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Contents

| | |
|--|-----------|
| 1 Before You Start..... | 1 |
| 1.1 Overview..... | 1 |
| 1.2 API Calling..... | 1 |
| 1.3 Endpoints..... | 1 |
| 1.4 Constraints..... | 2 |
| 1.5 Concepts..... | 2 |
| 2 API Overview..... | 4 |
| 3 Calling APIs..... | 5 |
| 3.1 Making an API Request..... | 5 |
| 3.2 Authentication..... | 9 |
| 3.3 Response..... | 11 |
| 4 CBR APIs..... | 13 |
| 4.1 Tasks..... | 13 |
| 4.1.1 Querying a Single Task..... | 13 |
| 4.1.2 Querying the Task List..... | 21 |
| 4.2 Backup Sharing..... | 36 |
| 4.2.1 Adding a Share Member..... | 36 |
| 4.2.2 Obtaining the Share Member List..... | 39 |
| 4.2.3 Updating the Share Member Status..... | 42 |
| 4.2.4 Querying Share Member Details..... | 44 |
| 4.2.5 Deleting a Specified Share Member..... | 47 |
| 4.3 Restore Points..... | 48 |
| 4.3.1 Querying a Restore Point..... | 48 |
| 4.3.2 Creating a Restore Point..... | 52 |
| 4.4 Vaults..... | 58 |
| 4.4.1 Creating a Vault..... | 58 |
| 4.4.2 Querying a Specified Vault..... | 68 |
| 4.4.3 Querying the Vault List..... | 77 |
| 4.4.4 Modifying a Vault..... | 83 |
| 4.4.5 Deleting a Vault..... | 90 |
| 4.4.6 Dissociating Resources..... | 91 |
| 4.4.7 Associating Resources..... | 93 |

| | |
|--|------------|
| 4.4.8 Binding a Policy to a Vault..... | 96 |
| 4.4.9 Unbinding a Vault from a Policy..... | 98 |
| 4.5 Backups..... | 100 |
| 4.5.1 Querying a Specified Backup..... | 100 |
| 4.5.2 Querying All Backups..... | 107 |
| 4.5.3 Deleting a Backup..... | 115 |
| 4.5.4 Restoring Data Using a Backup..... | 116 |
| 4.6 Policies..... | 118 |
| 4.6.1 Creating a Policy..... | 119 |
| 4.6.2 Querying the Policy List..... | 127 |
| 4.6.3 Querying a Single Policy..... | 132 |
| 4.6.4 Modifying a Policy..... | 136 |
| 4.6.5 Deleting a Policy..... | 144 |
| 5 Application Cases..... | 146 |
| 5.1 Example 1: Creating an ECS Backup..... | 146 |
| 5.2 Example 2: Implement Automatic Backup for a Vault..... | 149 |
| 5.3 Example 3: Querying Backups..... | 151 |
| 6 Permissions Policies and Supported Actions..... | 154 |
| 6.1 Category of CBR Actions..... | 154 |
| 7 Appendix..... | 160 |
| 7.1 Status Codes..... | 160 |
| 7.2 Error Codes..... | 161 |
| 7.3 Obtaining a Project ID..... | 166 |
| A Change History..... | 168 |

1 Before You Start

- [1.1 Overview](#)
- [1.2 API Calling](#)
- [1.3 Endpoints](#)
- [1.4 Constraints](#)
- [1.5 Concepts](#)

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 EVS disks with ease. If there is a virus intrusion, 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.

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 section "Service Overview" in the *Cloud Backup and Recovery User Guide*.

1.2 API Calling

CBR supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see [3.1 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](#).

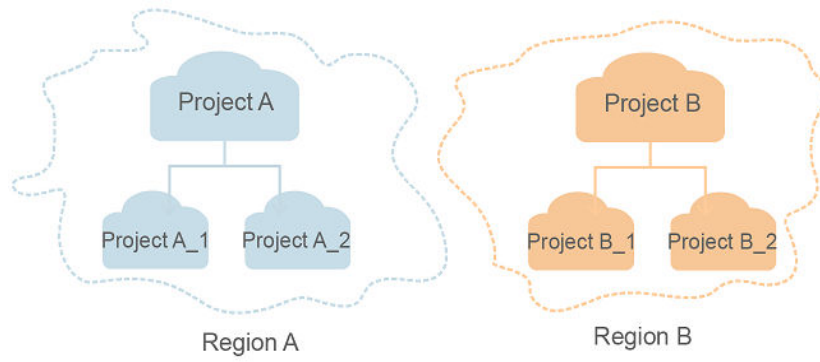
1.4 Constraints

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. To ensure account security, create Identity and Access Management (IAM) users and grant them permissions for routine management.
- **User**
An IAM user is created by an account in IAM to use cloud services. Each IAM user has its own identity credentials (password and access keys).
API authentication requires information such as the account name, username, and password.
- **Region**
A region is a geographic area in which cloud resources are deployed. Availability zones (AZs) in the same region can communicate with each other over an intranet, while AZs in different regions are isolated from each other. Deploying cloud resources in different regions can better suit certain user requirements or comply with local laws or regulations.
- **AZ**
An AZ comprises of one or more physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Computing, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.
- **Project**
A project corresponds to a region. Default projects are defined to a group and have physically isolated resources (including computing, storage, and network resources) across regions. Users can be granted permissions in a default project to access all resources in the region under their accounts. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can assign users the permissions required to access only the resources in the specific subprojects.

Figure 1-1 Project isolation model



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 bind 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 bound to policies can be backed up periodically. You can create, modify, and query policies through policy-related APIs. |

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

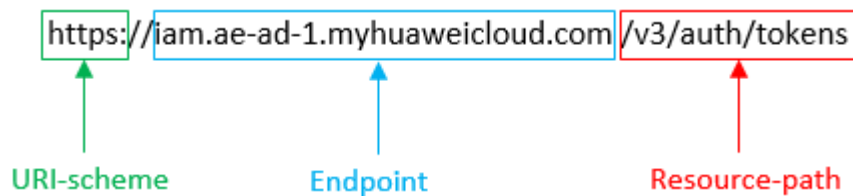
| Parameter | Description |
|---------------|--|
| URI-scheme | Protocol used to transmit requests. All APIs use HTTPS. |
| Endpoint | Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from Regions and Endpoints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

| 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 **UAE-Abu Dhabi** region, obtain the endpoint of IAM (**iam.ae-ad-1.myhuaweicloud.com**) for this region and the **resource-path** (**/v3/auth/tokens**) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

`https://iam.ae-ad-1.myhuaweicloud.com/v3/auth/tokens`

Figure 3-1 Example URI



NOTE

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

Request Methods

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

Table 3-2 HTTP methods

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

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

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

```
POST https://iam.ae-ad-1.myhuaweicloud.com/v3/auth/tokens
```

Request Header

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

Common request header fields are as follows.

Table 3-3 Common request header fields

| Parameter | Description | Mandatory | Example Value |
|----------------|---|---|--|
| Host | Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of <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 |

| Parameter | Description | Mandatory | Example Value |
|--------------|--|---|--|
| X-Project-Id | Specifies the project ID. Obtain the project ID by following the instructions in 7.3 Obtaining a Project ID . | No | e9993fc787d94b6c886cbaa340f9c0f4 |
| X-Auth-Token | Specifies the user token. It is a response to the API for obtaining a user token (only this API does not require authentication). After the request is processed, the value of X-Subject-Token in the response header is the token value. | No This field is mandatory for token authentication. | The following is part of an example token: MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZ |

 **NOTE**

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

For more details, see "Authentication Using AK/SK" in [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.ae-ad-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

(Optional) Request Body

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

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

In the case of the API used to [obtain a user token](#), the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*, *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.ae-ad-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****#",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "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-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair. AK/SK-based authentication is recommended because it is more secure than token-based authentication.

Token-based Authentication

 NOTE

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

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

You can obtain a token by calling the [Obtaining User Token](#) API. When you call the API, set **auth.scope** in the request body to **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.ae-ad-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

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

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

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

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm or 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 3-2](#) shows the response header fields for the API used to [obtain a user token](#). The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

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

```
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
→ MIIVXQVJKoZIhvcNAQcCoIIYJCCEoCAQExDTALBglghkgBZQMEAgEwgharBgkqhkiG9w0BBwGgghacBIIWmHsidG9rZW4iOansiZXhwaXJlc19hdCI6ijlwMTktMDItMTNUMC
fj3KIs6YgKnpVNRbW2eZ5eb78SZOkqjACgkklQ01wi4JlGzrpd18LGXK5tdfdq4lqHCYb8P4NaY0NYejcAgzJVeFYtLWT1GSO0zxKZmlQHQj82HBqHdglZO9fuEbL5dMhdavj+33wEI
xHRC9I87o+k9-
j+CMZSEB7bUGd5Uj6eRASXI1jipPEGA270g1FruooL6jqglFkNPQuFSOUB+uSsttVwRtNfsC+qTp22Rkd5MCqFGQ8LcuUxC3a+9CMBnOintWW7oeRUVhVpxk8pxiX1wTEboX-
RzT6MUUpvGw-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](#)

4.1 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. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

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 |
| replication | OpExtendInfoReplication object | Extended parameters of replication |
| 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 |

| 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 4-8 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 |

| 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 4-11 OpExtendInfoRemoveResources

| Parameter | Type | Description |
|-------------|---|--|
| fail_count | Integer | ID list 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 |
|------------|--|--|
| extra_info | ResourceExtraInfo object | 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. The value consists of 0 to 255 characters. Minimum: 0 Maximum: 255 |
| type | String | |

Table 4-13 OpExtendInfoReplication

| Parameter | Type | Description |
|---------------------------|--------|------------------------------|
| destination_backup_id | String | Destination backup ID |
| destination_checkpoint_id | String | Destination restore point ID |
| destination_project_id | String | Destination project ID |

| Parameter | Type | Description |
|-----------------------------|--------|-------------------------|
| destination_re gion | String | Destination region |
| source_backu p_id | String | Source backup ID |
| source_checkp oint_id | String | Source restore point ID |
| source_project _id | String | Source project ID |
| source_region | String | Source region |
| source_backu p_name | String | Source backup name |
| destination_b ackup_name | String | Destination backup name |

Table 4-14 ResourceExtraInfo

| Parameter | Type | Description |
|---------------------|--|--|
| exclude_volu mes | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volu mes | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-15 ResourceExtraInfoIncludeVolumes

| Parameter | Type | Description |
|------------|--------|--------------------------------------|
| id | String | EVS disk ID. Only UUID is supported. |
| os_version | String | OS type |

Table 4-16 OpExtendInfoRestore

| Parameter | Type | Description |
|-----------|--------|-------------|
| backup_id | String | Backup ID |

| Parameter | Type | Description |
|----------------------|--------|-------------------------------------|
| 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 4-17 OpExtendInfoVaultDelete

| Parameter | Type | Description |
|-------------|---------|--|
| fail_count | Integer | ID list of resources that fail to be deleted |
| total_count | Integer | Number of deleted backups |

Status code: 404

Table 4-18 Response body parameters

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

Example Requests

None

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" : ""
    }
  },
  "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",
"project_id" : "04f1829c788037ac2fb8c01eb2b04b95"
}
}

```

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 4-19 Path parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|-------------|
| project_id | Yes | String | Project ID |

Table 4-20 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 . |
| enterprise_project_id | No | String | Enterprise project ID or all_granted_eps . all_granted_eps indicates querying the IDs of all enterprise projects on which the user has permissions. |
| 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 |
| 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 . |

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|--|
| 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 4-21 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

Status code: 200

Table 4-22 Response body parameters

| Parameter | Type | Description |
|----------------|--------------------------------------|-----------------|
| operation_logs | Array of OperationLog objects | Task list |
| count | Integer | Number of tasks |

Table 4-23 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 |
| 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 |

| Parameter | Type | Description |
|------------|--------|--|
| 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 4-24 OpErrorInfo

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

Table 4-25 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 |
| replication | OpExtendInfoReplication object | Extended parameters of replication |
| resource | Resource object | Resource information |
| restore | OpExtendInfoRestore object | Extended parameters of restoration |

| Parameter | Type | Description |
|--------------|--|---|
| vault_delete | OpExtendInfoVaultDelete object | Extended parameters of deleting a vault |

Table 4-26 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 |
| 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 4-27 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 4-28 OpExtendInfoDelete

| Parameter | Type | Description |
|-------------|--------|-------------|
| backup_id | String | Backup ID |
| backup_name | String | Backup name |

Table 4-29 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 4-30 OpExtendInfoRemoveResources

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

Table 4-31 Resource

| Parameter | Type | Description |
|------------|--|--|
| extra_info | ResourceExtraInfo object | 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. The value consists of 0 to 255 characters. Minimum: 0 Maximum: 255 |
| type | String | |

Table 4-32 OpExtendInfoReplication

| Parameter | Type | Description |
|---------------------------|--------|------------------------------|
| destination_backup_id | String | Destination backup ID |
| destination_checkpoint_id | String | Destination restore point ID |
| destination_project_id | String | Destination project ID |
| destination_region | String | Destination region |
| source_backup_id | String | Source backup ID |
| source_checkpoint_id | String | Source restore point ID |
| source_project_id | String | Source project ID |
| source_region | String | Source region |
| source_backup_name | String | Source backup name |
| destination_backup_name | String | Destination backup name |

Table 4-33 ResourceExtraInfo

| Parameter | Type | Description |
|-----------------|--|--|
| exclude_volumes | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volumes | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-34 ResourceExtraInfoIncludeVolumes

| Parameter | Type | Description |
|-----------|--------|--------------------------------------|
| id | String | EVS disk ID. Only UUID is supported. |

| Parameter | Type | Description |
|------------|--------|-------------|
| os_version | String | OS type |

Table 4-35 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 4-36 OpExtendInfoVaultDelete

| Parameter | Type | Description |
|-------------|---------|--|
| fail_count | Integer | ID list of resources that fail to be deleted |
| total_count | Integer | Number of deleted backups |

Status code: 404

Table 4-37 Response body parameters

| Parameter | Type | Description |
|----------------|--------------------------------------|-----------------|
| operation_logs | Array of OperationLog objects | Task list |
| count | Integer | Number of tasks |

Table 4-38 OperationLog

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

| Parameter | Type | Description |
|----------------|------------------------------------|--|
| 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 |
| 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 4-39 OpErrorInfo

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

Table 4-40 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 |
| replication | OpExtendInfoReplication object | Extended parameters of replication |
| resource | Resource object | Resource information |
| restore | OpExtendInfoRestore object | Extended parameters of restoration |
| vault_delete | OpExtendInfoVaultDelete object | Extended parameters of deleting a vault |

Table 4-41 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 |
| 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 4-42 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 4-43 OpExtendInfoDelete

| Parameter | Type | Description |
|-------------|--------|-------------|
| backup_id | String | Backup ID |
| backup_name | String | Backup name |

Table 4-44 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 4-45 OpExtendInfoRemoveResources

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

Table 4-46 Resource

| Parameter | Type | Description |
|------------|--|--|
| extra_info | ResourceExtraInfo object | 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. The value consists of 0 to 255 characters. Minimum: 0 Maximum: 255 |
| type | String | |

Table 4-47 OpExtendInfoReplication

| Parameter | Type | Description |
|---------------------------|--------|------------------------------|
| destination_backup_id | String | Destination backup ID |
| destination_checkpoint_id | String | Destination restore point ID |

| Parameter | Type | Description |
|-------------------------|--------|-------------------------|
| destination_project_id | String | Destination project ID |
| destination_region | String | Destination region |
| source_backup_id | String | Source backup ID |
| source_checkpoint_id | String | Source restore point ID |
| source_project_id | String | Source project ID |
| source_region | String | Source region |
| source_backup_name | String | Source backup name |
| destination_backup_name | String | Destination backup name |

Table 4-48 ResourceExtraInfo

| Parameter | Type | Description |
|-----------------|--|--|
| exclude_volumes | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volumes | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-49 ResourceExtraInfoIncludeVolumes

| Parameter | Type | Description |
|------------|--------|--------------------------------------|
| id | String | EVS disk ID. Only UUID is supported. |
| os_version | String | OS type |

Table 4-50 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 4-51 OpExtendInfoVaultDelete

| Parameter | Type | Description |
|-------------|---------|--|
| fail_count | Integer | ID list of resources that fail to be deleted |
| total_count | Integer | Number of deleted backups |

Example Requests

None

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" : ""
    }
  } ],
  "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",
    "project_id" : "04f1829c788037ac2fb8c01eb2b04b95"
  }
}
}

```

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 4-52 Path parameters

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

Request Parameters

Table 4-53 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-54 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|------------------|--|
| members | Yes | Array of strings | List of project IDs of the backup share members to be added. |

Response Parameters

Status code: 200

Table 4-55 Response body parameters

| Parameter | Type | Description |
|-----------|--------------------------------|---|
| members | Array of Member objects | Response parameters of adding a backup share member |
| count | Integer | |

Table 4-56 Member

| Parameter | Type | Description |
|-----------|--------|---|
| status | String | Backup sharing status Enumeration values: <ul style="list-style-type: none"> • pending • accepted • rejected |

| Parameter | Type | Description |
|-----------------|--------|---|
| 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",
    "backup_id" : "0b07081e-3ec7-4e77-8571-54e2947da422",
    "dest_project_id" : "075e6035d300d48c2fd0c00b78b71ebf",
    "created_at" : "2020-02-05T10:38:34.209782",
    "id" : "3c5a3015-c3a0-4dc6-a1e2-917b90f62319"
  } ]
}
```

Status Codes

| Status Code | Description |
|-------------|-------------|
| 200 | OK |

Error Codes

See [Error Codes](#).

4.2.2 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. |
| 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 |

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|--|
| 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. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

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 | |

Table 4-61 Member

| Parameter | Type | Description |
|-----------|--------|---|
| status | String | Backup sharing status Enumeration values: <ul style="list-style-type: none"> • pending • accepted • rejected |

| Parameter | Type | Description |
|-----------------|--------|---|
| 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

None

Example Responses

Status code: 200

OK

```
{
  "members": [ {
    "status": "pending",
    "backup_id": "0b07081e-3ec7-4e77-8571-54e2947da422",
    "dest_project_id": "075e6035d300d48c2fd0c00b78b71ebf",
    "created_at": "2020-02-05T10:38:34.209782",
    "id": "3c5a3015-c3a0-4dc6-a1e2-917b90f62319"
  } ],
  "count": 50
}
```

Status Codes

| Status Code | Description |
|-------------|-------------|
| 200 | OK |

Error Codes

See [Error Codes](#).

4.2.3 Updating the Share Member Status

Function

This API is called by a recipient to update the status of a backup share member.

URI

PUT /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. The member ID is the same as the 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. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-64 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 |

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|---|
| vault_id | No | String | Specifies the vault in which the shared backup is to be stored. Only UUID is supported. When updating the status of a backup share member status, 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 4-65 Response body parameters

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

Table 4-66 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 |

| Parameter | Type | Description |
|-----------|--------|-------------------------|
| 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",  
    "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",  
    "id": "824a90b3-c562-448b-ab04-60ea4a97cf60"  
  }  
}
```

Status Codes

| Status Code | Description |
|-------------|-------------|
| 200 | OK |

Error Codes

See [Error Codes](#).

4.2.4 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 4-67 Path parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|---|
| backup_id | Yes | String | Backup ID |
| member_id | Yes | String | Member ID. The member ID is the same as the project ID. |
| project_id | Yes | String | Project ID |

Request Parameters

Table 4-68 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

Status code: 200

Table 4-69 Response body parameters

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

Table 4-70 Member

| Parameter | Type | Description |
|-----------|--------|---|
| status | String | Backup sharing status Enumeration values: <ul style="list-style-type: none"> • pending • accepted • rejected |

| Parameter | Type | Description |
|-----------------|--------|---|
| 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

None

Example Responses

Status code: 200

OK

```
{
  "member": {
    "status": "accepted",
    "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",
    "id": "824a90b3-c562-448b-ab04-60ea4a97cf60"
  }
}
```

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 4-71 Path parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|-------------|
| backup_id | Yes | String | Backup ID |
| member_id | Yes | String | Member ID |
| project_id | Yes | String | Project ID |

Request Parameters

Table 4-72 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

None

Example Requests

None

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 4-73 Path parameters

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

Request Parameters

Table 4-74 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | No | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

Status code: 200

Table 4-75 Response body parameters

| Parameter | Type | Description |
|------------|---|---------------------------|
| checkpoint | CheckpointCreate object | Restore point information |

Table 4-76 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 • creating • restoring • error |
| vault | CheckpointPlanCreate object | Vault information |
| extra_info | CheckpointExtraInfoResp object | |

Table 4-77 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 4-78 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 Minimum: 0 Maximum: 255 |
| protect_status | String | Protection 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 | |
| backup_size | String | Backup size |
| backup_count | String | Number of backups |

Table 4-79 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 4-80 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" : {
      "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
      "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"
      } ],
      "name" : "vault-be94"
    },
    "project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
    "id" : "8b0851a8-adf3-4f4c-a914-dead08bf9664"
  }
}
```

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 4-81 Path parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|-------------|
| project_id | Yes | String | Project ID |

Request Parameters

Table 4-82 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-83 Request body parameters

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

Table 4-84 VaultBackup

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

Table 4-85 CheckpointParam

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

Table 4-86 Resource

| Parameter | Mandatory | Type | Description |
|------------|-----------|--|------------------------------------|
| extra_info | No | ResourceExtraInfo object | Extra information of the resource |
| id | Yes | String | ID of the resource to be backed up |

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|--|
| name | Yes | String | Name of the resource to be backed up. The value consists of 0 to 255 characters. Minimum: 0 Maximum: 255 |
| type | Yes | String | |

Table 4-87 ResourceExtraInfo

| Parameter | Mandatory | Type | Description |
|-----------------|-----------|--|--|
| exclude_volumes | No | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volumes | No | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-88 ResourceExtraInfoIncludeVolumes

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|--------------------------------------|
| id | Yes | String | EVS disk ID. Only UUID is supported. |
| os_version | No | String | OS type |

Response Parameters

Status code: 200

Table 4-89 Response body parameters

| Parameter | Type | Description |
|------------|---|---------------------------|
| checkpoint | CheckpointCreate object | Restore point information |

Table 4-90 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 • creating • restoring • error |
| vault | CheckpointPlanCreate object | Vault information |
| extra_info | CheckpointExtraInfoResp object | |

Table 4-91 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 4-92 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 Minimum: 0 Maximum: 255 |
| protect_status | String | Protection 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 | |
| backup_size | String | Backup size |
| backup_count | String | Number of backups |

Table 4-93 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 4-94 CheckpointExtraInfoResp

| Parameter | Type | Description |
|-------------|--------|--------------------|
| name | String | Backup name |
| description | String | Backup description |

| Parameter | Type | Description |
|--------------------|---------|---|
| retention_duration | Integer | Number of days that backups can be retained |

Example Requests

```
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"
      } ],
      "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 4-95 Path parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|-------------|
| project_id | Yes | String | Project ID |

Request Parameters

Table 4-96 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-97 Request body parameters

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

Table 4-98 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. |
| enterprise_project_id | No | String | Enterprise project ID. The default value is 0 . |
| auto_bind | No | Boolean | Whether automatic association is supported |
| bind_rules | No | VaultBindRules object | Rules for automatic association |
| auto_expand | No | Boolean | Whether to automatically expand the vault capacity. Only pay-per-use vaults support this function. |

Table 4-99 BillingCreate

| Parameter | Mandatory | Type | Description |
|------------------|-----------|---------|---|
| cloud_type | No | String | Enumeration values: <ul style="list-style-type: none"> • public • hybrid |
| consistent_level | Yes | String | |
| object_type | Yes | String | Object type Enumeration values: <ul style="list-style-type: none"> • server • disk • turbo |
| protect_type | Yes | String | Operation type Enumeration values: <ul style="list-style-type: none"> • backup • replication |
| size | Yes | Integer | Capacity, in GB Minimum: 1 Maximum: 10485760 |
| charging_mode | No | String | Billing mode. Possible values are post_paid (pay-per-use) or pre_paid (yearly/monthly packages). The value defaults to post_paid . Default: post_paid Enumeration values: <ul style="list-style-type: none"> • post_paid • pre_paid |
| 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 . |

| Parameter | Mandatory | Type | Description |
|---------------|-----------|---------------------------------------|--|
| 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 |
| extra_info | No | BillbingCreateExtraInfo object | Extended information for creating a vault |

Table 4-100 BillbingCreateExtraInfo

| Parameter | Mandatory | Type | Description |
|------------------------|-----------|---------|---|
| combined_order_id | No | String | ID of the application for creating vaults in combination. This parameter is mandatory when creating vaults in combination. |
| combined_order_ecs_num | No | Integer | Number of items in the application for creating vaults in the combination mode. This parameter is mandatory when creating vaults in the combination mode. |

Table 4-101 ResourceCreate

| Parameter | Mandatory | Type | Description |
|------------|-----------|---------------------------------|-----------------------------------|
| extra_info | No | ResourceExtraInfo object | Extra information of the resource |

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|---|
| id | Yes | String | ID of the resource to be backed up |
| type | Yes | String | |
| name | No | String | Resource name Minimum: 0 Maximum: 255 |

Table 4-102 ResourceExtraInfo

| Parameter | Mandatory | Type | Description |
|-----------------|-----------|--|--|
| exclude_volumes | No | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volumes | No | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-103 ResourceExtraInfoIncludeVolumes

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|--------------------------------------|
| id | Yes | String | EVS disk ID. Only UUID is supported. |
| os_version | No | String | OS type |

Table 4-104 VaultBindRules

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

Response Parameters

Status code: 200

Table 4-105 Response body parameters

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

Table 4-106 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 | Vault type |
| resources | Array of ResourceRes p objects | Vault resources |
| tags | Array of Tag objects | Vault tags |
| enterprise_pro ject_id | String | Enterprise project ID. The default value is 0 . |
| auto_bind | Boolean | Specifies whether automatic association is enabled. The default value is false , indicating that automatic association is disabled. |
| bind_rules | VaultBindRul es object | Association rule |
| user_id | String | User ID |
| created_at | String | Creation time, such as 2020-02-05T10:38:34.209782 |
| auto_expand | Boolean | Whether to automatically expand the vault capacity. Only pay-per-use vaults support this function. |

Table 4-107 Billing

| Parameter | Type | Description |
|------------------|---------|--|
| allocated | Integer | Allocated capacity, in MB. |
| charging_mode | String | Creation mode Enumeration values: <ul style="list-style-type: none"> • pre_paid • post_paid |
| cloud_type | String | Cloud platform Enumeration values: <ul style="list-style-type: none"> • public • hybrid |
| consistent_level | String | |
| object_type | String | Object type Enumeration values: <ul style="list-style-type: none"> • server • disk |
| order_id | String | Order ID |
| product_id | String | Product ID |
| protect_type | String | Protection type Enumeration values: <ul style="list-style-type: none"> • backup • replication • hybrid |
| size | Integer | Capacity, in GB Minimum: 1 Maximum: 10485760 |
| spec_code | String | Specification code Enumeration values: <ul style="list-style-type: none"> • vault.backup.server.normal • vault.backup.volume.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 4-108 ResourceResp

| Parameter | Type | Description |
|----------------|--|---|
| extra_info | ResourceExtraInfo object | 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 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 resource, in GB |
| type | String | |
| backup_size | Integer | Backup size |
| backup_count | Integer | Number of backups |

Table 4-109 ResourceExtraInfo

| Parameter | Type | Description |
|-----------------|--|--|
| exclude_volumes | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volumes | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-110 ResourceExtraInfoIncludeVolumes

| Parameter | Type | Description |
|------------|--------|--------------------------------------|
| id | String | EVS disk ID. Only UUID is supported. |
| os_version | String | OS type |

Table 4-111 VaultBindRules

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

Status code: 400

Table 4-112 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/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" : {
      "include_volumes" : [ {
        "id" : "73ee8446-bce7-4371-9650-b440b5f4c1d0",
        "os_version" : "CentOS 7.6 64bit"
      } ]
    }
  },
  "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",
      "object_type" : "server",
      "allocated" : 40,
      "spec_code" : "vault.backup.server.normal",
      "size" : 100,
      "cloud_type" : "public",
      "consistent_level" : "crash_consistent",
      "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 4-113 Path parameters

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

Request Parameters

Table 4-114 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

Status code: 200

Table 4-115 Response body parameters

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

Table 4-116 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 | Vault type |
| resources | Array of ResourceRes p objects | Vault resources |

| Parameter | Type | Description |
|-----------------------|---------------------------------------|--|
| tags | Array of Tag objects | Vault tags |
| enterprise_project_id | String | Enterprise project ID. The default value is 0 . |
| auto_bind | Boolean | Specifies whether automatic association is enabled. The default value is false , indicating that automatic association is disabled. |
| bind_rules | VaultBindRules object | Association rule |
| user_id | String | User ID |
| created_at | String | Creation time, such as 2020-02-05T10:38:34.209782 |
| auto_expand | Boolean | Whether to automatically expand the vault capacity. Only pay-per-use vaults support this function. |

Table 4-117 Billing

| Parameter | Type | Description |
|------------------|---------|---|
| allocated | Integer | Allocated capacity, in MB. |
| charging_mode | String | Creation mode Enumeration values: <ul style="list-style-type: none"> • pre_paid • post_paid |
| cloud_type | String | Cloud platform Enumeration values: <ul style="list-style-type: none"> • public • hybrid |
| consistent_level | String | |
| object_type | String | Object type Enumeration values: <ul style="list-style-type: none"> • server • disk |
| order_id | String | Order ID |
| product_id | String | Product ID |

| Parameter | Type | Description |
|--------------|---------|---|
| protect_type | String | Protection type Enumeration values: <ul style="list-style-type: none"> • backup • replication • hybrid |
| size | Integer | Capacity, in GB Minimum: 1 Maximum: 10485760 |
| spec_code | String | Specification code Enumeration values: <ul style="list-style-type: none"> • vault.backup.server.normal • vault.backup.volume.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 4-118 ResourceResp

| Parameter | Type | Description |
|------------|--|--|
| extra_info | ResourceExtraInfo object | 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 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 resource, in GB |
| type | String | |
| backup_size | Integer | Backup size |
| backup_count | Integer | Number of backups |

Table 4-119 ResourceExtraInfo

| Parameter | Type | Description |
|-----------------|--|--|
| exclude_volumes | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volumes | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-120 ResourceExtraInfoIncludeVolumes

| Parameter | Type | Description |
|------------|--------|--------------------------------------|
| id | String | EVS disk ID. Only UUID is supported. |
| os_version | String | OS type |

Table 4-121 VaultBindRules

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

Status code: 404

Table 4-122 Response body parameters

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

Table 4-123 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 | Vault type |
| resources | Array of ResourceRes p objects | Vault resources |
| tags | Array of Tag objects | Vault tags |
| enterprise_pro ject_id | String | Enterprise project ID. The default value is 0 . |
| auto_bind | Boolean | Specifies whether automatic association is enabled. The default value is false , indicating that automatic association is disabled. |
| bind_rules | VaultBindRul es object | Association rule |
| user_id | String | User ID |
| created_at | String | Creation time, such as 2020-02-05T10:38:34.209782 |
| auto_expand | Boolean | Whether to automatically expand the vault capacity. Only pay-per-use vaults support this function. |

Table 4-124 Billing

| Parameter | Type | Description |
|------------------|---------|--|
| allocated | Integer | Allocated capacity, in MB. |
| charging_mode | String | Creation mode Enumeration values: <ul style="list-style-type: none"> • pre_paid • post_paid |
| cloud_type | String | Cloud platform Enumeration values: <ul style="list-style-type: none"> • public • hybrid |
| consistent_level | String | |
| object_type | String | Object type Enumeration values: <ul style="list-style-type: none"> • server • disk |
| order_id | String | Order ID |
| product_id | String | Product ID |
| protect_type | String | Protection type Enumeration values: <ul style="list-style-type: none"> • backup • replication • hybrid |
| size | Integer | Capacity, in GB Minimum: 1 Maximum: 10485760 |
| spec_code | String | Specification code Enumeration values: <ul style="list-style-type: none"> • vault.backup.server.normal • vault.backup.volume.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 4-125 ResourceResp

| Parameter | Type | Description |
|----------------|--|---|
| extra_info | ResourceExtraInfo object | 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 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 resource, in GB |
| type | String | |
| backup_size | Integer | Backup size |
| backup_count | Integer | Number of backups |

Table 4-126 ResourceExtraInfo

| Parameter | Type | Description |
|-----------------|--|--|
| exclude_volumes | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volumes | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-127 ResourceExtraInfoIncludeVolumes

| Parameter | Type | Description |
|------------|--------|--------------------------------------|
| id | String | EVS disk ID. Only UUID is supported. |
| os_version | String | OS type |

Table 4-128 VaultBindRules

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

Example Requests

None

Example Responses

Status code: 200

OK

```
{
  "vault": {
    "id": "2b076f26-391f-40fa-bf71-a798940faccf",
    "name": "sdk-vault1595581958",
    "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",
"charging_mode" : "post_paid",
"protect_type" : "backup",
"object_type" : "server",
"spec_code" : "vault.backup.server.normal",
"used" : 0,
"status" : "available",
"size" : 40
},
"tags" : [ {
"key" : "fds"
} ]
}
}

```

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 4-129 Path parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|-------------|
| project_id | Yes | String | Project ID |

Table 4-130 Query parameters

| Parameter | Mandatory | Type | Description |
|-----------------------|-----------|---------|--|
| cloud_type | No | String | Cloud type Enumeration values: <ul style="list-style-type: none"> • public • hybrid |
| enterprise_project_id | No | String | Enterprise project ID or all_granted_eps . all_granted_eps indicates querying the IDs of all enterprise projects on which the user has permissions. |
| 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 |
| name | No | String | Vault name |
| object_type | No | String | Resource type |
| offset | No | Integer | Offset value. The value must be a positive integer. |
| policy_id | No | String | Policy ID |
| protect_type | No | String | Protection type Enumeration values: <ul style="list-style-type: none"> • backup • replication |
| resource_ids | No | String | Resource ID |
| status | No | String | Status |

Request Parameters

Table 4-131 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | No | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

Status code: 200

Table 4-132 Response body parameters

| Parameter | Type | Description |
|-----------|-------------------------------|---------------------|
| vaults | Array of Vault objects | Vault instance list |
| count | Integer | Number of vaults |

Table 4-133 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 | Vault type |

| Parameter | Type | Description |
|---------------------------|---|--|
| resources | Array of ResourceRes p objects | Vault resources |
| tags | Array of Tag objects | Vault tags |
| enterprise_pro ject_id | String | Enterprise project ID. The default value is 0 . |
| auto_bind | Boolean | Specifies whether automatic association is enabled. The default value is false , indicating that automatic association is disabled. |
| bind_rules | VaultBindRul es object | Association rule |
| user_id | String | User ID |
| created_at | String | Creation time, such as 2020-02-05T10:38:34.209782 |
| auto_expand | Boolean | Whether to automatically expand the vault capacity. Only pay-per-use vaults support this function. |

Table 4-134 Billing

| Parameter | Type | Description |
|----------------------|---------|---|
| allocated | Integer | Allocated capacity, in MB. |
| charging_mod e | String | Creation mode Enumeration values: <ul style="list-style-type: none"> • pre_paid • post_paid |
| cloud_type | String | Cloud platform Enumeration values: <ul style="list-style-type: none"> • public • hybrid |
| consistent_lev el | String | |
| object_type | String | Object type Enumeration values: <ul style="list-style-type: none"> • server • disk |

| Parameter | Type | Description |
|--------------|---------|---|
| order_id | String | Order ID |
| product_id | String | Product ID |
| protect_type | String | Protection type Enumeration values: <ul style="list-style-type: none"> • backup • replication • hybrid |
| size | Integer | Capacity, in GB Minimum: 1 Maximum: 10485760 |
| spec_code | String | Specification code Enumeration values: <ul style="list-style-type: none"> • vault.backup.server.normal • vault.backup.volume.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 4-135 ResourceResp

| Parameter | Type | Description |
|------------|--|--|
| extra_info | ResourceExtraInfo object | 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 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 resource, in GB |
| type | String | |
| backup_size | Integer | Backup size |
| backup_count | Integer | Number of backups |

Table 4-136 ResourceExtraInfo

| Parameter | Type | Description |
|-----------------|--|--|
| exclude_volumes | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volumes | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-137 ResourceExtraInfoIncludeVolumes

| Parameter | Type | Description |
|------------|--------|--------------------------------------|
| id | String | EVS disk ID. Only UUID is supported. |
| os_version | String | OS type |

Table 4-138 VaultBindRules

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

Example Requests

None

Example Responses

Status code: 200

OK

```
{
  "vaults": [ {
    "id": "a335f9e1-1628-4c64-a7be-38656e5ec19c",
    "name": "vault-8538",
    "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",
      "charging_mode": "post_paid",
      "protect_type": "backup",
      "object_type": "server",
      "spec_code": "vault.backup.server.normal",
      "used": 0,
      "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 4-139 Path parameters

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

Request Parameters

Table 4-140 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-141 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|---------------------------|------------------------------------|
| vault | Yes | VaultUpdate object | Request body for modifying a vault |

Table 4-142 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 |

| Parameter | Mandatory | Type | Description |
|-------------|-----------|------------------------------|--|
| bind_rules | No | VaultBindRules object | |
| auto_expand | No | Boolean | Whether to automatically expand the vault capacity. Only pay-per-use vaults support this function. |

Table 4-143 BillingUpdate

| Parameter | Mandatory | Type | Description |
|-----------|-----------|---------|--|
| size | No | Integer | Vault size, in GB Minimum: 1 Maximum: 10485760 |

Table 4-144 VaultBindRules

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

Response Parameters

Status code: 200

Table 4-145 Response body parameters

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

Table 4-146 Vault

| Parameter | Type | Description |
|-------------|-----------------------|--|
| billing | Billing object | Operation info |
| description | String | User-defined vault description Minimum: 0 Maximum: 255 |

| Parameter | Type | Description |
|---------------------------|---|--|
| id | String | Vault ID |
| name | String | Vault name Minimum: 1 Maximum: 64 |
| project_id | String | Project ID |
| provider_id | String | Vault type |
| resources | Array of ResourceRes p objects | Vault resources |
| tags | Array of Tag objects | Vault tags |
| enterprise_pro ject_id | String | Enterprise project ID. The default value is 0 . |
| auto_bind | Boolean | Specifies whether automatic association is enabled. The default value is false , indicating that automatic association is disabled. |
| bind_rules | VaultBindRul es object | Association rule |
| user_id | String | User ID |
| created_at | String | Creation time, such as 2020-02-05T10:38:34.209782 |
| auto_expand | Boolean | Whether to automatically expand the vault capacity. Only pay-per-use vaults support this function. |

Table 4-147 Billing

| Parameter | Type | Description |
|-------------------|---------|---|
| allocated | Integer | Allocated capacity, in MB. |
| charging_mod e | String | Creation mode Enumeration values: <ul style="list-style-type: none"> • pre_paid • post_paid |

| Parameter | Type | Description |
|------------------|---------|--|
| cloud_type | String | Cloud platform Enumeration values: <ul style="list-style-type: none"> • public • hybrid |
| consistent_level | String | |
| object_type | String | Object type Enumeration values: <ul style="list-style-type: none"> • server • disk |
| order_id | String | Order ID |
| product_id | String | Product ID |
| protect_type | String | Protection type Enumeration values: <ul style="list-style-type: none"> • backup • replication • hybrid |
| size | Integer | Capacity, in GB Minimum: 1 Maximum: 10485760 |
| spec_code | String | Specification code Enumeration values: <ul style="list-style-type: none"> • vault.backup.server.normal • vault.backup.volume.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 4-148 ResourceResp

| Parameter | Type | Description |
|----------------|--|---|
| extra_info | ResourceExtraInfo object | 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 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 resource, in GB |
| type | String | |
| backup_size | Integer | Backup size |
| backup_count | Integer | Number of backups |

Table 4-149 ResourceExtraInfo

| Parameter | Type | Description |
|-----------------|--|--|
| exclude_volumes | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |
| include_volumes | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-150 ResourceExtraInfoIncludeVolumes

| Parameter | Type | Description |
|-----------|--------|--------------------------------------|
| id | String | EVS disk ID. Only UUID is supported. |

| Parameter | Type | Description |
|------------|--------|-------------|
| os_version | String | OS type |

Table 4-151 VaultBindRules

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

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",
      "object_type": "server",
      "allocated": 40,
      "spec_code": "vault.backup.server.normal",
      "size": 200,
      "cloud_type": "public",
      "consistent_level": "crash_consistent",
      "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 4-152 Path parameters

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

Request Parameters

Table 4-153 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

None

Example Requests

None

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 4-154 Path parameters

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

Request Parameters

Table 4-155 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-156 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 4-157 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 4-158 Path parameters

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

Request Parameters

Table 4-159 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-160 Request body parameters

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

Table 4-161 ResourceCreate

| Parameter | Mandatory | Type | Description |
|------------|-----------|--|---|
| extra_info | No | ResourceExtraInfo object | Extra information of the resource |
| id | Yes | String | ID of the resource to be backed up |
| type | Yes | String | |
| name | No | String | Resource name Minimum: 0 Maximum: 255 |

Table 4-162 ResourceExtraInfo

| Parameter | Mandatory | Type | Description |
|-----------------|-----------|------------------|--|
| exclude_volumes | No | Array of strings | ID of the disk that is excluded from the backup. This parameter is used only when there are VM disk backups. |

| Parameter | Mandatory | Type | Description |
|-----------------|-----------|--|----------------------|
| include_volumes | No | Array of ResourceExtraInfoIncludeVolumes objects | Disk to be backed up |

Table 4-163 ResourceExtraInfoIncludeVolumes

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|--------------------------------------|
| id | Yes | String | EVS disk ID. Only UUID is supported. |
| os_version | No | String | OS type |

Response Parameters

Status code: 200

Table 4-164 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 Binding a Policy to a Vault

Function

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

URI

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

Table 4-165 Path parameters

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

Request Parameters

Table 4-166 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-167 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|-------------|
| policy_id | Yes | String | Policy ID |

Response Parameters

Status code: 200

Table 4-168 Response body parameters

| Parameter | Type | Description |
|------------------|-------------------------------|--|
| associate_policy | VaultPolicyResp object | Details of binding a vault to a policy |

Table 4-169 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 Unbinding a Vault from a Policy

Function

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

URI

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

Table 4-170 Path parameters

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

Request Parameters

Table 4-171 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | No | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-172 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|-------------|
| policy_id | Yes | String | Policy ID |

Response Parameters

Status code: 200

Table 4-173 Response body parameters

| Parameter | Type | Description |
|-------------------|-------------------------------|--|
| dissociate_policy | VaultPolicyResp object | Details of unbinding a vault from a policy |

Table 4-174 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](#).

4.5 Backups

4.5.1 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 4-175 Path parameters

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

Request Parameters

Table 4-176 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

Status code: 200

Table 4-177 Response body parameters

| Parameter | Type | Description |
|-----------|-------------------------------------|-------------|
| backup | BackupDetail object | Backup |

Table 4-178 BackupDetail

| 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 Enumeration values: <ul style="list-style-type: none"> • backup • 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 |

| Parameter | Type | Description |
|-----------------------|------------------------------------|--|
| resource_type | String | Resource type Enumeration values: <ul style="list-style-type: none"> ● OS::Nova::Server ● OS::Cinder::Volume |
| 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 |
| enterprise_project_id | String | Enterprise project ID. The default value is 0 . |
| children | Array of BackupResp objects | |

Table 4-179 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 |

| Parameter | Type | Description |
|-----------------------|---------|---|
| image_type | String | Backup type Enumeration values: <ul style="list-style-type: none"> ● backup ● 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 Enumeration values: <ul style="list-style-type: none"> ● OS::Nova::Server ● OS::Cinder::Volume |
| 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 |
| enterprise_project_id | String | Enterprise project ID. The default value is 0 . |

Table 4-180 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_llid | 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 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 4-181 ImageData

| Parameter | Type | Description |
|-----------|--------|-------------|
| image_id | String | |

Table 4-182 ReplicationRecordGet

| Parameter | Type | Description |
|------------|--------|-------------------------------|
| created_at | String | Start time of the replication |

| Parameter | Type | Description |
|---------------------------|--------|--|
| destination_backup_id | String | ID of the destination backup used for replication |
| destination_checkpoint_id | String | Record ID of the destination backup used for replication |
| destination_project_id | String | ID of the replication destination project |
| destination_region | String | Replication destination region |
| destination_vault_id | String | Destination vault ID |
| extra_info | String | Additional information of the replication |
| id | String | Replication record ID |
| source_backup_id | String | ID of the source backup used for replication |
| source_checkpoint_id | String | ID of the source backup record used for replication |
| source_project_id | String | ID of the replication source project |
| source_region | String | Replication source region |
| status | String | Replication status Enumeration values: <ul style="list-style-type: none"> • replicating • success • fail • skip • waiting_replicate |
| vault_id | String | ID of the vault where the backup resides |

Example Requests

None

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",
"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",
  "vault_id" : "3b5816b5-f29c-4172-9d9a-76c719a659ce",
  "id" : "5d822633-2bbf-4af8-a16e-5ab1c7705235",
  "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,
    "snapshot_id" : "5230a977-1a94-4092-8edd-519303a44cda",
    "bootable" : true,
    "encrypted" : true
  },
  "project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
  "status" : "available",
  "resource_name" : "ecs-1f0f-0002",
  "replication_records" : [ ],
  "name" : "autobk_a843_ecs-1f0f-0002",
  "created_at" : "2019-05-10T07:59:59.450700",
  "resource_type" : "OS::Cinder::Volume"
} ],
"extend_info" : {
  "auto_trigger" : true,
  "supported_restore_mode" : "backup",
  "contain_system_disk" : true,
  "support_lld" : true,
  "app_consistency" : {
    "app_consistency_error_code" : "0",
    "app_consistency_status" : "0",
    "app_consistency_error_message" : "",
    "app_consistency" : "0"
  }
},
"project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
"status" : "available",
"resource_name" : "ecs-1f0f-0002",
"description" : "backup_description",
"replication_records" : [ ],
"name" : "backup_name",
"created_at" : "2019-05-10T07:59:12.084695",
"resource_type" : "OS::Nova::Server"
}
}

```

Status Codes

| Status Code | Description |
|-------------|-------------|
| 200 | OK |

Error Codes

See [Error Codes](#).

4.5.2 Querying All Backups

Function

This API is used to query all backups.

URI

GET /v3/{project_id}/backups

Table 4-183 Path parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|-------------|
| project_id | Yes | String | Project ID |

Table 4-184 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 . |
| enterprise_project_id | No | String | Enterprise project ID or all_granted_eps . all_granted_eps indicates querying the IDs of all enterprise projects on which the user has permissions. |
| image_type | No | String | Backup type Enumeration values: <ul style="list-style-type: none"> • backup • 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 |

| Parameter | Mandatory | Type | Description |
|---------------|-----------|---------|--|
| member_status | No | String | Backup sharing status Enumeration values: <ul style="list-style-type: none"> • pending • accept • reject |
| name | No | String | Backup name |
| 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 Enumeration values: <ul style="list-style-type: none"> • OS::Cinder::Volume • OS::Nova::Server |

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|--|
| 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 . |
| status | No | String | Status. You can specify one or more status, such as 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 4-185 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

Status code: 200

Table 4-186 Response body parameters

| Parameter | Type | Description |
|-----------|------------------------------------|-------------------|
| backups | Array of BackupResp objects | Backup list |
| count | Integer | Number of backups |

Table 4-187 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 |

| Parameter | Type | Description |
|-----------------------|---------|---|
| image_type | String | Backup type Enumeration values: <ul style="list-style-type: none"> • backup • 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 Enumeration values: <ul style="list-style-type: none"> • OS::Nova::Server • OS::Cinder::Volume |
| 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 |
| enterprise_project_id | String | Enterprise project ID. The default value is 0 . |

Table 4-188 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_llid | 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 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 4-189 ImageData

| Parameter | Type | Description |
|-----------|--------|-------------|
| image_id | String | |

Table 4-190 ReplicationRecordGet

| Parameter | Type | Description |
|------------|--------|-------------------------------|
| created_at | String | Start time of the replication |

| Parameter | Type | Description |
|---------------------------|--------|--|
| destination_backup_id | String | ID of the destination backup used for replication |
| destination_checkpoint_id | String | Record ID of the destination backup used for replication |
| destination_project_id | String | ID of the replication destination project |
| destination_region | String | Replication destination region |
| destination_vault_id | String | Destination vault ID |
| extra_info | String | Additional information of the replication |
| id | String | Replication record ID |
| source_backup_id | String | ID of the source backup used for replication |
| source_checkpoint_id | String | ID of the source backup record used for replication |
| source_project_id | String | ID of the replication source project |
| source_region | String | Replication source region |
| status | String | Replication status Enumeration values: <ul style="list-style-type: none"> • replicating • success • fail • skip • waiting_replicate |
| vault_id | String | ID of the vault where the backup resides |

Example Requests

None

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_llid": true,
    "architecture": "x86_64",
    "system_disk": false,
    "app_consistency": {
      "app_consistency_error_code": "0",
      "app_consistency_status": "0",
      "app_consistency_error_message": "",
      "app_consistency": "0"
    }
  }
}, {
  "project_id": "0605767b5780d5762fc5c0118072a564",
  "status": "available",
  "resource_name": "test001-02",
  "description": "",
  "expired_at": "2020-05-21T07:00:54.060493",
  "replication_records": [ ],
  "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,
    "progress": 100,
    "support_llid": true,
    "encrypted": false,
    "system_disk": false
  }
}, {
  "project_id": "0605767b5780d5762fc5c0118072a564",
  "status": "available",
  "resource_name": "qsy_000",
  "description": "",
  "expired_at": "2020-03-22T07:00:34.877896",
  "replication_records": [ ],
  "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](#).

4.5.3 Deleting a Backup

Function

This API is used to delete a single backup.

URI

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

Table 4-191 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 4-192 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

None

Example Requests

None

Example Responses

None

Status Codes

| Status Code | Description |
|-------------|-------------|
| 204 | No Content |

Error Codes

See [Error Codes](#).

4.5.4 Restoring Data Using a Backup

Function

This API is used to restore data using a backup.

URI

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

Table 4-193 Path parameters

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

Request Parameters

Table 4-194 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-195 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|-----------------------------|---------------------------------|
| restore | Yes | BackupRestore object | Request body for restoring data |

Table 4-196 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. |
| volume_id | No | String | ID of the target disk to be restored. This parameter is mandatory for disk restoration. |
| resource_id | No | String | ID of the resource to be restored |

Table 4-197 BackupRestoreServerMapping

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|---|
| backup_id | Yes | String | Disk backup ID, which can be obtained from the console or by calling the API for querying a specified backup. |
| 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

URI

POST /v3/{project_id}/policies

Table 4-198 Path parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|-------------|
| project_id | Yes | String | Project ID |

Request Parameters

Table 4-199 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-200 Request body parameters

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

Table 4-201 PolicyCreate

| Parameter | Mandatory | Type | Description |
|-----------|-----------|---------|--|
| enabled | No | Boolean | Whether to enable the policy Default: true |

| Parameter | Mandatory | Type | Description |
|----------------------|-----------|---|--|
| 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 | Policy type Enumeration values: <ul style="list-style-type: none"> • backup • replication |
| trigger | Yes | PolicyTriggerReq object | Time rule for the policy execution |

Table 4-202 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 only after 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 4-203 PolicyTriggerReq

| Parameter | Mandatory | Type | Description |
|------------|-----------|-----------------------------------|----------------------|
| properties | Yes | PolicyTriggerPropertiesReq object | Scheduler attributes |

Response Parameters

Status code: 200

Table 4-204 Response body parameters

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

Table 4-205 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 | Policy type Enumeration values: <ul style="list-style-type: none"> • backup • replication |
| trigger | PolicyTriggerResp object | Time scheduling rule for the policy |
| associated_vaults | Array of PolicyAssociateVault objects | Associated vault |

Table 4-206 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 |

| Parameter | Type | Description |
|-------------------------|---------|--|
| 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 |
| 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 only after 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. |

| 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 4-207 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 4-208 PolicyTriggerPropertiesResp

| Parameter | Type | Description |
|------------|--------|--|
| start_time | String | Start time of the scheduler, for example, 2020-01-08 09:59:49 |

Table 4-209 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",
    "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 the Policy List

Function

This API is used to query the policy list.

URI

GET /v3/{project_id}/policies

Table 4-210 Path parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|--------|-------------|
| project_id | Yes | String | Project ID |

Table 4-211 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 4-212 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

Status code: 200

Table 4-213 Response body parameters

| Parameter | Type | Description |
|-----------|--------------------------------|-------------|
| policies | Array of Policy objects | |
| count | Integer | |

Table 4-214 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 | Policy type Enumeration values: <ul style="list-style-type: none"> • backup • replication |
| trigger | PolicyTriggerResp object | Time scheduling rule for the policy |
| associated_vaults | Array of PolicyAssociateVault objects | Associated vault |

Table 4-215 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 |
| 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 |

| Parameter | Type | Description |
|--------------|---------|--|
| timezone | String | Time zone where the user is located, for example, UTC+08:00. Set this parameter only after 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 4-216 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 4-217 PolicyTriggerPropertiesResp

| Parameter | Type | Description |
|------------|--------|--|
| start_time | String | Start time of the scheduler, for example, 2020-01-08 09:59:49 |

Table 4-218 PolicyAssociateVault

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

Example Requests

None

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](#).

4.6.3 Querying a Single Policy

Function

This API is used to query a single policy.

URI

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

Table 4-219 Path parameters

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

Request Parameters

Table 4-220 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|--|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. Default: MIIDkgYJKoZIhvc-NAQcCoIIDgzCCXXXXX... |

Response Parameters

Status code: 200

Table 4-221 Response body parameters

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

Table 4-222 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 | Policy type Enumeration values: <ul style="list-style-type: none"> • backup • replication |
| trigger | PolicyTriggerResp object | Time scheduling rule for the policy |
| associated_vaults | Array of PolicyAssociateVault objects | Associated vault |

Table 4-223 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 only after 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 4-224 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 4-225 PolicyTriggerPropertiesResp

| Parameter | Type | Description |
|------------|--------|--|
| start_time | String | Start time of the scheduler, for example, 2020-01-08 09:59:49 |

Table 4-226 PolicyAssociateVault

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

Example Requests

None

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](#).

4.6.4 Modifying a Policy

Function

This API is used to modify a policy.

URI

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

Table 4-227 Path parameters

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

Request Parameters

Table 4-228 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Table 4-229 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|----------------------------|-------------------------------------|
| policy | Yes | PolicyUpdate object | Request body for modifying a policy |

Table 4-230 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 4-231 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 only after 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 4-232 PolicyTriggerReq

| Parameter | Mandatory | Type | Description |
|------------|-----------|-----------------------------------|----------------------|
| properties | Yes | PolicyTriggerPropertiesReq object | Scheduler attributes |

Response Parameters

Status code: 200

Table 4-233 Response body parameters

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

Table 4-234 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 |
| operation_type | String | Policy type Enumeration values: <ul style="list-style-type: none"> • backup • replication |
| trigger | PolicyTriggerResponse object | Time scheduling rule for the policy |
| associated_vaults | Array of PolicyAssociatedVault objects | Associated vault |

Table 4-235 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 |
| 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 |

| Parameter | Type | Description |
|--------------|---------|--|
| timezone | String | Time zone where the user is located, for example, UTC+08:00. Set this parameter only after 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 4-236 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 4-237 PolicyTriggerPropertiesResp

| Parameter | Type | Description |
|------------|--------|--|
| start_time | String | Start time of the scheduler, for example, 2020-01-08 09:59:49 |

Table 4-238 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 4-239 Path parameters

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

Request Parameters

Table 4-240 Request header parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|--------|---|
| X-Auth-Token | Yes | String | User token. Obtained by calling the corresponding IAM API. If the request is successfully processed, the value of X-Subject-Token included in the response header is the token value. |

Response Parameters

None

Example Requests

None

Example Responses

None

Status Codes

| Status Code | Description |
|-------------|-------------|
| 204 | No Content |

Error Codes

See [Error Codes](#).

5 Application Cases

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

[5.2 Example 2: Implement 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](#).

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": []
  }
}
```

2. Associate a server or disk with the vault.

a. Associate resources with the vault.

■ 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 "Querying a Restore Point".

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: Implement 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.
- Binding 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 "Binding a Policy to a Vault".

– Sample request

POST: `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 Category of CBR Actions

6.1 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} | cbr:vaults:listProtectables | ecs:cloudServers:list evs:volumes:list | √ | √ |

| Permission | API | Action | Related Action | IAM Project | Enterprise Project |
|---|--|----------------------------|---|-------------|--------------------|
| Querying a specified protectable resource | GET /v3/{project_id}/protectables/{protectable_type}/instances/{instance_id} | cbr:vaults:getProtectables | ecs:cloudServers:list evs:volumes:list | √ | √ |

Vault

| Permission | API | Action | Related Action | IAM Project | Enterprise Project |
|-----------------------------|--|----------------------------|----------------|-------------|--------------------|
| Binding a policy to a vault | POST /v3/{project_id}/vaults/{vault_id}/associate_policy | 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 | - | √ | √ |
| Deleting a vault | DELETE /v3/{project_id}/vaults/{vault_id} | cbr:vaults:delete | - | √ | √ |
| Removing resources | POST /v3/{project_id}/vaults/{vault_id}/remove_resources | cbr:vaults:removeResources | - | √ | √ |

| Permission | API | Action | Related Action | IAM Project | Enterprise Project |
|---------------------------------|---|-----------------------------|---|-------------|--------------------|
| Associating resources | POST /v3/{project_id}/vaults/{vault_id}/add_resources | 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 | √ | √ |
| Unbinding a policy from a vault | POST /v3/{project_id}/vaults/{vault_id}/dissociate_policy | cbr:vaults:dissociatePolicy | - | √ | √ |

Restore Point

| Permission | API | Action | Related Action | IAM Project | Enterprise Project |
|--------------------------|---|-------------------|---|-------------|--------------------|
| Creating a restore point | POST /v3/{project_id}/providers/{provider_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 | √ | √ |

| Permission | API | Action | IAM Project | Enterprise Project |
|---------------------------------------|--|-------------------|-------------|--------------------|
| 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}/providers/{provider_id}/backups | cbr:backups:list | - | √ | √ |
| Querying a specified backup | GET /v3/{project_id}/providers/{provider_id}/backups/{backup_id} | cbr:backups:get | - | √ | √ |

| Permission | API | Action | Related Action | IAM Project | Enterprise Project |
|-------------------------------|---|-------------------------|--|-------------|--------------------|
| Deleting a backup | DELETE /v3/ {project_id}/ providers/ {provider_id}/ backups/ {backup_id} | cbr:backups: delete | - | √ | √ |
| Synchronizing a backup | POST /v3/ {project_id}/ providers/ {provider_id}/ backups/ sync | cbr:backups: sync | - | √ | √ |
| Restoring data using a backup | POST /v3/ {project_id}/ providers/ {provider_id}/ backups/ {backup_id}/ restore | cbr:backups: restore | ecs:cloudServers: list evs:volume: 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 | √ | √ |
| Modifying a policy | PUT /v3/ {project_id}/ policies/ {policy_id} | cbr:policies: update | √ | √ |

| Permissi on | API | Action | IAM Project | Enterprise Project |
|----------------------|--|-------------------------|-------------|-----------------------|
| Deleting a policy | DELETE /v3/ {project_id}/ policies/ {policy_id} | cbr:policies:dele te | √ | √ |

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 | Solution |
|-------------|---------------------|---|---|----------------------------|
| 400 | BackupService .6003 | The destination region of policy can not be modified because the policy has been bound vault. | The destination replication region cannot be modified because the policy has been bound to a replication vault. | Contact technical support. |

| Status Code | Error Code | Error Message | Description | Solution |
|-------------|---------------------|---|--|----------------------------|
| 400 | BackupService .6100 | Resources of vault over limit: %(limit)s. | The number of resources associated with the vault exceeds the upper limit. | Contact technical support. |
| 400 | BackupService .6101 | Size of vault invalid | The storage capacity of the vault is invalid. | Contact technical support. |
| 400 | BackupService .6102 | Resource not match vault resource type. | The vault does not support this resource type. | Contact technical support. |
| 400 | BackupService .6103 | Resource already in other vault. | The resource has already been associated with another vault. | Contact technical support. |
| 400 | BackupService .6104 | Duplicate resource. | Duplicate vault resources. | Contact technical support. |
| 400 | BackupService .6105 | Vault Not Found | The vault does not exist. | Contact technical support. |
| 400 | BackupService .6106 | Duplicate vault. | The vault already exists. | Contact technical support. |
| 400 | BackupService .6107 | Vault resource size illegal. | Failed to expand the vault capacity. | Contact technical support. |
| 400 | BackupService .6108 | The %(type)s vault can not add resources | The vault cannot be associated with any new resources anymore. | Contact technical support. |
| 400 | BackupService .6109 | Billing %(id)s Not Found | The bill does not exist. | Contact technical support. |

| Status Code | Error Code | Error Message | Description | Solution |
|-------------|---------------------|---|--|----------------------------|
| 400 | BackupService .6110 | The vault can not update, error_msg: % (msg)s. | The vault cannot be updated. | Contact technical support. |
| 400 | BackupService .6111 | The vault can not delete, error_msg: % (msg)s. | The vault cannot be deleted. | Contact technical support. |
| 400 | BackupService .6112 | Vault status is illegal, allow status: % (status)s. | Invalid vault status. | Contact technical support. |
| 400 | BackupService .6113 | The vault status not supported backup | The vault status does not support backup. | Contact technical support. |
| 400 | BackupService .6114 | The vault used capacity has exceeded the total capacity | The used capacity of the vault exceeds the maximum capacity. | Contact technical support. |
| 400 | BackupService .6115 | Delete the backups of vault failed. | Failed to delete the backups from the vault. | Contact technical support. |
| 400 | BackupService .6116 | Protect type Not allowed | Unsupported resource type. | Contact technical support. |
| 400 | BackupService .6117 | OperationType Not Allowed | Unknown policy type. | Contact technical support. |
| 400 | BackupService .6118 | Check destination vault failed. | Failed to check the destination vault. | Contact technical support. |
| 400 | BackupService .6119 | Destination vault not support. reason: % (msg)s | The destination vault does not support replication. | Contact technical support. |

| Status Code | Error Code | Error Message | Description | Solution |
|-------------|---------------------|---|---|----------------------------|
| 400 | BackupService .6120 | Destination vault not found. | The destination vault does not exist. | Contact technical support. |
| 400 | BackupService .6121 | Vaults delete fail. failed ids: %(ids)s. | Failed to delete the vault. | Contact technical support. |
| 400 | BackupService .6122 | The vault resource type not support replication | The resource type does not support replication. | Contact technical support. |
| 400 | BackupService .6123 | The capacity expansion order failed | Capacity expansion failed. There may be unprocessed capacity expansion orders or capacity expansion is in progress. | Contact technical support. |
| 400 | BackupService .6124 | The %(vault_type)s vault not support backup. | The vault type does not support backup. | Contact technical support. |
| 400 | BackupService .6125 | The vault %(vault_id)s is executing. | A backup task is still in progress. | Contact technical support. |
| 400 | BackupService .6126 | The vault does not support app_consistent. | The vault does not support database backup. | Contact technical support. |
| 400 | BackupService .6127 | The vault does not support to bind the policy. | The vault cannot be bound to this policy. | Contact technical support. |

| Status Code | Error Code | Error Message | Description | Solution |
|-------------|---------------------|---|--|----------------------------|
| 400 | BackupService .6128 | The % (vault_type)s vault not support replication. | The vault type does not support replication. | Contact technical support. |
| 400 | BackupService .6129 | The destination vault used capacity has exceeded the total capacity | The capacity of the destination vault reaches the upper limit. | Contact technical support. |
| 400 | BackupService .6130 | The vault % (vault_id)s is replicating. | A replication task is still in progress. | Contact technical support. |
| 400 | BackupService .6131 | Traffic billing not found | The traffic record does not exist. | Contact technical support. |
| 400 | BackupService .6132 | Create vault fail | Failed to create a vault. | Contact technical support. |
| 400 | BackupService .6133 | Vault count over limit | The number of vaults exceeds the upper limit. | Contact technical support. |
| 400 | BackupService .6134 | Resource is removing, resources: % (resource_id)s . | Resources are being removed from the vault. | Contact technical support. |
| 400 | BackupService .6135 | Resources % (resource_ids)s does not exist in vault. | The resource does not exist in the vault. | Contact technical support. |
| 400 | BackupService .6136 | Hybrid Not allowed to backup policy | Hybrid cloud backup vaults cannot be bound to backup policies. | Contact technical support. |

| Status Code | Error Code | Error Message | Description | Solution |
|-------------|--------------------|--|---|---|
| 400 | BackupService.6137 | The volume of resource cannot bind in multi vault. | Disks on a cloud server cannot be backed up to multiple vaults. | Contact technical support. |
| 400 | BackupService.0001 | The vault has no resource to backup. | No resources can be backed up. | Check whether resources are being backed up or contact technical support. |

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 the project ID by calling the IAM API used to query project information based on the 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 **My Credentials** page, view the project ID in the project list.

A Change History

| Released On | What's New |
|-------------|-------------------------------------|
| 2020-09-20 | This is the first official release. |