system.
400	BackupService.7511	Restoration is not allowed in the current status of the SFS Turbo file system.	Restoration is not allowed in the current status of the SFS Turbo file system.	Perform the operation in the correct status.
400	BackupService.8300	Insufficient snapshot quota.	Insufficient snapshot quota.	Increase quota and then try again.
400	BackupService.9900	Parameter verification failed.	Parameter verification failed.	Use valid parameter values.
403	BackupService.8600	Not authenticated.	Not authenticated.	Complete real-name authentication.
404	BackupService.4001	The migration record does not exist.	The migration record does not exist.	Provide a correct migration record ID.
404	BackupService.6000	The policy does not exist.	The policy does not exist.	Check whether the policy exists.

Status Code	Error Code	Error Message	Description	Handling Measure
404	BackupService.6002	The vault is not applied with the policy.	The vault is not applied with the policy.	Apply the backup policy to the vault first.
404	BackupService.6105	The vault does not exist.	The vault does not exist.	Use valid values for vault parameters.
404	BackupService.6200	The backup does not exist.	The backup does not exist.	Check whether the backup exists.
404	BackupService.6217	The backup restore point does not exist.	The backup restore point does not exist.	Check whether the backup restore point exists.
404	BackupService.6302	The resource does not exist.	The resource does not exist.	Confirm the queried resource.
404	BackupService.6402	The bucket is not empty.	The bucket is not empty.	Delete backups and backup policies to empty the bucket.
404	BackupService.6500	The operation log does not exist.	The operation log does not exist.	Check whether the respective task exists.
404	BackupService.6501	The task does not exist.	The task does not exist.	Check whether the task exists.
404	BackupService.6601	The key does not exist.	The key does not exist.	Enter a correct key.
404	BackupService.6705	The share member does not exist.	The share member does not exist.	Check whether the share member exists.
404	BackupService.7000	The disk does not exist.	The disk does not exist.	Perform the operation according to the constraints.
404	BackupService.7100	The server does not exist.	The server does not exist.	Perform the operation in the correct status.
404	BackupService.7202	Failed to obtain the snapshot.	Failed to obtain the snapshot.	Confirm the query parameters.

Status Code	Error Code	Error Message	Description	Handling Measure
404	BackupService.7500	The SFS Turbo file system does not exist.	The SFS Turbo file system does not exist.	Checks whether the SFS Turbo file system exists.
500	BackupService.0002	Resources are being backed up.	Resources are being backed up.	Try again later.
500	BackupService.1005	The destination region does not support replication.	The destination region does not support replication.	Check whether the current region supports replication.
500	BackupService.1006	Failed to import the backup replica.	Failed to import the backup replica.	Contact technical support.
500	BackupService.4004	Failed to clean up data.	Failed to clean up data.	Try again later.
500	BackupService.4005	Failed to check the destination vault.	Failed to check the destination vault.	Try again later.
500	BackupService.4006	Failed to migrate the backup in an intermediate status.	Failed to migrate the backup in an intermediate status.	Try again later.
500	BackupService.4007	Failed to check the migration progress of other regions.	Failed to check the migration progress of other regions.	Try again later.
500	BackupService.6132	Vault creation failed.	Vault creation failed.	Try again. If the fault persists, contact technical support.
500	BackupService.6137	One disk on cloud servers cannot be backed up in multiple vaults.	One disk on cloud servers cannot be backed up in multiple vaults.	Associate servers using the same disk to the same vault.

Status Code	Error Code	Error Message	Description	Handling Measure
500	BackupService.6138	Failed to obtain language preferences from CBC.	Failed to obtain language preferences from CBC.	Only Chinese and English are supported.
500	BackupService.6139	Failed to obtain xdomain_type .	Failed to obtain xdomain_type .	Try again later.
500	BackupService.6207	This type of backups cannot be used to create images.	This type of backups cannot be used to create images.	Perform the operation according to the constraints.
500	BackupService.6208	Image creation is not allowed in the current backup status.	Image creation is not allowed in the current backup status.	Try again later or contact technical support.
500	BackupService.6209	The backup does not contain the system disk data and cannot be used to create an image.	The backup does not contain the system disk data and cannot be used to create an image.	Perform the operation according to the constraints.
500	BackupService.6210	An image has been created using the backup.	An image has been created using the backup.	Perform the operation according to the constraints.
500	BackupService.6211	An image has been created using the backup.	An image has been created using the backup.	Perform the operation according to the constraints.
500	BackupService.6212	Image creation failed.	Image creation failed.	Contact technical support.
500	BackupService.6213	The backup and the image do not match.	The backup and the image do not match.	Contact technical support.
500	BackupService.6214	Failed to deregister the image.	Failed to deregister the image.	Contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
500	BackupService.7009	The disk backup is being lazyloaded after deleted.	The disk backup is being lazyloaded after deleted.	Perform the operation in the correct status.
500	BackupService.8400	Failed to obtain the product from CBC.	Failed to obtain the product from CBC.	Try again later.
500	BackupService.9910	Unknown error.	Unknown error.	Contact technical support.
500	BackupService.9998	Authentication failed.	Authentication failed.	Confirm user information.

7.3 Obtaining a Project ID

Scenarios

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

- [Obtain the Project ID by Calling an API](#)
- [Obtain the Project ID from the Console](#)

Obtain the Project ID by Calling an API

You can obtain a project ID by calling the API used to [query projects based on specified criteria](#).

The API used to obtain a project ID is GET `https://{Endpoint}/v3/projects`. `{Endpoint}` is the IAM endpoint and can be obtained from Regions and Endpoints. For details about API authentication, see [3.2 Authentication](#).

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

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

```
    }  
  ],  
  "links": {  
    "next": null,  
    "previous": null,  
    "self": "https://www.example.com/v3/projects"  
  }  
}
```

Obtain a Project ID from the Console

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

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

A Change History

Released On	Description
2022-09-30	This issue is the first official release.