Cloud Backup and Recovery

API Reference

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1 Before You Start

Overview

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

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

Before calling CBR APIs, ensure that you have fully understood relevant concepts. For details, see **Service Overview**.

API Calling

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

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**.

Constraints

The numbers of CBR resources that you can create are determined by your quota. To view or increase the quota, see **Quotas**.

For more constraints, see the API description.

Concepts

- Account

  An account is created upon successful signing up. The account has full access permissions for all of its cloud services and resources. It can be used to reset

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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

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

  For details, see **Region and AZ**.

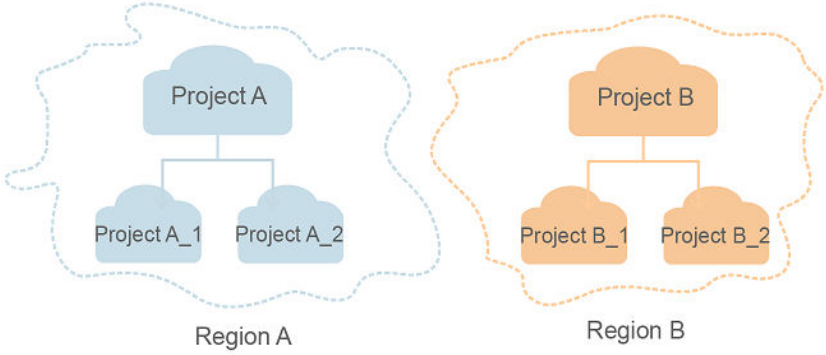
- AZ

  An AZ comprises of one or more physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Computing, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.

- Project

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

  Figure 1-1 Project isolation model

- Enterprise project

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

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contain resources of multiple regions, and resources can be added to or removed from enterprise projects.

For details about enterprise projects and about how to obtain enterprise project IDs, see ***Enterprise Management User Guide***.

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2 API Overview

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

Table 2-1 API description

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

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3 Calling APIs

3.1 Making an API Request

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

Request URI

A request URI is in the following format:

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

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

Table 3-1 URI parameter description

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

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

IAM is a global service. You can create an IAM user using the endpoint of IAM in any region. For example, to create an IAM user in the **CN-Hong Kong** region, obtain the endpoint of IAM (**iam.ap-southeast-1.myhuaweicloud.com**) for this region and the **resource-path** (**/v3.0/OS-USER/users**) in the URI of the API for **creating an IAM user**. Then construct the URI as follows:

```
https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

Figure 3-1 Example URI

NOTE

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

Request Methods

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

Table 3-2 HTTP methods

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

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

For example, in the case of the API for **creating an IAM user**, the request method is **POST**. An example request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

Request Header

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

Common request header fields are as follows.

Table 3-3 Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of *Hostname:Port number*. If the port number is not specified, the default port is used. The default port number for **https** is **443**.	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the 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

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

NOTE

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

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

The following shows an example request of the API for **creating an IAM user** when AK/SK authentication is used:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=**********, SignedHeaders=content-type;host;x-sdk-date, Signature=**********
```

(Optional) Request Body

This part is optional. A request body is generally sent in a structured format (for example, JSON or XML), which is specified by **Content-Type** in the request header. It is used to transfer content other than the request header. If the request body contains full-width characters, these characters must be coded in UTF-8.

The request body varies depending on APIs. Certain APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

The following shows an example request (a request body included) of the API for **creating an IAM user**. You can learn about request parameters and related

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description from this example. The bold parameters need to be replaced for a real request.

- **accountid**: account ID of an IAM user
- **username**: name of an IAM user
- **email**: email of an IAM user
- **password**: login password of an IAM user

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=**********, SignedHeaders=content-type;host;x-sdk-date,
Signature=**********

{
    "user": {
        "domain_id": "accountid",
        "name": "username",
        "password": "**********",
        "email": "email",
        "description": "IAM User Description"
    }
}
```

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

3.2 Authentication

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

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

Token Authentication

NOTE

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

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

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

```
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
```

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```
        "password": {
          "user": {
            "name": "username",   // IAM user name
            "password": "********",  // IAM user password
            "domain": {
              "name": "domainname"  // Name of the account to which the IAM user belongs
            }
          }
        }
      },
      "scope": {
        "project": {
          "name": "xxxxxxxx"    // Project Name
        }
      }
    }
}
```

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

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK Authentication

NOTE

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

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

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

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

NOTE

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

3.3 Response

Status Code

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

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

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For example, if status code **201** is returned for calling the API used to **create an IAM user**, 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 **create an IAM user**. The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

NOTE

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

Figure 3-2 Header fields of the response to the request for creating an IAM user


```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fceac8a",
"Transfer-Encoding": "chunked",
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",
"Server": "api-gateway",
"X-Request-Id": "af2953f2bcc67a42325a69a19e6c32a2",
"X-Content-Type-Options": "nosniff",
"Connection": "keep-alive",
"X-Download-Options": "noopen",
"X-XSS-Protection": "1; mode=block;",
"X-IAM-Trace-Id": "token_[redacted]_null_af2953f2bcc67a42325a69a19e6c32a2",
"Date": "Tue, 21 May 2024 09:03:40 GMT",
"Content-Type": "application/json; charset=utf8"
```


(Optional) Response Body

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

The following is part of the response body for the API used to **create an IAM user**.


```
{
    "user": {
        "id": "c131886aec...",
        "name": "IAMUser",
        "description": "IAM User Description",
        "areacode": "",
        "phone": "",
        "email": "***@***.com",
        "status": null,
        "enabled": true,
        "pwd_status": false,
        "access_mode": "default",
        "is_domain_owner": false,
        "xuser_id": "",
        "xuser_type": "",
        "password_expires_at": null,
        "create_time": "2024-05-21T09:03:41.000000",
        "domain_id": "d78cbac1.....",
        "xdomain_id": "30086000.....",
        "xdomain_type": "",
        "default_project_id": null
```


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```
    }
}
```

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

```
{
    "error_msg": "The request message format is invalid.",
    "error_code": "IMG.0001"
}
```

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

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4 CBR APIs

4.1 Operations

4.1.1 Changing the Payment Mode

Function

This API is used to change the billing mode of a resource. Currently, only pay-per-use resources can be changed to yearly/monthly resources.

NOTE

This API is in the open beta test (OBT) phase and may be unavailable in some regions.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/vaults/change-charge-mode

Table 4-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

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Request Parameters

Table 4-2 Request body parameters

Parameter	Mandatory	Type	Description
charging_mode	No	String	Payment mode. Currently, only **pre_paid** is available.
period_type	Yes	String	Creation type, which can be by year (**year**) or by month (**month**).
period_num	Yes	Integer	Number of created types by year or month.
is_auto_renew	No	Boolean	Whether to automatically renew the subscription after expiration. It is not renewed by default.
is_auto_pay	No	Boolean	Whether to use automatic payment. Automatic payment is not used by default.
console_url	No	String	Redirection URL.
vault_ids	Yes	Array of strings	Resource list.

Response Parameters

Status code: 200

Table 4-3 Response body parameters

Parameter	Type	Description
orderId	String	Order ID
retCode	String	Change status code
retMsg	String	Change information

Example Requests

Changing the billing mode of a pay-per-use vault to yearly/monthly

```
https://{endpoint}/v3/{project_id}/orders/change-to-period

{
  "vault_ids" : [ "9dd8f8db-a926-440b-9af5-81b643618898" ],
  "charging_mode" : "pre_paid",
  "period_type" : "year",
```


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```
  "period_num" : 2,
  "is_auto_renew" : true,
  "is_auto_pay" : true,
  "console_url" : "https://www.{endpoint}/v3/"
}
```

Example Responses

Status code: 200

OK

```
{
  "orderId" : "CS2305291628MSG5A",
  "retCode" : 0,
  "retMsg" : "success"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.1.2 Change (Discarded)

Function

This API is used to update yearly/monthly order information after the order is created. This API has been discarded.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

PUT /v3/{project_id}/orders/{order_id}

Table 4-4 Path Parameters

Parameter	Mandatory	Type	Description
order_id	Yes	String	Order ID
project_id	Yes	String	Project ID

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Request Parameters

Table 4-5 Request body parameters

Parameter	Mandatory	Type	Description
cloudServiceConsoleURL	No	String	URL of the cloud service console. After the subscription is completed, this URL can be used to switch to the cloud service console page to view the information.
productInfo	Yes	**CbcProductInfoUpdate** object	Product information
resourceId	Yes	String	ID of the resource to be changed
promotion_info	No	String	Promotion information

Table 4-6 CbcProductInfoUpdate

Parameter	Mandatory	Type	Description
productId	Yes	String	Product ID, which is obtained by calling the API for price inquiry. The value consists of 1 to 64 characters and can contain only letters, digits, underscores (_), and hyphens (-)..
resourceSize	Yes	Integer	Specifies the resource size. The value ranges from 10 to 10,485,760.
resourceSizeMeasureId	No	Integer	Resource capacity measurement ID. An enumerated value is as follows: **17: GB**

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Parameter	Mandatory	Type	Description
resourceSpecCode	Yes	String	Resource specifications of the purchased cloud service Enumeration values: **vault.backup.server.normal**, **vault.backup.turbo.normal**, **vault.backup.database.normal**, **vault.backup.volume.normal**, **vault.backup.rds.normal**, **vault.replication.server.normal**, **vault.hybrid.server.normal**

Response Parameters

Status code: 200

Table 4-7 Response body parameters

Parameter	Type	Description
orderId	String	Order ID
retCode	String	Change status code
retMsg	String	Change information

Example Requests

Changing the capacity of a yearly/monthly vault to 50 GB

```
https://{endpoint}/v3/{project_id}/orders/CS2305081601LIS2V

{
  "resourceId" : "9dd8f8db-a926-440b-9af5-81b643618898",
  "productInfo" : {
    "productId" : "00301-231147-0--0",
    "resourceSpecCode" : "vault.backup.server.normal",
    "resourceSize" : 50,
    "resourceSizeMeasureId" : 17
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "orderId" : "CS2305291628MSG5A",
  "retCode" : 0,
  "retMsg" : "success"
}
```

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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.1.3 Change

Function

This API is used to update the order information of a yearly/monthly product and return the information about the order to be paid.

NOTE

This API is in the open beta test (OBT) phase and may be unavailable in some regions.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/orders/change

Table 4-8 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.

Request Parameters

Table 4-9 Request body parameters

Parameter	Mandatory	Type	Description
cloud_service_console_url	No	String	URL of the cloud service console. After the subscription is completed, this URL can be used to switch to the cloud service console page to view the information.

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Parameter	Mandatory	Type	Description
product_info	Yes	**CbcProductInfoOrderChange** object	Product information.
resource_id	Yes	String	ID of the resource to be changed.
is_auto_pay	No	Boolean	Whether to enable automatic payment. The default value is **false**. **NOTE** This feature is in the open beta test (OBT) phase and may be unavailable or does not take effect in some regions.
promotion_info	No	String	Purchase discount.

Table 4-10 CbcProductInfoOrderChange

Parameter	Mandatory	Type	Description
product_id	Yes	String	Product ID, which is obtained through the price query API. The value consists of 1 to 64 characters and can contain only letters, digits, underscores (_), and hyphens (-).
resource_size	Yes	Integer	Resource capacity. Value range: 10-10485760
resource_size_measure_id	No	Integer	Resource capacity measurement ID. An enumerated value is as follows: 17: GB
resource_spec_code	Yes	String	Resource specification code. Enum: [vault.backup.server.normal, vault.backup.turbo.normal, vault.backup.database.normal, vault.backup.volume.normal, vault.backup.rds.normal, vault.replication.server.normal, vault.hybrid.server.normal]

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Response Parameters

Status code: 200

Table 4-11 Response body parameters

Parameter	Type	Description
orderId	String	Order ID
retCode	String	Change status code
retMsg	String	Change information

Example Requests

Changing the size of a yearly/monthly vault to 50 GB

```
https://{endpoint}/v3/{project_id}/orders/change

{
  "resource_id" : "9dd8f8db-a926-440b-9af5-81b643618898",
  "product_info" : {
    "product_id" : "00301-34090-0--0",
    "resource_size" : 200,
    "resource_spec_code" : "vault.backup.server.normal"
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "orderId" : "CS2305291628MSG5A",
  "retCode" : 0,
  "retMsg" : "success"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.2 File Backup

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4.2.1 Adding File Paths

Function

This API is used to add the file paths you want to back up from a client. Path validity will not be checked.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/agents/{agent_id}/add-path

Table 4-12 Path Parameters

Parameter	Mandatory	Type	Description
agent_id	Yes	String	Client ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-13 Request header parameters

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

Table 4-14 Request body parameters

Parameter	Mandatory	Type	Description
add_path	Yes	Array of strings	Details of the paths to be added

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Parameter	Mandatory	Type	Description
exclude_path	No	Array of **ExcludePath** objects	Adding an excluded directory. **NOTE** This feature is in the open beta test (OBT) phase and may be unavailable in some regions.

Table 4-15 ExcludePath

Parameter	Mandatory	Type	Description
path_name	No	String	Backup directory.
exclude_path_name	No	Array of strings	Excluded directory list

Response Parameters

Status code: 200

Table 4-16 Response body parameters

Parameter	Type	Description
added	Array of strings	List of the added paths
existed	Array of strings	List of the existing paths

Example Requests

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

{
  "add_path" : [ "/home/hcp", "/opt/workspace/" ],
  "exclude_path" : [ {
    "path_name" : "/home/hcp",
    "exclude_path_name" : [ "/home/hcp/1", "/home/hcp/2" ]
  }, {
    "path_name" : "/opt/workspace/",
    "exclude_path_name" : [ "/opt/workspace/1", "/opt/workspace/2" ]
  } ]
}
```

Example Responses

Status code: 200

OK

```
{
  "added" : [ "/opt/backup", "/var/log" ],
```


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```
  "existed" : [ "/tmp/backup" ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.2.2 Querying a Specified Client

Function

Querying a Specified Client

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/agents/{agent_id}

Table 4-17 Path Parameters

Parameter	Mandatory	Type	Description
agent_id	Yes	String	Client ID
project_id	Yes	String	Project ID

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Request Parameters

Table 4-18 Request header parameters

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

Response Parameters

Status code: 200

Table 4-19 Response body parameters

Parameter	Type	Description
agent	**Agent** object	Agent details

Table 4-20 Agent

Parameter	Type	Description
created_at	String	Time when the Agent was installed
updated_at	String	Time when the Agent was updated
agent_id	String	Client ID
agent_version	String	Agent version
agent_type	String	Agent type
host_name	String	Name of the host where the Agent is installed
host_nickname	String	Host alias
host_ip	String	Host IP address
host_os	String	Host OS
status	String	Agent status
last_active_time	String	Time when the Agent was last activated

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Parameter	Type	Description
paths	Array of **Path** objects	Backup path of the client

Table 4-21 Path

Parameter	Type	Description
id	String	Path ID
status	String	Path status, which can either be **available** or **remove**
agent_id	String	ID of the Agent to which the path belongs
dir_path	String	Path details
exclude_paths	String	List of excluded directories. Use commas (,) to separate multiple paths. **NOTE** This feature is in the open beta test (OBT) phase and may be unavailable in some regions.

Example Requests

```
GET https://{endpoint}/v3/{project_id}/agents/{agent_id}
```

Example Responses

Status code: 200

OK


```
{
  "agent" : {
    "created_at" : "2022-01-30T09:28:09.334+00:00",
    "updated_at" : "2022-01-30T09:28:09.334+00:00",
    "agent_id" : "489654f2-363b-4ebf-966a-bdf079d97114",
    "agent_version" : "1.0.0",
    "agent_type" : "native",
    "host_name" : "ecs-0001",
    "host_nickname" : "",
    "host_ip" : "192.168.10.144",
    "host_os" : "linux",
    "status" : "normal",
    "last_active_time" : "2022-01-30T09:28:08.960+00:00",
    "paths" : [ {
      "id" : "5684b0fb-44c8-4c70-bb59-b03ec2738360",
      "agent_id" : "0cba3ff9-f836-4178-9ce8-91dc8026321c",
      "dir_path" : "/opt/huaweicloud/cbragent/lib",
      "status" : "available",
      "exclude_paths" : "*.txt,/opt/huaweicloud/cbragent/lib/test"
    }, {
      "id" : "1ad949d5-c955-4995-8c28-60fc8b110a21",
      "agent_id" : "0cba3ff9-f836-4178-9ce8-91dc8026321c",
```


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```
    "dir_path" : "/opt/backup",
    "status" : "available",
    "exclude_paths" : "*.txt,/opt/huaweicloud/cbragent/lib/test"
   } ]
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.2.3 Modifying a Client

Function

This API is used to change the status of a client.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

PUT /v3/{project_id}/agents/{agent_id}

Table 4-22 Path Parameters

Parameter	Mandatory	Type	Description
agent_id	Yes	String	Client ID
project_id	Yes	String	Project ID

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Request Parameters

Table 4-23 Request header parameters

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

Table 4-24 Request body parameters

Parameter	Mandatory	Type	Description
agent	Yes	**AgentUpdate** object	Agent parameters to be updated

Table 4-25 AgentUpdate

Parameter	Mandatory	Type	Description
status	Yes	String	Agent status. Only **uninstalled** is supported currently. This status is automatically triggered when the client is removed.

Response Parameters

Status code: 200

Table 4-26 Response body parameters

Parameter	Type	Description
agent	**Agent** object	Agent details

Table 4-27 Agent

Parameter	Type	Description
created_at	String	Time when the Agent was installed

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Parameter	Type	Description
updated_at	String	Time when the Agent was updated
agent_id	String	Client ID
agent_version	String	Agent version
agent_type	String	Agent type
host_name	String	Name of the host where the Agent is installed
host_nickname	String	Host alias
host_ip	String	Host IP address
host_os	String	Host OS
status	String	Agent status
last_active_time	String	Time when the Agent was last activated
paths	Array of **Path** objects	Backup path of the client

Table 4-28 Path

Parameter	Type	Description
id	String	Path ID
status	String	Path status, which can either be **available** or **remove**
agent_id	String	ID of the Agent to which the path belongs
dir_path	String	Path details
exclude_paths	String	List of excluded directories. Use commas (,) to separate multiple paths. **NOTE** This feature is in the open beta test (OBT) phase and may be unavailable in some regions.

Example Requests

Changing the agent status of a client to uninstalled

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

{
```

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```
 "agent" : {
  "status" : "uninstall"
 }
}
```

Example Responses

Status code: 200

OK

```
{
 "agent" : {
  "created_at" : "2022-01-30T09:28:09.334+00:00",
  "updated_at" : "2022-01-30T09:28:09.334+00:00",
  "agent_id" : "489654f2-363b-4ebf-966a-bdf079d97114",
  "agent_version" : "1.0.0",
  "agent_type" : "native",
  "host_name" : "ecs-0001",
  "host_nickname" : "",
  "host_ip" : "192.168.10.144",
  "host_os" : "linux",
  "status" : "uninstall",
  "last_active_time" : "2022-01-30T09:28:08.960+00:00",
  "paths" : [ {
   "id" : "5684b0fb-44c8-4c70-bb59-b03ec2738360",
   "agent_id" : "0cba3ff9-f836-4178-9ce8-91dc8026321c",
   "dir_path" : "/opt/huaweicloud/cbragent/lib",
   "status" : "available",
   "exclude_paths" : "*.txt,/opt/huaweicloud/cbragent/lib/test"
  }, {
   "id" : "1ad949d5-c955-4995-8c28-60fc8b110a21",
   "agent_id" : "0cba3ff9-f836-4178-9ce8-91dc8026321c",
   "dir_path" : "/opt/backup",
   "status" : "available",
   "exclude_paths" : "*.txt,/opt/huaweicloud/cbragent/lib/test"
  } ]
 }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.2.4 Registering a Client

Function

This API is used to register a client during agent installation. This API is called automatically by the Agent. Manual registration is not required.

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Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/agents

Table 4-29 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-30 Request header parameters

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

Table 4-31 Request body parameters

Parameter	Mandatory	Type	Description
agent	Yes	**AgentRegister** object	Agent registration parameters

Table 4-32 AgentRegister

Parameter	Mandatory	Type	Description
agent_id	Yes	String	Client ID
host_name	Yes	String	Name of the host where the Agent is installed
host_ip	Yes	String	Host IP address
host_os	Yes	String	Host OS

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Parameter	Mandatory	Type	Description
host_nickname	No	String	Host alias
agent_version	No	String	Agent version
agent_type	No	String	Agent type, which can be **cloud** (installed on cloud servers) or **native** (installed on local servers)

Response Parameters

Status code: 200

Table 4-33 Response body parameters

Parameter	Type	Description
agent	**Agent** object	Agent details

Table 4-34 Agent

Parameter	Type	Description
created_at	String	Time when the Agent was installed
updated_at	String	Time when the Agent was updated
agent_id	String	Client ID
agent_version	String	Agent version
agent_type	String	Agent type
host_name	String	Name of the host where the Agent is installed
host_nickname	String	Host alias
host_ip	String	Host IP address
host_os	String	Host OS
status	String	Agent status
last_active_time	String	Time when the Agent was last activated
paths	Array of **Path** objects	Backup path of the client

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Table 4-35 Path

Parameter	Type	Description
id	String	Path ID
status	String	Path status, which can either be **available** or **remove**
agent_id	String	ID of the Agent to which the path belongs
dir_path	String	Path details
exclude_paths	String	List of excluded directories. Use commas (,) to separate multiple paths. **NOTE** This feature is in the open beta test (OBT) phase and may be unavailable in some regions.

Example Requests

Automatic client registration during agent installation

```
POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/agents

{
  "agent" : {
    "agent_id" : "489654f2-363b-4ebf-966a-bdf079d97114",
    "host_name" : "ecs-00002",
    "host_ip" : "10.10.0.2",
    "host_os" : "linux",
    "agent_version" : "1.0.0",
    "agent_type" : "native"
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "agent" : {
    "created_at" : "2022-01-30T09:28:09.334+00:00",
    "updated_at" : "2022-01-30T09:28:09.334+00:00",
    "agent_id" : "489654f2-363b-4ebf-966a-bdf079d97114",
    "agent_version" : "1.0.0",
    "agent_type" : "native",
    "host_name" : "ecs-0001",
    "host_nickname" : "",
    "host_ip" : "192.168.10.144",
    "host_os" : "linux",
    "status" : "normal",
    "last_active_time" : "2022-01-30T09:28:08.960+00:00"
  }
}
```

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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.2.5 Removing a Client

Function

This API is used to remove a client. All backups of a client will be deleted after the client is removed.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

DELETE /v3/{project_id}/agents/{agent_id}

Table 4-36 Path Parameters

Parameter	Mandatory	Type	Description
agent_id	Yes	String	Client ID
project_id	Yes	String	Project ID

Request Parameters

Table 4-37 Request header parameters

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

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Response Parameters

None

Example Requests

Deregistering a client

```
DELETE https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/agents/6dd81d7d-a4cb-443e-b8ed-1af0bd3a261b
```

Example Responses

None

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.2.6 Removing File Paths

Function

This API is used to remove the file paths added for backup.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/agents/{agent_id}/remove-path

Table 4-38 Path Parameters

Parameter	Mandatory	Type	Description
agent_id	Yes	String	Client ID
project_id	Yes	String	Project ID

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Request Parameters

Table 4-39 Request header parameters

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

Table 4-40 Request body parameters

Parameter	Mandatory	Type	Description
remove_path	Yes	Array of strings	Details of the paths to be removed

Response Parameters

Status code: 200

Table 4-41 Response body parameters

Parameter	Type	Description
removed	Array of strings	List of the removed paths
not_existed	Array of strings	List of the paths that are not existed

Example Requests

Removing File Paths

```
POST  https://{endpoint}/v3/{project_id}/agents/{agent_id}/remove-path

{
  "remove_path" : [ "/tmp", "/home" ]
}
```

Example Responses

Status code: 200

OK

```
{
  "removed" : [ "/tmp" ],
```


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```
  "not_existed" : [ "/home" ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.2.7 Querying the Client List

Function

Querying the Client List

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/agents

Table 4-42 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-43 Query Parameters

Parameter	Mandatory	Type	Description
agent_id	No	String	Client ID
limit	No	String	Number of records displayed on each page
offset	No	Integer	Query offset, which is a positive integer
status	No	String	Status

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Request Parameters

Table 4-44 Request header parameters

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

Response Parameters

Status code: 200

Table 4-45 Response body parameters

Parameter	Type	Description
agents	Array of **Agent** objects	Client list
count	Integer	Client quantity
limit	Integer	Number of records displayed on each page
offset	Integer	Offset where the query starts

Table 4-46 Agent

Parameter	Type	Description
created_at	String	Time when the Agent was installed
updated_at	String	Time when the Agent was updated
agent_id	String	Client ID
agent_version	String	Agent version
agent_type	String	Agent type
host_name	String	Name of the host where the Agent is installed
host_nickname	String	Host alias
host_ip	String	Host IP address

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Parameter	Type	Description
host_os	String	Host OS
status	String	Agent status
last_active_time	String	Time when the Agent was last activated
paths	Array of **Path** objects	Backup path of the client

Table 4-47 Path

Parameter	Type	Description
id	String	Path ID
status	String	Path status, which can either be **available** or **remove**
agent_id	String	ID of the Agent to which the path belongs
dir_path	String	Path details
exclude_paths	String	List of excluded directories. Use commas (,) to separate multiple paths. **NOTE** This feature is in the open beta test (OBT) phase and may be unavailable in some regions.

Example Requests

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

Example Responses

Status code: 200

OK

```
{
  "count" : 2,
  "limit" : 1000,
  "offset" : 0,
  "agents" : [ {
    "created_at" : "2022-01-30T09:28:09.334+00:00",
    "agent_id" : "489654f2-363b-4ebf-966a-bdf079d97114",
    "host_name" : "eBackup",
    "host_ip" : "18.9.158.36",
    "status" : "normal",
    "last_active_time" : "2022-01-30T09:28:08.960+00:00"
  }, {
    "created_at" : "2022-01-14T06:47:17.524+00:00",
    "updated_at" : "2022-01-28T05:01:32.739+00:00",
```


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```
  "agent_id" : "fb711278-e872-4224-b442-8dafc36a543d",
  "host_name" : "ecs-00001",
  "host_ip" : "10.10.0.1",
  "status" : "normal",
  "last_active_time" : "2022-01-28T05:01:32.000+00:00",
  "paths" : [ {
    "id" : "6c3d1ed6-b7d7-4e27-94ee-321431e84c5c",
    "dir_path" : "/home/hcp",
    "status" : "available",
    "agent_id" : "fb711278-e872-4224-b442-8dafc36a543d",
    "exclude_paths" : "*.txt,/opt/huaweicloud/cbragent/lib/test"
  }, {
    "id" : "e2af0fdd-9644-4db8-986e-5a6a2395c390",
    "dir_path" : "/opt/workspace",
    "status" : "available",
    "agent_id" : "fb711278-e872-4224-b442-8dafc36a543d",
    "exclude_paths" : "*.txt,/opt/huaweicloud/cbragent/lib/test"
  } ]
 } ]
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.3 Tasks

4.3.1 Querying a Single Task

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

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Table 4-48 Path Parameters

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

Request Parameters

Table 4-49 Request header parameters

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

Response Parameters

Status code: 200

Table 4-50 Response body parameters

Parameter	Type	Description
operation_log	**OperationLog** object	Task information

Table 4-51 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

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Parameter	Type	Description
extra_info	**OpExtraInfo** object	Task extension information
id	String	Task ID
operation_type	String	Task type
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
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 4-52 OpErrorInfo

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

Table 4-53 OpExtraInfo

Parameter	Type	Description
backup	**OpExtendInfoBckup** object	Extended parameters of backup
common	**OpExtendInfoCommon** object	Common parameters
delete	**OpExtendInfoDelete** object	Extended parameters of deletion

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Parameter	Type	Description
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 4-54 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)
backup_id	String	Backup ID
backup_name	String	Backup name
incremental	String	Whether incremental backup is used

Table 4-55 OpExtendInfoCommon

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

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Table 4-56 OpExtendInfoDelete

Parameter	Type	Description
backup_id	String	Backup ID
backup_name	String	Backup name

Table 4-57 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 failed to be synchronized

Table 4-58 OpExtendInfoRemoveResources

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

Table 4-59 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.

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Parameter	Type	Description
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**

Table 4-60 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 4-61 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

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Table 4-62 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 4-63 OpExtendInfoVaultDelete

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

Status code: 404

Table 4-64 Response body parameters

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

Example Requests

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

Example Responses

Status code: 200

OK

```
{
  "operation_log" : {
    "status" : "success",
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "checkpoint_id" : "b432511f-d889-428f-8b0e-5f47c524c6b6",
    "updated_at" : "2019-05-23T14:35:23.584+00:00",
    "error_info" : {
      "message" : "",
      "code" : ""
    },
    "started_at" : "2019-05-23T14:31:36.007+00:00",
```


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```
  "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" : "2019-05-23T14:35:23.511+00:00",
  "created_at" : "2019-05-23T14:31:36.039+00:00",
  "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**.

4.3.2 Querying the Task List

Function

Querying the Task List

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/operation-logs

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Table 4-65 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-66 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 items displayed on each page. The value is a positive integer. You are advised to explicitly define the value of the parameter.
offset	No	Integer	Offset value. The value must be a positive integer.
operation_type	No	String	Task type
provider_id	No	String	Backup provider ID, which specifies whether the backup object is a server or disk
resource_id	No	String	Backup resource ID
resource_name	No	String	Backup resource name
start_time	No	String	Start time of a task, in %YYYY-%mm-%ddT%HH:%MM:%SSZ format. For example, **2018-01-01T12:00:00Z**.
status	No	String	Task status
vault_id	No	String	ID of the vault with which the target resource is associated

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Parameter	Mandatory	Type	Description
vault_name	No	String	Name of the vault with which the target resource is associated

Request Parameters

Table 4-67 Request header parameters

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

Response Parameters

Status code: 200

Table 4-68 Response body parameters

Parameter	Type	Description
operation_logs	Array of **OperationLog** objects	Task list
count	Integer	Number of tasks
limit	Integer	Number of records displayed on each page
offset	Integer	Offset where the query starts

Table 4-69 OperationLog

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

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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
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
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 4-70 OpErrorInfo

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

Table 4-71 OpExtraInfo

Parameter	Type	Description
backup	**OpExtendInfoBckup** object	Extended parameters of backup

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Parameter	Type	Description
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 4-72 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)
backup_id	String	Backup ID
backup_name	String	Backup name
incremental	String	Whether incremental backup is used

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Table 4-73 OpExtendInfoCommon

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

Table 4-74 OpExtendInfoDelete

Parameter	Type	Description
backup_id	String	Backup ID
backup_name	String	Backup name

Table 4-75 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 failed to be synchronized

Table 4-76 OpExtendInfoRemoveResources

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

Table 4-77 Resource

Parameter	Type	Description
extra_info	**ResourceExtraInfo** object	Extra information of the resource

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Parameter	Type	Description
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.
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**

Table 4-78 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

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Table 4-79 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

Table 4-80 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 4-81 OpExtendInfoVaultDelete

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

Status code: 404

Table 4-82 Response body parameters

Parameter	Type	Description
operation_logs	Array of **OperationLog** objects	Task list
count	Integer	Number of tasks
limit	Integer	Number of records displayed on each page

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Parameter	Type	Description
offset	Integer	Offset where the query starts

Table 4-83 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
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
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 4-84 OpErrorInfo

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

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Parameter	Type	Description
message	String	Error message

Table 4-85 OpExtraInfo

Parameter	Type	Description
backup	**OpExtendInfoBckup** object	Extended parameters of backup
common	**OpExtendInfoCommon** object	Common parameters
delete	**OpExtendInfoDelete** object	Extended parameters of deletion
sync	**OpExtendInfoSync** object	Extended parameters of synchronization
remove_resources	**OpExtendInfoRemoveResources** object	Extended parameters of removing resources from a vault
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 4-86 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)
backup_id	String	Backup ID

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Parameter	Type	Description
backup_name	String	Backup name
incremental	String	Whether incremental backup is used

Table 4-87 OpExtendInfoCommon

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

Table 4-88 OpExtendInfoDelete

Parameter	Type	Description
backup_id	String	Backup ID
backup_name	String	Backup name

Table 4-89 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 failed to be synchronized

Table 4-90 OpExtendInfoRemoveResources

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

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Table 4-91 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.
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**

Table 4-92 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

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Table 4-93 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

Table 4-94 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 4-95 OpExtendInfoVaultDelete

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

Example Requests

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

Example Responses

Status code: 200

OK

```
{
  "count" : 1,
  "operation_logs" : [ {
    "status" : "success",
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "checkpoint_id" : "b432511f-d889-428f-8b0e-5f47c524c6b6",
    "updated_at" : "2019-05-23T14:35:23.584+00:00",
```

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```
  "error_info" : {
    "message" : "",
    "code" : ""
  },
  "started_at" : "2019-05-23T14:31:36.007+00:00",
  "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" : "2019-05-23T14:35:23.511+00:00",
  "created_at" : "2019-05-23T14:31:36.039+00:00",
  "operation_type" : "backup",
  "project_id" : "04f1829c788037ac2fb8c01eb2b04b95"
 } ]
}
```


Status Codes

Status Code	Description
200	OK
404	Not Found

Error Codes

See **Error Codes**.

4.4 Vaults

4.4.1 Creating a Vault

Function

Creating a Vault

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

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URI

POST /v3/{project_id}/vaults

Table 4-96 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-97 Request header parameters

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

Table 4-98 Request body parameters

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

Table 4-99 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	Description
name	Yes	String	Vault name

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Parameter	Mandatory	Type	Description
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
auto_bind	No	Boolean	Whether automatic association is supported
bind_rules	No	**VaultBindRules** object	Rules for automatic association
auto_expand	No	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
threshold	No	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, a notification will or will not be sent based on the smn_notify parameter configured. Default value: **80** Maximum value: **100** Minimum value: **1**
smn_notify	No	Boolean	Exception notification The default value is **true**.
backup_name_prefix	No	String	Backup name prefix. If configured, the names of all automatic backups generated for the vault will use this prefix.
demand_billing	No	Boolean	Whether the vault capacity can be exceeded. The parameter value can be set to **true** only when a yearly/monthly vault is created.

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Parameter	Mandatory	Type	Description
sys_lock_source_service	No	String	Used to identify the SMB service. You can set it to **SMB** or leave it empty.
locked	No	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

Table 4-100 BillingCreate

Parameter	Mandatory	Type	Description
cloud_type	No	String	Cloud type, which can be **public** or **hybrid**
consistent_level	Yes	String	Vault specification, which can be **crash_consistent** (crash consistent backup) or **app_consistent** (application consistency backup)
object_type	Yes	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**
protect_type	Yes	String	Protection type, which can be **backup** or **replication**
size	Yes	Integer	Capacity, in GB
charging_mode	No	String	Billing mode, which can be **post_paid** (pay-per-use) or **pre_paid** (yearly/monthly). The default value is **post_paid**.
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).
period_num	No	Integer	Required duration for the package. This parameter is mandatory if **charging_mode** is set to **pre_paid**.

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Parameter	Mandatory	Type	Description
is_auto_renew	No	Boolean	Whether to automatically renew the subscription after expiration. By default, it is not renewed.
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.
console_url	No	String	Redirection URL
is_multi_az	No	Boolean	Multi-AZ attribute of a vault. The default value is **false**.

Table 4-101 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	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
name	No	String	Backup name

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Table 4-102 ResourceExtraInfo

Parameter	Mandatory	Type	Description
exclude_volumes	No	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

Table 4-103 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).

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Parameter	Mandatory	Type	Description
value	Yes	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-104 VaultBindRules

Parameter	Mandatory	Type	Description
tags	No	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

Table 4-105 BindRulesTags

Parameter	Mandatory	Type	Description
key	Yes	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).

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Parameter	Mandatory	Type	Description
value	Yes	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

Response Parameters

Status code: 200

Table 4-106 Response body parameters

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

Table 4-107 VaultCreateResource

Parameter	Type	Description
billing	**Billing** object	Operation info
description	String	User-defined vault description
id	String	Vault ID
name	String	Vault name
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of **ResourceResp** objects	Vault resources
tags	Array of **Tag** objects	Vault tags
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is **false** (not enabled).

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Parameter	Type	Description
bind_rules	**VaultBindRules** object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, **2020-02-05T10:38:34.209782**
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	Boolean	Exception notification function
threshold	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, an exception notification is sent.
backup_name_prefix	String	Backup name prefix
demand_billing	Boolean	Whether the vault capacity can be exceeded.
cbc_delete_count	Integer	Vault deletion count
frozen	Boolean	Whether the vault is frozen
sys_lock_source_service	String	Used to identify the SMB service. You can set the parameter to SMB or leave it blank.
locked	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

Table 4-108 Billing

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

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Parameter	Type	Description
consistent_level	String	Vault specification, which can be **crash_consistent** (crash consistent backup) or **app_consistent** (application consistency backup)
object_type	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be **backup** or **replication**
size	Integer	Capacity, in GB
spec_code	String	Specification codeServer backup vault: **vault.backup.server.normal**; Disk backup vault: **vault.backup.volume.normal**; File system backup vault: **vault.backup.turbo.normal**
status	String	Vault status
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
is_multi_az	Boolean	Multi-AZ attribute of a vault

Table 4-109 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
protect_status	String	Protection status
size	Integer	Allocated capacity for the associated resource, in GB

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Parameter	Type	Description
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-110 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

Table 4-111 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).

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Parameter	Type	Description
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-112 VaultBindRules

Parameter	Type	Description
tags	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

Table 4-113 BindRulesTags

Parameter	Type	Description
key	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

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Table 4-114 CbcOrderResult

Parameter	Type	Description
cloudServiceId	String	Cloud service ID
orderId	String	Order ID
subscribeResult	Integer	Subscription result. **1**: succeeded; **0**: Failed
resourceId	String	ID of a pre-generated yearly/monthly resource

Status code: 400

Table 4-115 Response body parameters

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

Example Requests

- Creating a 100-GB pay-per-use cloud server backup vault, associating resources, and adding tags

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

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


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```
  }
}
```

- Creating a 40-GB pay-per-use cloud disk backup vault

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

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

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" : "2019-05-23T12:51:10.071+00:00",
    "project_id" : "fc347bc64ccd4589ae52e4f44b7433c7",
    "resources" : [ {
      "name" : "ecs-b977-0002",
      "backup_size" : 0,
      "protect_status" : "available",
      "backup_count" : 0,
      "extra_info" : {
        "exclude_volumes" : [ "1855eb9a-2b5e-4938-a9f0-aea08b6f9243", "5a51e8b3-2f65-4045-896f-
f8ffae14b064" ]
      },
      "type" : "OS::Nova::Server",
      "id" : "23a320a5-3efd-4568-b1aa-8dd9183cc64c",
      "size" : 40
    } ]
```

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```
  }
}
```

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.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-116 Path Parameters

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

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Request Parameters

Table 4-117 Request header parameters

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

Response Parameters

Status code: 200

Table 4-118 Response body parameters

Parameter	Type	Description
vault	**Vault** object	Objects returned after a vault query

Table 4-119 Vault

Parameter	Type	Description
billing	**Billing** object	Operation info
description	String	User-defined vault description
id	String	Vault ID
name	String	Vault name
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of **ResourceResp** objects	Vault resources
tags	Array of **Tag** objects	Vault tags
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.

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Parameter	Type	Description
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is **false** (not enabled).
bind_rules	**VaultBindRules** object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, **2020-02-05T10:38:34.209782**
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	Boolean	Exception notification function
threshold	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, an exception notification is sent.
sys_lock_source_service	String	Used to identify the SMB service. You can set it to **SMB** or leave it empty.
locked	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

Table 4-120 Billing

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

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Parameter	Type	Description
object_type	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be **backup** or **replication**
size	Integer	Capacity, in GB
spec_code	String	Specification codeServer backup vault: **vault.backup.server.normal**; Disk backup vault: **vault.backup.volume.normal**; File system backup vault: **vault.backup.turbo.normal**
status	String	Vault status
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
is_multi_az	Boolean	Multi-AZ attribute of a vault

Table 4-121 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
protect_status	String	Protection status
size	Integer	Allocated capacity for the associated resource, in GB

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Parameter	Type	Description
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-122 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

Table 4-123 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).

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Parameter	Type	Description
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-124 VaultBindRules

Parameter	Type	Description
tags	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

Table 4-125 BindRulesTags

Parameter	Type	Description
key	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

Status code: 404

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Table 4-126 Response body parameters

Parameter	Type	Description
vault	**Vault** object	Objects returned after a vault query

Table 4-127 Vault

Parameter	Type	Description
billing	**Billing** object	Operation info
description	String	User-defined vault description
id	String	Vault ID
name	String	Vault name
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of **ResourceResp** objects	Vault resources
tags	Array of **Tag** objects	Vault tags
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is **false** (not enabled).
bind_rules	**VaultBindRules** object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, **2020-02-05T10:38:34.209782**
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	Boolean	Exception notification function
threshold	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, an exception notification is sent.

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Parameter	Type	Description
sys_lock_source_service	String	Used to identify the SMB service. You can set it to **SMB** or leave it empty.
locked	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

Table 4-128 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be **post_paid** (pay-per-use) or **pre_paid** (yearly/monthly). The default value is **post_paid**.
cloud_type	String	Cloud type, which can be **public** or **hybrid**
consistent_level	String	Vault specification, which can be **crash_consistent** (crash consistent backup) or **app_consistent** (application consistency backup)
object_type	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be **backup** or **replication**
size	Integer	Capacity, in GB
spec_code	String	Specification codeServer backup vault: **vault.backup.server.normal**; Disk backup vault: **vault.backup.volume.normal**; File system backup vault: **vault.backup.turbo.normal**
status	String	Vault status
storage_unit	String	Name of the bucket for the vault
used	Integer	Used capacity, in MB.

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Parameter	Type	Description
frozen_scene	String	Scenario when an account is frozen
is_multi_az	Boolean	Multi-AZ attribute of a vault

Table 4-129 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
protect_status	String	Protection status
size	Integer	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-130 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

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Table 4-131 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-132 VaultBindRules

Parameter	Type	Description
tags	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

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Table 4-133 BindRulesTags

Parameter	Type	Description
key	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

Example Requests

Querying a vault

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

Example Responses

Status code: 200

OK

```
{
  "vault" : {
    "id" : "2b076f26-391f-40fa-bf71-a798940faccf",
    "name" : "sdk-vault1595581958",
    "resources" : [ ],
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "created_at" : "2020-07-24T09:12:49.492+00:00",
    "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"
    } ]
  }
}
```

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Status Codes

Status Code	Description
200	OK
404	Not Found

Error Codes

See **Error Codes**.

4.4.3 Querying the Vault List

Function

Querying the Vault List

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/vaults

Table 4-134 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-135 Query Parameters

Parameter	Mandatory	Type	Description
cloud_type	No	String	Public cloud: **public**; hybrid cloud: **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

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Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records displayed on each page
name	No	String	Vault name
object_type	No	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**(tag:hws,hws_hk)
offset	No	Integer	Query offset, which is a positive integer
policy_id	No	String	Policy ID
protect_type	No	String	Protection type: **backup** or **replication**
resource_ids	No	String	Resource ID. Multiple resources are separated with commas (,).
status	No	String	Status

Request Parameters

Table 4-136 Request header parameters

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

Response Parameters

Status code: 200

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Table 4-137 Response body parameters

Parameter	Type	Description
vaults	Array of **Vault** objects	Vault instance list
count	Integer	Number of vaults
limit	Integer	Number of records displayed on each page
offset	Integer	Offset where the query starts

Table 4-138 Vault

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

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Parameter	Type	Description
smn_notify	Boolean	Exception notification function
threshold	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, an exception notification is sent.
sys_lock_source_service	String	Used to identify the SMB service. You can set it to **SMB** or leave it empty.
locked	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

Table 4-139 Billing

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

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Parameter	Type	Description
status	String	Vault status
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
is_multi_az	Boolean	Multi-AZ attribute of a vault

Table 4-140 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
protect_status	String	Protection status
size	Integer	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-141 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

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Table 4-142 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-143 VaultBindRules

Parameter	Type	Description
tags	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

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Table 4-144 BindRulesTags

Parameter	Type	Description
key	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

Example Requests

Querying a vault list

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

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" : "2020-09-04T06:57:37.344+00:00",
    "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
}
```

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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.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-145 Path Parameters

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

Request Parameters

Table 4-146 Request header parameters

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

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Table 4-147 Request body parameters

Parameter	Mandatory	Type	Description
vault	Yes	**VaultUpdate** object	Parameters for modifying a vault.

Table 4-148 VaultUpdate

Parameter	Mandatory	Type	Description
billing	No	**BillingUpdate** object	Bill information
name	No	String	Vault name
auto_bind	No	Boolean	Whether automatic association is supported
bind_rules	No	**VaultBindRules** object	Association rule
auto_expand	No	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	No	Boolean	Exception notification function
threshold	No	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold and **smn_notify** is **true**, an exception notification is sent.
locked	No	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

Table 4-149 BillingUpdate

Parameter	Mandatory	Type	Description
consistent_level	No	String	Vault specifications
size	No	Integer	Vault size, in GB

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Table 4-150 VaultBindRules

Parameter	Mandatory	Type	Description
tags	No	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

Table 4-151 BindRulesTags

Parameter	Mandatory	Type	Description
key	Yes	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	Yes	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

Response Parameters

Status code: 200

Table 4-152 Response body parameters

Parameter	Type	Description
vault	**Vault** object	Objects returned after a vault query

Table 4-153 Vault

Parameter	Type	Description
billing	**Billing** object	Operation info
description	String	User-defined vault description

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Parameter	Type	Description
id	String	Vault ID
name	String	Vault name
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of **ResourceResp** objects	Vault resources
tags	Array of **Tag** objects	Vault tags
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is **false** (not enabled).
bind_rules	**VaultBindRules** object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, **2020-02-05T10:38:34.209782**
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	Boolean	Exception notification function
threshold	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, an exception notification is sent.
sys_lock_source_service	String	Used to identify the SMB service. You can set it to **SMB** or leave it empty.
locked	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

Table 4-154 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.

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Parameter	Type	Description
charging_mode	String	Billing mode, which can be **post_paid** (pay-per-use) or **pre_paid** (yearly/monthly). The default value is **post_paid**.
cloud_type	String	Cloud type, which can be **public** or **hybrid**
consistent_level	String	Vault specification, which can be **crash_consistent** (crash consistent backup) or **app_consistent** (application consistency backup)
object_type	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be **backup** or **replication**
size	Integer	Capacity, in GB
spec_code	String	Specification codeServer backup vault: **vault.backup.server.normal**; Disk backup vault: **vault.backup.volume.normal**; File system backup vault: **vault.backup.turbo.normal**
status	String	Vault status
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
is_multi_az	Boolean	Multi-AZ attribute of a vault

Table 4-155 ResourceResp

Parameter	Type	Description
extra_info	**ResourceExtraInfo** object	Extra information of the resource
id	String	ID of the resource to be backed up

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Parameter	Type	Description
name	String	Name of the resource to be backed up
protect_status	String	Protection status
size	Integer	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-156 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

Table 4-157 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).

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Parameter	Type	Description
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-158 VaultBindRules

Parameter	Type	Description
tags	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

Table 4-159 BindRulesTags

Parameter	Type	Description
key	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

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Example Requests

Modifying a vault (vault capacity changed to 200 GB and vault name changed to **vault_name02**)

```
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" : "2019-05-08T09:31:21.840+00:00",
    "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"
  }
}
```


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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 a vault. Once a vault is deleted, all backups in the vault will be deleted.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-160 Path Parameters

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

Request Parameters

Table 4-161 Request header parameters

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

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Response Parameters

None

Example Requests

Deleting a vault

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

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See **Error Codes**.

4.4.6 Dissociating Resources

Function

This API is used to remove a resource from a vault. If a resource is removed, the backup of the resource in the vault will also be deleted.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-162 Path Parameters

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

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Request Parameters

Table 4-163 Request header parameters

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

Table 4-164 Request body parameters

Parameter	Mandatory	Type	Description
resource_ids	Yes	Array of strings	IDs of the resources to be removed Minimum length: 1 Maximum length: 256

Response Parameters

Status code: 200

Table 4-165 Response body parameters

Parameter	Type	Description
remove_resource_ids	Array of strings	Removed resource IDs

Example Requests

Dissociating resources from a vault and deleting the backups of the resources

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

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

Example Responses

Status code: 200

OK

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```
{
  "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.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-166 Path Parameters

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

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Request Parameters

Table 4-167 Request header parameters

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

Table 4-168 Request body parameters

Parameter	Mandatory	Type	Description
resources	Yes	Array of **ResourceCreate** objects	Resource list Minimum length: 1 Maximum length: 256

Table 4-169 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	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
name	No	String	Backup name

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Table 4-170 ResourceExtraInfo

Parameter	Mandatory	Type	Description
exclude_volumes	No	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

Response Parameters

Status code: 200

Table 4-171 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" ]
}
```

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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.4.8 Applying a Policy to a Vault

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-172 Path Parameters

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

Request Parameters

Table 4-173 Request header parameters

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

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Table 4-174 Request body parameters

Parameter	Mandatory	Type	Description
destination_vault_id	No	String	Destination vault ID. This parameter is used and mandatory only when a replication policy is set.
policy_id	No	String	Policy ID. Specify either **policy_id** or **add_policy_ids** in a request.
add_policy_ids	No	Array of strings	IDs of the newly associated policies. Either policy_id or add_policy_ids can be specified in a request.

Response Parameters

Status code: 200

Table 4-175 Response body parameters

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

Table 4-176 VaultPolicyResp

Parameter	Type	Description
destination_vault_id	String	Vault ID of the destination region. This parameter is available only when a replication policy is configured.
policy_id	String	Configured policy ID
vault_id	String	Vault ID for configuring the policy ID

Example Requests

Applying a policy to a vault

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

{
  "policy_id" : "7075c397-25a0-43e2-a83a-bb16eaca3ee5"
}
```


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Example Responses

Status code: 200

OK

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

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.4.9 Removing a Policy from a Vault

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-177 Path Parameters

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

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Request Parameters

Table 4-178 Request header parameters

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

Table 4-179 Request body parameters

Parameter	Mandatory	Type	Description
policy_id	Yes	String	Policy ID

Response Parameters

Status code: 200

Table 4-180 Response body parameters

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

Table 4-181 VaultPolicyResp

Parameter	Type	Description
destination_vault_id	String	Vault ID of the destination region. This parameter is available only when a replication policy is configured.
policy_id	String	Configured policy ID
vault_id	String	Vault ID for configuring the policy ID

Example Requests

Removing a policy from a vault

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

{
  "policy_id" : "7075c397-25a0-43e2-a83a-bb16eaca3ee5"
}
```

Example Responses

Status code: 200

OK

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

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.4.10 Querying the Vault List in Other Regions

Function

This API is used to query the vault list in other regions.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/vaults/external

Table 4-182 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

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Table 4-183 Query Parameters

Parameter	Mandatory	Type	Description
cloud_type	No	String	Cloud type. The value can be **public** or **hybrid**.
external_project_id	Yes	String	Project IDs of other regions
limit	No	Integer	Number of records displayed per page
objcet_type	No	String	Resource type
offset	No	Integer	Offset value
protect_type	No	String	Protection Type The value can be **backup**, **replication**, or **hybrid**.
region_id	Yes	String	Region ID
vault_id	No	String	Vault ID. If the vault ID is specified, other filtering criteria do not take effect.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-184 Response body parameters

Parameter	Type	Description
vaults	Array of **Vault** objects	Vault instance list
count	Integer	Number of vaults
limit	Integer	Number of records displayed on each page
offset	Integer	Offset where the query starts

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Table 4-185 Vault

Parameter	Type	Description
billing	**Billing** object	Operation info
description	String	User-defined vault description
id	String	Vault ID
name	String	Vault name
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of **ResourceResp** objects	Vault resources
tags	Array of **Tag** objects	Vault tags
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is **false** (not enabled).
bind_rules	**VaultBindRules** object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, **2020-02-05T10:38:34.209782**
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	Boolean	Exception notification function
threshold	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, an exception notification is sent.
sys_lock_source_service	String	Used to identify the SMB service. You can set it to **SMB** or leave it empty.
locked	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

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Table 4-186 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be **post_paid** (pay-per-use) or **pre_paid** (yearly/monthly). The default value is **post_paid**.
cloud_type	String	Cloud type, which can be **public** or **hybrid**
consistent_level	String	Vault specification, which can be **crash_consistent** (crash consistent backup) or **app_consistent** (application consistency backup)
object_type	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be **backup** or **replication**
size	Integer	Capacity, in GB
spec_code	String	Specification codeServer backup vault: **vault.backup.server.normal**; Disk backup vault: **vault.backup.volume.normal**; File system backup vault: **vault.backup.turbo.normal**
status	String	Vault status
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
is_multi_az	Boolean	Multi-AZ attribute of a vault

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Table 4-187 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
protect_status	String	Protection status
size	Integer	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-188 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

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Table 4-189 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-190 VaultBindRules

Parameter	Type	Description
tags	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

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Table 4-191 BindRulesTags

Parameter	Type	Description
key	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

Example Requests

```
GET /v3/{project_id}/vaults/external?
external_project_id=68589cac08274b82b4e254268a3862d8&region_id=cn-shenzhen-1
```

Example Responses

Status code: 200

OK

```
{
  "count" : 1,
  "vaults" : [ {
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "name" : "vault-name",
    "billing" : {
      "status" : "available",
      "used" : 5588,
      "protect_type" : "replication",
      "object_type" : "server",
      "consistent_level" : "crash_consistent",
      "cloud_type" : "public",
      "allocated" : 0,
      "charging_mode" : "post_paid",
      "spec_code" : "vault.replication.server.normal",
      "size" : 10
    },
    "tags" : [ ],
    "created_at" : "2019-04-08T11:06:25.766+00:00",
    "enterprise_project_id" : "876ae48d-cfb3-4aff-bb55-83167abd3876",
    "project_id" : "68589cac08274b82b4e254268a3862d8",
    "id" : "0ca3eb86-8800-46da-9c37-9d657a825274",
    "resources" : [ ]
  } ]
}
```


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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.4.11 Migrating Resources

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-192 Path Parameters

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

Request Parameters

Table 4-193 Request header parameters

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

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Table 4-194 Request body parameters

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

Response Parameters

Status code: 200

Table 4-195 Response body parameters

Parameter	Type	Description
migrated_resources	Array of strings	List of migrated resources

Example Requests

Migrating resources as well as their backups to a different vault

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

{
  "resource_ids" : [ "abcdde3f-e0e3-403a-b690-fc259dd70008" ],
  "destination_vault_id" : "fe578a6c-d1a8-4790-bd52-5954af4d446c"
}
```

Example Responses

Status code: 200

OK

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

Status Codes

Status Code	Description
200	OK

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Error Codes

See **Error Codes**.

4.4.12 Batch Modifying Vaults

Function

This API is used to batch modify all vaults in a project.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

PUT /v3/{project_id}/vaults/batch-update

Table 4-196 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-197 Request header parameters

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

Table 4-198 Request body parameters

Parameter	Mandatory	Type	Description
vault	Yes	**VaultBatchUpdate** object	Parameters for modifying a vault.

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Table 4-199 VaultBatchUpdate

Parameter	Mandatory	Type	Description
smn_notify	No	Boolean	Exception notification function
threshold	No	Integer	Vault capacity threshold

Response Parameters

Status code: 200

Table 4-200 Response body parameters

Parameter	Type	Description
updated_vaults_id	Array of strings	IDs of vaults that have been modified in batches

Example Requests

Batch modifying capacities of vaults to 60 GB

```
PUT https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults/batch-update

{
  "vault" : {
    "smn_notify" : true,
    "threshold" : 60
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "updated_vaults_id" : [ "79bd9daa-884f-4f84-b8fe-235d58cd927d" ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

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4.4.13 Setting Auto Backup for a Vault

Function

This API is used to enable or disable auto backup for a vault.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

PUT /v3/{project_id}/vaults/{vault_id}/set-resources

Table 4-201 Path Parameters

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

Request Parameters

Table 4-202 Request body parameters

Parameter	Mandatory	Type	Description
resource_ids	Yes	Array of strings	IDs of the resources to be set
action	Yes	String	Action for setting vault resources

Response Parameters

Status code: 200

Table 4-203 Response body parameters

Parameter	Type	Description
set_resource_ids	Array of strings	IDs of the resources set in this operation

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Example Requests

Configuring auto backup for a vault

```
PUT https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/vaults/2b076f26-391f-40fa-bf71-a798940faccf/set_resource

{
  "resource_ids" : [ "2b076f26-391f-40fa-bf71-a798940facbb", "dfx76f26-391f-40fa-bf71-a798940facaa" ],
  "action" : "suspend"
}
```

Example Responses

Status code: 200

OK

```
{
  "set_resource_ids" : [ "2b076f26-391f-40fa-bf71-a798940facbb", "dfx76f26-391f-40fa-bf71-a798940facaa" ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.4.14 Creating a Yearly/Monthly Vault

Function

Creating a Yearly/Monthly Vault

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/vaults/order

Table 4-204 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

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Request Parameters

Table 4-205 Request header parameters

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

Table 4-206 Request body parameters

Parameter	Mandatory	Type	Description
vault	Yes	**VaultOrder** object	Vaults

Table 4-207 VaultOrder

Parameter	Mandatory	Type	Description
name	No	String	Vault name Minimum length: 1 character Maximum length: 64 characters
billing	Yes	**BillingCreate** object	Parameter information for creation
resources	Yes	Array of **ResourceCreate** objects	Associated resources. Set this parameter to **[]** if no resources are associated when creating a vault.
description	No	String	Description Minimum length: 0 characters Maximum length: 255 characters
backup_policy_id	No	String	Backup policy ID. If the value of this parameter is null, automatic backup is not performed.

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Parameter	Mandatory	Type	Description
tags	No	Array of **Tag** objects	Tag list. This list cannot be an empty list.The list can contain up to 10 keys.Keys in this list must be unique.
enterprise_project_id	No	String	Enterprise project ID
auto_bind	No	Boolean	Whether automatic association is supported
bind_rules	No	**VaultBindRules** object	Rules for automatic association
threshold	No	Integer	Vault's capacity threshold, in percentage Minimum value: 1 Maximum value: 100
smn_notify	No	Boolean	Whether to enable notifications when the vault's used capacity reaches the threshold
parameters	No	**VaultCreateParameters** object	Vault order combined parameters
auto_expand	No	Boolean	Whether to enable auto capacity expansion (supported for pay-per-use vaults only)
locked	No	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

Table 4-208 BillingCreate

Parameter	Mandatory	Type	Description
cloud_type	No	String	Cloud type, which can be **public** or **hybrid**
consistent_level	Yes	String	Vault specification, which can be **crash_consistent** (crash consistent backup) or **app_consistent** (application consistency backup)

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Parameter	Mandatory	Type	Description
object_type	Yes	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**
protect_type	Yes	String	Protection type, which can be **backup** or **replication**
size	Yes	Integer	Capacity, in GB
charging_mode	No	String	Billing mode, which can be **post_paid** (pay-per-use) or **pre_paid** (yearly/monthly). The default value is **post_paid**.
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).
period_num	No	Integer	Required duration for the package. This parameter is mandatory if **charging_mode** is set to **pre_paid**.
is_auto_renew	No	Boolean	Whether to automatically renew the subscription after expiration. By default, it is not renewed.
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.
console_url	No	String	Redirection URL
is_multi_az	No	Boolean	Multi-AZ attribute of a vault. The default value is **false**.

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Table 4-209 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	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
name	No	String	Backup name

Table 4-210 ResourceExtraInfo

Parameter	Mandatory	Type	Description
exclude_volumes	No	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

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Table 4-211 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).
value	Yes	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-212 VaultBindRules

Parameter	Mandatory	Type	Description
tags	No	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

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Table 4-213 BindRulesTags

Parameter	Mandatory	Type	Description
key	Yes	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	Yes	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

Table 4-214 VaultCreateParameters

Parameter	Mandatory	Type	Description
combined_order	No	**CombinedOrder** object	Combined order

Table 4-215 CombinedOrder

Parameter	Mandatory	Type	Description
combined_order_id	No	String	Combined order ID
combined_order_ecs_num	No	Integer	Number of ECSs in the combined order. Maximum ECSs allowed in the current batch: 500 Minimum value: 1 Maximum value: 1000
combined_order_num	No	Integer	Number of combined orders Minimum value: 1 Maximum value: 1000

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Response Parameters

Status code: 200

Table 4-216 Response body parameters

Parameter	Type	Description
orders	Array of **CbcOrderResult** objects	Order details
retCode	Integer	Result code **0**: success
errText	String	Creation results
error_code	String	Error code **0**: no error

Table 4-217 CbcOrderResult

Parameter	Type	Description
cloudServiceId	String	Cloud service ID
orderId	String	Order ID
subscribeResult	Integer	Subscription result. **1**: succeeded; **0**: Failed
resourceId	String	ID of a pre-generated yearly/monthly resource

Status code: 400

Table 4-218 Response body parameters

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

Example Requests

- Creating an 80-GB yearly/monthly server backup vault, setting the duration to 1 month, and associating a resource with the vault

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

{
```


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```
 "vault" : {
  "name" : "vault_name",
  "billing" : {
    "consistent_level" : "app_consistent",
    "object_type" : "server",
    "protect_type" : "backup",
    "size" : 80,
    "charging_mode" : "pre_paid",
    "period_type" : "month",
    "period_num" : 1
  },
  "resources" : [ {
    "id" : "23a320a5-3efd-4568-b1aa-8dd9183cc64c",
    "type" : "OS::Nova::Server"
  } ]
 }
}
```

- Creating an 80-GB yearly/monthly server backup vault using the combined purchase (allowing up to 5 servers in an order), setting the duration to 1 month, associating a resource, and adding tags

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

{
 "vault" : {
  "name" : "123",
  "description" : "description",
  "backup_policy_id" : "70e9c916-7109-472d-94e7-120900e4ba61",
  "tags" : [ {
    "key" : "key",
    "value" : "value"
  } ],
  "auto_bind" : false,
  "threshold" : 80,
  "smn_notify" : true,
  "parameters" : {
    "combined_order" : {
      "combined_order_id" : "CS2303030959MR1IT",
      "combined_order_ecs_num" : 5,
      "combined_order_num" : 5
    }
  },
  "bind_rules" : {
    "tags" : [ {
      "key" : "bind_rules_key",
      "value" : "bind_rules_value"
    } ]
  },
  "billing" : {
    "cloud_type" : "public",
    "is_auto_renew" : false,
    "is_auto_pay" : false,
    "console_url" : "https://www.com",
    "consistent_level" : "app_consistent",
    "object_type" : "server",
    "protect_type" : "backup",
    "size" : 80,
    "charging_mode" : "pre_paid",
    "period_type" : "month",
    "period_num" : 1
  },
  "resources" : [ {
    "id" : "8ef08ba1-81f7-4e41-ae49-d3e2fb0ba388",
    "type" : "OS::Nova::Server",
    "name" : "server_name",
    "extra_info" : {
      "exclude_volumes" : [ "1855eb9a-2b5e-4938-a9f0-aea08b6f9243" ]
    }
  } ]
```

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```
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "orders" : [ {
    "orderId" : "CS2303030941NJJIW",
    "cloudServiceId" : "cbr",
    "subscribeResult" : 1,
    "resourceId" : "ef3bf6bb-1ffb-46c0-8b23-f935ded5024a"
  } ],
  "retCode" : 0,
  "errText" : "success",
  "error_code" : 0
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See **Error Codes**.

4.4.15 Querying Vault Usage of a Project

Function

This API is used to query the total capacity and used capacity of all vaults of a project.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/vaults/summary

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Table 4-219 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

None

Response Parameters

Status code: 200

Table 4-220 Response body parameters

Parameter	Type	Description
size	Integer	Total capacity
used_size	Integer	Total used capacity

Example Requests

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

Example Responses

Status code: 200

OK

```
{
  "size" : 27670,
  "used_size" : 43
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.5 Projects

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4.5.1 Querying Tenant's Project Information

Function

This API is used to query the enterprise project information of a tenant.

Constraints

This API is used only when the enterprise project management service is enabled. The project ID of the replication destination region must be obtained for CBR Console. In other scenarios, no value is returned when this API is called.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/region-projects

Request Parameters

None

Response Parameters

Status code: 200

Table 4-221 Response body parameters

Parameter	Type	Description
projects	Array of **ProjectsListInfo** objects	Project information
links	**SelfLinksInfo** object	Link address

Table 4-222 ProjectsListInfo

Parameter	Type	Description
domain_id	String	Domain ID
is_domain	Boolean	The value is **false**.
parent_id	String	ID of the specific project or account ID of a specific system project
name	String	Backup name

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Parameter	Type	Description
description	String	Description
id	String	Project ID
enabled	Boolean	Enabling status of the project
links	**SelfLinksInfo** object	Link address

Table 4-223 SelfLinksInfo

Parameter	Type	Description
self	String	Link address

Example Requests

```
GET https://{endpoint}/v3/region-projects
```

Example Responses

Status code: 200

OK

```
{
  "projects" : [ {
    "description" : "",
    "domain_id" : "5ba348512fd541c3a57c9bb2196108f8",
    "enabled" : true,
    "id" : "45a3afcc926f47d08b9375694b062193",
    "is_domain" : false,
    "links" : {
      "self" : "https://iam.huaweicloud.com:31943/v3/projects/45a3afcc926f47d08b9375694b062193"
    },
    "name" : "cn-hk1_yyx2",
    "parent_id" : ""
  }, {
    "description" : "",
    "domain_id" : "5ba348512fd541c3a57c9bb2196108f8",
    "enabled" : true,
    "id" : "438fe051ccb04aeabc0c8112a276a0dc",
    "is_domain" : false,
    "links" : {
      "self" : "https://iam.huaweicloud.com:31943/v3/projects/438fe051ccb04aeabc0c8112a276a0dc"
    },
    "name" : "cn-xianhz-1",
    "parent_id" : ""
  } ],
  "links" : {
    "self" : "https://iam.huaweicloud.com:31943/v3/auth/projects"
  }
}
```


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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.5.2 Querying the Project List of a Tenant

Function

Querying the project list by tenant name. Only the project information of the current account can be queried.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/domain/{domain_name}/projects

Table 4-224 Path Parameters

Parameter	Mandatory	Type	Description
domain_name	Yes	String	Tenant name

Request Parameters

None

Response Parameters

Status code: 200

Table 4-225 Response body parameters

Parameter	Type	Description
projects	Array of **DomainProjectsInfo** objects	Project list

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Table 4-226 DomainProjectsInfo

Parameter	Type	Description
project_id	String	Project ID
project_name	String	Project Name

Example Requests

```
GET https://{endpoint}/v3/domain/{domain_name}/projects
```

Example Responses

Status code: 200

OK

```
{
  "projects" : [ {
    "project_name" : "cn-north-7",
    "project_id" : "fe1431a61f4242dd87e548f8f42ec0b4"
  }, {
    "project_name" : "cn-north-7-virtual",
    "project_id" : "bccd81411c254e6890fe88d2f2ce406b"
  } ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.5.3 Querying Tenant Information

Function

This internal API called by the console is used to obtain the domain name of the source project ID only during shared backup query. Only the project information of the current account can be queried.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

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URI

GET /v3/domain/{source_project_id}

Table 4-227 Path Parameters

Parameter	Mandatory	Type	Description
source_project_id	Yes	String	Source project ID

Request Parameters

None

Response Parameters

Status code: 200

Table 4-228 Response body parameters

Parameter	Type	Description
project_name	String	Project name
project_id	String	Project ID
domain_id	String	Account ID of the project
domain_name	String	Account name of the project

Example Requests

None

Example Responses

Status code: 200

OK

```
{
  "project_id" : "fe1431a61f4242dd87e548f8f42ec0b4",
  "project_name" : "cn-north-7",
  "domain_id" : "domain_id",
  "domain_name" : "domain_name"
}
```


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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.5.4 Tenant Migration

Function

This API is used to migrate CSBS or VBS resources to CBR.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/migrates

Request Parameters

Table 4-229 Request body parameters

Parameter	Mandatory	Type	Description
all_regions	Yes	Boolean	Whether to trigger migration in other regions
reservation	Yes	Float	Default capacity expansion ratio of the vault. The value ranges from 0 to 1.

Response Parameters

Status code: 200

Table 4-230 Response body parameters

Parameter	Type	Description
{User defined key}	Map<String,String>	

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Example Requests

This API is used to migrate CSBS or VBS resources to CBR.

```
POST  https://{endpoint}/v3/migrates

{
  "all_regions" : true,
  "reservation" : 0.2
}
```

Example Responses

Status code: 200

OK

```
{
  "cn-north-7" : "running"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.5.5 Querying the Migration

Function

This API is used to query the migration result.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/migrates

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Table 4-231 Query Parameters

Parameter	Mandatory	Type	Description
all_regions	No	Boolean	Whether to query the migration results in other regions

Request Parameters

None

Response Parameters

Status code: 200

Table 4-232 Response body parameters

Parameter	Type	Description
status	String	Tenant migration status
project_status	Array of **DomainMigrateProjectStatus** objects	Project migration status

Table 4-233 DomainMigrateProjectStatus

Parameter	Type	Description
status	String	Migration status
project_id	String	Project ID
project_name	String	Project Name
region_id	String	Region ID
progress	Integer	Migration progress
fail_code	Integer	Error code. This parameter appears only when the project status is failed.
fail_reason	String	Failure cause. This parameter appears only when the project status is failed.

Example Requests

```
GET https://{endpoint}/v3/migrates
```


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Example Responses

Status code: 200

OK

```
{
  "status" : "failed",
  "project_status" : [ {
    "status" : "failed",
    "progress" : 1,
    "project_id" : "fe1431a61f4242dd87e548f8f42ec0b4",
    "project_name" : "cn-north-7",
    "region_id" : "cn-north-7",
    "fail_code" : 4002,
    "fail_reason" : "An error occurred when converting models: dictionary keys changed during iteration."
  }, {
    "status" : "success",
    "progress" : 100,
    "project_id" : "bccd81411c254e6890fe88d2f2ce406b",
    "project_name" : "cn-north-7-virtual",
    "region_id" : "cn-north-7"
  } ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.6 Policies

4.6.1 Creating a Policy

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/policies

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Table 4-234 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-235 Request header parameters

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

Table 4-236 Request body parameters

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

Table 4-237 PolicyCreate

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

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Table 4-238 PolicyoODCreate

Parameter	Mandatory	Type	Description
day_backups	No	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	No	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	No	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).
enable_acceleration	No	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	No	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.

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

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Parameter	Mandatory	Type	Description
week_backups	No	Integer	Maximum number of weekly backups that can be retained. The latest backup of each week is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
year_backups	No	Integer	Maximum number of yearly backups that can be retained. The latest backup of each year is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
full_backup_interval	No	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-239 PolicyTriggerReq

Parameter	Mandatory	Type	Description
properties	Yes	**PolicyTriggerPropertiesReq** object	Scheduler attributes

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Table 4-240 PolicyTriggerPropertiesReq

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

Response Parameters

Status code: 200

Table 4-241 Response body parameters

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

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Table 4-242 Policy

Parameter	Type	Description
enabled	Boolean	Whether the policy is enabled
id	String	Policy ID
name	String	Policy Name
operation_definition	**PolicyoODCreate** object	Policy attributes
operation_type	String	Protection type, which can be **backup** or **replication**
trigger	**PolicyTriggerResp** object	Time scheduling rule for the policy
associated_vaults	Array of **PolicyAssociate-Vault** objects	Associated vault

Table 4-243 PolicyoODCreate

Parameter	Type	Description
day_backups	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).

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Parameter	Type	Description
enable_acceleration	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.
month_backups	Integer	Maximum number of monthly backups that can be retained. The latest backup of each month is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
retention_duration_days	Integer	Duration of retaining a backup, in days. The maximum value is **99999**. If the value is set to **-1**, backups will not be cleared by retention duration. If this parameter and **max_backups** are left blank at the same time, the backups will be retained permanently. This parameter cannot be applied together with **max_backups**, **day_backups**, **week_backups**, **month_backups**, and **year_backups**.
timezone	String	Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: **day_backups**, **week_backups**, **month_backups**, **year_backups**

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Parameter	Type	Description
week_backups	Integer	Maximum number of weekly backups that can be retained. The latest backup of each week is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
year_backups	Integer	Maximum number of yearly backups that can be retained. The latest backup of each year is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
full_backup_interval	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-244 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.

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Table 4-245 PolicyTriggerPropertiesResp

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

Table 4-246 PolicyAssociateVault

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

Example Requests

- Creating a backup policy with backups automatically executed at 14:00 everyday and with each backup saved for one day

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

{
  "policy" : {
```

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```
  "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" ]
    }
  }
 }
}
```

- Creating a replication policy with backups automatically replicated at 14:00 everyday and with each backup saved for one day

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

{
 "policy" : {
  "enabled" : true,
  "name" : "policy002",
  "operation_definition" : {
    "retention_duration_days" : 1,
    "day_backups" : 0,
    "week_backups" : 0,
    "month_backups" : 0,
    "year_backups" : 0,
    "timezone" : "UTC+08:00",
    "destination_region" : "cn-southwest-247",
    "destination_project_id" : "fcf6cb26c3bf4402869792207ad3dce4"
  },
  "operation_type" : "replication",
  "trigger" : {
    "properties" : {
      "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ]
    }
  }
 }
}
```

Example Responses

Status code: 200

OK

- The backup policy is created. The replication policy is to automatically replicate backups at 14:00 everyday and save each backup for one day.

```
{
 "policy" : {
  "name" : "policy001",
  "enabled" : true,
  "trigger" : {
    "properties" : {
      "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ],
      "start_time" : "2019-05-08T06:57:05.000+00:00"
    },
    "type" : "time",
    "id" : "d67269a6-5369-42d7-8150-5254bd446328",
    "name" : "default"
  },
```

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```
    "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"
  }
}
```

- The replication policy is created. The replication policy is to automatically replicate backups at 14:00 everyday and save each backup for one day.

```
{
  "policy" : {
    "name" : "policy002",
    "enabled" : true,
    "trigger" : {
      "id" : "b37cf79e-5cfa-4a84-99a3-91d60a314c46",
      "name" : "default",
      "type" : "time",
      "properties" : {
        "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ],
        "start_time" : "2019-05-08T06:58:05.000+00:00"
      }
    },
    "operation_definition" : {
      "retention_duration_days" : 1,
      "day_backups" : 0,
      "week_backups" : 0,
      "month_backups" : 0,
      "year_backups" : 0,
      "timezone" : "UTC+08:00",
      "destination_region" : "cn-southwest-247",
      "destination_project_id" : "fcf6cb26c3bf4402869792207ad3dce4"
    },
    "operation_type" : "replication",
    "id" : "e47e4916-481a-4d10-95a2-165bcfe598c5"
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.6.2 Querying a Single Policy

Function

Querying a Single Policy

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Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-247 Path Parameters

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

Request Parameters

Table 4-248 Request header parameters

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

Response Parameters

Status code: 200

Table 4-249 Response body parameters

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

Table 4-250 Policy

Parameter	Type	Description
enabled	Boolean	Whether the policy is enabled

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Parameter	Type	Description
id	String	Policy ID
name	String	Policy Name
operation_definition	**PolicyoODCreate** object	Policy attributes
operation_type	String	Protection type, which can be **backup** or **replication**
trigger	**PolicyTriggerResp** object	Time scheduling rule for the policy
associated_vaults	Array of **PolicyAssociateVault** objects	Associated vault

Table 4-251 PolicyoODCreate

Parameter	Type	Description
day_backups	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).
enable_acceleration	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.

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Parameter	Type	Description
max_backups	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.
month_backups	Integer	Maximum number of monthly backups that can be retained. The latest backup of each month is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
retention_duration_days	Integer	Duration of retaining a backup, in days. The maximum value is **99999**. If the value is set to **-1**, backups will not be cleared by retention duration. If this parameter and **max_backups** are left blank at the same time, the backups will be retained permanently. This parameter cannot be applied together with **max_backups**, **day_backups**, **week_backups**, **month_backups**, and **year_backups**.
timezone	String	Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: **day_backups**, **week_backups**, **month_backups**, **year_backups**

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Parameter	Type	Description
week_backups	Integer	Maximum number of weekly backups that can be retained. The latest backup of each week is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
year_backups	Integer	Maximum number of yearly backups that can be retained. The latest backup of each year is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
full_backup_interval	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-252 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.

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Table 4-253 PolicyTriggerPropertiesResp

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

Table 4-254 PolicyAssociateVault

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

Example Requests

Querying a policy

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

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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" : "2019-05-08T06:57:05.000+00:00"
      },
      "type" : "time",
      "id" : "d67269a6-5369-42d7-8150-5254bd446328",
      "name" : "default"
    },
    "operation_definition" : {
      "retention_duration_days" : 1,
      "year_backups" : 0,
      "day_backups" : 0,
      "month_backups" : 0,
      "week_backups" : 0,
      "timezone" : "UTC+08:00"
    },
    "operation_type" : "backup",
    "id" : "cbb3ce6f-3332-4e7c-b98e-77290d8471ff"
  }
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.6.3 Querying the Policy List

Function

Querying the Policy List

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/policies

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Table 4-255 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-256 Query Parameters

Parameter	Mandatory	Type	Description
operation_type	No	String	Policy type
vault_id	No	String	Vault ID

Request Parameters

Table 4-257 Request header parameters

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

Response Parameters

Status code: 200

Table 4-258 Response body parameters

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

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Table 4-259 Policy

Parameter	Type	Description
enabled	Boolean	Whether the policy is enabled
id	String	Policy ID
name	String	Policy Name
operation_definition	**PolicyoODCreate** object	Policy attributes
operation_type	String	Protection type, which can be **backup** or **replication**
trigger	**PolicyTriggerResp** object	Time scheduling rule for the policy
associated_vaults	Array of **PolicyAssociate-Vault** objects	Associated vault

Table 4-260 PolicyoODCreate

Parameter	Type	Description
day_backups	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).

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Parameter	Type	Description
enable_acceleration	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.
month_backups	Integer	Maximum number of monthly backups that can be retained. The latest backup of each month is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
retention_duration_days	Integer	Duration of retaining a backup, in days. The maximum value is **99999**. If the value is set to **-1**, backups will not be cleared by retention duration. If this parameter and **max_backups** are left blank at the same time, the backups will be retained permanently. This parameter cannot be applied together with **max_backups**, **day_backups**, **week_backups**, **month_backups**, and **year_backups**.
timezone	String	Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: **day_backups**, **week_backups**, **month_backups**, **year_backups**

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Parameter	Type	Description
week_backups	Integer	Maximum number of weekly backups that can be retained. The latest backup of each week is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
year_backups	Integer	Maximum number of yearly backups that can be retained. The latest backup of each year is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
full_backup_interval	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-261 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.

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Table 4-262 PolicyTriggerPropertiesResp

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

Table 4-263 PolicyAssociateVault

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

Example Requests

Querying the backup policy list

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

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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" : "2019-05-08T06:57:05.000+00:00"
      },
      "type" : "time",
      "id" : "d67269a6-5369-42d7-8150-5254bd446328",
      "name" : "default"
    },
    "operation_definition" : {
      "retention_duration_days" : 1,
      "year_backups" : 0,
      "day_backups" : 0,
      "month_backups" : 0,
      "week_backups" : 0,
      "timezone" : "UTC+08:00"
    },
    "operation_type" : "backup",
    "id" : "cbb3ce6f-3332-4e7c-b98e-77290d8471ff"
  } ],
  "count" : 10
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.6.4 Modifying a Policy

Function

Modifying a Policy

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

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Table 4-264 Path Parameters

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

Request Parameters

Table 4-265 Request header parameters

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

Table 4-266 Request body parameters

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

Table 4-267 PolicyUpdate

Parameter	Mandatory	Type	Description
enabled	No	Boolean	Whether to enable the policy
name	No	String	Policy Name
operation_definition	No	**PolicyoODCreate** object	Scheduling parameter
trigger	No	**PolicyTriggerReq** object	Time rule for the policy execution

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Table 4-268 PolicyoODCreate

Parameter	Mandatory	Type	Description
day_backups	No	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	No	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	No	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).
enable_acceleration	No	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	No	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.

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

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Parameter	Mandatory	Type	Description
week_backups	No	Integer	Maximum number of weekly backups that can be retained. The latest backup of each week is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
year_backups	No	Integer	Maximum number of yearly backups that can be retained. The latest backup of each year is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
full_backup_interval	No	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-269 PolicyTriggerReq

Parameter	Mandatory	Type	Description
properties	Yes	**PolicyTriggerPropertiesReq** object	Scheduler attributes

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Table 4-270 PolicyTriggerPropertiesReq

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

Response Parameters

Status code: 200

Table 4-271 Response body parameters

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

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Table 4-272 Policy

Parameter	Type	Description
enabled	Boolean	Whether the policy is enabled
id	String	Policy ID
name	String	Policy Name
operation_definition	**PolicyoODCreate** object	Policy attributes
operation_type	String	Protection type, which can be **backup** or **replication**
trigger	**PolicyTriggerResp** object	Time scheduling rule for the policy
associated_vaults	Array of **PolicyAssociateVault** objects	Associated vault

Table 4-273 PolicyoODCreate

Parameter	Type	Description
day_backups	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).

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Parameter	Type	Description
enable_acceleration	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.
month_backups	Integer	Maximum number of monthly backups that can be retained. The latest backup of each month is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
retention_duration_days	Integer	Duration of retaining a backup, in days. The maximum value is **99999**. If the value is set to **-1**, backups will not be cleared by retention duration. If this parameter and **max_backups** are left blank at the same time, the backups will be retained permanently. This parameter cannot be applied together with **max_backups**, **day_backups**, **week_backups**, **month_backups**, and **year_backups**.
timezone	String	Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: **day_backups**, **week_backups**, **month_backups**, **year_backups**

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Parameter	Type	Description
week_backups	Integer	Maximum number of weekly backups that can be retained. The latest backup of each week is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
year_backups	Integer	Maximum number of yearly backups that can be retained. The latest backup of each year is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
full_backup_interval	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-274 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.

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Table 4-275 PolicyTriggerPropertiesResp

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

Table 4-276 PolicyAssociateVault

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

Example Requests

Modifying a backup policy with backups automatically executed at 14:00 everyday and with each backup saved for one day

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


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```
{
  "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" : "2019-05-08T06:57:05.000+00:00"
      },
      "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**.

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4.6.5 Deleting a Policy

Function

Deleting a Policy

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-277 Path Parameters

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

Request Parameters

Table 4-278 Request header parameters

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

Response Parameters

None

Example Requests

Deleting a backup policy

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

Example Responses

None

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Status Codes

Status Code	Description
204	No Content

Error Codes

See **Error Codes**.

4.7 Backups

4.7.1 Synchronizing a Backup

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/backups/sync

Table 4-279 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

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Request Parameters

Table 4-280 Request header parameters

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

Table 4-281 Request body parameters

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

Table 4-282 BackupSync

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

Response Parameters

Status code: 200

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Table 4-283 Response body parameters

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

Table 4-284 BackupSyncRespBody

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

Example Requests

Synchronizing an on-premises VMware backup

```
POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/backups/sync

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

Example Responses

Status code: 200

OK

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

Status Codes

Status Code	Description
200	OK

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Error Codes

See **Error Codes**.

4.7.2 Querying a Specified Backup

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-285 Path Parameters

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

Request Parameters

Table 4-286 Request header parameters

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

Response Parameters

Status code: 200

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Table 4-287 Response body parameters

Parameter	Type	Description
backup	**BackupResp** object	Backup

Table 4-288 BackupResp

Parameter	Type	Description
checkpoint_id	String	Restore point ID
created_at	String	Creation time, for example, **2020-02-05T10:38:34.209782**
description	String	Backup description
expired_at	String	Expiration time, for example, **2020-02-05T10:38:34.209782**
extend_info	**BackupExtendInfo** object	Extended information
id	String	Backup ID
image_type	String	Backup type, which can be **backup** or **replication**.
name	String	Backup name
parent_id	String	Parent backup ID
project_id	String	Project ID
protected_at	String	Backup time
resource_az	String	Resource availability zone
resource_id	String	Resource ID
resource_name	String	Resource name
resource_size	Integer	Resource size, in GB
resource_type	String	Resource type, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
status	String	Backup status

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Parameter	Type	Description
updated_at	String	Update time, for example, **2020-02-05T10:38:34.209782**
vault_id	String	Vault ID
replication_records	Array of **ReplicationRecordGet** objects	Replication record
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.
provider_id	String	Backup provider ID, which is used to distinguish backup objects. The value can be as follows: **0daac4c5-6707-4851-97ba-169e36266b66** indicates that backup objects are cloud servers; **d1603440-187d-4516-af25-121250c7cc97** indicates that backup objects are cloud disks; **3f3c3220-245c-4805-b811-758870015881** indicates that backup objects are SFS Turbo file systems; **a13639de-00be-4e94-af30-26912d75e4a2** indicates that backup objects are hybrid cloud VMware backups.
children	Array of **BackupResp** objects	Backup list
incremental	Boolean	Whether incremental backup is used.
version	Integer	Backup snapshot type.

Table 4-289 BackupExtendInfo

Parameter	Type	Description
auto_trigger	Boolean	Whether the backup is automatically generated
bootable	Boolean	Whether the backup is a system disk backup
snapshot_id	String	Snapshot ID of the disk backup
support_lld	Boolean	Whether to allow **lazyloading** for fast restoration

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Parameter	Type	Description
supported_restore_mode	String	Restoration mode. Possible values are **na**, **snapshot**, and **backup**. **snapshot** indicates the backup can be used to create a full-server image. **backup** indicates the data is restored from backups of the EVS disks of the server. **na** indicates the backup can only be used to create new resources but cannot be used for restoration.
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
is_multi_az	Boolean	Whether multi-AZ backup redundancy is used

Table 4-290 ImageData

Parameter	Type	Description
image_id	String	Image ID

Table 4-291 ReplicationRecordGet

Parameter	Type	Description
created_at	String	Start time of the replication
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

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Parameter	Type	Description
extra_info	ReplicationRecordsExtraInfo object	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
vault_id	String	ID of the vault where the backup resides

Table 4-292 ReplicationRecordsExtraInfo

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

Example Requests

Querying a backup

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

Example Responses

Status code: 200

OK

```
{
  "backup" : {
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
```


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```
  "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",
    "name" : "autobk_a843_ecs-1f0f-0002",
    "created_at" : "2019-05-10T07:59:59.451+00:00",
    "resource_type" : "OS::Cinder::Volume"
  } ],
  "extend_info" : {
    "auto_trigger" : true,
    "supported_restore_mode" : "backup",
    "contain_system_disk" : true,
    "support_lld" : true
  },
  "project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
  "status" : "available",
  "resource_name" : "ecs-1f0f-0002",
  "description" : "backup_description",
  "name" : "backup_name",
  "created_at" : "2019-05-10T07:59:12.085+00:00",
  "resource_type" : "OS::Nova::Server"
 }
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

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4.7.3 Querying All Backups

Function

This API is used to query all backups.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/backups

Table 4-293 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-294 Query Parameters

Parameter	Mandatory	Type	Description
checkpoint_id	No	String	Restore point ID
dec	No	Boolean	Dedicated cloud tag, which only takes effect in dedicated cloud scenarios
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. The value can be backup or replication.
incremental	No	Boolean	Whether incremental backup is used

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Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records displayed per page. The value must be a positive integer.
marker	No	String	ID of the last record displayed on the previous page
member_status	No	String	Backup sharing status
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.
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: OS::Nova::Server, OS::Cinder::Volume, OS::Ironic::BareMetalServer, OS::Native::Server, OS::Sfs::Turbo, OS::Workspace::DesktopV2
show_replication	No	Boolean	Whether to show replication records.

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Parameter	Mandatory	Type	Description
sort	No	String	A group of properties separated by commas (,) and sorting directions. The value is in the format of <key1>[:<direction>],<key2>[:<direction>], where the value of direction is **asc** (ascending order) or **desc** (descending order). If a direction is not specified, the default sorting direction is **desc**. The value of **sort** can contain a maximum of 255 characters. The key can be 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 When the API is called, multiple statuses can be transferred for filtering, for example, **status=available&status=error**.
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

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Request Parameters

Table 4-295 Request header parameters

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

Response Parameters

Status code: 200

Table 4-296 Response body parameters

Parameter	Type	Description
backups	Array of **BackupResp** objects	Backup list
count	Integer	Number of backups
offset	Integer	Offset where the query starts
limit	Integer	Number of records displayed on each page

Table 4-297 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

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Parameter	Type	Description
image_type	String	Backup type, which can be **backup** or **replication**.
name	String	Backup name
parent_id	String	Parent backup ID
project_id	String	Project ID
protected_at	String	Backup time
resource_az	String	Resource availability zone
resource_id	String	Resource ID
resource_name	String	Resource name
resource_size	Integer	Resource size, in GB
resource_type	String	Resource type, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
status	String	Backup status
updated_at	String	Update time, for example, **2020-02-05T10:38:34.209782**
vault_id	String	Vault ID
replication_records	Array of **ReplicationRecordGet** objects	Replication record
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.

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

Table 4-298 BackupExtendInfo

Parameter	Type	Description
auto_trigger	Boolean	Whether the backup is automatically generated
bootable	Boolean	Whether the backup is a system disk backup
snapshot_id	String	Snapshot ID of the disk backup
support_lld	Boolean	Whether to allow **lazyloading** for fast restoration
supported_restore_mode	String	Restoration mode. Possible values are **na**, **snapshot**, and **backup**. **snapshot** indicates the backup can be used to create a full-server image. **backup** indicates the data is restored from backups of the EVS disks of the server. **na** indicates the backup can only be used to create new resources but cannot be used for restoration.

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

Table 4-299 ImageData

Parameter	Type	Description
image_id	String	Image ID

Table 4-300 ReplicationRecordGet

Parameter	Type	Description
created_at	String	Start time of the replication
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	**ReplicationRecordsExtraInfo** object	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

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Parameter	Type	Description
source_project_id	String	ID of the replication source project
source_region	String	Replication source region
status	String	Replication status
vault_id	String	ID of the vault where the backup resides

Table 4-301 ReplicationRecordsExtraInfo

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

Example Requests

Querying all backups

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

Example Responses

Status code: 200

OK

```
{
  "count" : 2,
  "backups" : [ {
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "checkpoint_id" : "1fced58b-2a31-4851-bcbb-96216f83ce99",
    "updated_at" : "2020-02-21T07:07:25.114+00:00",
    "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,
```

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```
    "support_lld" : true,
    "system_disk" : false
  },
  "project_id" : "0605767b5780d5762fc5c0118072a564",
  "status" : "available",
  "resource_name" : "test001-02",
  "description" : "",
  "expired_at" : "2020-05-21T07:00:54.060+00:00",
  "name" : "autobk_b629",
  "created_at" : "2020-02-21T07:00:54.065+00:00",
  "resource_type" : "OS::Nova::Server"
}, {
  "provider_id" : "d1603440-187d-4516-af25-121250c7cc97",
  "checkpoint_id" : "f64c351f-769f-4c04-8806-fd90a59e9b12",
  "updated_at" : "2020-02-21T07:09:37.767+00:00",
  "vault_id" : "79bd9daa-884f-4f84-b8fe-235d58cd927d",
  "id" : "5606aab5-2dc2-4498-8144-dc848d099af5",
  "resource_az" : "br-iaas-odin1a",
  "image_type" : "backup",
  "resource_id" : "54f7ccbc-072f-4ec5-a7b7-b24dabdb4539",
  "resource_size" : 40,
  "children" : [ ],
  "extend_info" : {
    "auto_trigger" : true,
    "snapshot_id" : "e3def9a8-e4b4-4c12-b132-f4ba8ce9a34f",
    "bootable" : true,
    "support_lld" : true,
    "encrypted" : false,
    "system_disk" : false
  },
  "project_id" : "0605767b5780d5762fc5c0118072a564",
  "status" : "available",
  "resource_name" : "qsy_000",
  "description" : "",
  "expired_at" : "2020-03-22T07:00:34.878+00:00",
  "name" : "autobk_6809",
  "created_at" : "2020-02-21T07:00:34.882+00:00",
  "resource_type" : "OS::Cinder::Volume"
 } ]
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.7.4 Deleting a Backup

Function

This API is used to delete a single backup.

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Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-302 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 4-303 Request header parameters

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

Response Parameters

None

Example Requests

This API is used to delete a single backup.

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

Example Responses

None

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Status Codes

Status Code	Description
204	No Content

Error Codes

See **Error Codes**.

4.7.5 Replicating a Backup

Function

This API is used to replicate a backup across regions.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-304 Path Parameters

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

Request Parameters

Table 4-305 Request header parameters

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

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Table 4-306 Request body parameters

Parameter	Mandatory	Type	Description
replicate	Yes	**BackupReplicateReqBody** object	Replication parameter

Table 4-307 BackupReplicateReqBody

Parameter	Mandatory	Type	Description
description	No	String	Replica description
destination_project_id	Yes	String	ID of the replication destination project
destination_region	Yes	String	Replication destination region
destination_vault_id	Yes	String	ID of the vault in the replication destination region
enable_acceleration	No	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
name	No	String	Replica name

Response Parameters

Status code: 200

Table 4-308 Response body parameters

Parameter	Type	Description
replication	**BackupReplicateRespBody** object	Replication response parameter

Table 4-309 BackupReplicateRespBody

Parameter	Type	Description
backup_id	String	ID of the source backup used for replication

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Parameter	Type	Description
destination_project_id	String	ID of the replication destination project
destination_region	String	Replication destination region
destination_vault_id	String	ID of the vault in the replication destination region
project_id	String	ID of the project where replication is performed
provider_id	String	Resource type ID
replication_record_id	String	Replication record ID
source_region	String	Replication source region

Example Requests

Replicating a backup from the source vault to the destination vault

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

{
  "replicate" : {
    "description" : "backup_description",
    "destination_project_id" : "68589cac08274b82b4e254268a3862d8",
    "destination_region" : "region2",
    "destination_vault_id" : "0ca3eb86-8800-46da-9c37-9d657a825274",
    "enable_acceleration" : false,
    "name" : "backup_name"
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "replication" : {
    "destination_vault_id" : "0ca3eb86-8800-46da-9c37-9d657a825274",
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "backup_id" : "6df2b54c-dd62-4059-a07c-1b8f24f2725d",
    "destination_project_id" : "68589cac08274b82b4e254268a3862d8",
    "destination_region" : "region2",
    "source_region" : "region1",
    "project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
    "replication_record_id" : "1579a71e-8d8d-41e6-85dc-d77f5ce8d91a"
  }
}
```

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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.7.6 Restoring a Backup

Function

This API is used to restore backup data.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-310 Path Parameters

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

Request Parameters

Table 4-311 Request header parameters

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

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Table 4-312 Request body parameters

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

Table 4-313 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.
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
details	No	**RestoreDetails** object	Restoration details

Table 4-314 BackupRestoreServerMapping

Parameter	Mandatory	Type	Description
backup_id	Yes	String	Volume backup ID. You can view the disk-level backup ID in the cloud server backups backup details on the console or obtain the disk-level backup ID in children of the backup by calling the API for querying a specified backup.
volume_id	Yes	String	ID of the disk to which data is restored

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Table 4-315 RestoreDetails

Parameter	Mandatory	Type	Description
destination_path	Yes	String	Destination path

Response Parameters

None

Example Requests

Restoring from a specified backup

```
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**.

4.7.7 Querying Backup Metadata

Function

This API is used to query the metadata of the resources that are backed up.

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Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-316 Path Parameters

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

Request Parameters

None

Response Parameters

Status code: 200

Table 4-317 Response body parameters

Parameter	Type	Description
backup_id	String	Backup ID
backups	String	Server backup information
flavor	String	Server specifications
floatingips	Array of strings	Server floating IP address information
interface	String	Server API information
ports	Array of strings	Server port information
server	String	Server information
volumes	Array of strings	Server disk information

Example Requests

```
GET https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/backups/
ca994f11-9f96-4c6c-891f-13c5cdd2507d/metadata
```

Example Responses

Status code: 200

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OK


```
{
  "backup_id" : "6df2b54c-dd62-4059-a07c-1b8f24f2725d",
  "backups" : "{\"provider_id\": \"0daac4c5-6707-4851-97ba-169e36266b66\", \"checkpoint_id\":
\"8b0851a8-adf3-4f4c-a914-dead08bf9664\", \"updated_at\": null, \"vault_id\": \"3b5816b5-
f29c-4172-9d9a-76c719a659ce\", \"id\": \"6df2b54c-dd62-4059-a07c-1b8f24f2725d\", \"resource_az\":
\"az1.dc1\", \"image_type\": \"backup\", \"resource_id\": \"94eba8b2-acc9-4d82-badc-127144cc5526\",
\"resource_size\": 40, \"children\": [], \"parent_id\": null, \"extend_info\": {\"auto_trigger\": true,
\"supported_restore_mode\": \"backup\", \"os_images_data\": null, \"contain_system_disk\": true,
\"snapshot_id\": null, \"bootable\": null, \"progress\": null, \"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\", \"expired_at\":
null, \"replication_records\": [], \"name\": \"backup_name\", \"created_at\":
\"2019-05-10T07:59:12.084695\", \"protected_at\": null, \"resource_type\": \"OS::Nova::Server\"}",
  "server" : "{\"server\":{\"tags\":[\"key_01\",\"key_02\"],\"progress\":0,\"links\":[{\"rel\":\"self\",\"href
\":\"https://compute.region.dc1.domainname.com/v2.1/4229d7a45436489f8c3dc2b1d35d4987/servers/
94eba8b2-acc9-4d82-badc-127144cc5526\"},{\"rel\":\"bookmark\",\"href\":\"https://
compute.region.dc1.domainname.com/4229d7a45436489f8c3dc2b1d35d4987/servers/94eba8b2-acc9-4d82-
badc-127144cc5526\"}],\"id\":\"94eba8b2-acc9-4d82-badc-127144cc5526\",\"name
\":\"ecs-1f0f-0002\",\"status\":\"ACTIVE\",\"OS-EXT-STS:vm_state\":\"active\",\"OS-EXT-STS:power_state
\":1,\"OS-EXT-STS:task_state\":null,\"flavor\":{\"links\":[{\"rel\":\"bookmark\",\"href\":\"https://
compute.region.dc1.domainname.com/4229d7a45436489f8c3dc2b1d35d4987/flavors/s2.small.1\"}],\"id
\":\"s2.small.1\"},\"accessIPv4\":\"\",\"accessIPv6\":\"\",\"image\":\"\",\"OS-EXT-SRV-ATTR:hostname
\":\"ecs-1f0f-0002\",\"OS-EXT-SRV-ATTR:host\":\"az1.dc1\",\"tenant_id
\":\"4229d7a45436489f8c3dc2b1d35d4987\",\"user_id\":\"38d65be2ecd840d19046e239e841a734\",\"OS-
EXT-AZ:availability_zone\":\"az1.dc1\",\"OS-EXT-SRV-ATTR:hypervisor_hostname\":\"nova001@248\",\"OS-
EXT-SRV-ATTR:launch_index\":0,\"OS-EXT-SRV-ATTR:user_data
\":\"IyEvYmluL2Jhc2gKZWNobyAncm9vdDokNiQ2OUNsYVckUFNka1pZa2RicGFsTFJGRnNLejhJVGp4eUlLSjNy
a1M3UURaMlRmT0J3Nk9ndUVhRm8xdGhMRS43aWpvc3RFZTlzVkYuQjBGNm1UQURxZEhWbTkxTDEnIHwg
Y2hwYXNzd2QgLWU7\",\"OS-SRV-USG:launched_at\":\"2019-05-08T08:53:07.000000\",\"OS-SRV-
USG:terminated_at\":null,\"config_drive\":\"\",\"created\":\"2019-05-08T08:52:22Z\",\"description
\":\"\",\"key_name\":null,\"locked\":false,\"updated\":\"2019-05-08T08:53:12Z\",\"metadata\":
{\"charging_mode\":\"0\",\"image_name\":\"Public CentOS 7.6 64bit for Test\",\"metering.cloudServiceType
\":\"hws.service.type.ec2\",\"metering.image_id\":\"79bee4ee-0025-4645-b004-23d2a66f6eec
\",\"metering.imagetype\":\"gold\",\"metering.resourcespeccode\":\"s2.small.1.linux
\",\"metering.resourcetype\":\"1\",\"os_bit\":\"64\",\"os_type\":\"Linux\",\"vpc_id
\":\"df963ec6-561c-4c69-9787-0456a55f8fd0\"},\"hostId
\":\"bfced2732a5c5f974a1882616828d31d32c0d79964d26b1f3d8694e3\",\"OS-EXT-SRV-ATTR:kernel_id
\":\"\",\"OS-EXT-SRV-ATTR:ramdisk_id\":\"\",\"OS-EXT-SRV-ATTR:root_device_name\":\"/dev/vda\",\"os-
extended-volumes:volumes_attached\":[{\"id\":\"eccbcfdd-f843-4bbb-b2c0-
a5ce861f9376\",\"delete_on_termination\":true}],\"OS-DCF:diskConfig\":\"MANUAL\",\"security_groups\":
[{\"name\":\"sg-a924\"}],\"OS-EXT-SRV-ATTR:reservation_id\":\"r-y43be5p0\",\"addresses\":
{\"df963ec6-561c-4c69-9787-0456a55f8fd0\":[{\"OS-EXT-IPS-MAC:mac_addr\":\"fa:16:3e:ef:d5:fb\",\"version
\":4,\"addr\":\"192.168.1.128\",\"OS-EXT-IPS:type\":\"fixed\"},{\"OS-EXT-IPS-MAC:mac_addr
\":\"fa:16:3e:ef:d5:fb\",\"version\":4,\"addr\":\"100.64.1.29\",\"OS-EXT-IPS:type\":\"floating\"}]},\"host_status
\":\"UP\",\"OS-EXT-SRV-ATTR:instance_name\":\"instance-00260179\"}}",
  "volumes" : [ "{\"volume\":{\"attachments\":[{\"attached_at
\":\"2019-05-08T08:52:48.810938\",\"attachment_id\":\"8cbc141a-9403-48e2-9323-6c05683e7e50\",\"device
\":\"/dev/vda\",\"host_name\":null,\"id\":\"eccbcfdd-f843-4bbb-b2c0-a5ce861f9376\",\"server_id
\":\"94eba8b2-acc9-4d82-badc-127144cc5526\",\"volume_id\":\"eccbcfdd-f843-4bbb-b2c0-
a5ce861f9376\"}],\"availability_zone\":\"az1.dc1\",\"backup_id\":null,\"bootable\":\"true
\",\"consistencygroup_id\":null,\"created_at\":\"2019-05-08T08:52:26.824375\",\"dedicated_storage_id
\":null,\"dedicated_storage_name\":null,\"description\":\"\",\"encrypted\":false,\"enterprise_project_id
\":\"0\",\"id\":\"eccbcfdd-f843-4bbb-b2c0-a5ce861f9376\",\"lifecycle\":0,\"links\":[{\"href\":\"https://evs.cn-
north-1.myhuaweicloud.com/v2/4229d7a45436489f8c3dc2b1d35d4987/os-vendor-volumes/eccbcfdd-
f843-4bbb-b2c0-a5ce861f9376\",\"rel\":\"self\"},{\"href\":\"https://evs.cn-north-1.myhuaweicloud.com/
4229d7a45436489f8c3dc2b1d35d4987/os-vendor-volumes/eccbcfdd-f843-4bbb-b2c0-a5ce861f9376\",\"rel
\":\"bookmark\"}],\"metadata\":{\"__openstack_region_name\":\"az1.dc1\",\"__system__volume_name
\":\"ecs-1f0f-0002\",\"attached_mode\":\"rw\",\"readonly\":\"False\"},\"migration_status\":null,\"multiattach
\":false,\"name\":\"ecs-1f0f-0002\",\"os-vol-host-attr:host\":\"az1.dc1#2\",\"os-vol-mig-status-attr:migstat
\":null,\"os-vol-mig-status-attr:name_id\":null,\"os-vol-tenant-attr:tenant_id
\":\"4229d7a45436489f8c3dc2b1d35d4987\",\"os-volume-replication:extended_status\":null,\"plan_delete_at
\":null,\"pre_deleted_at\":null,\"provider_location\":\"{\"storage_type\": \"FC_DSWARE\", \"vol_name\":
\"eccbcfddf8434bbbb2c0a5ce861f9376\", \"offset\": 4, \"ip\": \"192.144.44.120\", \"urn\":
\"urn:sites:4D760908:volumes:3975388\", \"uri\": \"/service/sites/4D760908/volumes/3975388\", \"pool\":
\"2\"}\",\"replication_status\":\"disabled\",\"restored_from_recycle_bin_at\":null,\"service_type\":\"EVS
\",\"shareable\":false,\"size\":40,\"snapshot_id\":null,\"source_volid\":null,\"status\":\"in-use
\",\"storage_cluster_id\":\"0\",\"sys_tags\":{\"_sys_enterprise_project_id\":\"0\"},\"tags\":{},\"updated_at
```


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\":\"2019-05-10T03:52:41.053912\",\"user_id
\":\"38d65be2ecd840d19046e239e841a734\",\"volume_image_metadata\":{\"__account_code
\":\"\",\"__backup_id\":\"\",\"__data_origin\":\"\",\"__description\":\"\",\"__image_location
\":\"192.149.48.66:443:pcsimssouthchina:79bee4ee-0025-4645-b004-23d2a66f6eec\",\"__image_size
\":\"647303168\",\"__image_source_type\":\"uds\",\"__imagetype\":\"gold\",\"__isregistered\":\"true
\",\"__lazyloading\":\"true\",\"__originalimagename\":\"79bee4ee-0025-4645-b004-23d2a66f6eec
\",\"__os_bit\":\"64\",\"__os_type\":\"Linux\",\"__os_version\":\"CentOS 7.6 64bit\",\"__platform\":\"CentOS
\",\"__productcode\":\"\",\"__support_kvm\":\"true\",\"__support_xen\":\"true\",\"checksum
\":\"99914b932bd37a50b983c5e7c90ae93b\",\"container_format\":\"bare\",\"disk_format
\":\"zvhd2\",\"image_id\":\"79bee4ee-0025-4645-b004-23d2a66f6eec\",\"image_name\":\"Public CentOS 7.6
64bit for Test\",\"min_disk\":\"40\",\"min_ram\":\"0\",\"size\":\"2\",\"virtual_env_type\":\"FusionCompute
\"},\"volume_qos_specs\":null,\"volume_type\":\"SATA\"}}"],
"interface" : "{\"interfaceAttachments\": [{\"port_state\": \"ACTIVE\", \"fixed_ips\": [{\"subnet_id\":
\"63b881a8-daf0-45b1-90d8-e0c01a9e5275\", \"ip_address\": \"192.168.1.128\"}], \"port_id\":
\"76a45e6e-8f02-4de2-9358-0110280ed000\", \"net_id\": \"0756f84d-03b3-44a0-95d8-c1ac70058f9d\",
\"mac_addr\": \"fa:16:3e:ef:d5:fb\"}]}",
"flavor" : "{\"flavor\": {\"name\": \"s2.small.1\", \"links\": [{\"href\": \"https://
compute.Region.dc1.domainname.com/v2/4229d7a45436489f8c3dc2b1d35d4987/flavors/s2.small.1\", \"rel
\": \"self\"}, {\"href\": \"https://compute.Region.dc1.domainname.com/
4229d7a45436489f8c3dc2b1d35d4987/flavors/s2.small.1\", \"rel\": \"bookmark\"}], \"ram\": 1024, \"OS-FLV-
DISABLED:disabled\": false, \"vcpus\": 1, \"swap\": \"\", \"os-flavor-access:is_public\": true, \"rxtx_factor\":
1.0, \"OS-FLV-EXT-DATA:ephemeral\": 0, \"disk\": 0, \"id\": \"s2.small.1\"}}",
"ports" : ["{\"port\":{\"id\":\"76a45e6e-8f02-4de2-9358-0110280ed000\",\"name\":\"\",\"admin_state_up
\":true,\"status\":\"ACTIVE\",\"network_id\":\"0756f84d-03b3-44a0-95d8-c1ac70058f9d\",\"tenant_id
\":\"4229d7a45436489f8c3dc2b1d35d4987\",\"project_id
\":\"4229d7a45436489f8c3dc2b1d35d4987\",\"device_id\":\"94eba8b2-acc9-4d82-
badc-127144cc5526\",\"mac_address\":\"fa:16:3e:ef:d5:fb\",\"device_owner
\":\"compute:az1.dc1\",\"description\":\"\",\"created_at\":\"2019-05-08T08:52:25\",\"updated_at
\":\"2019-05-08T08:52:25\",\"port_security_enabled\":true,\"tags\":[],\"security_groups\":[\"a27d2564-
b40c-41ec-9eb6-6eca3ff5aeee\"],\"allowed_address_pairs\":[],\"extra_dhcp_opts\":[],\"fixed_ips\":
[{\"subnet_id\":\"63b881a8-daf0-45b1-90d8-e0c01a9e5275\",\"ip_address
\":\"192.168.1.128\"}],\"dns_assignment\":[{\"ip_address\":\"192.168.1.128\",\"hostname
\":\"ip-192-168-1-128\",\"fqdn\":\"ip-192-168-1-128.southchina.compute.internal.\"}],\"qos_policy_id
\":null,\"dns_name\":\"ip-192-168-1-128\",\"dns_domain\":\"southchina.compute.internal.\",\"instance_id
\":\"\",\"instance_type\":\"\",\"ecs_flavor\":\"\",\"binding:host_id\":\"az1.dc1\",\"binding:vif_type\":\"cascading
\",\"binding:vnic_type\":\"normal\",\"binding:vif_details\":{\"primary_interface\":true},\"binding:profile\":
{}}}"],
"floatingips" : ["{\"floatingips\":null}"]
}

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.7.8 Modifying a Backup

Function

This API is used to modify a backup based on a given backup ID.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

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URI

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

Table 4-318 Path Parameters

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

Request Parameters

Table 4-319 Request body parameters

Parameter	Mandatory	Type	Description
backup	No	**BackupUpdate** object	Request body for modifying the backup name

Table 4-320 BackupUpdate

Parameter	Mandatory	Type	Description
name	No	String	Backup name

Response Parameters

Status code: 200

Table 4-321 Response body parameters

Parameter	Type	Description
backup	**BackupResp** object	Backup

Table 4-322 BackupResp

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

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Parameter	Type	Description
description	String	Backup description
expired_at	String	Expiration time, for example, **2020-02-05T10:38:34.209782**
extend_info	**BackupExtendInfo** object	Extended information
id	String	Backup ID
image_type	String	Backup type, which can be **backup** or **replication**.
name	String	Backup name
parent_id	String	Parent backup ID
project_id	String	Project ID
protected_at	String	Backup time
resource_az	String	Resource availability zone
resource_id	String	Resource ID
resource_name	String	Resource name
resource_size	Integer	Resource size, in GB
resource_type	String	Resource type, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
status	String	Backup status
updated_at	String	Update time, for example, **2020-02-05T10:38:34.209782**
vault_id	String	Vault ID
replication_records	Array of **ReplicationRecordGet** objects	Replication record
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.

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

Table 4-323 BackupExtendInfo

Parameter	Type	Description
auto_trigger	Boolean	Whether the backup is automatically generated
bootable	Boolean	Whether the backup is a system disk backup
snapshot_id	String	Snapshot ID of the disk backup
support_lld	Boolean	Whether to allow **lazyloading** for fast restoration
supported_restore_mode	String	Restoration mode. Possible values are **na**, **snapshot**, and **backup**. **snapshot** indicates the backup can be used to create a full-server image. **backup** indicates the data is restored from backups of the EVS disks of the server. **na** indicates the backup can only be used to create new resources but cannot be used for restoration.

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

Table 4-324 ImageData

Parameter	Type	Description
image_id	String	Image ID

Table 4-325 ReplicationRecordGet

Parameter	Type	Description
created_at	String	Start time of the replication
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	**ReplicationRecordsExtraInfo** object	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

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Parameter	Type	Description
source_project_id	String	ID of the replication source project
source_region	String	Replication source region
status	String	Replication status
vault_id	String	ID of the vault where the backup resides

Table 4-326 ReplicationRecordsExtraInfo

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

Example Requests

Changing the name of a backup

```
PUT https://{endpoint}/v3/4229d7a45436489f8c3dc2b1d35d4987/backup/6df2b54c-dd62-4059-a07c-1b8f24f2725d

{
  "backup" : {
    "name" : "backup-name02"
  }
}
```

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",
```

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```
    "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" : "2019-05-10T07:59:59.451+00:00",
      "resource_type" : "OS::Cinder::Volume"
    } ],
    "extend_info" : {
      "auto_trigger" : true,
      "supported_restore_mode" : "backup",
      "contain_system_disk" : true,
      "support_lld" : true
    },
    "project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
    "status" : "available",
    "resource_name" : "ecs-1f0f-0002",
    "description" : "backup_description",
    "replication_records" : [ ],
    "name" : "backup-name02",
    "created_at" : "2019-05-10T07:59:12.085+00:00",
    "resource_type" : "OS::Nova::Server"
  }
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.8 Protection

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4.8.1 Querying Protectable Resources

Function

Protection

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-327 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
protectable_type	Yes	String	Object Type • **server**: Cloud servers • **disk**: Cloud disks • **turbo**: SFS Turbo file systems • **workspace**: Workspace desktop • **workspace_v2**: workspace_v2 desktops

Table 4-328 Query Parameters

Parameter	Mandatory	Type	Description
id	No	String	Filters by resource ID.
limit	No	Integer	Number of records displayed per page. A maximum of 50 records can be displayed on each page.
marker	No	String	ID of the last record displayed on the previous page
name	No	String	Filters by resource name.
offset	No	Integer	Offset value

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Parameter	Mandatory	Type	Description
server_id	No	String	Filters all disks that belong to the server based on the server ID. This parameter is mandatory only for users who have enabled enterprise multi-project.
status	No	String	Resource status

Request Parameters

None

Response Parameters

Status code: 200

Table 4-329 Response body parameters

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

Table 4-330 ProtectablesResp

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

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Parameter	Type	Description
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**

Table 4-331 ProtectableResult

Parameter	Type	Description
code	String	Error code returned indicating backup is not supported
reason	String	Reason why backup is not supported
result	Boolean	Whether backup is supported
vault	**VaultGet** object	Associated vault
message	String	Reason why the resource cannot be backed up. This field is returned only if the resource protectability check fails.

Table 4-332 VaultGet

Parameter	Type	Description
billing	**Billing** object	Operation info
description	String	User-defined vault description
id	String	Vault ID
name	String	Vault name
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of **ResourceResp** objects	Resource
tags	Array of **Tag** objects	Vault tags
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.

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Parameter	Type	Description
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is **false** (not enabled).
bind_rules	**VaultBindRules** object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, **2020-02-05T10:38:34.209782**
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	Boolean	Exception notification function
threshold	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, an exception notification is sent.
sys_lock_source_service	String	Used to identify the SMB service. You can set it to **SMB** or leave it empty.
locked	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.
updated_at	String	Update time, for example, **2020-02-05T10:38:34.209782**
version	String	Version

Table 4-333 Billing

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

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Parameter	Type	Description
consistent_level	String	Vault specification, which can be **crash_consistent** (crash consistent backup) or **app_consistent** (application consistency backup)
object_type	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be **backup** or **replication**
size	Integer	Capacity, in GB
spec_code	String	Specification codeServer backup vault: **vault.backup.server.normal**; Disk backup vault: **vault.backup.volume.normal**; File system backup vault: **vault.backup.turbo.normal**
status	String	Vault status
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
is_multi_az	Boolean	Multi-AZ attribute of a vault

Table 4-334 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
protect_status	String	Protection status
size	Integer	Allocated capacity for the associated resource, in GB

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Parameter	Type	Description
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-335 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

Table 4-336 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).

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Parameter	Type	Description
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-337 VaultBindRules

Parameter	Type	Description
tags	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

Table 4-338 BindRulesTags

Parameter	Type	Description
key	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

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Example Requests

Querying protectable resources

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

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

Example Responses

Status code: 200

OK


```
{
  "instances" : [ {
    "status" : "ACTIVE",
    "children" : [ {
      "status" : "in-use",
      "name" : "no_delete_for_cbr_interface-volume-0000",
      "detail" : {
        "attachments" : [ {
          "server_id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
          "attachment_id" : "e16631fa-0522-4ac8-8f78-19db435caf68",
          "volume_id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
          "attached_at" : "2019-05-08T06:55:26.564+00:00",
          "device" : "/dev/vda",
          "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a"
        } ],
        "links" : [ {
          "href" : "https://volume.region1.com/v2/3aec9116a6a5487ca14987121d2818fe/volumes/
13eb535f-8635-4faf-9f08-584d21e78f0a",
          "rel" : "self"
        }, {
          "href" : "https://volume.region1.com/3aec9116a6a5487ca14987121d2818fe/volumes/
13eb535f-8635-4faf-9f08-584d21e78f0a",
          "rel" : "bookmark"
        } ],
        "availability_zone" : "AZ1",
        "os-vol-host-attr:host" : "AZ1.xxxxxx#kvm_fusionstorage",
        "encrypted" : false,
        "updated_at" : "2019-05-08T08:33:07.855+00:00",
        "replication_status" : "disabled",
        "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
        "size" : 40,
        "user_id" : "3204777a731c4ebea330350c04f41b92",
        "os-vol-tenant-attr:tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
        "metadata" : {
          "policy" : "2ecbcffd-08ba-43f7-bf8d-95daba753464",
          "readonly" : "False",
          "attached_mode" : "rw"
        },
        "status" : "in-use",
        "volume_image_metadata" : {
          "container_format" : "bare",
          "min_ram" : 0,
          "__account_code" : "",
          "__os_bit" : 64,
          "size" : 2,
          "__os_version" : "CentOS 7.2 64bit",
          "__backup_id" : "",
          "__description" : "",
          "__support_diskintensive" : "true",
          "disk_format" : "vhd",
          "__isregistered" : "true",
          "__image_size" : 3295645696,
          "__platform" : "CentOS",
          "__root_origin" : "file",
```


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```
        "__originalimagename" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
        "__quick_start" : "true",
        "image_name" : "CentOS7.2-cloudinit",
        "image_id" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
        "__os_type" : "Linux",
        "__image_location" : "172.100.45.130:443:pcsimsf8bd00bf6c304d2e8cf4e2beb0aed702:703eb90a-
a65f-4c72-b4c1-f070a55d068b",
        "min_disk" : 40,
        "__data_origin" : "file,jingxiang:CentOS-7.2-64bit.zvhd2",
        "__support_kvm" : "true",
        "virtual_env_type" : "FusionCompute",
        "__image_source_type" : "uds",
        "__support_xen" : "true",
        "checksum" : "99914b932bd37a50b983c5e7c90ae93b",
        "__imagetype" : "gold",
        "__productcode" : ""
      },
      "multiattach" : false,
      "name" : "no_delete_for_cbr_interface-volume-0000",
      "bootable" : "true",
      "created_at" : "2019-05-08T06:54:58.478+00:00",
      "volume_type" : "SATA",
      "shareable" : false
    },
    "children" : [ ],
    "type" : "OS::Cinder::Volume",
    "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
    "size" : 40
  }, {
    "status" : "in-use",
    "name" : "volume-f926-0001",
    "detail" : {
      "attachments" : [ {
        "server_id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
        "attachment_id" : "3b32cb75-bd96-493b-8fb2-13f063c876d5",
        "volume_id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
        "attached_at" : "2019-05-08T06:56:25.892+00:00",
        "device" : "/dev/vdb",
        "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99"
      } ],
      "links" : [ {
        "href" : "https://volume.region1.com/v2/3aec9116a6a5487ca14987121d2818fe/volumes/8d3d519f-
d409-4be3-8a1f-9f7a5ecb7a99",
        "rel" : "self"
      }, {
        "href" : "https://volume.region1.com/3aec9116a6a5487ca14987121d2818fe/volumes/8d3d519f-
d409-4be3-8a1f-9f7a5ecb7a99",
        "rel" : "bookmark"
      } ],
      "availability_zone" : "AZ1",
      "os-vol-host-attr:host" : "AZ1.xxxxxx#FusionStorage",
      "encrypted" : false,
      "updated_at" : "2019-05-08T06:56:26.207+00:00",
      "replication_status" : "disabled",
      "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
      "size" : 10,
      "user_id" : "f3d66502790d4ddaadef5056059ed8f4",
      "os-vol-tenant-attr:tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
      "metadata" : {
        "policy" : "cf3274fc-d23e-4c12-8be7-1e41b3c2faea",
        "readonly" : "False",
        "attached_mode" : "rw"
      },
      "status" : "in-use",
      "multiattach" : false,
      "name" : "volume-f926-0001",
      "bootable" : "false",
      "created_at" : "2019-03-26T09:30:46.784+00:00",
      "volume_type" : "SATA",
```


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```
      "shareable" : false
    },
    "children" : [ ],
    "type" : "OS::Cinder::Volume",
    "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
    "size" : 10
  } ],
  "protectable" : {
    "reason" : "",
    "code" : "",
    "result" : true
  },
  "name" : "no_delete_for_cbr_interface",
  "detail" : {
    "addresses" : {
      "94b88790-c906-4450-b7c2-1c2b1ea639bf" : [ {
        "OS-EXT-IPS-MAC:mac_addr" : "fa:16:3e:9b:9d:af",
        "version" : 4,
        "OS-EXT-IPS:port_id" : "f22f531a-d38a-480b-b59e-f7e5db0dcdcc",
        "addr" : "192.168.1.44",
        "OS-EXT-IPS:type" : "fixed"
      }, {
        "OS-EXT-IPS-MAC:mac_addr" : "fa:16:3e:9b:9d:af",
        "version" : 4,
        "OS-EXT-IPS:port_id" : "f22f531a-d38a-480b-b59e-f7e5db0dcdcc",
        "addr" : "100.78.0.199",
        "OS-EXT-IPS:type" : "floating"
      } ]
    },
    "OS-EXT-SRV-ATTR:ramdisk_id" : "",
    "image" : "",
    "enterprise_project_id" : 0,
    "updated" : "2019-05-08T06:57:02.000+00:00",
    "OS-EXT-SRV-ATTR:user_data" :
"IyEvYmluL2Jhc2gKZWNobyAncm9vdDokNiQ5c1FaeXIkdnk5N1pGYXg5WUpRTUpPRElGdGdjYnovTUdEZ1dad
3E4VTM1dWE4MjQxTmtDTG1GRjJUUm1BdnZSQnNCLy93VER0aFVRNUt0Z1p6dUlrenp2NmQwYTAnIHwgY2h
wYXNzd2QgLWU7",
    "OS-EXT-STS:vm_state" : "active",
    "OS-EXT-SRV-ATTR:instance_name" : "instance-0004456e",
    "OS-EXT-SRV-ATTR:root_device_name" : "/dev/vda",
    "OS-SRV-USG:launched_at" : "2019-05-08T06:55:38.000+00:00",
    "flavor" : {
      "vcpus" : 1,
      "disk" : 0,
      "ram" : 1024,
      "id" : "s3.small.1",
      "name" : "s3.small.1"
    },
    "id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
    "security_groups" : [ {
      "name" : "default"
    } ],
    "os-extended-volumes:volumes_attached" : [ {
      "device" : "/dev/vda",
      "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
      "delete_on_termination" : false,
      "bootIndex" : 0
    }, {
      "device" : "/dev/vdb",
      "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
      "delete_on_termination" : false
    } ],
    "user_id" : "f3d66502790d4ddaadef5056059ed8f4",
    "OS-EXT-SRV-ATTR:hostname" : "no-delete-for-cbr-interface",
    "OS-DCF:diskConfig" : "MANUAL",
    "accessIPv4" : "",
    "accessIPv6" : "",
    "OS-EXT-SRV-ATTR:reservation_id" : "r-kpb5xckf",
    "progress" : 0,
```


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```
    "OS-EXT-STS:power_state" : 1,
    "OS-EXT-AZ:availability_zone" : "AZ1",
    "metadata" : {
      "metering.image_id" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
      "metering.imagetype" : "gold",
      "metering.resourcespeccode" : "s3.small.1.linux",
      "metering.cloudServiceType" : "sys.service.type.ec2",
      "virtual_env_type" : "FusionCompute",
      "image_name" : "CentOS7.2-cloudinit",
      "metering.resourcetype" : 1,
      "vpc_id" : "94b88790-c906-4450-b7c2-1c2b1ea639bf",
      "os_bit" : 64,
      "cascaded.instance_extrainfo" : "",
      "os_type" : "Linux",
      "charging_mode" : 0
    },
    "status" : "ACTIVE",
    "sys_tags" : [ {
      "value" : 0,
      "key" : "_sys_enterprise_project_id"
    } ],
    "os:scheduler_hints" : { },
    "hostId" : "179f22cafe6b951921bd6deb3b13a978df620427fb37bbb7c619de98",
    "OS-EXT-SRV-ATTR:host" : "AZ1.xxxxxx",
    "description" : "",
    "tags" : [ ],
    "OS-EXT-SRV-ATTR:kernel_id" : "",
    "locked" : false,
    "OS-EXT-SRV-ATTR:hypervisor_hostname" : "nova003@36",
    "name" : "no_delete_for_cbr_interface",
    "OS-EXT-SRV-ATTR:launch_index" : 0,
    "created" : "2019-05-08T06:55:22.000+00:00",
    "tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
    "host_status" : "UP",
    "config_drive" : ""
   },
   "type" : "OS::Nova::Server",
   "id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
   "size" : 50
  } ]
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.8.2 Querying the Agent Status

Function

This API is used to check the Agent status required by application-consistent.

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Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/agent/check

Table 4-339 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-340 Request body parameters

Parameter	Mandatory	Type	Description
agent_status	Yes	Array of **ProtectableAgentStatusResource** objects	Query parameter list

Table 4-341 ProtectableAgentStatusResource

Parameter	Mandatory	Type	Description
resource_id	Yes	String	ID of the resource to be checked
resource_name	No	String	Name of the resource to be checked
resource_type	Yes	String	Type of the resource to be checked. Possible values are **OS::Nova::Server** (ECS) and **OS::Ironic::BareMetalServer** (BMS).

Response Parameters

Status code: 200

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Table 4-342 Response body parameters

Parameter	Type	Description
agent_status	Array of **ProtectableAgentStatus** objects	Status list

Table 4-343 ProtectableAgentStatus

Parameter	Type	Description
code	Integer	Error code returned upon an Agent connection failure
installed	Boolean	Whether the Agent is installed
is_old	Boolean	Whether the installed Agent is of an earlier version
message	String	Error information that explains why the Agent cannot be connected
resource_id	String	Resource ID
version	String	Agent version ID

Example Requests

Querying the agent status of a cloud server

```
POST https://{endpoint}/v3/f841e01fd2b14e7fa41b6ae7aa6b0594/agent/check

{
  "agent_status" : [ {
    "resource_id" : "6c0e29fc-5eaa-4f76-af9e-cc79895f70d7",
    "resource_name" : "ecs-8f7b",
    "resource_type" : "OS::Nova::Server"
  } ]
}
```

Example Responses

Status code: 200

OK

```
{
  "agent_status" : [ {
    "resource_id" : "6c0e29fc-5eaa-4f76-af9e-cc79895f70d7",
    "installed" : false
  } ]
}
```

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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.8.3 Querying a Specified Protectable Resource

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-344 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Resource ID
project_id	Yes	String	Project ID
protectable_type	Yes	String	Protection type

Request Parameters

None

Response Parameters

Status code: 200

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Table 4-345 Response body parameters

Parameter	Type	Description
instance	**ProtectablesResp** object	Resources that can be protected

Table 4-346 ProtectablesResp

Parameter	Type	Description
children	Array of objects	Child resource
detail	Object	Resource details
id	String	id
name	String	Backup name
protectable	**ProtectableResult** object	Whether backup is supported
size	Integer	Size of the resource, in GB
status	String	Resource status
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**

Table 4-347 ProtectableResult

Parameter	Type	Description
code	String	Error code returned indicating backup is not supported
reason	String	Reason why backup is not supported
result	Boolean	Whether backup is supported
vault	**VaultGet** object	Associated vault
message	String	Reason why the resource cannot be backed up. This field is returned only if the resource protectability check fails.

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Table 4-348 VaultGet

Parameter	Type	Description
billing	**Billing** object	Operation info
description	String	User-defined vault description
id	String	Vault ID
name	String	Vault name
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of **ResourceResp** objects	Resource
tags	Array of **Tag** objects	Vault tags
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is **false** (not enabled).
bind_rules	**VaultBindRules** object	Association rule
user_id	String	User ID
created_at	String	Creation time, for example, **2020-02-05T10:38:34.209782**
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	Boolean	Exception notification function
threshold	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, an exception notification is sent.
sys_lock_source_service	String	Used to identify the SMB service. You can set it to **SMB** or leave it empty.
locked	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.
updated_at	String	Update time, for example, **2020-02-05T10:38:34.209782**
version	String	Version

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Table 4-349 Billing

Parameter	Type	Description
allocated	Integer	Allocated capacity, in GB.
charging_mode	String	Billing mode, which can be **post_paid** (pay-per-use) or **pre_paid** (yearly/monthly). The default value is **post_paid**.
cloud_type	String	Cloud type, which can be **public** or **hybrid**
consistent_level	String	Vault specification, which can be **crash_consistent** (crash consistent backup) or **app_consistent** (application consistency backup)
object_type	String	Object type, which can be **server**, **disk**, **turbo**, **workspace**, **vmware**, **rds**, or **file**
order_id	String	Order ID
product_id	String	Product ID
protect_type	String	Protection type, which can be **backup** or **replication**
size	Integer	Capacity, in GB
spec_code	String	Specification codeServer backup vault: **vault.backup.server.normal**; Disk backup vault: **vault.backup.volume.normal**; File system backup vault: **vault.backup.turbo.normal**
status	String	Vault status
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
is_multi_az	Boolean	Multi-AZ attribute of a vault

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Table 4-350 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
protect_status	String	Protection status
size	Integer	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

Table 4-351 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

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Table 4-352 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-353 VaultBindRules

Parameter	Type	Description
tags	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

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Table 4-354 BindRulesTags

Parameter	Type	Description
key	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

Example Requests

Querying a specified protectable resource

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

Example Responses

Status code: 200

OK

```
{
  "instance" : {
    "status" : "ACTIVE",
    "children" : [ {
      "status" : "in-use",
      "name" : "volume-f926-0001",
      "detail" : {
        "attachments" : [ {
          "server_id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
          "attachment_id" : "3b32cb75-bd96-493b-8fb2-13f063c876d5",
          "volume_id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
          "attached_at" : "2019-05-08T06:56:25.892+00:00",
          "device" : "/dev/vdb",
          "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99"
        } ],
        "links" : [ {
          "href" : "https://volume.region1.com/v2/3aec9116a6a5487ca14987121d2818fe/volumes/8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
          "rel" : "self"
        }, {
          "href" : "https://volume.region1.com/3aec9116a6a5487ca14987121d2818fe/volumes/8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
          "rel" : "bookmark"
        } ],
        "availability_zone" : "AZ1",
        "os-vol-host-attr:host" : "AZ1.xxxxxx#FusionStorage",
        "encrypted" : false,
        "updated_at" : "2019-05-08T06:56:26.207+00:00",
        "replication_status" : "disabled",
        "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
        "size" : 10,
```

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```
      "user_id" : "f3d66502790d4ddaadef5056059ed8f4",
      "os-vol-tenant-attr:tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
      "metadata" : {
        "policy" : "cf3274fc-d23e-4c12-8be7-1e41b3c2faea",
        "readonly" : "False",
        "attached_mode" : "rw"
      },
      "status" : "in-use",
      "multiattach" : false,
      "name" : "volume-f926-0001",
      "bootable" : "false",
      "created_at" : "2019-03-26T09:30:46.784+00:00",
      "volume_type" : "SATA",
      "shareable" : false
    },
    "children" : [ ],
    "type" : "OS::Cinder::Volume",
    "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99",
    "size" : 10
  }, {
    "status" : "in-use",
    "name" : "no_delete_for_cbr_interface-volume-0000",
    "detail" : {
      "attachments" : [ {
        "server_id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
        "attachment_id" : "e16631fa-0522-4ac8-8f78-19db435caf68",
        "volume_id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
        "attached_at" : "2019-05-08T06:55:26.564+00:00",
        "device" : "/dev/vda",
        "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a"
      } ],
      "links" : [ {
        "href" : "https://volume.region1.com/v2/3aec9116a6a5487ca14987121d2818fe/volumes/
13eb535f-8635-4faf-9f08-584d21e78f0a",
        "rel" : "self"
      }, {
        "href" : "https://volume.region1.com/3aec9116a6a5487ca14987121d2818fe/volumes/
13eb535f-8635-4faf-9f08-584d21e78f0a",
        "rel" : "bookmark"
      } ],
      "availability_zone" : "AZ1",
      "os-vol-host-attr:host" : "AZ1.xxxxxx#kvm_fusionstorage",
      "encrypted" : false,
      "updated_at" : "2019-05-08T08:33:07.855+00:00",
      "replication_status" : "disabled",
      "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
      "size" : 40,
      "user_id" : "3204777a731c4ebea330350c04f41b92",
      "os-vol-tenant-attr:tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
      "metadata" : {
        "policy" : "2ecbcffd-08ba-43f7-bf8d-95daba753464",
        "readonly" : "False",
        "attached_mode" : "rw"
      },
      "status" : "in-use",
      "volume_image_metadata" : {
        "container_format" : "bare",
        "min_ram" : 0,
        "__account_code" : "",
        "__os_bit" : 64,
        "size" : 2,
        "__os_version" : "CentOS 7.2 64bit",
        "__backup_id" : "",
        "__description" : "",
        "__support_diskintensive" : "true",
        "disk_format" : "vhd",
        "__isregistered" : "true",
        "__image_size" : 3295645696,
        "__platform" : "CentOS",
```


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```
        "__root_origin" : "file",
        "__originalimagename" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
        "__quick_start" : "true",
        "image_name" : "CentOS7.2-cloudinit",
        "image_id" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
        "__os_type" : "Linux",
        "__image_location" : "172.100.45.130:443:pcsimsf8bd00bf6c304d2e8cf4e2beb0aed702:703eb90a-
a65f-4c72-b4c1-f070a55d068b",
        "min_disk" : 40,
        "__data_origin" : "file,jingxiang:CentOS-7.2-64bit.zvhd2",
        "__support_kvm" : "true",
        "virtual_env_type" : "FusionCompute",
        "__image_source_type" : "uds",
        "__support_xen" : "true",
        "checksum" : "99914b932bd37a50b983c5e7c90ae93b",
        "__imagetype" : "gold",
        "__productcode" : ""
      },
      "multiattach" : false,
      "name" : "no_delete_for_cbr_interface-volume-0000",
      "bootable" : "true",
      "created_at" : "2019-05-08T06:54:58.478+00:00",
      "volume_type" : "SATA",
      "shareable" : false
    },
    "children" : [ ],
    "type" : "OS::Cinder::Volume",
    "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a",
    "size" : 40
  } ],
  "protectable" : {
    "reason" : "",
    "code" : "",
    "result" : true
  },
  "name" : "no_delete_for_cbr_interface",
  "detail" : {
    "addresses" : {
      "94b88790-c906-4450-b7c2-1c2b1ea639bf" : [ {
        "OS-EXT-IPS-MAC:mac_addr" : "fa:16:3e:9b:9d:af",
        "version" : 4,
        "addr" : "192.168.1.44",
        "OS-EXT-IPS:type" : "fixed"
      }, {
        "OS-EXT-IPS-MAC:mac_addr" : "fa:16:3e:9b:9d:af",
        "version" : 4,
        "addr" : "100.78.0.199",
        "OS-EXT-IPS:type" : "floating"
      } ]
    },
    "links" : [ {
      "href" : "https://compute.region1.com/v2.1/3aec9116a6a5487ca14987121d2818fe/servers/
55ecd8b8-1457-4a2a-a9df-53756a690082",
      "rel" : "self"
    }, {
      "href" : "https://compute.region1.com/3aec9116a6a5487ca14987121d2818fe/servers/
55ecd8b8-1457-4a2a-a9df-53756a690082",
      "rel" : "bookmark"
    } ],
    "image" : "",
    "OS-EXT-STS:vm_state" : "active",
    "OS-EXT-SRV-ATTR:instance_name" : "instance-0004456e",
    "OS-SRV-USG:launched_at" : "2019-05-08T06:55:38.000+00:00",
    "flavor" : {
      "id" : "s3.small.1",
      "links" : [ {
        "href" : "https://compute.region1.com/3aec9116a6a5487ca14987121d2818fe/flavors/s3.small.1",
        "rel" : "bookmark"
      } ]
```


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```
    },
    "id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
    "security_groups" : [ {
      "name" : "default"
    } ],
    "user_id" : "f3d66502790d4ddaadef5056059ed8f4",
    "OS-DCF:diskConfig" : "MANUAL",
    "accessIPv4" : "",
    "accessIPv6" : "",
    "progress" : 0,
    "OS-EXT-STS:power_state" : 1,
    "OS-EXT-AZ:availability_zone" : "AZ1",
    "config_drive" : "",
    "status" : "ACTIVE",
    "updated" : "2019-05-08T06:57:02.000+00:00",
    "hostId" : "179f22cafe6b951921bd6deb3b13a978df620427fb37bbb7c619de98",
    "OS-EXT-SRV-ATTR:host" : "AZ1.xxxxxx",
    "OS-EXT-SRV-ATTR:hypervisor_hostname" : "nova003@36",
    "name" : "no_delete_for_cbr_interface",
    "created" : "2019-05-08T06:55:22.000+00:00",
    "tenant_id" : "3aec9116a6a5487ca14987121d2818fe",
    "os-extended-volumes:volumes_attached" : [ {
      "id" : "8d3d519f-d409-4be3-8a1f-9f7a5ecb7a99"
    }, {
      "id" : "13eb535f-8635-4faf-9f08-584d21e78f0a"
    } ],
    "metadata" : {
      "metering.image_id" : "703eb90a-a65f-4c72-b4c1-f070a55d068b",
      "metering.imagetype" : "gold",
      "metering.resourcespeccode" : "s3.small.1.linux",
      "metering.cloudServiceType" : "sys.service.type.ec2",
      "virtual_env_type" : "FusionCompute",
      "image_name" : "CentOS7.2-cloudinit",
      "metering.resourcetype" : 1,
      "vpc_id" : "94b88790-c906-4450-b7c2-1c2b1ea639bf",
      "os_bit" : 64,
      "cascaded.instance_extrainfo" : "",
      "os_type" : "Linux",
      "charging_mode" : 0
    }
  },
  "type" : "OS::Nova::Server",
  "id" : "55ecd8b8-1457-4a2a-a9df-53756a690082",
  "size" : 50
 }
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

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4.8.4 Querying the Replication Capability

Function

This API is used to query the replication capability of the current region.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/replication-capabilities

Table 4-355 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-356 Request header parameters

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

Response Parameters

Status code: 200

Table 4-357 Response body parameters

Parameter	Type	Description
regions	Array of **ProtectableReplicationCapabilitiesRespRegion** objects	List of regions that support replication

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Table 4-358 ProtectableReplicationCapabilitiesRespRegion

Parameter	Type	Description
name	String	Region where the cloud service resides
replication_destinations	Array of strings	List of supported destination regions

Example Requests

```
GET https://{endpoint}/v3/{project_id}/replication-capabilities
```

Example Responses

Status code: 200

OK

```
{
  "regions" : [ {
    "replication_destinations" : [ "cn-shenzhen-1", "cn-hk1" ],
    "name" : "southchina"
  } ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.9 Backup Sharing

4.9.1 Adding a Share Member

Function

This interface is used to add members who can share a backup. Only ECS and VBS backups can be shared. Backups can be shared among different projects or users.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

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URI

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

Table 4-359 Path Parameters

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

Request Parameters

Table 4-360 Request header parameters

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

Table 4-361 Request body parameters

Parameter	Mandatory	Type	Description
members	No	Array of strings	Project IDs of the backup share members to be added
domains	No	Array of strings	Domain IDs of the backup share members to be added. **NOTE** This feature is in the open beta test (OBT) phase and may be unavailable in some regions.

Response Parameters

Status code: 200

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Table 4-362 Response body parameters

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

Table 4-363 Member

Parameter	Type	Description
status	String	Backup sharing status
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 from the accepted 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

Adding members with whom the backup is shared

```
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",
```


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```
    "dest_project_id" : "075e6035d300d48c2fd0c00b78b71ebf",
    "created_at" : "2020-02-05T10:38:34.210+00:00",
    "id" : "3c5a3015-c3a0-4dc6-a1e2-917b90f62319"
  } ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.9.2 Updating the Share Member Status

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-364 Path Parameters

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

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Request Parameters

Table 4-365 Request header parameters

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

Table 4-366 Request body parameters

Parameter	Mandatory	Type	Description
status	Yes	String	Status of a shared backup
vault_id	No	String	Vault in which the shared backup is to be stored. Only UUID is supported. When updating the status of a backup sharing member, if the backup is accepted, **vault_id** must be specified. If the backup is rejected, **vault_id** is not required.

Response Parameters

Status code: 200

Table 4-367 Response body parameters

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

Table 4-368 Member

Parameter	Type	Description
status	String	Backup sharing status

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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 from the accepted backup
dest_project_id	String	ID of the project with which the backup is shared
vault_id	String	ID of the vault where the shared backup is stored
id	String	ID of the shared record

Example Requests

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

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

Example Responses

Status code: 200

OK

```
{
  "member" : {
    "status" : "accepted",
    "backup_id" : "17c9acd8-3af3-4401-bab9-ff1cfac15561",
    "vault_id" : "4b27c05b-8ad7-48c6-a886-526666c035f0",
    "dest_project_id" : "0761021b8900d2622f38c0115db0b331",
    "created_at" : "2020-02-24T09:36:00.479+00:00",
    "id" : "824a90b3-c562-448b-ab04-60ea4a97cf60"
  }
}
```

Status Codes

Status Code	Description
200	OK

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Error Codes

See **Error Codes**.

4.9.3 Querying Share Member Details

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-369 Path Parameters

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

Request Parameters

Table 4-370 Request header parameters

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

Response Parameters

Status code: 200

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Table 4-371 Response body parameters

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

Table 4-372 Member

Parameter	Type	Description
status	String	Backup sharing status
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 from the accepted backup
dest_project_id	String	ID of the project with which the backup is shared
vault_id	String	ID of the vault where the shared backup is stored
id	String	ID of the shared record

Example Requests

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

Example Responses

Status code: 200

OK

```
{
  "member" : {
    "status" : "accepted",
    "backup_id" : "17c9acd8-3af3-4401-bab9-ff1cfac15561",
    "vault_id" : "4b27c05b-8ad7-48c6-a886-526666c035f0",
    "dest_project_id" : "0761021b8900d2622f38c0115db0b331",
    "created_at" : "2020-02-24T09:36:00.479+00:00",
    "id" : "824a90b3-c562-448b-ab04-60ea4a97cf60"
  }
}
```


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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.9.4 Obtaining the Share Member List

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-373 Path Parameters

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

Table 4-374 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.

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Parameter	Mandatory	Type	Description
marker	No	String	ID of the last record displayed on the previous page. Only UUID is supported.
offset	No	Integer	Offset value. The value must be a positive integer.
sort	No	String	A group of properties separated by commas (,) and sorting directions. The value is in the format of <key1>[:<direction>],<key2>[:<direction>], where the value of direction is **asc** (ascending order) or **desc** (descending order). If a direction is not specified, the default sorting direction is **desc**. The value of **sort** can contain a maximum of 255 characters.
status	No	String	Status of a shared backup
vault_id	No	String	ID of the vault where the shared backup is stored. Only UUID is supported.

Request Parameters

Table 4-375 Request header parameters

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

Response Parameters

Status code: 200

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Table 4-376 Response body parameters

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

Table 4-377 Member

Parameter	Type	Description
status	String	Backup sharing status
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 from the accepted backup
dest_project_id	String	ID of the project with which the backup is shared
vault_id	String	ID of the vault where the shared backup is stored
id	String	ID of the shared record

Example Requests

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

Example Responses

Status code: 200

OK

```
{
  "members" : [ {
    "status" : "pending",
    "backup_id" : "0b07081e-3ec7-4e77-8571-54e2947da422",
    "dest_project_id" : "075e6035d300d48c2fd0c00b78b71ebf",
    "created_at" : "2020-02-05T10:38:34.210+00:00",
    "id" : "3c5a3015-c3a0-4dc6-a1e2-917b90f62319"
  } ],
  "count" : 50
}
```


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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.9.5 Deleting a Specified Share Member

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-378 Path Parameters

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

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Request Parameters

Table 4-379 Request header parameters

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

Response Parameters

None

Example Requests

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

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See **Error Codes**.

4.10 Organizational Policies

4.10.1 Creating an Organization Policy

Function

This API is used to create an organization policy.

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Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/organization-policies

Table 4-380 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-381 Request header parameters

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

Table 4-382 Request body parameters

Parameter	Mandatory	Type	Description
policy	Yes	**OrganizationPolicyCreate** object	

Table 4-383 OrganizationPolicyCreate

Parameter	Mandatory	Type	Description
name	Yes	String	Organization Policy Name
description	No	String	Organization Policy Description

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Parameter	Mandatory	Type	Description
operation_type	Yes	String	Organization policy type, which can be backup or replication.
policy_name	Yes	String	Policy Name
policy_enabled	Yes	Boolean	Whether the policy is enabled
policy_operation_definition	Yes	**PolicyoODCreate** object	Policy definition. The specific fields in backup and replication are different and consistent with those in the policy.
policy_trigger	Yes	**PolicyTriggerReq** object	Time rule for the policy execution

Table 4-384 PolicyoODCreate

Parameter	Mandatory	Type	Description
day_backups	No	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	No	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	No	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).

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Parameter	Mandatory	Type	Description
enable_acceleration	No	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	No	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.
month_backups	No	Integer	Maximum number of monthly backups that can be retained. The latest backup of each month is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.

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

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Parameter	Mandatory	Type	Description
full_backup_interval	No	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-385 PolicyTriggerReq

Parameter	Mandatory	Type	Description
properties	Yes	**PolicyTriggerPropertiesReq** object	Scheduler attributes

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Table 4-386 PolicyTriggerPropertiesReq

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

Response Parameters

Status code: 200

Table 4-387 Response body parameters

Parameter	Type	Description
policy	**OrganizationPolicy** object	Organization Policy Details

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Table 4-388 OrganizationPolicy

Parameter	Type	Description
id	String	Organization Policy ID
name	String	Organization Policy Name
description	String	Organization Policy Description
operation_type	String	Organizational policy type. • **backup** • **replication**
domain_id	String	Specifies the ID of the account to which the organization policy belongs.
policy_name	String	Policy Name
policy_enabled	Boolean	Whether the policy is enabled
policy_operation_definition	**PolicyoODCreate** object	Policy definition. The specific fields in backup and replication are different and consistent with those in the policy.
policy_trigger	**PolicyTriggerReq** object	Time rule for the policy execution
status	String	Organization Policy Status
domain_name	String	Account to which the organizational policy belongs.

Table 4-389 PolicyoODCreate

Parameter	Type	Description
day_backups	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	String	ID of the replication destination project, which is mandatory for cross-region replication

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Parameter	Type	Description
destination_region	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).
enable_acceleration	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.
month_backups	Integer	Maximum number of monthly backups that can be retained. The latest backup of each month is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
retention_duration_days	Integer	Duration of retaining a backup, in days. The maximum value is **99999**. If the value is set to **-1**, backups will not be cleared by retention duration. If this parameter and **max_backups** are left blank at the same time, the backups will be retained permanently. This parameter cannot be applied together with **max_backups**, **day_backups**, **week_backups**, **month_backups**, and **year_backups**.

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Parameter	Type	Description
timezone	String	Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: **day_backups**, **week_backups**, **month_backups**, **year_backups**
week_backups	Integer	Maximum number of weekly backups that can be retained. The latest backup of each week is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
year_backups	Integer	Maximum number of yearly backups that can be retained. The latest backup of each year is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
full_backup_interval	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-390 PolicyTriggerReq

Parameter	Type	Description
properties	**PolicyTriggerPropertiesReq** object	Scheduler attributes

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Table 4-391 PolicyTriggerPropertiesReq

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

Example Requests

Creating an organization policy

```
POST https://{endpoint}/v3/{project_id}/organization-policies

{
  "policy" : {
    "policy_enabled" : false,
    "policy_name" : "policy_create_test",
    "policy_operation_definition" : {
      "retention_duration_days" : 30,
      "max_backups" : -1,
      "day_backups" : 0,
      "week_backups" : 0,
      "month_backups" : 0,
      "year_backups" : 0,
      "timezone" : "UTC+08:00",
      "full_backup_interval" : -1
    },
    "policy_trigger" : {
      "properties" : {
        "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ]
      }
    },
    "operation_type" : "backup",
```

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```
    "name" : "organization-policies_create_test",
    "description" : ""
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "policy" : {
    "id" : "5f5dd325-d7d1-4693-9d97-db37ecb91696",
    "name" : "organization-policies_create_test",
    "description" : "",
    "operation_type" : "backup",
    "domain_id" : "0ae13f008700d53f0fb4c01200e79660",
    "policy_name" : "policy_create_test",
    "policy_operation_definition" : {
      "max_backups" : -1,
      "retention_duration_days" : 30,
      "day_backups" : 0,
      "week_backups" : 0,
      "month_backups" : 0,
      "year_backups" : 0,
      "timezone" : "UTC+08:00",
      "full_backup_interval" : -1
    },
    "policy_enabled" : false,
    "policy_trigger" : {
      "properties" : {
        "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ]
      }
    },
    "status" : "syncing"
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.10.2 Querying the Organizational Policy List

Function

This API is used to query the organizational policy list.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

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URI

GET /v3/{project_id}/organization-policies

Table 4-392 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-393 Query Parameters

Parameter	Mandatory	Type	Description
operation_type	Yes	String	Organizational policy type.
limit	No	Integer	Number of records displayed on each page. The value must be a positive integer.
offset	No	Integer	Query offset, which is a positive integer.

Request Parameters

Table 4-394 Request header parameters

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

Response Parameters

Status code: 200

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Table 4-395 Response body parameters

Parameter	Type	Description
policies	Array of **OrganizationPolicy** objects	Organization Policy List
count	Integer	Number of organization policies
limit	Integer	Number of records displayed on each page
offset	Integer	Offset where the query starts

Table 4-396 OrganizationPolicy

Parameter	Type	Description
id	String	Organization Policy ID
name	String	Organization Policy Name
description	String	Organization Policy Description
operation_type	String	Organizational policy type. • **backup** • **replication**
domain_id	String	Specifies the ID of the account to which the organization policy belongs.
policy_name	String	Policy Name
policy_enabled	Boolean	Whether the policy is enabled
policy_operation_definition	**PolicyoODCreate** object	Policy definition. The specific fields in backup and replication are different and consistent with those in the policy.
policy_trigger	**PolicyTriggerReq** object	Time rule for the policy execution
status	String	Organization Policy Status
domain_name	String	Account to which the organizational policy belongs.

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Table 4-397 PolicyoODCreate

Parameter	Type	Description
day_backups	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).
enable_acceleration	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.

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

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Parameter	Type	Description
full_backup_interval	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-398 PolicyTriggerReq

Parameter	Type	Description
properties	**PolicyTriggerPropertiesReq** object	Scheduler attributes

Table 4-399 PolicyTriggerPropertiesReq

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

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Example Requests

Querying the organizational policy list

```
GET https://{endpoint}/v3/{project_id}/organization-policies?operation_type=backup
```

GET https://{endpoint}/v3/{project_id}/organization-policies?operation_type=backup

Example Responses

Status code: 200

OK


```
{
  "policies" : [ {
    "id" : "5f5dd325-d7d1-4693-9d97-db37ecb91696",
    "name" : "organization-policies_create_test",
    "operation_type" : "backup",
    "domain_id" : "0ae13f008700d53f0fb4c01200e79660",
    "policy_name" : "policy_create_test",
    "policy_operation_definition" : {
      "max_backups" : -1,
      "retention_duration_days" : 30,
      "day_backups" : 0,
      "week_backups" : 0,
      "month_backups" : 0,
      "year_backups" : 0,
      "timezone" : "UTC+08:00",
      "full_backup_interval" : -1
    },
    "policy_enabled" : false,
    "policy_trigger" : {
      "properties" : {
        "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ]
      }
    },
    "status" : "syncing"
  } ],
  "count" : 4,
  "limit" : 1000,
  "offset" : 0
}
```


Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.10.3 Updating an Organization Policy

Function

This API is used to update an organization policy.

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Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

PUT /v3/{project_id}/organization-policies/{organization_policy_id}

Table 4-400 Path Parameters

Parameter	Mandatory	Type	Description
organization_policy_id	Yes	String	Organizational policy ID.
project_id	Yes	String	Project ID

Request Parameters

Table 4-401 Request header parameters

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

Table 4-402 Request body parameters

Parameter	Mandatory	Type	Description
policy	Yes	**OrganizationPolicyUpdate** object	

Table 4-403 OrganizationPolicyUpdate

Parameter	Mandatory	Type	Description
name	No	String	Organization Policy Name
description	No	String	Organization Policy Description

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Parameter	Mandatory	Type	Description
policy_name	No	String	Policy Name
policy_enabled	No	Boolean	Whether the policy is enabled
policy_operation_definition	No	**PolicyoODCreate** object	Policy definition. The specific fields in backup and replication are different and consistent with those in the policy.
policy_trigger	No	**PolicyTriggerReq** object	Time rule for the policy execution

Table 4-404 PolicyoODCreate

Parameter	Mandatory	Type	Description
day_backups	No	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	No	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	No	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).

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Parameter	Mandatory	Type	Description
enable_acceleration	No	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	No	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.
month_backups	No	Integer	Maximum number of monthly backups that can be retained. The latest backup of each month is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.

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

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Parameter	Mandatory	Type	Description
full_backup_interval	No	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-405 PolicyTriggerReq

Parameter	Mandatory	Type	Description
properties	Yes	**PolicyTriggerPropertiesReq** object	Scheduler attributes

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Table 4-406 PolicyTriggerPropertiesReq

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

Response Parameters

Status code: 200

Table 4-407 Response body parameters

Parameter	Type	Description
policy	**OrganizationPolicy** object	Organization Policy Details

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Table 4-408 OrganizationPolicy

Parameter	Type	Description
id	String	Organization Policy ID
name	String	Organization Policy Name
description	String	Organization Policy Description
operation_type	String	Organizational policy type. • **backup** • **replication**
domain_id	String	Specifies the ID of the account to which the organization policy belongs.
policy_name	String	Policy Name
policy_enabled	Boolean	Whether the policy is enabled
policy_operation_definition	**PolicyoODCreate** object	Policy definition. The specific fields in backup and replication are different and consistent with those in the policy.
policy_trigger	**PolicyTriggerReq** object	Time rule for the policy execution
status	String	Organization Policy Status
domain_name	String	Account to which the organizational policy belongs.

Table 4-409 PolicyoODCreate

Parameter	Type	Description
day_backups	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	String	ID of the replication destination project, which is mandatory for cross-region replication

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Parameter	Type	Description
destination_region	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).
enable_acceleration	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.
max_backups	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.
month_backups	Integer	Maximum number of monthly backups that can be retained. The latest backup of each month is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
retention_duration_days	Integer	Duration of retaining a backup, in days. The maximum value is **99999**. If the value is set to **-1**, backups will not be cleared by retention duration. If this parameter and **max_backups** are left blank at the same time, the backups will be retained permanently. This parameter cannot be applied together with **max_backups**, **day_backups**, **week_backups**, **month_backups**, and **year_backups**.

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Parameter	Type	Description
timezone	String	Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: **day_backups**, **week_backups**, **month_backups**, **year_backups**
week_backups	Integer	Maximum number of weekly backups that can be retained. The latest backup of each week is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
year_backups	Integer	Maximum number of yearly backups that can be retained. The latest backup of each year is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
full_backup_interval	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-410 PolicyTriggerReq

Parameter	Type	Description
properties	**PolicyTriggerPropertiesReq** object	Scheduler attributes

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Table 4-411 PolicyTriggerPropertiesReq

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

Example Requests

Updating an organization policy

```
PUT https://{endpoint}/v3/{project_id}/organization-policies

{
  "policy" : {
    "policy_enabled" : false,
    "policy_name" : "policy_update_test",
    "policy_operation_definition" : {
      "retention_duration_days" : 30,
      "max_backups" : -1,
      "day_backups" : 0,
      "week_backups" : 0,
      "month_backups" : 0,
      "year_backups" : 0,
      "timezone" : "UTC+08:00",
      "full_backup_interval" : -1
    },
    "policy_trigger" : {
      "properties" : {
        "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ]
      }
    },
    "name" : "organization-policies_update_test",
```

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```
    "description" : ""
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "policy" : {
    "id" : "5f5dd325-d7d1-4693-9d97-db37ecb91696",
    "name" : "organization-policies_update_test",
    "description" : "",
    "operation_type" : "backup",
    "domain_id" : "0ae13f008700d53f0fb4c01200e79660",
    "policy_name" : "policy_update_test",
    "policy_operation_definition" : {
      "max_backups" : -1,
      "retention_duration_days" : 30,
      "day_backups" : 0,
      "week_backups" : 0,
      "month_backups" : 0,
      "year_backups" : 0,
      "timezone" : "UTC+08:00",
      "full_backup_interval" : -1
    },
    "policy_enabled" : false,
    "policy_trigger" : {
      "properties" : {
        "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ]
      }
    },
    "status" : "syncing"
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.10.4 Deleting an Organization Policy

Function

This API is used to delete an organization policy.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

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URI

DELETE /v3/{project_id}/organization-policies/{organization_policy_id}

Table 4-412 Path Parameters

Parameter	Mandatory	Type	Description
organization_policy_id	Yes	String	Organizational policy ID.
project_id	Yes	String	Project ID

Request Parameters

Table 4-413 Request header parameters

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

Response Parameters

None

Example Requests

Deleting an organization policy

```
DELETE https://{endpoint}/v3/{project_id}/organization-policies/{organization_policy_id}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content

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Error Codes

See **Error Codes**.

4.10.5 Querying Organizational Policy Delivery Info

Function

This API is used to query the organization policy delivery info of each account.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/organization-policies/{organization_policy_id}/policy-detail

Table 4-414 Path Parameters

Parameter	Mandatory	Type	Description
organization_policy_id	Yes	String	Organizational policy ID.
project_id	Yes	String	Project ID

Request Parameters

Table 4-415 Request header parameters

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

Response Parameters

Status code: 200

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Table 4-416 Response body parameters

Parameter	Type	Description
policies	Array of **OrganizationPolicyStatus** objects	Organization Policy Deployment Status List
count	Integer	Number of members in the organization policy status
limit	Integer	Number of records displayed on each page
offset	Integer	Offset where the query starts

Table 4-417 OrganizationPolicyStatus

Parameter	Type	Description
policy_id	String	Policy ID
domain_id	String	Account ID
project_id	String	Project ID
status	String	Status

Example Requests

Querying the organization policy delivery info of each account

```
GET https://{endpoint}/v3/{project_id}/organization-policies/{organization_policy_id}/policy-detail

GET https://{endpoint}/v3/{project_id}/organization-policies/{organization_policy_id}/policy-detail
```

Example Responses

Status code: 200

OK

```
{
  "policies" : [ {
    "policy_id" : "680032b4-493f-4486-81ab-1d068c92da6b",
    "domain_id" : "0ab4d110dc00d5ba0f5ac0103d5ebf60",
    "project_id" : "ab994a04599c4c46a1e946c328b55ee2",
    "status" : "available",
    "error_msg" : null
  }, {
    "policy_id" : "556d25b7-f3c7-4f61-a096-be74bb797056",
    "domain_id" : "0ab4d110dc00d5ba0f5ac0103d5ebf60",
    "project_id" : "c5a1f68f1c664c9189c2cc2956138b9a",
    "status" : "available",
    "error_msg" : null
  } ],
  "count" : 2,
  "limit" : 1000,
```


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```
  "offset" : 0
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.10.6 Querying a Specified Organizational Policy

Function

This API is used to query a specified organizational policy.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/organization-policies/{organization_policy_id}

Table 4-418 Path Parameters

Parameter	Mandatory	Type	Description
organization_policy_id	Yes	String	Organizational policy ID.
project_id	Yes	String	Project ID

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Request Parameters

Table 4-419 Request header parameters

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

Response Parameters

Status code: 200

Table 4-420 Response body parameters

Parameter	Type	Description
policy	**OrganizationPolicy** object	Organization Policy Details

Table 4-421 OrganizationPolicy

Parameter	Type	Description
id	String	Organization Policy ID
name	String	Organization Policy Name
description	String	Organization Policy Description
operation_type	String	Organizational policy type. • **backup** • **replication**
domain_id	String	Specifies the ID of the account to which the organization policy belongs.
policy_name	String	Policy Name
policy_enabled	Boolean	Whether the policy is enabled
policy_operation_definition	**PolicyoODCreate** object	Policy definition. The specific fields in backup and replication are different and consistent with those in the policy.

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Parameter	Type	Description
policy_trigger	**PolicyTriggerReq** object	Time rule for the policy execution
status	String	Organization Policy Status
domain_name	String	Account to which the organizational policy belongs.

Table 4-422 PolicyoODCreate

Parameter	Type	Description
day_backups	Integer	Maximum number of daily backups that can be retained. The latest backup of each day is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
destination_project_id	String	ID of the replication destination project, which is mandatory for cross-region replication
destination_region	String	Replication destination region, which is mandatory for cross-region replication The destination region cannot be the same as the current region. The value contains 0 to 255 characters, including only letters, digits, underscores (_), and hyphens (-).
enable_acceleration	Boolean	Whether to enable the acceleration function to shorten the replication time for cross-region replication. If this parameter is not set, the acceleration function is disabled.

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Parameter	Type	Description
max_backups	Integer	Maximum number of backups that can be automatically created for a backup object. The value can be **-1** or ranges from **0** to **99999**. If the value is set to **-1**, backups will not be cleared by quantity limit. If this parameter and **retention_duration_days** are left blank at the same time, the backups will be retained permanently. This parameter and **retention_duration_days** cannot be both applied.
month_backups	Integer	Maximum number of monthly backups that can be retained. The latest backup of each month is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
retention_duration_days	Integer	Duration of retaining a backup, in days. The maximum value is **99999**. If the value is set to **-1**, backups will not be cleared by retention duration. If this parameter and **max_backups** are left blank at the same time, the backups will be retained permanently. This parameter cannot be applied together with **max_backups**, **day_backups**, **week_backups**, **month_backups**, and **year_backups**.
timezone	String	Time zone where the user is located, for example, UTC+08:00. Set this parameter if you have configured any of the parameters: **day_backups**, **week_backups**, **month_backups**, **year_backups**

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Parameter	Type	Description
week_backups	Integer	Maximum number of weekly backups that can be retained. The latest backup of each week is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
year_backups	Integer	Maximum number of yearly backups that can be retained. The latest backup of each year is saved in the long term. This parameter and **max_backups** will both be applied. The value ranges from **0** to **100**. If this parameter is configured, **timezone** is mandatory. This parameter and **retention_duration_days** cannot be both applied.
full_backup_interval	Integer	Defines how often (after how many incremental backups) a full backup is performed. If **-1** is specified, full backup will not be performed. Minimum value: **-1** Maximum value: **100**

Table 4-423 PolicyTriggerReq

Parameter	Type	Description
properties	**PolicyTriggerPropertiesReq** object	Scheduler attributes

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Table 4-424 PolicyTriggerPropertiesReq

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

Example Requests

Querying a specified organizational policy

```
GET https://{endpoint}/v3/{project_id}/organization-policies/{organization_policy_id}
```

Example Responses

Status code: 200

OK

```
{
  "policy" : {
    "id" : "5f5dd325-d7d1-4693-9d97-db37ecb91696",
    "name" : "organization-policies_create_test",
    "operation_type" : "backup",
    "domain_id" : "0ae13f008700d53f0fb4c01200e79660",
    "policy_name" : "policy_create_test",
    "policy_operation_definition" : {
      "max_backups" : -1,
      "retention_duration_days" : 30,
      "day_backups" : 0,
      "week_backups" : 0,
```

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```
    "month_backups" : 0,
    "year_backups" : 0,
    "timezone" : "UTC+08:00",
    "full_backup_interval" : -1
  },
  "policy_enabled" : false,
  "policy_trigger" : {
    "properties" : {
      "pattern" : [ "FREQ=WEEKLY;BYDAY=MO,TU,WE,TH,FR,SA,SU;BYHOUR=14;BYMINUTE=00" ]
    }
  },
  "status" : "syncing"
 }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.11 Tags

4.11.1 Querying Vault Resources

Function

This API is used to filter resources by tag.

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-425 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

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Request Parameters

Table 4-426 Request body parameters

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

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

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

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Parameter	Mandatory	Type	Description
action	Yes	String	Operation identifier. Possible values are **filter** and **count**. The value **filter** indicates pagination query. The value **count** indicates that the total number of query results meeting the search criteria will be returned.
matches	No	Array of **Match** objects	Search criteria supported by resources Keys in this list must be unique. Only one key is supported currently. Multiple-key support will be available later.
cloud_type	No	String	Cloud type
object_type	No	String	Resource type

Table 4-427 TagsReq

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

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

Table 4-428 SysTags

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

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Table 4-429 Match

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

Response Parameters

Status code: 200

Table 4-430 Response body parameters

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

Table 4-431 TagResource

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

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

Table 4-432 InstancesResourceDetail

Parameter	Type	Description
vault	**Vault** object	Vaults

Table 4-433 Vault

Parameter	Type	Description
billing	**Billing** object	Operation info
description	String	User-defined vault description
id	String	Vault ID
name	String	Vault name
project_id	String	Project ID
provider_id	String	ID of the vault resource type
resources	Array of **ResourceResp** objects	Vault resources
tags	Array of **Tag** objects	Vault tags
enterprise_project_id	String	Enterprise project ID. Its default value is **0**.
auto_bind	Boolean	Indicates whether automatic association is enabled. Its default value is **false** (not enabled).
bind_rules	**VaultBindRules** object	Association rule

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Parameter	Type	Description
user_id	String	User ID
created_at	String	Creation time, for example, **2020-02-05T10:38:34.209782**
auto_expand	Boolean	Whether to enable auto capacity expansion for the vault. Only pay-per-use vaults support auto capacity expansion.
smn_notify	Boolean	Exception notification function
threshold	Integer	Vault capacity threshold. If the vault capacity usage exceeds this threshold, an exception notification is sent.
sys_lock_source_service	String	Used to identify the SMB service. You can set it to **SMB** or leave it empty.
locked	Boolean	Whether the vault is locked. A locked vault cannot be unlocked.

Table 4-434 Billing

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

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Parameter	Type	Description
protect_type	String	Protection type, which can be **backup** or **replication**
size	Integer	Capacity, in GB
spec_code	String	Specification codeServer backup vault: **vault.backup.server.normal**; Disk backup vault: **vault.backup.volume.normal**; File system backup vault: **vault.backup.turbo.normal**
status	String	Vault status
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
is_multi_az	Boolean	Multi-AZ attribute of a vault

Table 4-435 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
protect_status	String	Protection status
size	Integer	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	Integer	Backup size
backup_count	Integer	Number of backups

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Table 4-436 ResourceExtraInfo

Parameter	Type	Description
exclude_volumes	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

Table 4-437 VaultBindRules

Parameter	Type	Description
tags	Array of **BindRulesTags** objects	Filters automatically associated resources by tag. Minimum length: 0 characters Maximum length: 5 characters

Table 4-438 BindRulesTags

Parameter	Type	Description
key	String	The key cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The key can contain only letters, digits, hyphens (-), and underscores (_).
value	String	The value cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ The value can contain only letters, digits, periods (.), hyphens (-), and underscores (_).

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Table 4-439 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Table 4-440 SysTag

Parameter	Type	Description
key	String	Key Key of the system tag, which is obtained from the whitelist and cannot be defined randomly. Currently, only the **_sys_enterprise_project_id** field is supported, and the corresponding **value** indicates the enterprise project ID.

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Parameter	Type	Description
value	String	Value Currently, only the enterprise project ID is used. The default enterprise project ID is **0**.

Status code: 400

Table 4-441 Response body parameters

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

Example Requests

Querying vault resources by tag

```
POST  https://{endpoint}/v3/{project_id}/vault/resource_instances/action

{
  "tags" : [ {
    "key" : "string",
    "values" : [ "vaule" ]
  } ],
  "action" : "filter"
}
```

Example Responses

Status code: 200

OK

```
{
  "total_count" : 7,
  "resources" : [ {
    "resource_id" : "e54f7854-8de8-4f98-acf1-65f330bfe877",
    "resource_name" : "vault-7698-api-test",
    "resource_detail" : {
      "vault" : {
        "id" : "e54f7854-8de8-4f98-acf1-65f330bfe877",
        "name" : "vault-7698-api-test",
        "resources" : [ ],
        "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
        "created_at" : "2023-04-21T08:20:43.022+00:00",
        "project_id" : "667230ba418f48f1996329f174693053",
        "enterprise_project_id" : 0,
        "auto_bind" : false,
        "bind_rules" : { },
        "auto_expand" : false,
        "smn_notify" : true,
        "threshold" : 80,
        "user_id" : "0ae13f012b80d2d81f11c0129285d34b",
        "billing" : {
```


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```
        "allocated" : 0,
        "cloud_type" : "public",
        "consistent_level" : "crash_consistent",
        "charging_mode" : "pre_paid",
        "order_id" : "CS23042116192E6CZ",
        "product_id" : "00301-231151-0--0",
        "protect_type" : "backup",
        "object_type" : "server",
        "spec_code" : "vault.backup.server.normal",
        "used" : 0,
        "status" : "available",
        "size" : 100
      },
      "tags" : [ ]
    }
  },
  "tags" : [ ]
 } ]
}
```


Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See **Error Codes**.

4.11.2 Batch Adding or Deleting Tags of a Vault

Function

This API is used to add or delete tags of a specific resource in batches.

TMS may use this API to manage service resource tags.

A resource can have a maximum of 10 tags. (A maximum of 20 tags can be added to a resource in the region that supports Landing Zone.)

This API is idempotent.

If there are duplicate keys in the request body when you add tags, an error is reported.

If a to-be-added tag has the same key as an existing tag, the tag will be added and will overwrite the existing tag.

When deleting tags, duplicate keys are allowed.

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

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Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-442 Path Parameters

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

Request Parameters

Table 4-443 Request body parameters

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

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Table 4-444 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).
value	Yes	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

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Table 4-445 SysTag

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

Response Parameters

Status code: 400

Table 4-446 Response body parameters

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

Example Requests

Example request

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

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

Example Responses

None

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Status Codes

Status Code	Description
204	No Content
400	Bad Request

Error Codes

See **Error Codes**.

4.11.3 Adding a Tag to an Associated Resource

Function

A resource can have a maximum of 10 tags. (A maximum of 20 tags can be added to a resource in the region that supports Landing Zone.)

This API is idempotent. If a to-be-added tag has the same key as an existing tag, the tag will be added and will overwrite the existing tag.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-447 Path Parameters

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

Request Parameters

Table 4-448 Request body parameters

Parameter	Mandatory	Type	Description
tag	No	**Tag** object	Tags

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Table 4-449 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).
value	Yes	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

Response Parameters

Status code: 400

Table 4-450 Response body parameters

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

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Example Requests

Example request

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

{
  "tag" : {
    "key" : "key1",
    "value" : "key2"
  }
}
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	Bad Request

Error Codes

See **Error Codes**.

4.11.4 Deleting a Tag from an Associated Resource

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

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Table 4-451 Path Parameters

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

Request Parameters

None

Response Parameters

Status code: 400

Table 4-452 Response body parameters

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

Example Requests

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

Example Responses

None

Status Codes

Status Code	Description
204	No Content
400	Bad Request

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Error Codes

See **Error Codes**.

4.11.5 Querying Tags of an Associated Resource

Function

This API is used to query tags of a specified resource.

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-453 Path Parameters

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

Request Parameters

None

Response Parameters

Status code: 200

Table 4-454 Response body parameters

Parameter	Type	Description
tags	Array of **Tag** objects	Tag list Keys in the tag list must be unique.

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

Table 4-455 Tag

Parameter	Type	Description
key	String	Key It can contain a maximum of 36 characters. It cannot be an empty string. Spaces before and after a key will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), and underscores (_).
value	String	Value It is mandatory when a tag is added and optional when a tag is deleted. It can contain a maximum of 43 characters. It can be an empty string. Spaces before and after a value will be discarded. It cannot contain non-printable ASCII characters (0–31) and the following characters: =*<>,|/ It can contain only letters, digits, hyphens (-), underscores (_), and periods (.).

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Table 4-456 SysTag

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

Status code: 400

Table 4-457 Response body parameters

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

Example Requests

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

Example Responses

Status code: 200

OK

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

Status code: 400

Bad Request

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


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Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See **Error Codes**.

4.11.6 Querying Tags of a Vault Project

Function

This API is used to query a tenant's tag set in a specific region and of a specific instance type.

TMS uses this API to list tags created by a tenant to facilitate tag creation and resource filtering on the console.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/vault/tags

Table 4-458 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

None

Response Parameters

Status code: 200

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Table 4-459 Response body parameters

Parameter	Type	Description
tags	Array of **TagsResp** objects	Tag list

Table 4-460 TagsResp

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

Status code: 400

Table 4-461 Response body parameters

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

Example Requests

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

Example Responses

Status code: 200

OK

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


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```
 }, {
   "values" : [ "", "string" ],
   "key" : "string"
 } ]
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See **Error Codes**.

4.12 Restore Points

4.12.1 Synchronizing a Restore Point

Function

This API is used to synchronize backups for a vault.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/checkpoints/sync

Table 4-462 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

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Request Parameters

Table 4-463 Request body parameters

Parameter	Mandatory	Type	Description
sync	Yes	**SyncParam** object	Synchronization content

Table 4-464 SyncParam

Parameter	Mandatory	Type	Description
auto_trigger	Yes	Boolean	Whether automatic triggering is enabled for this synchronization
vault_id	Yes	String	Hybrid cloud vault ID

Response Parameters

Status code: 200

Table 4-465 Response body parameters

Parameter	Type	Description
sync	**SyncRespBody** object	Synchronization content

Table 4-466 SyncRespBody

Parameter	Type	Description
operation_log_id	String	Whether automatic triggering is enabled
vault_id	String	Hybrid cloud vault ID

Example Requests

Manually synchronizing backups

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

{
  "sync" : {
    "vault_id" : "8d3a8b28-a697-41e2-8d5d-903669f8a02d",
    "auto_trigger" : false
```


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```
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "sync" : {
    "operation_log_id" : "60baed87-7e30-4bd8-b71c-89e4a4f7547d",
    "vault_id" : "8d3a8b28-a697-41e2-8d5d-903669f8a02d"
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.12.2 Querying a Restore Point

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

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

Table 4-467 Path Parameters

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

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Request Parameters

Table 4-468 Request header parameters

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

Response Parameters

Status code: 200

Table 4-469 Response body parameters

Parameter	Type	Description
checkpoint	**CheckpointCreate** object	Restore point information

Table 4-470 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
vault	**CheckpointPlanCreate** object	Vault information
extra_info	**CheckpointExtraInfoResp** object	Extended information

Table 4-471 CheckpointPlanCreate

Parameter	Type	Description
id	String	Vault ID

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

Table 4-472 CheckpointResourceResp

Parameter	Type	Description
extra_info	String	Extra information of the resource
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up
protect_status	String	Protected status
resource_size	String	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	String	Backup size
backup_count	String	Number of backups

Table 4-473 CheckpointCreateSkippedResource

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

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

Table 4-474 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

OK

```
{
  "checkpoint" : {
    "status" : "available",
    "created_at" : "2019-05-10T07:59:12.037+00:00",
    "vault" : {
      "id" : "3b5816b5-f29c-4172-9d9a-76c719a659ce",
      "resources" : [ {
        "name" : "ecs-1f0f-0002",
        "resource_size" : 40,
        "protect_status" : "available",
        "type" : "OS::Nova::Server",
        "id" : "94eba8b2-acc9-4d82-badc-127144cc5526"
      } ],
      "name" : "vault-be94"
    },
    "project_id" : "4229d7a45436489f8c3dc2b1d35d4987",
    "id" : "8b0851a8-adf3-4f4c-a914-dead08bf9664"
  }
}
```

Status Codes

Status Code	Description
200	OK

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Error Codes

See **Error Codes**.

4.12.3 Replicating a Restore Point

Function

This API is used to replicate a restore point.

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/checkpoints/replicate

Table 4-475 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 4-476 Request header parameters

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

Table 4-477 Request body parameters

Parameter	Mandatory	Type	Description
replicate	Yes	**CheckpointReplicateParam** object	Parameters in the request body of performing a replication

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Table 4-478 CheckpointReplicateParam

Parameter	Mandatory	Type	Description
auto_trigger	No	Boolean	Whether to automatically trigger replication this time. The default value is **false**, indicating the replication needs to be manually triggered.
destination_project_id	Yes	String	ID of the replication destination project
destination_region	Yes	String	ID of the replication destination region
destination_vault_id	Yes	String	ID of the vault in the replication destination region
enable_acceleration	No	Boolean	Whether to enable the acceleration function to shorten the time spent on cross-region replication.
vault_id	Yes	String	Vault ID (UUID)

Response Parameters

Status code: 200

Table 4-479 Response body parameters

Parameter	Type	Description
replication	**CheckpointReplicateRespBody** object	Restore point replication objects in the response

Table 4-480 CheckpointReplicateRespBody

Parameter	Type	Description
backups	Array of **CheckpointReplicateRespbackups** objects	List of backups to be replicated
destination_project_id	String	ID of the replication destination project
destination_region	String	Replication destination region

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Parameter	Type	Description
destination_vault_id	String	ID of the vault in the replication destination region
project_id	String	ID of the project where replication is performed
provider_id	String	Backup provider ID, which specifies whether the backup object is a server or disk
source_region	String	Replication source region
vault_id	String	Vault ID

Table 4-481 CheckpointReplicateRespbackups

Parameter	Type	Description
backup_id	String	ID of the source backup used for replication
replication_record_id	String	Replication record ID

Example Requests

Manually replicating a backup from a source region to a destination region

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

{
  "replicate" : {
    "auto_trigger" : false,
    "destination_project_id" : "68589cac08274b82b4e254268a3862d8",
    "destination_region" : "region2",
    "destination_vault_id" : "0ca3eb86-8800-46da-9c37-9d657a825274",
    "enable_acceleration" : false,
    "vault_id" : "3b5816b5-f29c-4172-9d9a-76c719a659ce"
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "replication" : {
    "destination_vault_id" : "0ca3eb86-8800-46da-9c37-9d657a825274",
    "provider_id" : "0daac4c5-6707-4851-97ba-169e36266b66",
    "source_region" : "region1",
    "vault_id" : "3b5816b5-f29c-4172-9d9a-76c719a659ce",
    "destination_region" : "region2",
    "destination_project_id" : "68589cac08274b82b4e254268a3862d8",
```

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```
  "backups" : [ {
    "replication_record_id" : "de128dfa-5451-4905-9c11-8fc842b2f41e",
    "backup_id" : "7558e1a3-7046-4787-95cd-14b0ad0642a8"
  }, {
    "replication_record_id" : "892a7d1e-17c8-4751-ad75-cfbed7051857",
    "backup_id" : "6df2b54c-dd62-4059-a07c-1b8f24f2725d"
  }, {
    "replication_record_id" : "8bf5ce8f-bfa1-4d57-98de-d6159ab9d86d",
    "backup_id" : "aa00034d-ef40-443d-ab7a-dc846d988cdf"
  } ],
  "project_id" : "4229d7a45436489f8c3dc2b1d35d4987"
 }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

4.12.4 Creating a Restore Point

Function

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

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

POST /v3/{project_id}/checkpoints

Table 4-482 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

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Request Parameters

Table 4-483 Request header parameters

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

Table 4-484 Request body parameters

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

Table 4-485 VaultBackup

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

Table 4-486 CheckpointParam

Parameter	Mandatory	Type	Description
auto_trigger	No	Boolean	Whether automatic triggering is enabled. Possible values are **true** (yes) and **false** (no).
description	No	String	Backup description
incremental	No	Boolean	Whether the backup is an incremental backup. Possible values are **true** (yes) and **false** (no).
name	No	String	Backup name, which can contain only digits, letters, underscores (_), and hyphens (-)

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Parameter	Mandatory	Type	Description
resources	No	Array of strings	UUID list of resources to be backed up
resource_details	No	Array of **Resource** objects	Resource details

Table 4-487 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
name	No	String	Name of the resource to be backed up. The value consists of 0 to 255 characters.
type	Yes	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**

Table 4-488 ResourceExtraInfo

Parameter	Mandatory	Type	Description
exclude_volumes	No	Array of strings	IDs of the disks that will not be backed up. This parameter is used when servers are added to a vault, which include all server disks. But some disks do not need to be backed up. Or in case that a server was previously added and some disks on this server do not need to be backed up.

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Response Parameters

Status code: 200

Table 4-489 Response body parameters

Parameter	Type	Description
checkpoint	**CheckpointCreate** object	Restore point information

Table 4-490 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
vault	**CheckpointPlanCreate** object	Vault information
extra_info	**CheckpointExtraInfoResp** object	Extended information

Table 4-491 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

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Table 4-492 CheckpointResourceResp

Parameter	Type	Description
extra_info	String	Extra information of the resource
id	String	ID of the resource to be backed up
name	String	Name of the resource to be backed up
protect_status	String	Protected status
resource_size	String	Allocated capacity for the associated resource, in GB
type	String	Type of the resource to be backed up, which can be **OS::Nova::Server**, **OS::Cinder::Volume**, **OS::Ironic::BareMetalServer**, **OS::Native::Server**, **OS::Sfs::Turbo**, or **OS::Workspace::DesktopV2**
backup_size	String	Backup size
backup_count	String	Number of backups

Table 4-493 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 4-494 CheckpointExtraInfoResp

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

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Example Requests

Automatically backing up a vault and generating a restore point

```
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

OK

```
{
  "checkpoint" : {
    "status" : "protecting",
    "created_at" : "2019-05-10T07:59:12.733+00:00",
    "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	OK

Error Codes

See **Error Codes**.

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4.13 Metering

4.13.1 Querying Capacity Statistics

Function

Querying Capacity Statistics

Debugging

You can debug this API through automatic authentication in **API Explorer** or use the SDK sample code generated by API Explorer.

URI

GET /v3/{project_id}/storage_usage

Table 4-495 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 4-496 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried
offset	No	Integer	Offset value
resource_id	No	String	Support for filtering by backup object resource ID
resource_type	No	String	Filtering based on the backup object type is supported.

Request Parameters

None

Response Parameters

Status code: 200

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Table 4-497 Response body parameters

Parameter	Type	Description
resource_count	Integer	Number of resources that meet the filter criteria
storage_usage	Array of **StorageUsage** objects	Capacity statistics

Table 4-498 StorageUsage

Parameter	Type	Description
backup_count	Integer	Number of backups
backup_size	Integer	Backup capacity
resource_id	String	Resource ID
resource_name	String	Resource name
resource_type	String	Resource type
backup_size_multiaz	Integer	Multi-AZ backup size

Example Requests

None

Example Responses

Status code: 200

OK

```
{
  "storage_usage" : [ {
    "resource_name" : "ECS_name",
    "resource_id" : "89d466e5-b7f9-4e45-807a-d5f17f44fc84",
    "backup_size" : 0,
    "backup_count" : 1,
    "resource_type" : "OS::Nova::Server",
    "backup_size_multiaz" : 0
  } ],
  "resource_count" : 1
}
```

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Status Codes

Status Code	Description
200	OK

Error Codes

See **Error Codes**.

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5 Application Cases

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 **Calling APIs**.

Constraints

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

Involved APIs

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

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

Procedure

1. Create a vault.
   a. Create a vault with simple configurations.
      - API
        URI format: POST /v3/{project_id}/vaults
        For details, see **Creating a Vault**.
      - Sample request
        POST: https://*{endpoint}*/v3/{project_id}/vaults

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

Body:

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

- Sample response

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

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

- API

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

  The used API is the same as that provided in **1.a**.

- Sample request

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

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

  Body:

```
{
   "vault": {
         "billing": {
               "cloud_type": "public",
```

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


c. Record the vault ID in the response body.

2. Associate a server or disk with the vault.

a. Associate resources.

- API

  URI format: POST /v3/{project_id}/vaults/{vault_id}/addresources

  For details, see **Associating Resources**.

- Sample request

  POST: https://{endpoint}/v3/0605767b5780d5762fc5c0118072a56*4* / vaults/ea7b8717-2543-478a-a92d-3ca7ee448f67/addresources

  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

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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",
```

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```
        "vault": null,
        "created_at": "2020-08-17T06:49:06.260790",
        "extra_info": null
    }
}
```

5.2 Example 2: Implementing Automatic Backup for a Vault

Scenarios

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

Involved APIs

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

Procedure

1. Create a backup policy.
   - API

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

     For details, see **Creating a Policy**.
   - Sample request

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

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

     Body:

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

     ```
     {
        "policy": {
           "id": "30d7cf2d-14fc-415b-b7da-858b37f47250",
           "name": "dh_test_policy",
           "operation_type": "backup",
           "operation_definition": {
              "retention_duration_days": 30
           },
           "enabled": true,
     ```

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

2. Apply the policy to a vault.
   - API

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

     For details, see **Applying a Policy to a Vault**.
   - Sample request

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

     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**.

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- 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_lld": 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_lld": 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
}
```

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6 Permissions Policies and Supported Actions

6.1 Introduction

You can use Identity and Access Management (IAM) for fine-grained permissions management of your CBR resources. If your Huawei Cloud account does not need individual IAM users, you can skip this section.

New IAM users do not have any permissions assigned by default. You need to first add them to one or more groups and attach policies or roles to these groups. The users then inherit permissions from the groups and can perform specified operations on cloud services based on the permissions they have been assigned.

You can grant users permissions using roles and policies. Roles are provided by IAM to define service-based permissions that match user's job responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

NOTE

If you want to allow or deny the access to an API, use policy-based authorization.

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

Supported Actions

CBR provides system-defined policies that can be directly used in IAM. You can also create custom policies to supplement system-defined policies for more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

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- Permissions: statements in a policy that allow or deny certain operations
- APIs: REST APIs that can be called by a user who has been granted specific permissions
- Actions: specific operations that are allowed or denied
- Dependencies: actions which a specific action depends on. When allowing an action for a user, you also need to allow any existing action dependencies for that user.
- IAM projects/Enterprise projects: the authorization scope of a custom policy. Policies that contain actions for both IAM and enterprise projects can be used and applied for both IAM and Enterprise Management. Policies that contain actions only for IAM projects can be used and applied to IAM only. For details about the differences between IAM and enterprise management, see **Differences Between IAM and Enterprise Management**.

NOTE

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

CBR supports the following actions in custom policies:

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

6.2 Category of CBR Actions

Task

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

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Protection

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

Vault

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

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
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	-	√	√
Dissociating resources	POST /v3/{project_id}/vaults/{vault_id}/removeresources	cbr:vaults:removeResources	-	√	√
Associating resources	POST /v3/{project_id}/vaults/{vault_id}/addresources	cbr:vaults:addResources	ecs:cloudServers:list evs:volumes:list	√	√
Querying the vault list	GET /v3/{project_id}/vaults	cbr:vaults:list	-	√	√
Creating a vault	POST /v3/{project_id}/vaults	cbr:vaults:create	ecs:cloudServers:list evs:volumes:list	√	√
Querying the vault list in other regions	GET /v3/{project_id}/external_vaults	cbr:vaults:listExternalVaults	cbr:vaults:listVaults	√	√
Removing a policy from a vault	POST /v3/{project_id}/vaults/{vault_id}/dissociatepolicy	cbr:vaults:dissociatePolicy	-	√	√

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Migrating a resource	POST /v3/{project_id}/vaults/{vault_id}/migrateresources	cbr:vaults:migrateResources	cbr:vaults:addResources	√	√

Restore Point

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Synchronizing a restore point	POST /v3/{project_id}/checkpoints/sync	cbr:vaults:sync	-	√	√
Replicating a restore point	POST /v3/{project_id}/checkpoints/replicate	cbr:vaults:replicate	-	√	√
Creating a restore point	POST /v3/{project_id}/checkpoints	cbr:vaults:backup	ecs:cloudServers:list evs:volumes:list	√	√

Backup Sharing

Permission	API	Action	IAM Project	Enterprise Project
Creating a share member	POST /v3/{project_id}/backups/{backup_id}/members	cbr:member:create	√	√
Updating the share member status	PUT /v3/{project_id}/backups/{backup_id}/members/{member_id}	cbr:member:update	√	√

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Permission	API	Action	IAM Project	Enterprise Project
Querying a specified share member	GET /v3/{project_id}/backups/{backup_id}/members/{member_id}	cbr:member:get	√	√
Querying the share member list	GET /v3/{project_id}/backups/{backup_id}/members	cbr:member:list	√	√
Deleting a share member	DELETE /v3/{project_id}/backups/{backup_id}/members/{member_id}	cbr:member:delete	√	√

Backup

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Listing backups	GET /v3/{project_id}/backups	cbr:backups:list	-	√	√
Querying a specified backup	GET /v3/{project_id}/backups/{backup_id}	cbr:backups:get	-	√	√
Deleting a backup	DELETE /v3/{project_id}/backups/{backup_id}	cbr:backups:delete	-	√	√
Synchronizing a backup	POST /v3/{project_id}/backups/sync	cbr:backups:sync	-	√	√

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Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Restoring from a backup	POST /v3/{project_id}/backups/{backup_id}/restore	cbr:backups:restore	ecs:cloudServers:list evs:volumes:list	√	√
Replicating a backup	POST /v3/{project_id}/backups/{backup_id}/replicate	cbr:backups:replicate	-	√	√
Updating a backup	PUT /v3/{project_id}/backups/{backup_id}	cbr:backups:update	-	√	√
Querying backup metadata	GET /v3/{project_id}/backups/{backup_id}/metadata	cbr:backups:getMetadata	-	√	√

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 specified policy	GET /v3/{project_id}/policies/{policy_id}	cbr:policies:get	√	√
Updating a policy	PUT /v3/{project_id}/policies/{policy_id}	cbr:policies:update	√	√

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

Organizational Policy

Permission	API	Action	IAM Project	Enterprise Project
Creating an organization policy	POST /v3/{project_id}/organization-policies	cbr:organizationPolicies:create	√	√
Querying the organizational policy list	GET /v3/{project_id}/organization-policies	cbr:organizationPolicies:list	√	√
Querying a specified organizational policy	GET /v3/{project_id}/organization-policies/{organization_policy_id}	cbr:organizationPolicies:get	√	√
Deleting an organization policy	DELETE /v3/{project_id}/organization-policies/{organization_policy_id}	cbr:organizationPolicies:delete	√	√
Updating an organization policy	PUT /v3/{project_id}/organization-policies/{organization_policy_id}	cbr:organizationPolicies:update	√	√

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Tag

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

Client

Permission	API	Action	IAM Project	Enterprise Project
Registering a client	POST /v3/{project_id}/agents	cbr:agents:register	√	√
Querying a client	GET /v3/{project_id}/agents/{agent_id}	cbr:agents:get	√	√

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Permission	API	Action	IAM Project	Enterprise Project
Listing clients	GET /v3/{project_id}/agents	cbr:agents:list	√	√
Removing a client	DELETE /v3/{project_id}/agents/{agent_id}	cbr:agents:delete	√	√
Updating a client	PUT /v3/{project_id}/agents/{agent_id}	cbr:agents:update	√	√
Removing a file path	POST /v3/{project_id}/agents/{agent_id}/remove-path	cbr:agents:removePath	√	√
Adding a file path	POST /v3/{project_id}/agents/{agent_id}/add-path	cbr:agents:addPath	√	√

Metering

Permission	API	Action	IAM Project	Enterprise Project
Querying the storage usage	GET /v3/{project_id}/storage_usage	cbr:backups:listStorageUsage	√	√

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Operation

Permission	API	Action	IAM Project	Enterprise Project
Updating vault orders	PUT /v3/{project_id}/orders/{order_id}	cbr:vaults:updateOrder	√	√

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7 Appendix

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.
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.

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Status Code	Description
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

If an error code starting with **APIGW** is returned after you call an API, rectify the fault by referring to the instructions provided in **API Gateway Error Codes**.

Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.0001	No resource is available for backup.	No resource is available for backup.	Check whether resources are being backed up or contact technical support.
400	BackupService.1011	The destination project does not support replication.	The destination project does not support replication.	Contact technical support.
400	BackupService.1012	The maximum number of backup replicas has been reached.	The maximum number of backup replicas has been reached.	Check whether the maximum number of backup replicas for the resource has been reached.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.2001	Restoration cannot be executed because the size of the disk on the server is smaller than the backup size.	Restoration cannot be executed because the size of the disk on the server is smaller than the backup size.	Perform the operation according to the constraints.
400	BackupService.2002	The resource is being backed up. Restore the resource after the backup is complete.	The resource is being backed up. Restore the resource after the backup is complete.	Perform the operation according to the constraints.
400	BackupService.2003	Restoration to a different server is not allowed.	Restoration to a different server is not allowed.	Perform the operation according to the constraints.
400	BackupService.2004	Backup replicas cannot be used for restoration.	Backup replicas cannot be used for restoration.	Perform the operation according to the constraints.
400	BackupService.2005	Restoration is not allowed in the current backup status.	Restoration is not allowed in the current backup status.	Perform the operation according to the constraints.
400	BackupService.2006	An ECS backup cannot be restored to a BMS.	An ECS backup cannot be restored to a BMS.	Perform the operation according to the constraints.
400	BackupService.2007	A terminated ECS cannot be restored.	A terminated ECS cannot be restored.	Ensure that the ECS status is available and then perform backups.
400	BackupService.2008	Restoration is not allowed in the current ECS status.	Restoration is not allowed in the current ECS status.	Check the ECS status.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.2009	Restoration is not allowed in the current disk type.	Restoration is not allowed in the current disk type.	Perform the operation according to the constraints.
400	BackupService.2010	The resource is being restored.	The resource is being restored.	Try again later.
400	BackupService.2011	Restoration is not allowed in the current disk status.	Restoration is not allowed in the current disk status.	Check the disk status.
400	BackupService.2012	Restoration of some disks is not allowed.	Restoration of some disks is not allowed.	Contact technical support.
400	BackupService.2013	Backup data of a data disk cannot be restored to a system disk.	Backup data of a data disk cannot be restored to a system disk.	Use valid values for restoration parameters.
400	BackupService.2014	A BMS backup cannot be restored to an ECS.	A BMS backup cannot be restored to an ECS.	Select a proper backup for restoration.
400	BackupService.2015	Restoration is not allowed between different architectures.	Restoration is not allowed between different architectures.	Select a proper architecture for restoration.
400	BackupService.4002	Migration failed.	Migration failed.	Try again later.
400	BackupService.4003	Migrated tenants cannot use CSBS and VBS.	Migrated tenants cannot use CSBS and VBS.	Use the new service.
400	BackupService.6001	The maximum number of this type of policies has been reached.	The maximum number of this type of policies has been reached.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6003	The destination region cannot be changed because the policy has been applied to a replication vault.	The destination region cannot be changed because the policy has been applied to a replication vault.	Remove the policy from the vault and try again.
400	BackupService.6100	The maximum number of vault resources has been reached.	The maximum number of vault resources has been reached.	Create a new vault and associate resources with the new vault.
400	BackupService.6101	Invalid vault capacity.	Invalid vault capacity.	Use valid values for vault parameters.
400	BackupService.6102	The vault does not support this resource type.	The vault does not support this resource type.	Use valid values for vault type parameters.
400	BackupService.6103	The resource has been associated with a vault.	The resource has been associated with a vault.	Use valid values for resource parameters.
400	BackupService.6104	Duplicate vault resources.	Duplicate vault resources.	Use valid values for resource parameters.
400	BackupService.6106	The vault already exists.	The vault already exists.	Use valid values for vault parameters.
400	BackupService.6107	Vault capacity expansion failed.	Vault capacity expansion failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6108	New resources cannot be associated with the vault.	New resources cannot be associated with the vault.	Try again. If the fault persists, contact technical support.
400	BackupService.6109	The bill does not exist.	The bill does not exist.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6110	The vault cannot be updated.	The vault cannot be updated.	Try again. If the fault persists, contact technical support.
400	BackupService.6111	The vault cannot be deleted.	The vault cannot be deleted.	Try again. If the fault persists, contact technical support.
400	BackupService.6112	Invalid vault status.	Invalid vault status.	Perform the operation in the correct status.
400	BackupService.6113	Backup is not allowed in the current vault status.	Backup is not allowed in the current vault status.	Perform the operation in the correct status.
400	BackupService.6114	The used capacity of the vault exceeds the maximum capacity.	The used capacity of the vault exceeds the maximum capacity.	Use vaults properly.
400	BackupService.6115	Failed to delete the backups of vault resources.	Failed to delete the backups of vault resources.	Try again. If the fault persists, contact technical support.
400	BackupService.6116	Unsupported resource type.	Unsupported resource type.	Enter a valid **protect type** value.
400	BackupService.6117	Unknown policy type.	Unknown policy type.	Enter a valid **OperationType** value.
400	BackupService.6118	Failed to check the destination vault.	Failed to check the destination vault.	Try again. If the fault persists, contact technical support.
400	BackupService.6119	The destination vault does not support replication.	The destination vault does not support replication.	Check whether the destination vault supports replication.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6120	The destination vault does not exist.	The destination vault does not exist.	Check whether the destination vault exists.
400	BackupService.6121	Vault deletion failed.	Vault deletion failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6122	The resource type does not support replication.	The resource type does not support replication.	Check whether the resource type supports replication.
400	BackupService.6123	Capacity expansion failed. There may be unprocessed capacity expansion orders or capacity expansion is in progress.	Capacity expansion failed. There may be unprocessed capacity expansion orders or capacity expansion is in progress.	Try again. If the fault persists, contact technical support.
400	BackupService.6124	Backup is not allowed for the current type of vaults.	Backup is not allowed for the current type of vaults.	Use different types of vaults properly.
400	BackupService.6125	A backup task is in progress.	A backup task is in progress.	Perform backups after the current backup task is complete.
400	BackupService.6126	Database backup is not allowed for this vault.	Database backup is not allowed for this vault.	Use different types of vaults properly.
400	BackupService.6127	This policy cannot be applied to this vault.	This policy cannot be applied to this vault.	Use different types of vaults properly.
400	BackupService.6128	Replication is not allowed for the current type of vaults.	Replication is not allowed for the current type of vaults.	Use a proper type of vault for replication.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6129	The maximum capacity of the destination vault has been reached.	The maximum capacity of the destination vault has been reached.	Expand the vault capacity and then perform this operation.
400	BackupService.6130	The vault is being replicated.	The vault is being replicated.	Try again later.
400	BackupService.6131	The traffic record does not exist.	The traffic record does not exist.	Contact technical support.
400	BackupService.6133	The maximum number of vaults has been reached.	The maximum number of vaults has been reached.	Contact technical support.
400	BackupService.6134	Resources are being removed from the vault.	Resources are being removed from the vault.	Try again later.
400	BackupService.6135	The resource does not exist in the vault.	The resource does not exist in the vault.	Check whether the resource has been associated with the vault.
400	BackupService.6136	Backup policies cannot be applied with hybrid cloud backup vaults.	Backup policies cannot be applied with hybrid cloud backup vaults.	Contact technical support.
400	BackupService.6140	An encrypted disk cannot be specified as a system disk.	An encrypted disk cannot be specified as a system disk.	Perform the operation according to the constraints.
400	BackupService.6141	A SCSI disk cannot be specified as a system disk.	A SCSI disk cannot be specified as a system disk.	Perform the operation according to the constraints.
400	BackupService.6142	Maximum capacities of all vaults have been reached.	Maximum capacities of all vaults have been reached.	Expand vault capacities and try again.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6201	The backup cannot be deleted.	The backup cannot be deleted.	Try again. If the fault persists, contact technical support.
400	BackupService.6202	Backups can be used for restoration only when the vault status is Available.	Backups can be used for restoration only when the vault status is Available.	Perform the operation in the correct status.
400	BackupService.6203	Performing backups.	Performing backups.	Perform backups after the current task is complete.
400	BackupService.6204	The backup cannot be deleted because it has been used to create an image.	The backup cannot be deleted because it has been used to create an image.	Delete the created image and then delete the backup.
400	BackupService.6205	The resource has backups in the old service.	The resource has backups in the old service.	Contact technical support.
400	BackupService.6206	Metadata query is not allowed in the current backup status.	Metadata query is not allowed in the current backup status.	Try again later.
400	BackupService.6215	Backup is not allowed in the current resource status.	Backup is not allowed in the current resource status.	Check whether the resource can be backed up in the current statue.
400	BackupService.6216	The backup cannot be deleted because it is in use.	The backup cannot be deleted because it is in use.	Try again later.
400	BackupService.6300	The resource type and backup provider do not match.	The resource type and backup provider do not match.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6301	Invalid backup provider ID.	Invalid backup provider ID.	Use a valid provider ID.
400	BackupService.6400	Bucket creation failed.	Bucket creation failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6401	Failed to set the bucket quota.	Failed to set the bucket quota.	Try again. If the fault persists, contact technical support.
400	BackupService.6403	Failed to obtain bucket storage information.	Failed to obtain bucket storage information.	Try again. If the fault persists, contact technical support.
400	BackupService.6404	Bucket deletion failed.	Bucket deletion failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6405	Bucket object deletion failed.	Bucket object deletion failed.	Try again. If the fault persists, contact technical support.
400	BackupService.6406	Failed to list bucket objects.	Failed to list bucket objects.	Try again. If the fault persists, contact technical support.
400	BackupService.6407	Failed to set the bucket ACL.	Failed to set the bucket ACL.	Try again. If the fault persists, contact technical support.
400	BackupService.6408	Failed to set the bucket policy.	Failed to set the bucket policy.	Try again. If the fault persists, contact technical support.
400	BackupService.6600	The maximum number of tags has been reached for the resource.	The maximum number of tags has been reached for the resource.	Delete some tags and try again.
400	BackupService.6700	Only cloud server backups can be shared.	Only cloud server backups can be shared.	Share cloud server backups.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6701	The maximum number of backups that can be shared has been reached.	The maximum number of backups that can be shared has been reached.	Check whether the maximum number of backups that can be shared has been reached.
400	BackupService.6702	Only backups in the Available status can be shared.	Only backups in the Available status can be shared.	Share backups that are in the Available status.
400	BackupService.6703	The backup has been shared.	The backup has been shared.	Check whether the backup has already been shared to a user.
400	BackupService.6704	Invalid project ID of the tenant for sharing.	Invalid project ID of the tenant for sharing.	Use a correct project ID for sharing.
400	BackupService.6706	Invalid update parameter value for the share member.	Invalid update parameter value for the share member.	Use valid values for update parameters.
400	BackupService.6707	Backup sharing is not allowed.	Backup sharing is not allowed.	Check whether backup sharing is supported.
400	BackupService.6708	Failed to update the status of a share member.	Failed to update the status of a share member.	Contact technical support.
400	BackupService.6709	Backup sharing is not allowed for cloud servers using encrypted disks.	Backup sharing is not allowed for cloud servers using encrypted disks.	Perform the operation according to the constraints.
400	BackupService.6710	The shared backup has been used to register an image.	The shared backup has been used to register an image.	Delete the image first.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.6711	Shared backup deletion failed.	Shared backup deletion failed.	Contact technical support.
400	BackupService.6712	Backup sharing is not allowed in the current vault status.	Backup sharing is not allowed in the current vault status.	Perform the operation according to the constraints.
400	BackupService.6713	The type of the vault accepting the shared backup and the backup resource type are different.	The type of the vault accepting the shared backup and the backup resource type are different.	The vault type and resource type must be the same.
400	BackupService.6714	A shared backup cannot be shared to the same member again.	A shared backup cannot be shared to the same member again.	Perform the operation according to the constraints.
400	BackupService.7001	DESS disks cannot be backed up.	DESS disks cannot be backed up.	Perform the operation according to the constraints.
400	BackupService.7002	SCSI disks cannot be backed up.	SCSI disks cannot be backed up.	Perform the operation according to the constraints.
400	BackupService.7003	Backup is not allowed in the current disk status.	Backup is not allowed in the current disk status.	Perform the operation in the correct status.
400	BackupService.7004	Backup or restoration is not allowed for this disk.	Backup or restoration is not allowed for this disk.	Contact technical support.
400	BackupService.7005	The disk has been associated with VBS.	The disk has been associated with VBS.	Dissociate the disk from VBS and then associate it with the vault.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.7006	The disk already exists in the vault.	The disk already exists in the vault.	Dissociate the disk from the vault and then perform this operation.
400	BackupService.7007	A disk created a long time ago cannot be backed up.	A disk created a long time ago cannot be backed up.	Replace the disk and perform backups.
400	BackupService.7008	Disks at the disaster recovery site cannot be restored.	Disks at the disaster recovery site cannot be restored.	Perform the operation in the correct status.
400	BackupService.7101	Backup is not allowed in the current server status.	Backup is not allowed in the current server status.	Perform the operation in the correct status.
400	BackupService.7102	The server has stopped.	The server has stopped.	Perform the operation in the correct status.
400	BackupService.7103	The server cannot be backed up.	The server cannot be backed up.	Contact technical support.
400	BackupService.7104	Backup is not allowed for servers using SCSI disks.	Backup is not allowed for servers using SCSI disks.	Detach the SCSI disks and then perform backups.
400	BackupService.7105	Inconsistent disk backends.	Inconsistent disk backends.	Contact technical support.
400	BackupService.7106	Shared disks cannot be backed up.	Shared disks cannot be backed up.	Perform the operation according to the constraints.
400	BackupService.7107	The maximum number of shared disks has been reached.	The maximum number of shared disks has been reached.	Exclude the shared disks and then perform backups.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.7108	Backup is not allowed for servers containing no disks.	Backup is not allowed for servers containing no disks.	Attach disks to the server and then perform backups.
400	BackupService.7109	BMSs cannot be backed up.	BMSs cannot be backed up.	Perform the operation according to the constraints.
400	BackupService.7110	The resource type and provider ID do not match.	The resource type and provider ID do not match.	Use a valid provider ID.
400	BackupService.7111	Backup is not allowed for servers using DESS disks.	Backup is not allowed for servers using DESS disks.	Detach DESS disks and then perform backups.
400	BackupService.7112	The server has been associated with CSBS.	The server has been associated with CSBS.	Dissociate the server from CSBS and associate it with the vault.
400	BackupService.7113	BMS local disks cannot be backed up.	BMS local disks cannot be backed up.	Exclude local disks and then perform backups.
400	BackupService.7114	Restoration to the source server running a different operating system is not allowed.	Restoration to the source server running a different operating system is not allowed.	Use valid values for restoration parameters.
400	BackupService.7115	The backup server and the destination server to be restored have different types.	The backup server and the destination server to be restored have different types.	Use valid values for restoration parameters.
400	BackupService.7116	The server has been associated with the vault.	The server has been associated with the vault.	Dissociate the server from the vault and then perform this operation.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.7117	Restoration is not allowed for disaster recovery site servers.	Restoration is not allowed for disaster recovery site servers.	Use valid values for restoration parameters.
400	BackupService.7200	Cloud databases are being backed up.	Cloud databases are being backed up.	Try again later.
400	BackupService.7201	The disk is not attached to any server.	The disk is not attached to any server.	Confirm and then try again.
400	BackupService.7203	The snapshot is not in the correct status.	The snapshot is not in the correct status.	Try again later.
400	BackupService.7204	The snapshot and disk do not match.	The snapshot and disk do not match.	Confirm and then try again.
400	BackupService.7300	The vault does not support synchronization.	The vault does not support synchronization.	Check whether the vault type supports synchronization.
400	BackupService.7301	The vault is not empty.	The vault is not empty.	Perform the operation according to the constraints.
400	BackupService.7302	Backups are being synchronized.	Backups are being synchronized.	Perform the operation according to the constraints.
400	BackupService.7303	The maximum number of vaults has been reached.	The maximum number of vaults has been reached.	Contact technical support.
400	BackupService.7501	SFS Turbo file systems are being backed up.	SFS Turbo file systems are being backed up.	Try again later.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.7502	Backup is not allowed in the current status of the SFS Turbo file system.	Backup is not allowed in the current status of the SFS Turbo file system.	Perform the operation in the correct status.
400	BackupService.7503	Backup is not allowed in the current sub-status of the SFS Turbo file system.	Backup is not allowed in the current sub-status of the SFS Turbo file system.	Perform the operation in the correct status.
400	BackupService.7504	Failed to freeze the SFS Turbo file system.	Failed to freeze the SFS Turbo file system.	Try again later.
400	BackupService.7505	Failed to unfreeze the SFS Turbo file system.	Failed to unfreeze the SFS Turbo file system.	Try again later.
400	BackupService.7506	Failed to execute tasks of the SFS Turbo file system.	Failed to execute tasks of the SFS Turbo file system.	Try again later or contact technical support.
400	BackupService.7507	Restoration is not allowed because the SFS Turbo file system is different from when it is backed up.	Restoration is not allowed because the SFS Turbo file system is different from when it is backed up.	Perform the operation in the correct status.
400	BackupService.7508	SFS Turbo file system pre-restoration failed.	SFS Turbo file system pre-restoration failed.	Try again. If the fault persists, contact technical support.
400	BackupService.7509	SFS Turbo file system restoration failed.	SFS Turbo file system restoration failed.	Try again. If the fault persists, contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	BackupService.7510	SFS Turbo backups can only be restored to original SFS Turbo file systems.	SFS Turbo backups can only be restored to original SFS Turbo file systems.	Restore to the original SFS Turbo file system.
400	BackupService.7511	Restoration is not allowed in the current status of the SFS Turbo file system.	Restoration is not allowed in the current status of the SFS Turbo file system.	Perform the operation in the correct status.
400	BackupService.8300	Insufficient snapshot quota.	Insufficient snapshot quota.	Increase quota and then try again.
400	BackupService.9900	Parameter verification failed.	Parameter verification failed.	Use valid parameter values.
403	BackupService.8600	Not authenticated.	Not authenticated.	Complete real-name authentication.
404	BackupService.4001	The migration record does not exist.	The migration record does not exist.	Provide a correct migration record ID.
404	BackupService.6000	The policy does not exist.	The policy does not exist.	Check whether the policy exists.
404	BackupService.6002	The vault is not applied with the policy.	The vault is not applied with the policy.	Apply the backup policy to the vault first.
404	BackupService.6105	The vault does not exist.	The vault does not exist.	Use valid values for vault parameters.
404	BackupService.6200	The backup does not exist.	The backup does not exist.	Check whether the backup exists.
404	BackupService.6217	The backup restore point does not exist.	The backup restore point does not exist.	Check whether the backup restore point exists.
404	BackupService.6302	The resource does not exist.	The resource does not exist.	Confirm the queried resource.

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Status Code	Error Code	Error Message	Description	Handling Measure
404	BackupService.6402	The bucket is not empty.	The bucket is not empty.	Delete backups and backup policies to empty the bucket.
404	BackupService.6500	The operation log does not exist.	The operation log does not exist.	Check whether the respective task exists.
404	BackupService.6501	The task does not exist.	The task does not exist.	Check whether the task exists.
404	BackupService.6601	The key does not exist.	The key does not exist.	Enter a correct key.
404	BackupService.6705	The share member does not exist.	The share member does not exist.	Check whether the share member exists.
404	BackupService.7000	The disk does not exist.	The disk does not exist.	Perform the operation according to the constraints.
404	BackupService.7100	The server does not exist.	The server does not exist.	Perform the operation in the correct status.
404	BackupService.7202	Failed to obtain the snapshot.	Failed to obtain the snapshot.	Confirm the query parameters.
404	BackupService.7500	The SFS Turbo file system does not exist.	The SFS Turbo file system does not exist.	Checks whether the SFS Turbo file system exists.
500	BackupService.0002	Resources are being backed up.	Resources are being backed up.	Try again later.
500	BackupService.1001	Replication is not allowed in the current backup status.	Replication is not allowed in the current backup status.	Check whether the backup status is Available.
500	BackupService.1002	Replication is not allowed for the current type of backups.	Replication is not allowed for the current type of backups.	Ensure that the image type is **backup** or **sync**.

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Status Code	Error Code	Error Message	Description	Handling Measure
500	BackupService.1003	Replication is not allowed because the backup source is not an ECS.	Replication is not allowed because the backup source is not an ECS.	Ensure that the backup source is an ECS.
500	BackupService.1004	Replication is not allowed because the source server of the backup does not contain any system disk.	Replication is not allowed because the source server of the backup does not contain any system disk.	Ensure that the server contains a system disk.
500	BackupService.1005	The destination region does not support replication.	The destination region does not support replication.	Check whether the current region supports replication.
500	BackupService.1006	Failed to import the backup replica.	Failed to import the backup replica.	Contact technical support.
500	BackupService.1007	Replication is not allowed because the system cannot identify whether the backup has been replicated to the destination region.	Replication is not allowed because the system cannot identify whether the backup has been replicated to the destination region.	Try again later.
500	BackupService.1008	Replication is not allowed because the system cannot detect the destination vault.	Replication is not allowed because the system cannot detect the destination vault.	Try again later.

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Status Code	Error Code	Error Message	Description	Handling Measure
500	BackupService.1009	The backup is being replicated or has been replicated to the destination region.	The backup is being replicated or has been replicated to the destination region.	Check whether the backup replica already exists in the destination region.
500	BackupService.1013	Replication is not allowed because the resource of the backup does not contain a system disk.	Replication is not allowed because the resource of the backup does not contain a system disk.	Select a proper backup for replication.
500	BackupService.4004	Failed to clean up data.	Failed to clean up data.	Try again later.
500	BackupService.4005	Failed to check the destination vault.	Failed to check the destination vault.	Try again later.
500	BackupService.4006	Failed to migrate the backup in an intermediate status.	Failed to migrate the backup in an intermediate status.	Try again later.
500	BackupService.4007	Failed to check the migration progress of other regions.	Failed to check the migration progress of other regions.	Try again later.
500	BackupService.6132	Vault creation failed.	Vault creation failed.	Try again. If the fault persists, contact technical support.
500	BackupService.6137	One disk on cloud servers cannot be backed up in multiple vaults.	One disk on cloud servers cannot be backed up in multiple vaults.	Associate servers using the same disk to the same vault.

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

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

7.3 Obtaining a Project ID

Scenarios

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

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

Obtain the Project ID by Calling an API

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

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

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

```
{
    "projects": [
        {
            "domain_id": "65ewtrgaggshhk1223245sghjlse684b",
            "is_domain": false,
            "parent_id": "65ewtrgaggshhk1223245sghjlse684b",
            "name": "project_name",
            "description": "",
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4adasfjljaaaakla12334jklga9sasfg"
            },
            "id": "a4adasfjljaaaakla12334jklga9sasfg",
            "enabled": true
```


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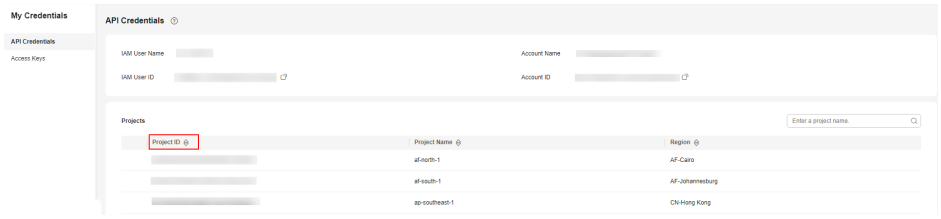
```
        }
    ],
    "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```

Obtain a Project ID from the Console

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

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

Figure 7-1 Viewing the project ID



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