

**Enterprise Router**

# **API Reference**

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# 1 Before You Start

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## 1.1 Overview

Welcome to *Enterprise Router API Reference*. An enterprise router connects virtual private clouds (VPCs) and on-premises networks to build a central hub network that features high-specification, high-bandwidth, and high-performance. Enterprise routers use the Border Gateway Protocol (BGP) to learn routes, dynamically select routes, or switch between connections, thereby significantly improving network scalability and O&M efficiency and ensuring service continuity.

A number of APIs are provided for you to perform operations on enterprise routers, such as creating an enterprise router, attaching an instance to an enterprise router, creating a route table, and adding routes. For details about all supported operations, see [API Overview](#).

## 1.2 API Calling

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

## 1.3 Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. To obtain the regions and endpoints, contact the enterprise administrator.

## 1.4 Constraints

The number of enterprise routers you can create is determined by your quota. To view or increase the quota, see section "Increasing Quotas" in the *Enterprise Router User Guide*.

For more constraints, see API description.

## 1.5 Concepts

- **Domain**

A domain has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The domain should not be used directly to perform routine management. For security purposes, create Identity and Access Management (IAM) users and grant them permissions for routine management.
- **User**

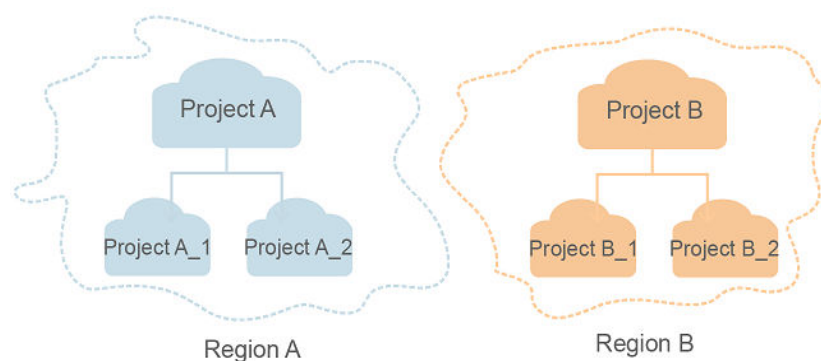
An IAM user is created by an account in IAM to use cloud services. Each IAM user has its own identity credentials (password and access keys).  
API authentication requires information such as the domain name, username, and password.
- **Region**

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

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

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

**Figure 1-1** Project isolation model



# 2 API Overview

Enterprise Router APIs allow you to use all Enterprise Router functions.

**Table 2-1** API description

Resource	Description
Enterprise router	Use APIs to query, create, update, or delete an enterprise router, or query the enterprise router list.
VPC attachment	Use APIs to query, create, update, or delete a VPC attachment, change the subnet of a VPC attachment, or query the VPC attachment list.
Other types of attachments (such as virtual gateway attachments)	Use APIs to query or update an attachment or query the attachment list.
Route table	Use APIs to query, create, update, or delete a route table, or query the route table list.
Association	Use APIs to create or delete an association, or query the association list.
Propagation	Use APIs to create or delete a propagation, or query the propagation list.
Route	Use APIs to query, add, update, or delete a static route, or query the static route list.
Tag	Use APIs to query project tags, or query, create, or delete resource tags.
Quota	Use APIs to query used quotas of enterprise routers and VPC attachments.



Resource	Description
AZ	Use APIs to query the list of AZs where enterprise routers can be created.
Flow log	Use APIs to create, query, enable, and disable flow logs.

# 3 Calling APIs

## 3.1 Making an API Request

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

### Request URI

A request URI is in the following format:

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

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

**Table 3-1** URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from the administrator.
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the <b>resource-path</b> of the API used to obtain a user token is <b>/v3/auth/tokens</b> .
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of <i>Parameter name=Parameter value</i> . For example, <b>?limit=10</b> indicates that a maximum of 10 data records will be displayed.

 NOTE

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

## Request Methods

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

**Table 3-2** HTTP methods

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

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

```
POST https://{{endpoint}}/v3/auth/tokens
```

## Request Header

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

Common request header fields are as follows.

**Table 3-3** Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of <i>Hostname:Port number</i> . If the port number is not specified, the default port is used. The default port number for <b>https</b> is <b>443</b> .	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the type (or format) of the message body. The default value <b>application/json</b> is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in <a href="#">Obtaining a Project ID</a> .	No	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 <b>X-Subject-Token</b> 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 API used to obtain a user token does not require authentication. Therefore, only the **Content-Type** field needs to be added to requests for calling the API. An example of such requests is as follows:

```
POST https://{{endpoint}}/v3/auth/tokens
Content-Type: application/json
```

## (Optional) Request Body

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

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

In the case of the API used to obtain a user token, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*, *domainname*, *\$ADMIN\_PASS* (login password), and *xxxxxxxxxxxxxxxxxxxx* (project name) with the actual values. Obtain a project name from the administrator.

 NOTE

The **scope** parameter specifies where a token takes effect. You can set **scope** to an account or a project under an account. In the following example, the token takes effect only for the resources in a specified project. For more information about this API, see "Obtaining a User Token".

```
POST https://{{endpoint}}/v3/auth/tokens
Content-Type: application/json

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

```
}  
}
```

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 avoid frequently calls to the API.

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

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

```
{  
  "auth": {  
    "identity": {  
      "methods": [  
        "password"  
      ],  
      "password": {  
        "user": {  
          "name": "username", // IAM user name  
          "password": "*****", // IAM user password  
          "domain": {  
            "name": "domainname" // Name of the account that the IAM user belongs to  
          }  
        }  
      }  
    },  
    "scope": {  
      "project": {  
        "name": "xxxxxxx" // Project name  
      }  
    }  
  }  
}
```

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

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

## AK/SK Authentication

You can use AK/SK encryption to verify the identity of a request sender. If you use the AK/SK for authentication, you must obtain the signature through the request signing process and add the signature to the headers of API requests.

### NOTE

AK: is a unique identifier associated with the SK, which is a unique identifier used together with an SK to sign requests cryptographically.

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

The following uses a demo project to show how to sign a request and use an HTTP client to send an HTTPS request.

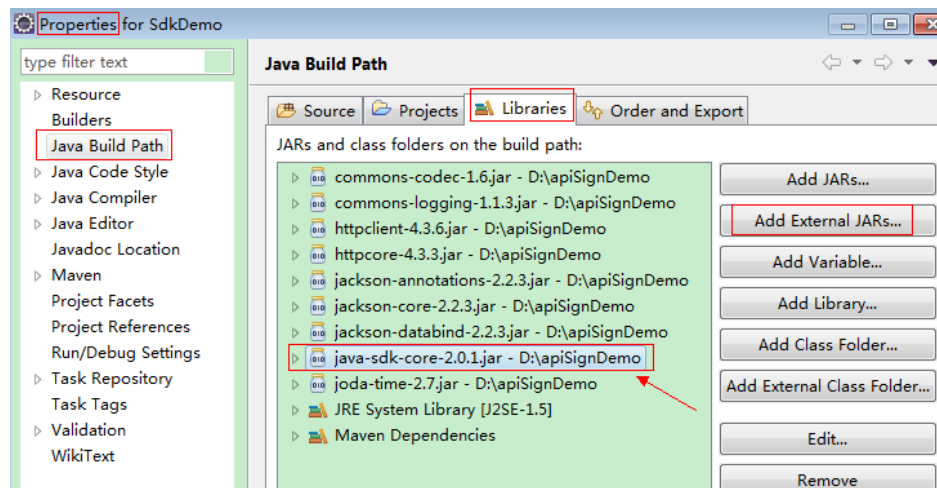
Download the demo project at <https://github.com/api-gate-way/SdkDemo>.

If you do not need the demo project, visit the following URL to download the API Gateway signing SDK:

Request an API Gateway signing SDK from the enterprise administrator.

Decompress the downloaded package to obtain a JAR file. Add the extracted JAR file to the project as a dependency package. The following figure displays an example.

**Figure 3-1** Introducing the API Gateway signing SDK



**Step 1** Generate an AK/SK. (If an AK/SK file has already been obtained, skip this step and locate the downloaded AK/SK file. Generally, the file name will be **credentials.csv**.)

1. Log in to the management console.
2. Hover the mouse over the username and select **My Credential** from the drop-down list.

3. On the **My Credentials** page, click the **Access Keys** tab.
4. Click **Add Access Key**.
5. Enter the login password.
6. Enter the verification code received by email.
7. Click **OK** to download the access key.

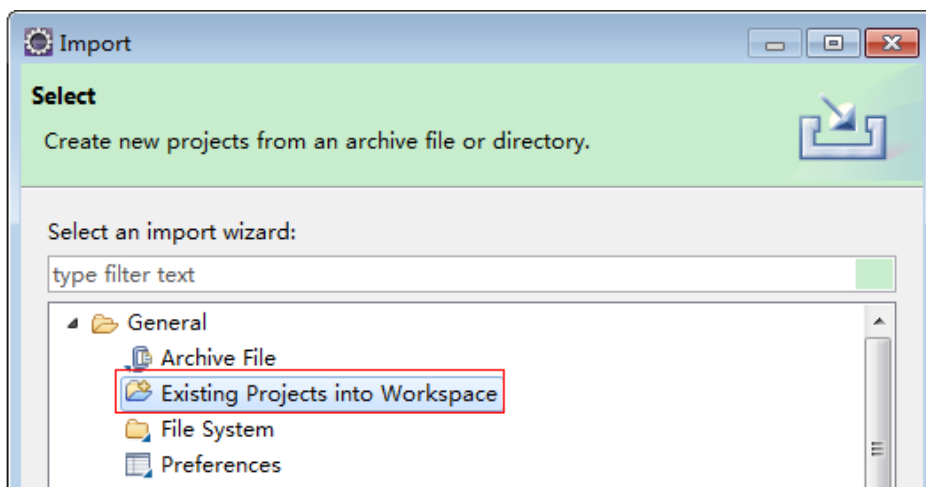
 **NOTE**

Keep the access key secure.

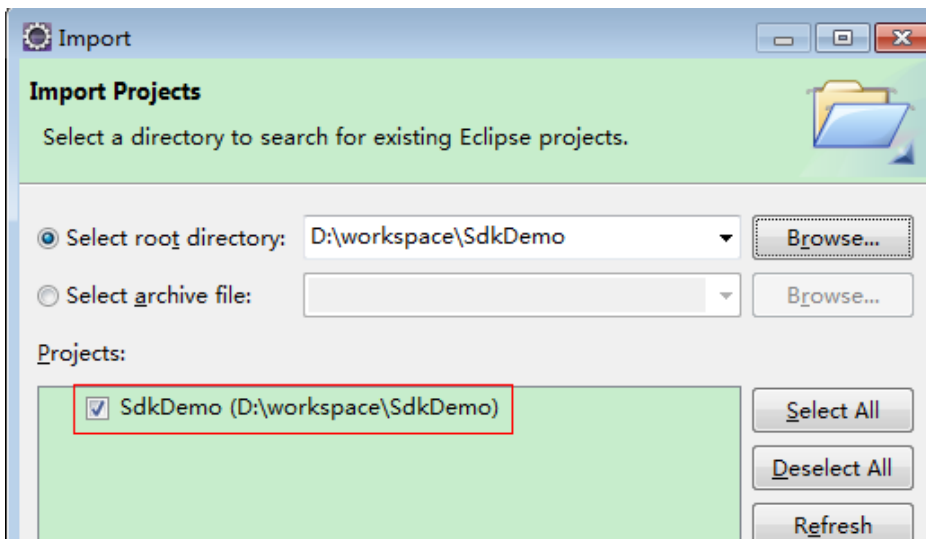
**Step 2** Download and decompress the demo project.

**Step 3** Import the demo project to Eclipse.

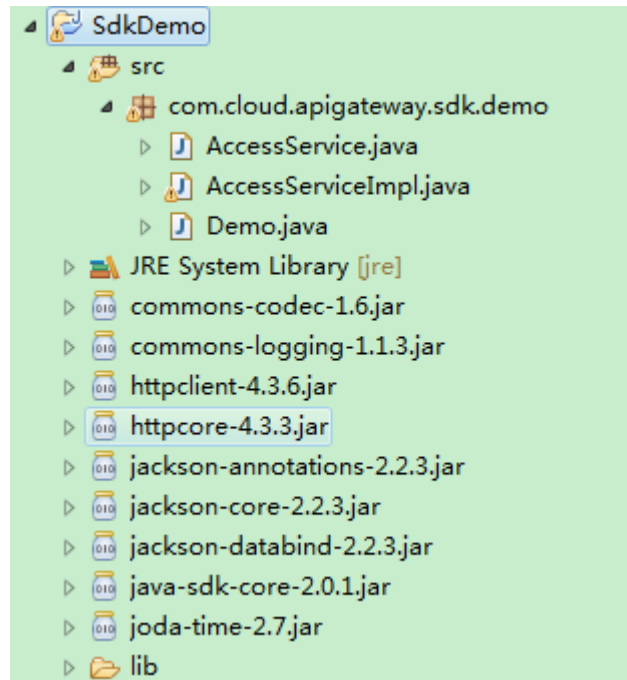
**Figure 3-2** Selecting Existing Projects into Workspace



**Figure 3-3** Selecting the demo project





**Figure 3-4** Structure of the demo project**Step 4** Sign the request.

The request signing method is integrated in the JAR files imported in [Step 3](#). Before you send the request, sign the requested content. The obtained signature will be included in the HTTP header of the request.

The demo code is classified into the following classes to demonstrate signing and sending the HTTP request:

- **AccessService**: An abstract class that merges the GET, POST, PUT, and DELETE methods into the **access** method.
- **Demo**: Execution entry used to simulate the sending of GET, POST, PUT, and DELETE requests.
- **AccessServiceImpl**: Implements the **access** method, which contains the code required for communication with API Gateway.

1. Edit the main method in the **Demo.java** file, and replace the bold text with actual values.

If you use other methods such as POST, PUT, and DELETE, see the corresponding comment.

Specify **region**, **serviceName**, **ak/sk**, and **url** as the actual values. In this demo, the URLs for accessing VPC resources are used.

To obtain the project ID in the URLs, see [Obtaining a Project ID](#).

To obtain the endpoint, contact the enterprise administrator.

```
//TODO: Replace region with the name of the region in which the service to be accessed is located.  
private static final String region = "";  
  
//TODO: Replace vpc with the name of the service you want to access. For example, ecs, vpc, iam,  
and elb.  
private static final String serviceName = "";  
  
public static void main(String[] args) throws UnsupportedEncodingException
```

```
{
//TODO: Replace the AK and SK with those obtained on the My Credentials page.
String ak = "ZIRRKMTWP*****1WKNKB";
String sk = "Us0mdMNHk*****YrRCnW0ecfzl";

//TODO: To specify a project ID (multi-project scenarios), add the X-Project-Id header.
//TODO: To access a global service, such as IAM, DNS, CDN, and TMS, add the X-Domain-Id header to
specify an account ID.
//TODO: To add a header, find "Add special headers" in the AccessServiceImple.java file.

//TODO: Test the API
String url = "https://{Endpoint}/v1/{project_id}/vpcs";
get(ak, sk, url);

//TODO: When creating a VPC, replace {project_id} in postUrl with the actual value.
//String postUrl = "https://serviceEndpoint/v1/{project_id}/cloudservers";
//String postbody = "{\"vpc\": {\"name\": \"vpc\", \"cidr\": \"192.168.0.0/16\"}}";
//post(ak, sk, postUrl, postbody);

//TODO: When querying a VPC, replace {project_id} in url with the actual value.
//String url = "https://serviceEndpoint/v1/{project_id}/vpcs/{vpc_id}";
//get(ak, sk, url);

//TODO: When updating a VPC, replace {project_id} and {vpc_id} in putUrl with the actual values.
//String putUrl = "https://serviceEndpoint/v1/{project_id}/vpcs/{vpc_id}";
//String putbody = "{\"vpc\": {\"name\": \"vpc1\", \"cidr\": \"192.168.0.0/16\"}}";
//put(ak, sk, putUrl, putbody);

//TODO: When deleting a VPC, replace {project_id} and {vpc_id} in deleteUrl with the actual values.
//String deleteUrl = "https://serviceEndpoint/v1/{project_id}/vpcs/{vpc_id}";
//delete(ak, sk, deleteUrl);
}
```

2. Compile the code and call the API.

In the **Package Explorer** area on the left, right-click **Demo.java** and choose **Run AS > Java Application** from the shortcut menu to run the demo code.

You can view API call logs on the console.

----End

## 3.3 Response

### Status Code

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

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

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

### Response Header

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

**Figure 3-5** shows the response header fields for the API used to obtain a user token. The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

**NOTE**

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

**Figure 3-5** Header fields of the response to the request for obtaining a user token

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

**(Optional) Response Body**

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

The following is part of the response body for the API used to obtain a user token.

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

```

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

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

In the response body, **error\_code** is an error code, and **error\_msg** provides information about the error.

# 4 APIs

---

## 4.1 Enterprise Routers

### 4.1.1 Creating an Enterprise Router

#### Function

This API is used to create an enterprise router. If both Default Route Table Association and Default Route Table Propagation are enabled, the system will create a route table as both the default association route table and the default propagation route table.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

POST /v3/{project\_id}/enterprise-router/instances

**Table 4-1** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

## Request Parameters

**Table 4-2** Request header parameters

Parameter	Mandatory	Type	Description
X-Client-Token	No	String	Idempotence identifier Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-3** Request body parameters

Parameter	Mandatory	Type	Description
instance	Yes	<b>CreateEnterpriseRouter</b> object	Enterprise router

**Table 4-4** CreateEnterpriseRouter

Parameter	Mandatory	Type	Description
name	Yes	String	Enterprise router name. The value can contain 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.). Minimum: <b>1</b> Maximum: <b>64</b>
description	No	String	Description of an enterprise router Minimum: <b>0</b> Maximum: <b>255</b>
asn	Yes	Long	Enterprise router BGP ASN
enterprise_project_id	No	String	Enterprise project ID
charge_mode	No	String	Billing mode (pay-per-use) Default: <b>postPaid</b>
tags	No	Array of <b>Tag</b> objects	Tag information

Parameter	Mandatory	Type	Description
enable_default_propagation	No	Boolean	Whether to enable Default Route Table Propagation. The default value is <b>false</b> , indicating that this option is disabled. Default: <b>false</b>
enable_default_association	No	Boolean	Whether to enable Default Route Table Association. The default value is <b>false</b> , indicating that this option is disabled. Default: <b>false</b>
availability_zone_ids	Yes	Array of strings	AZs where the enterprise router is located Minimum: <b>0</b> Maximum: <b>128</b>
auto_accept_shared_attachments	No	Boolean	Whether to enable Auto Accept Shared Attachments. The default value is <b>false</b> , indicating that this option is disabled. Default: <b>false</b>

Table 4-5 Tag

Parameter	Mandatory	Type	Description
key	No	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>._:=-@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>

Parameter	Mandatory	Type	Description
value	No	String	Tag value. <ul style="list-style-type: none"><li>• A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag value can be left blank or set to <b>null</b>.</li><li>• A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Response Parameters

Status code: 202

Table 4-6 Response header parameters

Parameter	Type	Description
X-Client-Token	String	Idempotence identifier

Table 4-7 Response body parameters

Parameter	Type	Description
instance	<a href="#">EnterpriseRouter</a> object	Enterprise router
request_id	String	Request ID

Table 4-8 EnterpriseRouter

Parameter	Type	Description
id	String	Enterprise router ID
name	String	Enterprise router name
description	String	Description of an enterprise router
state	String	Enterprise router status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , and <b>failed</b>

Parameter	Type	Description
tags	Array of <a href="#">Tag</a> objects	Tag information
charge_mode	String	Billing mode (pay-per-use) Default: <b>postPaid</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
enterprise_project_id	String	Enterprise project ID
project_id	String	Project ID
asn	Long	Enterprise router BGP ASN
enable_default_propagation	Boolean	Whether to enable Default Route Table Propagation. The default value is <b>false</b> , indicating that this option is disabled.
enable_default_association	Boolean	Whether to enable Default Route Table Association. The default value is <b>false</b> , indicating that this option is disabled.
default_propagation_route_table_id	String	Default propagation route table ID
default_association_route_table_id	String	Default association route table ID
availability_zone_ids	Array of strings	AZs where the enterprise router is located
auto_accept_shared_attachments	Boolean	Whether to enable Auto Accept Shared Attachments. The default value is <b>false</b> , indicating that this option is disabled.



**Table 4-9** Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>• A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag value can be left blank or set to <b>null</b>.</li><li>• A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Creating an enterprise router named **my\_er**, with Default Route Table Association and Default Route Table Propagation enabled

```
POST https://{router_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/instances
```

```
{
  "instance": {
    "name": "my_er",
    "description": "this is my first enterprise router",
    "asn": 64512,
    "enable_default_association": true,
    "enable_default_propagation": true,
    "tags": [ {
      "key": "key1",
      "value": "value1"
    } ],
    "availability_zone_ids": [ "az1", "az2" ]
  }
}
```

## Example Responses

**Status code: 202**

## Accepted

```
{
  "instance": {
    "id": "94c2b814-99dc-939a-e811-ae84c61ea3ff",
    "name": "my_er",
    "description": "this is my first enterprise router",
    "asn": 64512,
    "project_id": "08d5a9564a704afda6039ae2babbe3c",
    "enable_default_association": true,
    "enable_default_propagation": true,
    "default_association_route_table_id": "7f7f738f-453c-40b1-be26-28e7b9e390c1",
    "default_propagation_route_table_id": "7f7f738f-453c-40b1-be26-28e7b9e390c1",
    "auto_accept_shared_attachments": false,
    "created_at": "2019-09-06 02:11:13Z",
    "updated_at": "2019-09-06 02:11:13Z",
    "tags": [ {
      "key": "key1",
      "value": "value1"
    } ],
    "enterprise_project_id": 0,
    "availability_zone_ids": [ "az1", "az2" ]
  },
  "request_id": "14c2b814-99dc-939a-e811-ae84c61ea3f4"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.1.2 Updating an Enterprise Router

### Function

This API is used to update basic information about the enterprise router.

### Constraints

Information (except name and description) can be updated only when the enterprise router is in the available state.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /v3/{project\_id}/enterprise-router/instances/{er\_id}

**Table 4-10** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID

## Request Parameters

**Table 4-11** Request body parameters

Parameter	Mandatory	Type	Description
instance	No	<a href="#">UpdateEnterpriseRouter</a> object	Request body for updating an enterprise router

**Table 4-12** UpdateEnterpriseRouter

Parameter	Mandatory	Type	Description
name	No	String	Enterprise router name Minimum: <b>1</b> Maximum: <b>64</b>
description	No	String	Description of an enterprise router Minimum: <b>0</b> Maximum: <b>255</b>
enable_default_propagation	No	Boolean	Whether to enable Default Route Table Propagation.
enable_default_association	No	Boolean	Whether to enable Default Route Table Association.
default_propagation_route_table_id	No	String	Default propagation route table ID
default_association_route_table_id	No	String	Default association route table ID
auto_accept_shared_attachments	No	Boolean	Whether to enable Auto Accept Shared Attachments. The default value is <b>false</b> , indicating that this option is disabled.

## Response Parameters

Status code: 200

Table 4-13 Response body parameters

Parameter	Type	Description
instance	<a href="#">EnterpriseRouter</a> object	Enterprise router
request_id	String	Request ID

Table 4-14 EnterpriseRouter

Parameter	Type	Description
id	String	Enterprise router ID
name	String	Enterprise router name
description	String	Description of an enterprise router
state	String	Enterprise router status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , and <b>failed</b>
tags	Array of <a href="#">Tag</a> objects	Tag information
charge_mode	String	Billing mode (pay-per-use) Default: <b>postPaid</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
enterprise_project_id	String	Enterprise project ID
project_id	String	Project ID
asn	Long	Enterprise router BGP ASN
enable_default_propagation	Boolean	Whether to enable Default Route Table Propagation. The default value is <b>false</b> , indicating that this option is disabled.
enable_default_as_sociation	Boolean	Whether to enable Default Route Table Association. The default value is <b>false</b> , indicating that this option is disabled.

Parameter	Type	Description
default_propagation_route_table_id	String	Default propagation route table ID
default_association_route_table_id	String	Default association route table ID
availability_zone_ids	Array of strings	AZs where the enterprise router is located
auto_accept_shared_attachments	Boolean	Whether to enable Auto Accept Shared Attachments. The default value is <b>false</b> , indicating that this option is disabled.

**Table 4-15** Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>• A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag value can be left blank or set to <b>null</b>.</li><li>• A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Updating an enterprise router to enable Default Route Table Association and Default Route Table Propagation and specify route table

```
PUT https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/instances/  
94c2b814-99dc-939a-e811-ae84c61ea3ff
```

```
{  
  "instance": {  
    "enable_default_association": true,  
    "enable_default_propagation": true,  
    "default_propagation_route_table_id": "94c2b814-99dc-939a-e811-ae84c61ea3ff",  
    "default_association_route_table_id": "94c2b814-99dc-939a-e811-ae84c61ea3ff"  
  }  
}
```

## Example Responses

**Status code: 200**

OK

```
{  
  "instance": {  
    "id": "94c2b814-99dc-939a-e811-ae84c61ea3ff",  
    "name": "my_er",  
    "description": "this is my first enterprise router",  
    "project_id": "08d5a9564a704afda6039ae2babbe3c",  
    "state": "pending",  
    "asn": 64512,  
    "enable_default_association": true,  
    "enable_default_propagation": true,  
    "default_propagation_route_table_id": "94c2b814-99dc-939a-e811-ae84c61ea3ff",  
    "default_association_route_table_id": "94c2b814-99dc-939a-e811-ae84c61ea3ff",  
    "auto_accept_shared_attachments": false,  
    "availability_zone_ids": [ "az1" ],  
    "created_at": "2019-09-06 02:11:13Z",  
    "updated_at": "2019-09-06 02:11:13Z"  
  },  
  "request_id": "14c2b814-99dc-939b-e81c-ae84c61ea3f7"  
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.1.3 Querying Details About an Enterprise Router

### Function

This API is used to query details about an enterprise router.

### Calling Method

For details, see [Calling APIs](#).

## URI

GET /v3/{project\_id}/enterprise-router/instances/{er\_id}

**Table 4-16** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID

## Request Parameters

None

## Response Parameters

Status code: 200

**Table 4-17** Response body parameters

Parameter	Type	Description
instance	<a href="#">EnterpriseRouter</a> object	Enterprise router
request_id	String	Request ID

**Table 4-18** EnterpriseRouter

Parameter	Type	Description
id	String	Enterprise router ID
name	String	Enterprise router name
description	String	Description of an enterprise router
state	String	Enterprise router status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , and <b>failed</b>
tags	Array of <a href="#">Tag</a> objects	Tag information
charge_mode	String	Billing mode (pay-per-use) Default: <b>postPaid</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>

Parameter	Type	Description
updated_at	String	Update time in the format of YYYY-MM-DDTHH:MM:SS
enterprise_project_id	String	Enterprise project ID
project_id	String	Project ID
asn	Long	Enterprise router BGP ASN
enable_default_propagation	Boolean	Whether to enable Default Route Table Propagation. The default value is <b>false</b> , indicating that this option is disabled.
enable_default_association	Boolean	Whether to enable Default Route Table Association. The default value is <b>false</b> , indicating that this option is disabled.
default_propagation_route_table_id	String	Default propagation route table ID
default_association_route_table_id	String	Default association route table ID
availability_zone_ids	Array of strings	AZs where the enterprise router is located
auto_accept_shared_attachments	Boolean	Whether to enable Auto Accept Shared Attachments. The default value is <b>false</b> , indicating that this option is disabled.

**Table 4-19** Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_!:=+@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>



Parameter	Type	Description
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>._:=-@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Querying details about an enterprise router with a specified ID

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/enterprise-router/instances/08d5a9564a704afda6039ae2babbef3c
```

## Example Responses

Status code: 200

OK

```
{
  "instance": {
    "id": "94c2b814-99dc-939a-e811-ae84c61ea3ff",
    "name": "my_er",
    "description": "this is my first enterprise router",
    "project_id": "08d5a9564a704afda6039ae2babbef3c",
    "state": "pending",
    "asn": 64512,
    "enable_default_association": true,
    "enable_default_propagation": true,
    "default_association_route_table_id": "7f7f738f-453c-40b1-be26-28e7b9e390c1",
    "default_propagation_route_table_id": "7f7f738f-453c-40b1-be26-28e7b9e390c1",
    "auto_accept_shared_attachments": false,
    "availability_zone_ids": [ "az1" ],
    "created_at": "2019-09-06 02:11:13Z",
    "updated_at": "2019-09-06 02:11:13Z"
  },
  "request_id": "14c2b814-99dc-939b-e81c-ae84c61ea3f7"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.1.4 Querying Enterprise Routers

### Function

This API is used to query enterprise routers.

### Constraints

There are some constraints:

- Parameters **marker** and **limit** are used for pagination query. The two parameters take effect only when they are used together.
- Only sorting by a single field (**id**, **name**, **description**, **created\_at**, or **updated\_at**) is supported.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/instances

**Table 4-20** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

**Table 4-21** Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>
marker	No	String	ID of the last enterprise router on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>

Parameter	Mandatory	Type	Description
enterprise_project_id	No	Array of strings	Enterprise project ID
state	No	Array of strings	Resource status. Value options: <b>pending, available, modifying, deleting, deleted, failed</b> and <b>frozen</b>
id	No	Array of strings	Query by resource ID. Multiple resources can be queried at a time.
resource_id	No	Array of strings	Attachment resource IDs
owned_by_self	No	Boolean	Whether the resources belong to the current account. <ul style="list-style-type: none"><li>• If the value is <b>true</b>, the resources belong to the current account.</li><li>• If the value is <b>false</b>, the resources include those in the current account and those shared with the current account.</li></ul>
sort_key	No	Array of strings	Keyword for sorting. The keyword can be <b>id, name, or state</b> . By default, <b>id</b> is used.
sort_dir	No	Array of strings	Sorting order. There are two value options: <b>asc</b> (ascending order) and <b>desc</b> (descending order). The default value is <b>asc</b> .

## Request Parameters

None

## Response Parameters

Status code: 200

**Table 4-22** Response body parameters

Parameter	Type	Description
instances	Array of <a href="#">EnterpriseRouter</a> objects	Enterprise routers
page_info	<a href="#">PageInfo</a> object	Pagination query information
request_id	String	Request ID

**Table 4-23** EnterpriseRouter

Parameter	Type	Description
id	String	Enterprise router ID
name	String	Enterprise router name
description	String	Description of an enterprise router
state	String	Enterprise router status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , and <b>failed</b>
tags	Array of <a href="#">Tag</a> objects	Tag information
charge_mode	String	Billing mode (pay-per-use) Default: <b>postPaid</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
enterprise_project_id	String	Enterprise project ID
project_id	String	Project ID
asn	Long	Enterprise router BGP ASN
enable_default_propagation	Boolean	Whether to enable Default Route Table Propagation. The default value is <b>false</b> , indicating that this option is disabled.
enable_default_association	Boolean	Whether to enable Default Route Table Association. The default value is <b>false</b> , indicating that this option is disabled.

Parameter	Type	Description
default_propagation_route_table_id	String	Default propagation route table ID
default_association_route_table_id	String	Default association route table ID
availability_zone_ids	Array of strings	AZs where the enterprise router is located
auto_accept_shared_attachments	Boolean	Whether to enable Auto Accept Shared Attachments. The default value is <b>false</b> , indicating that this option is disabled.

Table 4-24 Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>• A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag value can be left blank or set to <b>null</b>.</li><li>• A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

**Table 4-25** PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.
current_count	Integer	Number of resources in the list

## Example Requests

- Querying two records in pagination

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/enterprise-router/instances?limit=2&marker=1
```

- Querying all enterprise routers

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/enterprise-router/instances
```

## Example Responses

**Status code: 200**

OK

```
{
  "instances": [ {
    "id": "94c2b814-99dc-939a-e811-ae84c61ea3ff",
    "name": "my_er",
    "description": "this is my first enterprise router",
    "asn": 64512,
    "project_id": "08d5a9564a704afda6039ae2babbef3c",
    "enable_default_association": true,
    "enable_default_propagation": true,
    "default_association_route_table_id": "7f7f738f-453c-40b1-be26-28e7b9e390c1",
    "default_propagation_route_table_id": "7f7f738f-453c-40b1-be26-28e7b9e390c1",
    "auto_accept_shared_attachments": false,
    "created_at": "2019-09-06 02:11:13Z",
    "updated_at": "2019-09-06 02:11:13Z",
    "tags": [ {
      "key": "key",
      "value": "value"
    } ],
    "enterprise_project_id": 0,
    "availability_zone_ids": [ "az1", "az2" ],
    "domain_id": "8c22c15f64ee4126b6849bb6a8152ac1"
  } ],
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9",
  "page_info": {
    "next_marker": "2",
    "current_count": 1
  }
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.1.5 Deleting an Enterprise Router

### Function

This API is used to delete an enterprise router.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /v3/{project\_id}/enterprise-router/instances/{er\_id}

**Table 4-26** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID

### Request Parameters

None

### Response Parameters

None

### Example Requests

Deleting an enterprise router

```
DELETE https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/enterprise-router/instances/94c2b814-99dc-939a-e811-ae84c61ea3ff
```

### Example Responses

None

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

# 4.2 VPC Attachments

## 4.2.1 Creating a VPC Attachment

### Function

This API is used to create a VPC attachment for an enterprise router.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/vpc-attachments

Table 4-27 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID

### Request Parameters

Table 4-28 Request header parameters

Parameter	Mandatory	Type	Description
X-Client-Token	No	String	Idempotence identifier Minimum: <b>1</b> Maximum: <b>64</b>



**Table 4-29** Request body parameters

Parameter	Mandatory	Type	Description
vpc_attachment	Yes	VpcAttachmentCreateRequest object	VPC attachment

**Table 4-30** VpcAttachmentCreateRequest

Parameter	Mandatory	Type	Description
vpc_id	Yes	String	VPC ID. The value contains a maximum of 36 characters in UUID format with hyphens (-).
name	Yes	String	VPC attachment name. The value can contain 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.). Minimum: <b>1</b> Maximum: <b>64</b>
virsubnet_id	Yes	String	VPC subnet ID. The value contains a maximum of 36 characters in UUID format with hyphens (-).
description	No	String	Description. The value can contain no more than 255 characters and cannot contain angle brackets (< or >). Minimum: <b>0</b> Maximum: <b>255</b>
auto_create_vpc_routes	No	Boolean	The default value is false. If the value is set to true, a route with the enterprise router as the next hop will be automatically added to the route tables of the VPC. Default: <b>false</b>
tags	No	Array of Tag objects	Tag information

Table 4-31 Tag

Parameter	Mandatory	Type	Description
key	No	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	No	String	Tag value. <ul style="list-style-type: none"><li>• A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag value can be left blank or set to <b>null</b>.</li><li>• A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Response Parameters

Status code: 202

Table 4-32 Response header parameters

Parameter	Type	Description
X-Client-Token	String	Idempotence identifier

**Table 4-33** Response body parameters

Parameter	Type	Description
vpc_attachment	<a href="#">VpcAttachmentDetails</a> object	VPC attachment
request_id	String	Request ID

**Table 4-34** VpcAttachmentDetails

Parameter	Type	Description
id	String	VPC attachment ID
name	String	VPC attachment name
vpc_id	String	VPC id
vpc_subnet_id	String	VPC subnet ID
auto_create_vpc_routes	Boolean	The default value is <b>false</b> . If this parameter is set to <b>true</b> , routes with this enterprise router as the next hop and 10.0.0.0/8, 172.16.0.0/12, and 192.168.0.0/16 as the destinations will be automatically added to the route tables of the VPC. Default: <b>false</b>
state	String	VPC attachment status. The value can be <b>pending, available, modifying, deleting, deleted, failed, initiating_request, rejected, pending_acceptance, freezed, or invalid</b> .
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <a href="#">Tag</a> objects	Tag information
description	String	Description of the VPC attachment
project_id	String	Project ID
vpc_project_id	String	ID of the project that the VPC belongs to
route_synchronization	<a href="#">RouteSynchronization</a> object	Route synchronization setting.

**Table 4-35** Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

**Table 4-36** RouteSynchronization

Parameter	Type	Description
route_synchronization_enable	Boolean	Whether to enable route synchronization.
vpc_route_table_type	String	VPC route table where routes are to be synchronized.
route_type	String	Type of the route to be synchronized.
conflict_policy	String	A conflict policy that specifies whether to synchronize routes with the same destination and next hop to the VPC route table.

## Example Requests

Creating a VPC attachment named **vpc-atta**, with the VPC subnet specified

```
POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/4ab54142-7c92-48ad-8288-77727a231052/vpc-attachments

{
  "vpc_attachment" : {
    "name" : "vpc-atta",
    "vpc_id" : "b715e131-3371-4e17-a2de-4f669e24439a",
    "virsubnet_id" : "aacdc21d-90f9-45ef-ab48-80ec1bbe15b8"
  }
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "vpc_attachment" : {
    "id" : "6f83b848-8331-4271-ac0c-ef94b7686402",
    "name" : "vpc-atta",
    "vpc_id" : "b715e131-3371-4e17-a2de-4f669e24439a",
    "virsubnet_id" : "aacdc21d-90f9-45ef-ab48-80ec1bbe15b8",
    "project_id" : "08d5a9564a704afda6039ae2babbe3c",
    "state" : "pending",
    "auto_create_vpc_routes" : false,
    "created_at" : "2020-03-11T15:13:31Z",
    "updated_at" : "2020-03-11T15:13:31Z"
  },
  "request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.2.2 Updating a VPC Attachment

### Function

This API is used to update basic information about a VPC attachment.

### Calling Method

For details, see [Calling APIs](#).

### URI

```
PUT /v3/{project_id}/enterprise-router/{er_id}/vpc-attachments/
{vpc_attachment_id}
```

**Table 4-37** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
vpc_attachment_id	Yes	String	VPC attachment ID

## Request Parameters

**Table 4-38** Request body parameters

Parameter	Mandatory	Type	Description
vpc_attachment	No	<a href="#">UpdateVpcAttachmentBody</a> object	Request body for updating VPC information

**Table 4-39** UpdateVpcAttachmentBody

Parameter	Mandatory	Type	Description
description	No	String	Description of the VPC attachment. The value contains a maximum of 36 characters in UUID format with hyphens (-). Minimum: <b>0</b> Maximum: <b>255</b>
name	No	String	VPC attachment name. The value can contain 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.). Minimum: <b>1</b> Maximum: <b>64</b>

## Response Parameters

**Status code: 200**

**Table 4-40** Response body parameters

Parameter	Type	Description
vpc_attachment	<a href="#">VpcAttachmentDetails</a> object	VPC attachment
request_id	String	Request ID

**Table 4-41** VpcAttachmentDetails

Parameter	Type	Description
id	String	VPC attachment ID
name	String	VPC attachment name
vpc_id	String	VPC id
vpc_subnet_id	String	VPC subnet ID
auto_create_vpc_routes	Boolean	The default value is <b>false</b> . If this parameter is set to <b>true</b> , routes with this enterprise router as the next hop and 10.0.0.0/8, 172.16.0.0/12, and 192.168.0.0/16 as the destinations will be automatically added to the route tables of the VPC. Default: <b>false</b>
state	String	VPC attachment status. The value can be <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>initiating_request</b> , <b>rejected</b> , <b>pending_acceptance</b> , <b>frozen</b> , or <b>invalid</b> .
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <a href="#">Tag</a> objects	Tag information
description	String	Description of the VPC attachment
project_id	String	Project ID
vpc_project_id	String	ID of the project that the VPC belongs to
route_synchronization	<a href="#">RouteSynchronization</a> object	Route synchronization setting.

**Table 4-42** Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

**Table 4-43** RouteSynchronization

Parameter	Type	Description
route_synchronization_enable	Boolean	Whether to enable route synchronization.
vpc_route_table_type	String	VPC route table where routes are to be synchronized.
route_type	String	Type of the route to be synchronized.
conflict_policy	String	A conflict policy that specifies whether to synchronize routes with the same destination and next hop to the VPC route table.

## Example Requests

Updating a VPC attachment (changing its name to **new-vpc-attach**)



```
PUT https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/
f1a28dfd-186f-4625-b6b1-f05e5e8609c0/vpc-attachments/3b9724e9-49ec-4d21-9191-3d703133b910

{
  "vpc_attachment" : {
    "name" : "new-vpc-attach"
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "vpc_attachment" : {
    "id" : "3b9724e9-49ec-4d21-9191-3d703133b910",
    "name" : "new-vpc-attach",
    "vpc_id" : "b715e131-3371-4e17-a2de-4f669e24439a",
    "virsubnet_id" : "aacdc21d-90f9-45ef-ab48-80ec1bbe15b8",
    "auto_create_vpc_routes" : false,
    "project_id" : "08d5a9564a704afda6039ae2babbe3c",
    "state" : "available",
    "created_at" : "2020-03-11T15:13:31Z",
    "updated_at" : "2020-03-11T15:13:31Z"
  },
  "request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.2.3 Querying Details About a VPC Attachment

### Function

This API is used to query details about a VPC attachment.

### Calling Method

For details, see [Calling APIs](#).

### URI

```
GET /v3/{project_id}/enterprise-router/{er_id}/vpc-attachments/
{vpc_attachment_id}
```

**Table 4-44** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
vpc_attachment_id	Yes	String	VPC attachment ID

## Request Parameters

None

## Response Parameters

Status code: 200

**Table 4-45** Response body parameters

Parameter	Type	Description
vpc_attachment	<a href="#">VpcAttachmentDetails</a> object	VPC attachment
request_id	String	Request ID

**Table 4-46** VpcAttachmentDetails

Parameter	Type	Description
id	String	VPC attachment ID
name	String	VPC attachment name
vpc_id	String	VPC id
virsubnet_id	String	VPC subnet ID
auto_create_vpc_routes	Boolean	The default value is <b>false</b> . If this parameter is set to <b>true</b> , routes with this enterprise router as the next hop and 10.0.0.0/8, 172.16.0.0/12, and 192.168.0.0/16 as the destinations will be automatically added to the route tables of the VPC. Default: <b>false</b>

Parameter	Type	Description
state	String	VPC attachment status. The value can be <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>initiating_request</b> , <b>rejected</b> , <b>pending_acceptance</b> , <b>frozen</b> , or <b>invalid</b> .
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <b>Tag</b> objects	Tag information
description	String	Description of the VPC attachment
project_id	String	Project ID
vpc_project_id	String	ID of the project that the VPC belongs to
route_synchronization	<b>RouteSynchronization</b> object	Route synchronization setting.

**Table 4-47** Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>

Parameter	Type	Description
value	String	Tag value. <ul style="list-style-type: none"><li>• A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>._:=-@</code></li><li>• A tag value can be left blank or set to <b>null</b>.</li><li>• A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

**Table 4-48** RouteSynchronization

Parameter	Type	Description
route_synchronization_enable	Boolean	Whether to enable route synchronization.
vpc_route_table_type	String	VPC route table where routes are to be synchronized.
route_type	String	Type of the route to be synchronized.
conflict_policy	String	A conflict policy that specifies whether to synchronize routes with the same destination and next hop to the VPC route table.

## Example Requests

Querying details about a VPC attachment

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/212d3f0b-8496-472d-bc99-05a7c96d6655/vpc-attachments/b70aee08-c671-4cad-9fd5-7381d163bcc8
```

## Example Responses

**Status code: 200**

OK

```
{
  "vpc_attachment": {
    "id": "b70aee08-c671-4cad-9fd5-7381d163bcc8",
    "name": "vpc-attach",
    "vpc_id": "b715e131-3371-4e17-a2de-4f669e24439a",
    "virsubnet_id": "aacdc21d-90f9-45ef-ab48-80ec1bbe15b8",
    "project_id": "08d5a9564a704afda6039ae2babbe3c",
    "state": "available",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z"
  }
}
```

```
},  
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"  
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.2.4 Querying VPC Attachments

### Function

This API is used to query the VPC attachments of the enterprise router.

### Constraints

There are some constraints:

- Filtering query is supported. The supported query criteria include **id**, **state**, **enterprise\_project\_id**, and **vpc\_id**. You can query multiple resources at a time or use combined criteria to query resources.
- Pagination query is supported. You can use **limit** and **marker** together for pagination query.
- Only sorting by a single field (**id**, **name**, **description**, **created\_at**, or **updated\_at**) is supported.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/{er\_id}/vpc-attachments

**Table 4-49** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID

**Table 4-50** Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>
marker	No	String	ID of the last enterprise router on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>
state	No	Array of strings	Attachment status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>pending_acceptance</b> , <b>rejected</b> , and <b>initiating_request</b>
id	No	Array of strings	Query by resource ID. Multiple resources can be queried at a time.
sort_key	No	Array of strings	Keyword for sorting. The keyword can be <b>id</b> , <b>name</b> , or <b>state</b> . By default, <b>id</b> is used.
sort_dir	No	Array of strings	Sorting order. There are two value options: <b>asc</b> (ascending order) and <b>desc</b> (descending order). The default value is <b>asc</b> .
vpc_id	No	Array of strings	VPC id

## Request Parameters

None

## Response Parameters

Status code: **200**

**Table 4-51** Response body parameters

Parameter	Type	Description
vpc_attachments	Array of <a href="#">VpcAttachmentDetails</a> objects	VPC attachments
page_info	<a href="#">PageInfo</a> object	Pagination query information
request_id	String	Request ID

**Table 4-52** VpcAttachmentDetails

Parameter	Type	Description
id	String	VPC attachment ID
name	String	VPC attachment name
vpc_id	String	VPC id
vpc_subnet_id	String	VPC subnet ID
auto_create_vpc_routes	Boolean	The default value is <b>false</b> . If this parameter is set to <b>true</b> , routes with this enterprise router as the next hop and 10.0.0.0/8, 172.16.0.0/12, and 192.168.0.0/16 as the destinations will be automatically added to the route tables of the VPC. Default: <b>false</b>
state	String	VPC attachment status. The value can be <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>initiating_request</b> , <b>rejected</b> , <b>pending_acceptance</b> , <b>frozen</b> , or <b>invalid</b> .
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <a href="#">Tag</a> objects	Tag information
description	String	Description of the VPC attachment
project_id	String	Project ID
vpc_project_id	String	ID of the project that the VPC belongs to

Parameter	Type	Description
route_synchronization	<a href="#">RouteSynchronization</a> object	Route synchronization setting.

**Table 4-53** Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>• A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag value can be left blank or set to <b>null</b>.</li><li>• A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

**Table 4-54** RouteSynchronization

Parameter	Type	Description
route_synchronization_enable	Boolean	Whether to enable route synchronization.
vpc_route_table_type	String	VPC route table where routes are to be synchronized.
route_type	String	Type of the route to be synchronized.



Parameter	Type	Description
conflict_policy	String	A conflict policy that specifies whether to synchronize routes with the same destination and next hop to the VPC route table.

Table 4-55 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.
current_count	Integer	Number of resources in the list

## Example Requests

- Querying all VPC attachments in pagination

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/vpc-attachments?limit=10
```

- Querying all VPC attachments

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/vpc-attachments
```

## Example Responses

Status code: 200

OK

```
{
  "vpc_attachments": [ {
    "id": "6f83b848-8331-4271-ac0c-ef94b7686402",
    "name": "vpc-attach-01",
    "vpc_id": "b715e131-3371-4e17-a2de-4f669e24439a",
    "virsubnet_id": "aacdc21d-90f9-45ef-ab48-80ec1bbe15b8",
    "project_id": "08d5a9564a704afda6039ae2babbe3c",
    "state": "available",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z"
  }, {
    "id": "6f83b848-8331-4271-ac0c-ef94b7686402",
    "name": "vpc-attach-01",
    "vpc_id": "4b8567f6-358f-4a7f-8cd3-3cbb82c0b25f",
    "virsubnet_id": "2b55f334-a15e-43a9-ab11-b34c2dbb6fac",
    "project_id": "08d5a9564a704afda6039ae2babbe3c",
    "state": "available",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z"
  } ],
  "page_info": {
    "next_marker": "1",
    "current_count": 2
  },
}
```

```
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"  
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.2.5 Deleting a VPC Attachment

### Function

This API is used to delete a VPC attachment.

### Constraints

A VPC attachment can only be deleted when it is in the **available**, **deleting**, or **failed** state.

### Calling Method

For details, see [Calling APIs](#).

### URI

```
DELETE /v3/{project_id}/enterprise-router/{er_id}/vpc-attachments/  
{vpc_attachment_id}
```

**Table 4-56** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
vpc_attachment_id	Yes	String	VPC attachment ID

### Request Parameters

None

## Response Parameters

None

## Example Requests

Deleting a VPC attachment

```
DELETE https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/4ba931b6-5273-4ed9-8eeb-484d16a4786f/vpc-attachments/b70aee08-c671-4cad-9fd5-7381d163bcc8
```

## Example Responses

None

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

# 4.3 Other Types of Attachments

## 4.3.1 Updating an Attachment

### Function

This API is used to update basic information about an attachment.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /v3/{project\_id}/enterprise-router/{er\_id}/attachments/{attachment\_id}

**Table 4-57** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID

Parameter	Mandatory	Type	Description
attachment_id	Yes	String	Attachment ID

## Request Parameters

Table 4-58 Request body parameters

Parameter	Mandatory	Type	Description
attachment	No	<a href="#">UpdateAttachmentBody</a> object	Change basic information about the attachment.

Table 4-59 UpdateAttachmentBody

Parameter	Mandatory	Type	Description
description	No	String	Description of the attachment. The value contains a maximum of 36 characters in UUID format with hyphens (-). Minimum: <b>0</b> Maximum: <b>255</b>
name	No	String	Attachment name. The value can contain 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.). Minimum: <b>1</b> Maximum: <b>64</b>

## Response Parameters

Status code: 200

Table 4-60 Response body parameters

Parameter	Type	Description
attachment	<a href="#">AttachmentResponse</a> object	Attachment basic information
request_id	String	Request ID

**Table 4-61** AttachmentResponse

Parameter	Type	Description
name	String	Attachment name
id	String	Attachment ID
description	String	Description
state	String	Attachment status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>pending_acceptance</b> , <b>rejected</b> , and <b>initiating_request</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <b>Tag</b> objects	Enterprise router tags
project_id	String	Project ID
resource_id	String	Attached resource ID on its own service console
resource_type	String	Attachment type. <ul style="list-style-type: none"><li>• <b>vgw</b>: virtual gateway attachment</li><li>• <b>vpn</b>: VPN gateway attachment</li><li>• <b>gdgw</b>: global DC gateway attachment</li><li>• <b>vpc</b>: VPC attachment</li></ul>
resource_project_id	String	ID of the project that the resource belongs to

Table 4-62 Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Updating an attachment (not a VPC attachment)

```
PUT https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/212d3f0b-8496-472d-bc99-05a7c96d6655/attachments/b70aee08-c671-4cad-9fd5-7381d163bcc8
```

```
{
  "attachment": {
    "name": "attachment",
    "description": "attachment"
  }
}
```

## Example Responses

Status code: 200

OK

```
{
  "attachment": {
    "id": "b70aee08-c671-4cad-9fd5-7381d163bcc8",
    "name": "attachment",
    "description": "attachment",
  }
}
```

```
"state" : "available",
"created_at" : "2020-03-11T15:13:31Z",
"updated_at" : "2020-03-11T15:13:31Z",
"project_id" : "08d5a9564a704afda6039ae2babbef3c",
"resource_id" : "b715e131-3371-4e17-a2de-4f669e24439a",
"resource_type" : "vpc",
"resource_project_id" : "0605767a9980d5762fbcc00b3537e757"
},
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.3.2 Querying Details About an Attachment

### Function

This API is used to query details about an attachment.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/{er\_id}/attachments/{attachment\_id}

**Table 4-63** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
attachment_id	Yes	String	Attachment ID

### Request Parameters

None

## Response Parameters

Status code: 200

**Table 4-64** Response body parameters

Parameter	Type	Description
attachment	<a href="#">AttachmentResponse</a> object	Attachment basic information
request_id	String	Request ID

**Table 4-65** AttachmentResponse

Parameter	Type	Description
name	String	Attachment name
id	String	Attachment ID
description	String	Description
state	String	Attachment status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>pending_acceptance</b> , <b>rejected</b> , and <b>initiating_request</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <a href="#">Tag</a> objects	Enterprise router tags
project_id	String	Project ID
resource_id	String	Attached resource ID on its own service console
resource_type	String	Attachment type. <ul style="list-style-type: none"><li>• <b>vgw</b>: virtual gateway attachment</li><li>• <b>vpn</b>: VPN gateway attachment</li><li>• <b>gdgw</b>: global DC gateway attachment</li><li>• <b>vpc</b>: VPC attachment</li></ul>
resource_project_id	String	ID of the project that the resource belongs to



Table 4-66 Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Querying details about an attachment

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/212d3f0b-8496-472d-bc99-05a7c96d6655/attachments/b70aee08-c671-4cad-9fd5-7381d163bcc8
```

## Example Responses

Status code: 200

OK

```
{
  "attachment": {
    "id": "b70aee08-c671-4cad-9fd5-7381d163bcc8",
    "name": "vpc attachment",
    "description": "vpc prod",
    "state": "available",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z",
    "project_id": "08d5a9564a704afda6039ae2babbe3c",
    "resource_id": "b715e131-3371-4e17-a2de-4f669e24439a",
    "resource_type": "vpc"
  },
}
```

```
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"  
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.3.3 Querying Attachments

### Function

This API is used to query the attachments of the enterprise router.

### Constraints

There are some constraints:

- Filtering query is supported. The supported filtering criteria include **state**, **resource\_type**, and **resource\_id**. You can query multiple resources at a time or use combined criteria to query resources.
- Pagination query is supported. You can use **limit** and **marker** together for pagination query.
- Only sorting by a single field (**id**, **name**, **description**, **created\_at**, or **updated\_at**) is supported.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/{er\_id}/attachments

**Table 4-67** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID

**Table 4-68** Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>
marker	No	String	ID of the last enterprise router on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>
state	No	Array of strings	Attachment status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>pending_acceptance</b> , <b>rejected</b> , and <b>initiating_request</b>
resource_type	No	Array of strings	Attachment type.
resource_id	No	Array of strings	Attachment resource IDs
sort_key	No	Array of strings	Keyword for sorting. The keyword can be <b>id</b> , <b>name</b> , or <b>state</b> . By default, <b>id</b> is used.
sort_dir	No	Array of strings	Sorting order. There are two value options: <b>asc</b> (ascending order) and <b>desc</b> (descending order). The default value is <b>asc</b> .

## Request Parameters

None

## Response Parameters

Status code: **200**

**Table 4-69** Response body parameters

Parameter	Type	Description
attachments	Array of <b>AttachmentDetails</b> objects	Attachments
page_info	<b>PageInfo</b> object	Pagination query information
request_id	String	Request ID

**Table 4-70** AttachmentDetails

Parameter	Type	Description
id	String	Attachment ID
name	String	Attachment name
description	String	Attachment description
state	String	Attachment status. Value options: <b>pending, available, modifying, deleting, deleted, failed, pending_acceptance, rejected, and initiating_request</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <b>Tag</b> objects	Enterprise router tags
project_id	String	Project ID
er_id	String	Enterprise router ID
resource_id	String	Attached resource ID on its own service console
resource_type	String	Attachment type.
resource_project_id	String	ID of the project that the resource belongs to
associated	Boolean	Whether the attachment is associated.
route_table_id	String	Association route table ID

Table 4-71 Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

Table 4-72 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.
current_count	Integer	Number of resources in the list

## Example Requests

Querying attachments

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/4ab54142-7c92-48ad-8288-77727a231052/attachments
```

## Example Responses

Status code: **200**

OK

```
{
  "attachments": [ {
    "id": "6f83b848-8331-4271-ac0c-ef94b7686402",
    "name": "vpc-001",
    "description": "vpc attachment",
    "resource_id": "b715e131-3371-4e17-a2de-4f669e24439a",
    "resource_type": "vpc",
    "project_id": "0605767a9980d5762fbcc00b3537e757",
    "state": "available",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z"
  }, {
    "id": "6f83b848-8331-4271-ac0c-ef94b7686403",
    "name": "vpc-002",
    "description": "for test",
    "resource_id": "4b8567f6-358f-4a7f-8cd3-3cbb82c0b25f",
    "resource_type": "vpc",
    "project_id": "0605767a9980d5762fbcc00b3537e757",
    "state": "available",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z"
  } ],
  "page_info": {
    "next_marker": "1",
    "current_count": 2
  },
  "request_id": "b715e131-3371-4e17-a2de-4f669e24439a"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.3.4 Changing the Bandwidth of an Attachment

### Function

This API is used to change the bandwidth of an attachment.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/attachments/{attachment\_id}/change-bandwidths

**Table 4-73** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
attachment_id	Yes	String	Attachment ID

## Request Parameters

**Table 4-74** Request body parameters

Parameter	Mandatory	Type	Description
bandwidth	No	<b>Bandwidth</b> object	Bandwidth request body

**Table 4-75** Bandwidth

Parameter	Mandatory	Type	Description
size	No	Integer	Bandwidth, in Mbit/s. The default value is <b>0</b> , indicating that the bandwidth is not limited. The value <b>-1</b> indicates that the bandwidth is limited to 2 kbit/s. Minimum: <b>-1</b> Default: <b>0</b>

## Response Parameters

Status code: 202

**Table 4-76** Response body parameters

Parameter	Type	Description
attachment	<b>AttachmentResponse</b> object	Attachment basic information
request_id	String	Request ID

**Table 4-77** AttachmentResponse

Parameter	Type	Description
name	String	Attachment name
id	String	Attachment ID
description	String	Description
state	String	Attachment status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>pending_acceptance</b> , <b>rejected</b> , and <b>initiating_request</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <b>Tag</b> objects	Enterprise router tags
project_id	String	Project ID
resource_id	String	Attached resource ID on its own service console
resource_type	String	Attachment type. <ul style="list-style-type: none"><li>• <b>vgw</b>: virtual gateway attachment</li><li>• <b>vpn</b>: VPN gateway attachment</li><li>• <b>gdgw</b>: global DC gateway attachment</li><li>• <b>vpc</b>: VPC attachment</li></ul>
resource_project_id	String	ID of the project that the resource belongs to



Table 4-78 Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Changing the bandwidth of an attachment

```
PUT https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/212d3f0b-8496-472d-bc99-05a7c96d6655/attachments/b70aee08-c671-4cad-9fd5-7381d163bcc8/change-bandwidths
```

```
{
  "bandwidth" : {
    "size" : 200
  }
}
```

## Example Responses

Status code: 202

Accepted

```
{
  "attachment" : {
    "id" : "b70aee08-c671-4cad-9fd5-7381d163bcc8",
    "name" : "attachment",
    "description" : "attachment",
  }
}
```

```
"state" : "available",
"created_at" : "2020-03-11T15:13:31Z",
"updated_at" : "2020-03-11T15:13:31Z",
"project_id" : "08d5a9564a704afda6039ae2babbef3c",
"resource_id" : "b715e131-3371-4e17-a2de-4f669e24439a",
"resource_type" : "connect",
"resource_project_id" : "0605767a9980d5762fbcc00b3537e757"
},
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.3.5 Accepting a Shared Attachment

### Function

This API is used to accept a shared attachment.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/attachments/{attachment\_id}/accept

**Table 4-79** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
attachment_id	Yes	String	Attachment ID

### Request Parameters

None

## Response Parameters

Status code: 202

**Table 4-80** Response body parameters

Parameter	Type	Description
attachment	<a href="#">AttachmentResponse</a> object	Attachment basic information
request_id	String	Request ID

**Table 4-81** AttachmentResponse

Parameter	Type	Description
name	String	Attachment name
id	String	Attachment ID
description	String	Description
state	String	Attachment status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>pending_acceptance</b> , <b>rejected</b> , and <b>initiating_request</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <a href="#">Tag</a> objects	Enterprise router tags
project_id	String	Project ID
resource_id	String	Attached resource ID on its own service console
resource_type	String	Attachment type. <ul style="list-style-type: none"><li>• <b>vgw</b>: virtual gateway attachment</li><li>• <b>vpn</b>: VPN gateway attachment</li><li>• <b>gdgw</b>: global DC gateway attachment</li><li>• <b>vpc</b>: VPC attachment</li></ul>
resource_project_id	String	ID of the project that the resource belongs to

Table 4-82 Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Accepting a shared attachment

```
POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/6f83b848-8331-4271-ac0c-ef94b7686402/attachments/6f83b848-8331-4271-ac0c-ef94b7686401/accept
```

## Example Responses

Status code: 202

Accepted

```
{
  "attachment": {
    "id": "6f83b848-8331-4271-ac0c-ef94b7686402,",
    "name": "vpc attachment,",
    "description": "VPC attachment.",
    "state": "available",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z",
    "tags": null,
    "project_id": "0605767a9980d5762fbcc00b3537e757",
    "enterprise_project_id": "string",
    "resource_id": "b715e131-3371-4e17-a2de-4f669e24439a",
```

```
"resource_type" : "VPC",
"resource_project_id" : null,
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.3.6 Rejecting a Shared Attachment

### Function

This API is used to reject a shared attachment.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/attachments/{attachment\_id}/  
reject

**Table 4-83** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
attachment_id	Yes	String	Attachment ID

### Request Parameters

None

### Response Parameters

Status code: 200

**Table 4-84** Response body parameters

Parameter	Type	Description
attachment	<a href="#">AttachmentResponse</a> object	Attachment basic information
request_id	String	Request ID

**Table 4-85** AttachmentResponse

Parameter	Type	Description
name	String	Attachment name
id	String	Attachment ID
description	String	Description
state	String	Attachment status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , <b>failed</b> , <b>pending_acceptance</b> , <b>rejected</b> , and <b>initiating_request</b>
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>
tags	Array of <a href="#">Tag</a> objects	Enterprise router tags
project_id	String	Project ID
resource_id	String	Attached resource ID on its own service console
resource_type	String	Attachment type. <ul style="list-style-type: none"><li>• <b>vgw</b>: virtual gateway attachment</li><li>• <b>vpn</b>: VPN gateway attachment</li><li>• <b>gdgw</b>: global DC gateway attachment</li><li>• <b>vpc</b>: VPC attachment</li></ul>
resource_project_id	String	ID of the project that the resource belongs to

Table 4-86 Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Rejecting a shared attachment

```
POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/6f83b848-8331-4271-ac0c-ef94b7686402/attachments/6f83b848-8331-4271-ac0c-ef94b7686401/reject
```

## Example Responses

Status code: **200**

OK

```
{
  "attachment": {
    "id": "6f83b848-8331-4271-ac0c-ef94b7686402,",
    "name": "vpc attachment,",
    "description": "VPC attachment.",
    "state": "available",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z",
    "tags": null,
    "project_id": "0605767a9980d5762fbcc00b3537e757",
    "enterprise_project_id": "string",
    "resource_id": "b715e131-3371-4e17-a2de-4f669e24439a",
```

```
"resource_type" : "VPC",  
"resource_project_id" : null,  
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"  
}  
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

# 4.4 Route Tables

## 4.4.1 Creating a Route Table

### Function

This API is used to create a route table. A route table is the basis for an enterprise router to send and receive packets. It contains attachment associations, propagations, and routes.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/route-tables

**Table 4-87** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID



## Request Parameters

**Table 4-88** Request header parameters

Parameter	Mandatory	Type	Description
X-Client-Token	No	String	Idempotence identifier Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-89** Request body parameters

Parameter	Mandatory	Type	Description
route_table	No	<a href="#">CreateRouteTable</a> object	Route table

**Table 4-90** CreateRouteTable

Parameter	Mandatory	Type	Description
name	Yes	String	Route table name Minimum: <b>1</b> Maximum: <b>64</b>
description	No	String	Description of the route table Minimum: <b>0</b> Maximum: <b>255</b>
tags	No	Array of <a href="#">Tag</a> objects	Tag information

Table 4-91 Tag

Parameter	Mandatory	Type	Description
key	No	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>._:=-@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	No	String	Tag value. <ul style="list-style-type: none"><li>• A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>._:=-@</code></li><li>• A tag value can be left blank or set to <b>null</b>.</li><li>• A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Response Parameters

Status code: 202

Table 4-92 Response header parameters

Parameter	Type	Description
X-Client-Token	String	Idempotence identifier

**Table 4-93** Response body parameters

Parameter	Type	Description
route_table	<a href="#">RouteTable</a> object	Route table
request_id	String	Request ID

**Table 4-94** RouteTable

Parameter	Type	Description
id	String	Route table ID
name	String	Route table name
description	String	Description
is_default_association	Boolean	Whether the route table is the default association route table. Default: <b>false</b>
is_default_propagation	Boolean	Whether the route table is the default propagation route table.
state	String	Route table status. The value can be pending, available, deleting, deleted, or failed.
tags	Array of <a href="#">Tag</a> objects	Tag
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>

**Table 4-95 Tag**

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

### Creating a route table named **my-route-table**

```
POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/915a14a6-867b-4af7-83d1-70efceb146f0/route-tables
```

```
{
  "route_table": {
    "name": "my-route-table",
    "tags": [{
      "key": "key",
      "value": "value"
    }]
  }
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "route_table": {
```

```
"id" : "4ab54142-7c92-48ad-8288-77727a231052",
"name" : "my-route-table",
"is_default_association" : false,
"is_default_propagation" : false,
"state" : "pending",
"created_at" : "2020-03-11T15:13:31Z",
"updated_at" : "2020-03-11T15:13:31Z",
"tags" : [ {
  "key" : "key",
  "value" : "value"
} ]
},
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.4.2 Updating Route Table Information

### Function

This API is used to update basic information about a route table, such as the name and description.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /v3/{project\_id}/enterprise-router/{er\_id}/route-tables/{route\_table\_id}

**Table 4-96** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
route_table_id	Yes	String	Route table ID

## Request Parameters

**Table 4-97** Request body parameters

Parameter	Mandatory	Type	Description
route_table	No	<a href="#">UpdateRouteTable</a> object	Request body for updating a route table

**Table 4-98** UpdateRouteTable

Parameter	Mandatory	Type	Description
name	No	String	Route table name Minimum: <b>1</b> Maximum: <b>64</b>
description	No	String	Description of the route table Minimum: <b>0</b> Maximum: <b>255</b>

## Response Parameters

Status code: 200

**Table 4-99** Response body parameters

Parameter	Type	Description
route_table	<a href="#">RouteTable</a> object	Route table
request_id	String	Request ID

**Table 4-100** RouteTable

Parameter	Type	Description
id	String	Route table ID
name	String	Route table name
description	String	Description
is_default_association	Boolean	Whether the route table is the default association route table. Default: <b>false</b>

Parameter	Type	Description
is_default_propagation	Boolean	Whether the route table is the default propagation route table.
state	String	Route table status. The value can be pending, available, deleting, deleted, or failed.
tags	Array of <b>Tag</b> objects	Tag
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>

**Table 4-101** Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>• A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag key cannot be left blank.</li><li>• A tag key can contain 1 to 128 characters.</li><li>• Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>• A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>• A tag value can be left blank or set to <b>null</b>.</li><li>• A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Changing the name of a route table of an enterprise router to **new-rtb**

```
PUT https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/915a14a6-867b-4af7-83d1-70efceb146f5/route-tables/4ab54142-7c92-48ad-8288-77727a231052

{
  "route_table": {
    "name": "new-rtb"
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "route_table": {
    "id": "4ab54142-7c92-48ad-8288-77727a231052",
    "name": "new-rtb",
    "is_default_association": false,
    "is_default_propagation": false,
    "state": "pending",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z"
  },
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.4.3 Querying Details About a Route Table

### Function

This API is used to query details about a route table.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/{er\_id}/route-tables/{route\_table\_id}



**Table 4-102** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
route_table_id	Yes	String	Route table ID

## Request Parameters

None

## Response Parameters

Status code: 200

**Table 4-103** Response body parameters

Parameter	Type	Description
route_table	<a href="#">RouteTable</a> object	Route table
request_id	String	Request ID

**Table 4-104** RouteTable

Parameter	Type	Description
id	String	Route table ID
name	String	Route table name
description	String	Description
is_default_association	Boolean	Whether the route table is the default association route table. Default: <b>false</b>
is_default_propagation	Boolean	Whether the route table is the default propagation route table.
state	String	Route table status. The value can be pending, available, deleting, deleted, or failed.
tags	Array of <a href="#">Tag</a> objects	Tag

Parameter	Type	Description
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>

Table 4-105 Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_.:=-@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_.:=-@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

## Example Requests

Querying details about a route table

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/915a14a6-867b-4af7-83d1-70efceb146f6/route-tables/4ab54142-7c92-48ad-8288-77727a231052
```

## Example Responses

Status code: **200**

OK

```
{
  "route_table": {
    "id": "4ab54142-7c92-48ad-8288-77727a231052",
    "name": "my-route-table",
    "description": "rtb-for-a",
    "is_default_association": false,
    "is_default_propagation": false,
    "state": "available",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z"
  },
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.4.4 Querying Route Tables

### Function

This API is used to query route tables.

### Constraints

There are some constraints:

- Both pagination query and filtering query are supported. The supported query criteria include **state**, **is\_default\_propagation\_route\_table**, and **is\_default\_association\_route\_table**.
- Only sorting by a single field (**id**, **name**, **description**, **created\_at**, or **updated\_at**) is supported.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/{er\_id}/route-tables

**Table 4-106** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Parameter	Mandatory	Type	Description
er_id	Yes	String	Enterprise router ID

**Table 4-107** Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>
marker	No	String	ID of the last enterprise router on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>
state	No	Array of strings	Status
is_default_propagation_table	No	Boolean	Whether the route table is the default propagation route table
is_default_association_table	No	Boolean	Whether the route table is the default association route table
sort_key	No	Array of strings	Keyword for sorting. The keyword can be <b>id</b> , <b>name</b> , or <b>state</b> . By default, <b>id</b> is used.
sort_dir	No	Array of strings	Sorting order. There are two value options: <b>asc</b> (ascending order) and <b>desc</b> (descending order). The default value is <b>asc</b> .

## Request Parameters

None

## Response Parameters

Status code: 200

**Table 4-108** Response body parameters

Parameter	Type	Description
route_tables	Array of <a href="#">RouteTable</a> objects	Route tables
request_id	String	Request ID
page_info	<a href="#">PageInfo</a> object	Pagination query information

**Table 4-109** RouteTable

Parameter	Type	Description
id	String	Route table ID
name	String	Route table name
description	String	Description
is_default_association	Boolean	Whether the route table is the default association route table. Default: <b>false</b>
is_default_propagation	Boolean	Whether the route table is the default propagation route table.
state	String	Route table status. The value can be pending, available, deleting, deleted, or failed.
tags	Array of <a href="#">Tag</a> objects	Tag
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>

Table 4-110 Tag

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none"><li>A tag key can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag key cannot be left blank.</li><li>A tag key can contain 1 to 128 characters.</li><li>Tags with the tag key starting with <b>sys</b> are system tags and cannot be added by tenants.</li></ul> Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Tag value. <ul style="list-style-type: none"><li>A tag value can contain letters, digits, spaces encoded using UTF-8, and special characters <code>_:=+@</code></li><li>A tag value can be left blank or set to <b>null</b>.</li><li>A tag value can contain 0 to 255 characters.</li></ul> Minimum: <b>0</b> Maximum: <b>255</b>

Table 4-111 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.
current_count	Integer	Number of resources in the list

## Example Requests

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/915a14a6-867b-4af7-83d1-70efceb146f5/route-tables
```

## Example Responses

Status code: 200

OK

```
{
  "route_tables": [ {
    "id": "4ab54142-7c92-48ad-8288-77727a231052",
    "is_default_association": false,
    "is_default_propagation": false,
    "name": "my-router-table1",
    "description": "rtb-for-a",
    "state": "available",
    "tags": [ {
      "key": "key",
      "value": "value"
    } ]
  }, {
    "id": "4ab54142-7c92-48ad-8288-77727a231053",
    "is_default_association": false,
    "is_default_propagation": false,
    "name": "my-router-table2",
    "description": "rtb-for-b",
    "state": "available",
    "tags": [ {
      "key": "key",
      "value": "value"
    } ]
  } ],
  "page_info": {
    "next_marker": "1",
    "current_count": 2
  },
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.4.5 Deleting a Route Table

### Function

This API is used to delete a route table.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /v3/{project\_id}/enterprise-router/{er\_id}/route-tables/{route\_table\_id}

**Table 4-112** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
route_table_id	Yes	String	Route table ID

## Request Parameters

None

## Response Parameters

None

## Example Requests

```
DELETE https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/  
4ab54142-7c92-48ad-8288-77727a231056/route-tables/4ab54142-7c92-48ad-8288-77727a231052
```

## Example Responses

None

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

# 4.5 Associations

## 4.5.1 Creating a Route Association

### Function

This API is used to create a route association. Each attachment only can be associated with one route table of its enterprise router for packet forwarding.



## Calling Method

For details, see [Calling APIs](#).

## URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/route-tables/{route\_table\_id}/associate

**Table 4-113** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
route_table_id	Yes	String	Route table ID

## Request Parameters

**Table 4-114** Request header parameters

Parameter	Mandatory	Type	Description
X-Client-Token	No	String	Idempotence identifier Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-115** Request body parameters

Parameter	Mandatory	Type	Description
attachment_id	No	String	Unique ID of the attachment Maximum: <b>36</b>

## Response Parameters

**Status code: 202**

**Table 4-116** Response header parameters

Parameter	Type	Description
X-Client-Token	String	Idempotence identifier

**Table 4-117** Response body parameters

Parameter	Type	Description
association	<b>Association</b> object	Association details
request_id	String	Request ID

**Table 4-118** Association

Parameter	Type	Description
id	String	Unique association ID Maximum: <b>36</b>
route_table_id	String	Unique ID of the route table Maximum: <b>36</b>
attachment_id	String	Unique ID of the attachment Maximum: <b>36</b>
resource_type	String	Attachment type.
resource_id	String	Unique ID of the attachment
state	String	Status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , and <b>failed</b>
created_at	String	Creation time. It is UTC time in the format of YYYY-MM-DDTHH:MM:SS.
updated_at	String	Update time. It is UTC time in the format of YYYY-MM-DDTHH:MM:SS.

## Example Requests

Creating a route table association

```
POST https://{router_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/915a14a6-867b-4af7-83d1-70efceb146f8/route-tables/915a14a6-867b-4af7-83d1-70efceb146f9/associate
{
  "attachment_id" : "a5b7d209-dc02-4c46-a51f-805eadd3de64"
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "association" : {
```

```
"id" : "915a14a6-867b-4af7-83d1-70efceb146f9",
"route_table_id" : "91c013e2-d65a-474e-9177-c3e1799ca726",
"attachment_id" : "a5b7d209-dc02-4c46-a51f-805eadd3de64",
"resource_type" : "vpc",
"resource_id" : "4e5fe97c-82bc-432e-87d8-06d7e157dffa",
"state" : "pending",
"created_at" : "2020-03-11T15:13:31",
"updated_at" : "2020-03-11T15:13:31",
"route_policy" : {
  "export_policy_id" : ""
}
},
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f8"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.5.2 Querying the Route Associations

### Function

This API is used to query route associations.

### Constraints

There are some constraints:

- Pagination query is supported. The supported query criteria include **state**, **resource\_type**, and **attachment\_id**.
- Only sorting by a single field (**id**, **created\_at**, or **updated\_at**) is supported.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/{er\_id}/route-tables/{route\_table\_id}/associations

**Table 4-119** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Parameter	Mandatory	Type	Description
er_id	Yes	String	Enterprise router ID
route_table_id	Yes	String	Route table ID

**Table 4-120** Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>
marker	No	String	ID of the last enterprise router on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>
attachment_id	No	Array of strings	Attachment ID
resource_type	No	Array of strings	Attachment type.
state	No	Array of strings	Status. Value options: <b>pending, available, modifying, deleting, deleted, and failed</b>
sort_key	No	Array of strings	Keyword for sorting. The keyword can be <b>id, name, or state</b> . By default, <b>id</b> is used.
sort_dir	No	Array of strings	Sorting order. There are two value options: <b>asc</b> (ascending order) and <b>desc</b> (descending order). The default value is <b>asc</b> .

## Request Parameters

None

## Response Parameters

Status code: 200

**Table 4-121** Response body parameters

Parameter	Type	Description
associations	Array of <b>Association</b> objects	Route table associations Array Length: <b>0 - 2000</b>
request_id	String	Request ID
page_info	<b>PageInfo</b> object	Pagination query information

**Table 4-122** Association

Parameter	Type	Description
id	String	Unique association ID Maximum: <b>36</b>
route_table_id	String	Unique ID of the route table Maximum: <b>36</b>
attachment_id	String	Unique ID of the attachment Maximum: <b>36</b>
resource_type	String	Attachment type.
resource_id	String	Unique ID of the attachment
state	String	Status. Value options: <b>pending, available, modifying, deleting, deleted, and failed</b>
created_at	String	Creation time. It is UTC time in the format of YYYY-MM-DDTHH:MM:SS.
updated_at	String	Update time. It is UTC time in the format of YYYY-MM-DDTHH:MM:SS.

**Table 4-123** PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.

Parameter	Type	Description
current_count	Integer	Number of resources in the list

## Example Requests

Querying route table associations

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/915a14a6-867b-4af7-83d1-70efceb146f5/route-tables/915a14a6-867b-4af7-83d1-70efceb146f9/associations
```

## Example Responses

Status code: 200

OK

```
{
  "associations": [ {
    "id": "915a14a6-867b-4af7-83d1-70efceb146f9",
    "route_table_id": "91c013e2-d65a-474e-9177-c3e1799ca726",
    "attachment_id": "a5b7d209-dc02-4c46-a51f-805eadd3de64",
    "resource_type": "vpc",
    "resource_id": "4e5fe97c-82bc-432e-87d8-06d7e157dffa",
    "state": "pending",
    "created_at": "2020-03-11T15:13:31",
    "updated_at": "2020-03-11T15:13:31",
    "route_policy": {
      "export_policy_id": ""
    }
  } ],
  "page_info": {
    "next_marker": "1",
    "current_count": 1
  },
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.5.3 Deleting a Route Association

### Function

This API is used to delete an association from the route table of an enterprise router for an attachment.

## Calling Method

For details, see [Calling APIs](#).

## URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/route-tables/{route\_table\_id}/disassociate

**Table 4-124** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
route_table_id	Yes	String	Route table ID

## Request Parameters

**Table 4-125** Request body parameters

Parameter	Mandatory	Type	Description
attachment_id	No	String	Unique ID of the attachment Maximum: <b>36</b>

## Response Parameters

None

## Example Requests

Deleting a route table association

```
POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/enterprise-router/915a14a6-867b-4af7-83d1-70efceb146f8/route-tables/915a14a6-867b-4af7-83d1-70efceb146f9/disassociate
{
  "attachment_id" : "2609ec92-ac19-4467-a527-7f9e690e7836"
}
```

## Example Responses

None

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

# 4.6 Propagations

## 4.6.1 Creating a Route Propagation

### Function

This API is used to create a route propagation. A propagation can be created for each attachment to propagate routes to one or more route tables on an enterprise router.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/route-tables/{route\_table\_id}/enable-propagations

**Table 4-126** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
route_table_id	Yes	String	Route table ID



## Request Parameters

**Table 4-127** Request header parameters

Parameter	Mandatory	Type	Description
X-Client-Token	No	String	Idempotence identifier Minimum: 1 Maximum: 64

**Table 4-128** Request body parameters

Parameter	Mandatory	Type	Description
attachment_id	No	String	Unique ID of the attachment

## Response Parameters

**Status code: 202**

**Table 4-129** Response header parameters

Parameter	Type	Description
X-Client-Token	String	Idempotence identifier

**Table 4-130** Response body parameters

Parameter	Type	Description
propagation	<a href="#">Propagation</a> object	Propagation details
request_id	String	Request ID

**Table 4-131** Propagation

Parameter	Type	Description
id	String	Unique association ID
project_id	String	Project ID
er_id	String	Enterprise router ID
route_table_id	String	Unique ID of the route table

Parameter	Type	Description
attachment_id	String	Unique ID of the attachment
resource_type	String	Attachment type.
resource_id	String	Unique ID of the attachment
state	String	Status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , and <b>failed</b>
created_at	String	Creation time. It is UTC time in the format of YYYY-MM-DDTHH:MM:SS.
updated_at	String	Update time. It is UTC time in the format of YYYY-MM-DDTHH:MM:SS.

## Example Requests

Creating a route propagation

```
POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/ad838a5e-dbef-22cc-b1d9-cb46bef77ae8/route-tables/915a14a6-867b-4af7-83d1-70efceb146f9/enable-propagations
```

```
{
  "attachment_id" : "a5b7d209-dc02-4c46-a51f-805eadd3de64"
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "propagation" : {
    "id" : "915a14a6-867b-4af7-83d1-70efceb146f9",
    "route_table_id" : "91c013e2-d65a-474e-9177-c3e1799ca726",
    "attachment_id" : "a5b7d209-dc02-4c46-a51f-805eadd3de64",
    "resource_type" : "vpc",
    "resource_id" : "4e5fe97c-82bc-432e-87d8-06d7e157dffa",
    "route_policy" : {
      "import_policy_id" : ""
    },
    "state" : "pending",
    "created_at" : "2020-03-11T15:13:31Z",
    "updated_at" : "2020-03-11T15:13:31Z"
  },
  "request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.6.2 Querying Route Propagations

### Function

This API is used to query route propagations.

### Constraints

There are some constraints:

- Pagination query is supported. You can query by state, resource type, or attachment ID.
- Only sorting by a single field (**id**, **created\_at**, or **updated\_at**) is supported.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/{er\_id}/route-tables/{route\_table\_id}/propagations

**Table 4-132** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
route_table_id	Yes	String	Route table ID

**Table 4-133** Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>

Parameter	Mandatory	Type	Description
marker	No	String	ID of the last enterprise router on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>
attachment_id	No	Array of strings	Attachment ID
resource_type	No	Array of strings	Attachment type.
state	No	Array of strings	Resource status. Value options: <b>pending, available, modifying, deleting, deleted, failed</b> and <b>frozen</b>
sort_key	No	Array of strings	Keyword for sorting. The keyword can be <b>id, name, or state</b> . By default, <b>id</b> is used.
sort_dir	No	Array of strings	Sorting order. There are two value options: <b>asc</b> (ascending order) and <b>desc</b> (descending order). The default value is <b>asc</b> .

## Request Parameters

None

## Response Parameters

Status code: 200

Table 4-134 Response body parameters

Parameter	Type	Description
propagations	Array of <b>Propagation</b> objects	Route propagations Array Length: <b>0 - 2000</b>
request_id	String	Request ID
page_info	<b>PageInfo</b> object	Pagination query information

**Table 4-135** Propagation

Parameter	Type	Description
id	String	Unique association ID
project_id	String	Project ID
er_id	String	Enterprise router ID
route_table_id	String	Unique ID of the route table
attachment_id	String	Unique ID of the attachment
resource_type	String	Attachment type.
resource_id	String	Unique ID of the attachment
state	String	Status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , and <b>failed</b>
created_at	String	Creation time. It is UTC time in the format of YYYY-MM-DDTHH:MM:SS.
updated_at	String	Update time. It is UTC time in the format of YYYY-MM-DDTHH:MM:SS.

**Table 4-136** PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.
current_count	Integer	Number of resources in the list

## Example Requests

Querying route table propagations

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/7dec531a-7714-11eb-9439-0242ac130002/route-tables/91c013e2-d65a-474e-9177-c3e1799ca726/propagations
```

## Example Responses

**Status code: 200**

OK

```
{  
  "propagations": [ {  
    "id": "915a14a6-867b-4af7-83d1-70efceb146f9",
```

```
{
  "er_id": "7dec531a-7714-11eb-9439-0242ac130002",
  "route_table_id": "91c013e2-d65a-474e-9177-c3e1799ca726",
  "attachment_id": "a5b7d209-dc02-4c46-a51f-805eadd3de64",
  "resource_type": "vpc",
  "resource_id": "4e5fe97c-82bc-432e-87d8-06d7e157dffa",
  "route_policy": {
    "import_policy_id": ""
  },
  "state": "pending",
  "created_at": "2020-03-11T15:13:31Z",
  "updated_at": "2020-03-11T15:13:31Z"
},
"page_info": {
  "next_marker": "1",
  "current_count": 1
},
"request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.6.3 Deleting a Route Propagation

### Function

This API is used to delete a propagation from the route table of an enterprise router for an attachment.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/route-tables/{route\_table\_id}/disable-propagations

**Table 4-137** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
route_table_id	Yes	String	Route table ID

## Request Parameters

**Table 4-138** Request body parameters

Parameter	Mandatory	Type	Description
attachment_id	No	String	Unique ID of the attachment

## Response Parameters

None

## Example Requests

Deleting a route table propagation

```
POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/ad838a5e-  
dbef-22cc-b1d9-cb46bef77ae8/route-tables/915a14a6-867b-4af7-83d1-70efceb146f9/disable-propagations  
{  
  "attachment_id" : "a5b7d209-dc02-4c46-a51f-805eadd3de64"  
}
```

## Example Responses

None

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.7 Routes

### 4.7.1 Creating a Static Route

#### Function

This API is used to create a static route. Static routes are manually created, and valid routes are preferred routes.

## Constraints

If **is\_blackhole** is set to **false**, the **attachment\_id** parameter must be passed. If **is\_blackhole** is set to **true**, the **attachment\_id** parameter cannot be passed.

## Calling Method

For details, see [Calling APIs](#).

## URI

POST /v3/{project\_id}/enterprise-router/route-tables/{route\_table\_id}/static-routes

**Table 4-139** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
route_table_id	Yes	String	Route table ID

## Request Parameters

**Table 4-140** Request header parameters

Parameter	Mandatory	Type	Description
X-Client-Token	No	String	Idempotence identifier Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-141** Request body parameters

Parameter	Mandatory	Type	Description
route	Yes	<a href="#">CreateRoute</a> object	Request body for creating a route

**Table 4-142** CreateRoute

Parameter	Mandatory	Type	Description
destination	Yes	String	Destination address of a route Minimum: <b>0</b> Maximum: <b>256</b>



Parameter	Mandatory	Type	Description
attachment_id	No	String	ID of the attachment that the next hop of the route points to
is_blackhole	No	Boolean	Whether the route is a blackhole route. The default value is false.

## Response Parameters

Status code: 202

Table 4-143 Response header parameters

Parameter	Type	Description
X-Client-Token	String	Idempotence identifier

Table 4-144 Response body parameters

Parameter	Type	Description
route	<a href="#">Route</a> object	Route
request_id	String	Request ID

Table 4-145 Route

Parameter	Type	Description
id	String	Route ID
type	String	Route type. The value is <b>static</b> .
state	String	Route status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , and <b>failed</b>
is_blackhole	Boolean	Whether the route is a blackhole route
destination	String	Destination address of a route
attachments	Array of <a href="#">RouteAttachment</a> objects	Next hops
route_table_id	String	Route table ID

Parameter	Type	Description
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>

**Table 4-146** RouteAttachment

Parameter	Type	Description
resource_id	String	Attached resource ID
resource_type	String	Attachment type.
attachment_id	String	Attachment ID

## Example Requests

Creating a static route (not a blackhole route) destined for 192.168.0.0/16 through the specified attachment

```
POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/route-tables/0d1748a0-5188-11e5-b86f-a51b5f125b84/static-routes
```

```
{
  "route": {
    "destination": "192.168.0.0/16",
    "is_blackhole": false,
    "attachment_id": "b70aee08-c671-4cad-9fd5-7381d163bcc8"
  }
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "route": {
    "id": "9b3b38a9-1c9d-4f01-9429-81af6b545289",
    "type": "static",
    "destination": "192.168.0.0/16",
    "description": "static route",
    "attachments": [ {
      "resource_id": "9c4ab06a-0ab4-4fad-93a8-f733f3a4433d",
      "resource_type": "vpc",
      "attachment_id": "b70aee08-c671-4cad-9fd5-7381d163bcc8"
    } ],
    "route_table_id": "0d1748a0-5188-11e5-b86f-a51b5f125b84",
    "is_blackhole": false,
    "state": "pending",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z"
  },
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.7.2 Updating a Static Route

### Function

This API is used to update a static route.

### Constraints

If **is\_blackhole** is set to **false**, the **attachment\_id** parameter must be passed. If **is\_blackhole** is set to **true**, the **attachment\_id** parameter cannot be passed.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /v3/{project\_id}/enterprise-router/route-tables/{route\_table\_id}/static-routes/{route\_id}

**Table 4-147** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
route_table_id	Yes	String	Route table ID
route_id	Yes	String	Route ID

### Request Parameters

**Table 4-148** Request body parameters

Parameter	Mandatory	Type	Description
route	Yes	<a href="#">UpdateRoute</a> object	Route

**Table 4-149** UpdateRoute

Parameter	Mandatory	Type	Description
attachment_id	No	String	Next hop of the route
is_blackhole	No	Boolean	Whether the route is a blackhole route

## Response Parameters

Status code: 202

**Table 4-150** Response body parameters

Parameter	Type	Description
route	<a href="#">Route</a> object	Route
request_id	String	Request ID

**Table 4-151** Route

Parameter	Type	Description
id	String	Route ID
type	String	Route type. The value is <b>static</b> .
state	String	Route status. Value options: <b>pending, available, modifying, deleting, deleted, and failed</b>
is_blackhole	Boolean	Whether the route is a blackhole route
destination	String	Destination address of a route
attachments	Array of <a href="#">RouteAttachment</a> objects	Next hops
route_table_id	String	Route table ID
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>

**Table 4-152** RouteAttachment

Parameter	Type	Description
resource_id	String	Attached resource ID
resource_type	String	Attachment type.
attachment_id	String	Attachment ID

## Example Requests

Modifying a static route (from a blackhole route to a common route), with the next hop as a specified attachment

```
PUT https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/route-tables/19d334b7-78c1-4e0e-ba29-b797e641e23c/static-routes/9b3b38a9-1c9d-4f01-9429-81af6b545289

{
  "route": {
    "is_blackhole": false,
    "attachment_id": "b70aee08-c671-4cad-9fd5-7381d163bcc8"
  }
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "route": {
    "id": "9b3b38a9-1c9d-4f01-9429-81af6b545289",
    "type": "static",
    "destination": "192.168.0.0/16",
    "attachments": [ {
      "resource_id": "9c4ab06a-0ab4-4fad-93a8-f733f3a4433d",
      "resource_type": "vpc",
      "attachment_id": "b70aee08-c671-4cad-9fd5-7381d163bcc8"
    } ],
    "route_table_id": "19d334b7-78c1-4e0e-ba29-b797e641e23c",
    "is_blackhole": false,
    "state": "pending",
    "created_at": "2020-03-11T15:13:31",
    "updated_at": "2020-03-11T15:13:31"
  },
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.7.3 Querying Details About a Static Route

### Function

This API is used to query details about a static route.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/route-tables/{route\_table\_id}/static-routes/{route\_id}

**Table 4-153** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
route_table_id	Yes	String	Route table ID
route_id	Yes	String	Route ID

### Request Parameters

None

### Response Parameters

Status code: 200

**Table 4-154** Response body parameters

Parameter	Type	Description
route	<a href="#">Route</a> object	Route
request_id	String	Request ID

**Table 4-155** Route

Parameter	Type	Description
id	String	Route ID

Parameter	Type	Description
type	String	Route type. The value is <b>static</b> .
state	String	Route status. Value options: <b>pending, available, modifying, deleting, deleted, and failed</b>
is_blackhole	Boolean	Whether the route is a blackhole route
destination	String	Destination address of a route
attachments	Array of <a href="#">RouteAttachment</a> objects	Next hops
route_table_id	String	Route table ID
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>

**Table 4-156** RouteAttachment

Parameter	Type	Description
resource_id	String	Attached resource ID
resource_type	String	Attachment type.
attachment_id	String	Attachment ID

## Example Requests

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/route-tables/19d334b7-78c1-4e0e-ba29-b797e641e23c/static-routes/19d334b7-78c1-4e0e-ba29-b797e641e23c
```

## Example Responses

**Status code: 200**

OK

```
{
  "route": {
    "id": "19d334b7-78c1-4e0e-ba29-b797e641e23c",
    "type": "static",
    "destination": "192.168.0.0/16",
    "description": "static route",
    "attachments": [ {
      "resource_id": "9c4ab06a-0ab4-4fad-93a8-f733f3a4433d",
      "resource_type": "VPC",
      "attachment_id": "9b3b38a9-1c9d-4f01-9429-81af6b545289"
    } ],
    "route_table_id": "19d334b7-78c1-4e0e-ba29-b797e641e23c",
```

```
"is_blackhole" : false,
"state" : "pending",
"created_at" : "2020-03-11T15:13:31",
"updated_at" : "2020-03-11T15:13:31"
},
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.7.4 Querying Static Routes

### Function

This API is used to query static routes.

### Constraints

There are some constraints:

- Both pagination query and filtering query are supported. The supported query criteria include **destination**, **attachment\_id**, **resource\_type**, and **type**.
- Only sorting by a single field (**id**, **destination**, **created\_at**, or **updated\_at**) is supported.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/route-tables/{route\_table\_id}/static-routes

**Table 4-157** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
route_table_id	Yes	String	Route table ID



**Table 4-158** Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>
marker	No	String	ID of the last enterprise router on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>
destination	No	Array of strings	Destination address of a route
attachment_id	No	Array of strings	Attachment ID
resource_type	No	Array of strings	Attachment type.
sort_key	No	Array of strings	Keyword for sorting. The keyword can be <b>id</b> , <b>name</b> , or <b>state</b> . By default, <b>id</b> is used.
sort_dir	No	Array of strings	Sorting order. There are two value options: <b>asc</b> (ascending order) and <b>desc</b> (descending order). The default value is <b>asc</b> .

## Request Parameters

None

## Response Parameters

Status code: **200**

**Table 4-159** Response body parameters

Parameter	Type	Description
routes	Array of <b>Route</b> objects	Routes

Parameter	Type	Description
request_id	String	Request ID
page_info	<a href="#">PageInfo</a> object	Pagination query information

**Table 4-160** Route

Parameter	Type	Description
id	String	Route ID
type	String	Route type. The value is <b>static</b> .
state	String	Route status. Value options: <b>pending</b> , <b>available</b> , <b>modifying</b> , <b>deleting</b> , <b>deleted</b> , and <b>failed</b>
is_blackhole	Boolean	Whether the route is a blackhole route
destination	String	Destination address of a route
attachments	Array of <a href="#">RouteAttachment</a> objects	Next hops
route_table_id	String	Route table ID
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:MM:SS</i>

**Table 4-161** RouteAttachment

Parameter	Type	Description
resource_id	String	Attached resource ID
resource_type	String	Attachment type.
attachment_id	String	Attachment ID

**Table 4-162** PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.
current_count	Integer	Number of resources in the list

## Example Requests

Querying static routes

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/enterprise-router/route-tables/915a14a6-867b-4af7-83d1-70efceb146f5/static-routes
```

## Example Responses

**Status code: 200**

OK

```
{
  "routes": [ {
    "id": "9b3b38a9-1c9d-4f01-9429-81af6b545289",
    "type": "static",
    "destination": "192.168.0.0/16",
    "description": "static route",
    "attachments": [ {
      "resource_id": "9c4ab06a-0ab4-4fad-93a8-f733f3a4433d",
      "resource_type": "vpc",
      "attachment_id": "9b3b38a9-1c9d-4f01-9429-81af6b545289"
    } ],
    "route_table_id": "19d334b7-78c1-4e0e-ba29-b797e641e23c",
    "state": "pending",
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2020-03-11T15:13:31Z"
  } ],
  "page_info": {
    "next_marker": "1",
    "current_count": 1
  },
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.7.5 Querying Effective Routes

### Function

This API is used to query effective routes. Pagination query is supported. Effective routes are preferred routes.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/route-tables/{route\_table\_id}/routes

**Table 4-163** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
route_table_id	Yes	String	Route table ID

**Table 4-164** Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>
marker	No	String	ID of the last route on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>
destination	No	Array of strings	Destination address of a route
resource_type	No	Array of strings	Attachment type.

### Request Parameters

None

## Response Parameters

Status code: 200

**Table 4-165** Response body parameters

Parameter	Type	Description
routes	Array of <b>EffectiveRoute</b> objects	Routes
request_id	String	Request ID
page_info	<b>PageInfo</b> object	Pagination query information

**Table 4-166** EffectiveRoute

Parameter	Type	Description
route_id	String	Route ID
destination	String	Destination address of a route
next_hops	Array of <b>RouteAttachment</b> objects	Next hops of the routes
is_blackhole	Boolean	Whether the route is a blackhole route
route_type	String	Route type. Value options: <b>static</b> and <b>propagation</b>

**Table 4-167** RouteAttachment

Parameter	Type	Description
resource_id	String	Attached resource ID
resource_type	String	Attachment type.
attachment_id	String	Attachment ID

**Table 4-168** PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.

Parameter	Type	Description
current_count	Integer	Number of resources in the list

## Example Requests

Querying effective routes

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/route-tables/915a14a6-867b-4af7-83d1-70efceb146f9/routes
```

## Example Responses

**Status code: 200**

OK

```
{
  "routes": [ {
    "route_id": "9b3b38a9-1c9d-4f01-9429-81af6b545289",
    "destination": "192.168.0.0/16",
    "description": "static route",
    "next_hops": [ {
      "resource_id": "9c4ab06a-0ab4-4fad-93a8-f733f3a4433d",
      "resource_type": "vpc",
      "attachment_id": "9b3b38a9-1c9d-4f01-9429-81af6b545289"
    } ],
    "is_blackhole": false,
    "route_type": "static"
  } ],
  "page_info": {
    "next_marker": "1",
    "current_count": 1
  },
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.7.6 Deleting a Static Route

### Function

This API is used to delete a static route.

## Calling Method

For details, see [Calling APIs](#).

## URI

DELETE /v3/{project\_id}/enterprise-router/route-tables/{route\_table\_id}/static-routes/{route\_id}

**Table 4-169** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
route_table_id	Yes	String	Route table ID
route_id	Yes	String	Route ID

## Request Parameters

None

## Response Parameters

None

## Example Requests

```
DELETE https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/enterprise-router/route-tables/3ddb4dc2-174e-4d43-9328-b805d5c0c774/static-routes/19d334b7-78c1-4e0e-ba29-b797e641e23c
```

## Example Responses

None

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

# 4.8 Resource Quotas

## 4.8.1 Querying Quotas

### Function

This API is used to query the used quotas of resources, such as enterprise routers and VPC attachments.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/quotas

**Table 4-170** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

**Table 4-171** Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>
marker	No	String	ID of the last enterprise router on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>
type	No	Array of strings	Resource quotas.
erId	No	Object	Enterprise router ID
routeTableId	No	Object	Route table ID
vpcId	No	Object	VPC ID



## Request Parameters

None

## Response Parameters

Status code: 200

Table 4-172 Response body parameters

Parameter	Type	Description
quotas	Array of <a href="#">Quota</a> objects	Used quota details
page_info	<a href="#">PageInfo</a> object	Pagination query information

Table 4-173 Quota

Parameter	Type	Description
quota_key	String	Quota type
quota_limit	Long	Available quota. The value <b>-1</b> indicates that there is no quota limit.
used	Long	Used quota
unit	String	Measurement unit of used quotas

Table 4-174 PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.
current_count	Integer	Number of resources in the list

## Example Requests

Querying the resource quotas

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/enterprise-router/quotas
```

## Example Responses

Status code: 200

OK

```
{
  "quotas" : [ {
    "quota_key" : "er_instance",
    "quota_limit" : 1,
    "used" : 0,
    "unit" : "count"
  }, {
    "quota_key" : "dc_attachment",
    "quota_limit" : 2,
    "used" : 0,
    "unit" : "count"
  }, {
    "quota_key" : "route_table",
    "quota_limit" : 20,
    "used" : 5,
    "unit" : "count"
  }, {
    "quota_key" : "static_route",
    "quota_limit" : 500,
    "used" : 2,
    "unit" : "count"
  }, {
    "quota_key" : "can_attachment",
    "quota_limit" : 10,
    "used" : 0,
    "unit" : "count"
  }, {
    "quota_key" : "connect_attachment",
    "quota_limit" : 20,
    "used" : 0,
    "unit" : "count"
  }, {
    "quota_key" : "peering_attachment",
    "quota_limit" : 10,
    "used" : 0,
    "unit" : "count"
  }, {
    "quota_key" : "vpn_attachment",
    "quota_limit" : 10,
    "used" : 0,
    "unit" : "count"
  }, {
    "quota_key" : "flow_log",
    "quota_limit" : 20,
    "used" : 4,
    "unit" : "count"
  } ],
  "page_info" : {
    "next_marker" : "1",
    "current_count" : 9
  }
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.9 AZs

### 4.9.1 Querying AZs

#### Function

This API is used to query AZs where enterprise routers can be created. An enterprise router can be created only when an AZ is in the available state.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /v3/{project\_id}/enterprise-router/availability-zones

**Table 4-175** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

**Table 4-176** Query Parameters

Parameter	Mandatory	Type	Description
instance_id	No	String	Enterprise router ID

#### Request Parameters

None

#### Response Parameters

**Status code: 200**

**Table 4-177** Response body parameters

Parameter	Type	Description
availability_zones	Array of <a href="#">AvailableZone</a> objects	AZ list
request_id	String	Request ID

**Table 4-178** AvailableZone

Parameter	Type	Description
code	String	AZ code
state	String	Whether the AZ is available. Value options: <b>available</b> and <b>unavailable</b>

## Example Requests

Querying AZs

```
GET https://{erouter_endpoint}/v3/0605767a9980d5762fbcc00b3537e757/enterprise-router/availability-zones
```

## Example Responses

**Status code: 200**

OK

```
{
  "availability_zones": [ {
    "code": "az1",
    "state": "available"
  }, {
    "code": "az2",
    "state": "unavailable"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

# 4.10 Flow Logs

## 4.10.1 Creating a Flow Log

### Function

This API is used to create a flow log for an enterprise router.

## Calling Method

For details, see [Calling APIs](#).

## URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/flow-logs

**Table 4-179** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID

## Request Parameters

**Table 4-180** Request header parameters

Parameter	Mandatory	Type	Description
X-Client-Token	No	String	Idempotence identifier Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-181** Request body parameters

Parameter	Mandatory	Type	Description
flow_log	Yes	<a href="#">FlowLogRequest</a> object	Request body for creating a flow log

**Table 4-182** FlowLogRequest

Parameter	Mandatory	Type	Description
name	Yes	String	Flow log name Minimum: <b>1</b> Maximum: <b>64</b>
description	No	String	Flow log description Minimum: <b>0</b> Maximum: <b>255</b>

Parameter	Mandatory	Type	Description
resource_type	Yes	String	Type of resource whose flow logs are collected. <ul style="list-style-type: none"><li>• VPC attachments</li><li>• Virtual gateway attachments</li></ul>
resource_id	Yes	String	Resource ID
log_group_id	Yes	String	Log group ID. Obtain the log group ID by referring to the <i>Log Tank Service User Guide</i> .
log_stream_id	Yes	String	Log stream ID. Obtain the log stream ID by referring to the <i>Log Tank Service User Guide</i> .
log_store_type	Yes	String	Flow log storage type. <ul style="list-style-type: none"><li>• LTS: Logs are stored on LTS servers.</li></ul>

## Response Parameters

Status code: 202

Table 4-183 Response header parameters

Parameter	Type	Description
X-Client-Token	String	Idempotence identifier

Table 4-184 Response body parameters

Parameter	Type	Description
flow_log	<b>FlowLog</b> object	Flow log details
request_id	String	Request ID

Table 4-185 FlowLog

Parameter	Type	Description
id	String	Flow log ID
name	String	Flow log name
description	String	Flow log description

Parameter	Type	Description
project_id	String	Project ID of the flow log task creator
resource_type	String	Resource type. The value is <b>attachment</b> .
resource_id	String	Resource ID
log_group_id	String	Log group ID
log_stream_id	String	Log stream ID
log_store_type	String	Flow log storage type. LTS is used for log storage.
log_aggregation_interval	Integer	Log aggregation time, in seconds. The value ranges from <b>60</b> to <b>600</b> .
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
state	String	Flow log status. Value options: <b>pending, available, modifying, deleting, deleted, and failed</b>
enabled	Boolean	Whether to enable flow logs. The value can be <b>true</b> or <b>false</b> .

## Example Requests

### Creating a flow log

```
POST https://{erouter_endpoint}/v3/0605767a9980d5762fbcc00b3537e757/enterprise-router/a43c55e9-4911-4030-90e1-5c2bf6ae6fe2/flow-logs
```

```
{
  "flow_log": {
    "name": "flow-log",
    "description": "flow log test",
    "resource_type": "attachment",
    "resource_id": "6f83b848-8331-4271-ac0c-ef94b7686402",
    "log_group_id": "0139393c-eeb2-49f0-bbd4-c5faec6b1497",
    "log_stream_id": "d22c3b44-2f71-470f-83f3-96a8af6956ad",
    "log_store_type": "LTS"
  }
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "flow_log": {
```

```
"id": "b216bc1d-5963-41a7-89f9-779a5128c5ac",
"name": "flow_log",
"project_id": "0605767a9980d5762fbcc00b3537e757",
"resource_type": "attachment",
"resource_id": "6f83b848-8331-4271-ac0c-ef94b7686402",
"log_group_id": "0139393c-eeb2-49f0-bbd4-c5faec6b1497",
"log_stream_id": "d22c3b44-2f71-470f-83f3-96a8af6956ad",
"log_store_type": "LTS",
"log_aggregation_interval": 600,
"created_at": "2020-03-11T15:13:31Z",
"updated_at": "2022-03-11T15:13:31Z",
"state": "available",
"enabled": true,
"description": "Flow Logs"
},
"request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.10.2 Querying Flow Logs

### Function

This API is used to query the flow log list.

### Constraints

There are some constraints:

- Filtering query is supported. The supported filtering criteria include **resource\_type**, **resource\_id**, and **enterprise\_project\_id**. You can query multiple resources at a time or use combined criteria to query resources.
- Pagination query is supported. You can use **limit** and **marker** together for query.
- Only sorting by a single field (**id**, **name**, or **state**) is supported.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/{er\_id}/flow-logs



**Table 4-186** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID

**Table 4-187** Query Parameters

Parameter	Mandatory	Type	Description
resource_type	No	String	Resource type
resource_id	No	Array of strings	Attachment resource IDs
limit	No	Integer	Number of records on each page. Value range: <b>0</b> to <b>2000</b> Minimum: <b>0</b> Maximum: <b>2000</b>
marker	No	String	ID of the last enterprise router on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit. Minimum: <b>1</b> Maximum: <b>128</b>
sort_key	No	Array of strings	Keyword for sorting. The keyword can be <b>id</b> , <b>name</b> , or <b>state</b> . By default, <b>id</b> is used.
sort_dir	No	Array of strings	Sorting order. There are two value options: <b>asc</b> (ascending order) and <b>desc</b> (descending order). The default value is <b>asc</b> .

## Request Parameters

None

## Response Parameters

Status code: 200

**Table 4-188** Response body parameters

Parameter	Type	Description
flow_logs	Array of <b>FlowLog</b> objects	Flow log details
request_id	String	Request ID
total_count	Long	Total count
page_info	<b>PageInfo</b> object	Pagination query information

**Table 4-189** FlowLog

Parameter	Type	Description
id	String	Flow log ID
name	String	Flow log name
description	String	Flow log description
project_id	String	Project ID of the flow log task creator
resource_type	String	Resource type. The value is <b>attachment</b> .
resource_id	String	Resource ID
log_group_id	String	Log group ID
log_stream_id	String	Log stream ID
log_store_type	String	Flow log storage type. LTS is used for log storage.
log_aggregation_interval	Integer	Log aggregation time, in seconds. The value ranges from <b>60</b> to <b>600</b> .
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
state	String	Flow log status. Value options: <b>pending, available, modifying, deleting, deleted, and failed</b>
enabled	Boolean	Whether to enable flow logs. The value can be <b>true</b> or <b>false</b> .

**Table 4-190** PageInfo

Parameter	Type	Description
next_marker	String	Marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.
current_count	Integer	Number of resources in the list

## Example Requests

Querying flow logs

```
GET https://{erouter_endpoint}/v3/0605767a9980d5762fbcc00b3537e757/enterprise-router/a43c55e9-4911-4030-90e1-5c2bf6ae6fe2/flow-logs
```

## Example Responses

**Status code: 200**

OK

```
{
  "flow_logs": [ {
    "id": "b216bc1d-5963-41a7-89f9-779a5128c5ac",
    "name": "flow_log",
    "project_id": "0605767a9980d5762fbcc00b3537e757",
    "resource_type": "attachment",
    "resource_id": "6f83b848-8331-4271-ac0c-ef94b7686402",
    "log_group_id": "0139393c-eeb2-49f0-bbd4-c5faec6b1497",
    "log_stream_id": "d22c3b44-2f71-470f-83f3-96a8af6956ad",
    "log_store_type": "LTS",
    "log_aggregation_interval": 600,
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2022-03-11T15:13:31Z",
    "state": "available",
    "enabled": true,
    "description": "Flow Logs"
  } ],
  "page_info": {
    "next_marker": "1",
    "current_count": 1
  },
  "request_id": "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.10.3 Querying Details About a Flow Log

### Function

This API is used to query details about a flow log.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v3/{project\_id}/enterprise-router/{er\_id}/flow-logs/{flow\_log\_id}

**Table 4-191** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
flow_log_id	Yes	String	Flow log ID

### Request Parameters

None

### Response Parameters

**Status code: 200**

**Table 4-192** Response body parameters

Parameter	Type	Description
flow_log	<a href="#">FlowLog</a> object	Flow log details
request_id	String	Request ID

**Table 4-193** FlowLog

Parameter	Type	Description
id	String	Flow log ID
name	String	Flow log name
description	String	Flow log description
project_id	String	Project ID of the flow log task creator

Parameter	Type	Description
resource_type	String	Resource type. The value is <b>attachment</b> .
resource_id	String	Resource ID
log_group_id	String	Log group ID
log_stream_id	String	Log stream ID
log_store_type	String	Flow log storage type. LTS is used for log storage.
log_aggregation_interval	Integer	Log aggregation time, in seconds. The value ranges from <b>60</b> to <b>600</b> .
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
state	String	Flow log status. Value options: <b>pending, available, modifying, deleting, deleted, and failed</b>
enabled	Boolean	Whether to enable flow logs. The value can be <b>true</b> or <b>false</b> .

## Example Requests

Querying flow logs

```
GET https://{erouter_endpoint}/v3/0605767a9980d5762fbcc00b3537e757/enterprise-router/a43c55e9-4911-4030-90e1-5c2bf6ae6fe2/flow-logs/b216bc1d-5963-41a7-89f9-779a5128c5ac
```

## Example Responses

**Status code: 200**

OK

```
{
  "flow_log": {
    "id": "b216bc1d-5963-41a7-89f9-779a5128c5ac",
    "name": "flow_log",
    "project_id": "0605767a9980d5762fbcc00b3537e757",
    "resource_type": "attachment",
    "resource_id": "6f83b848-8331-4271-ac0c-ef94b7686402",
    "log_group_id": "0139393c-eeb2-49f0-bbd4-c5faec6b1497",
    "log_stream_id": "d22c3b44-2f71-470f-83f3-96a8af6956ad",
    "log_store_type": "LTS",
    "log_aggregation_interval": 600,
    "created_at": "2020-03-11T15:13:31Z",
    "updated_at": "2022-03-11T15:13:31Z",
    "state": "available",
    "enabled": true,
    "description": "Flow Logs"
  }
}
```

```
},  
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"  
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 4.10.4 Updating a Flow Log

### Function

This API is used to update a flow log.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /v3/{project\_id}/enterprise-router/{er\_id}/flow-logs/{flow\_log\_id}

**Table 4-194** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
flow_log_id	Yes	String	Flow log ID

### Request Parameters

**Table 4-195** Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	Flow log name Minimum: <b>1</b> Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
description	No	String	Minimum: <b>0</b> Maximum: <b>255</b>

## Response Parameters

Status code: 200

**Table 4-196** Response body parameters

Parameter	Type	Description
flow_log	<b>FlowLog</b> object	Flow log details
request_id	String	Request ID

**Table 4-197** FlowLog

Parameter	Type	Description
id	String	Flow log ID
name	String	Flow log name
description	String	Flow log description
project_id	String	Project ID of the flow log task creator
resource_type	String	Resource type. The value is <b>attachment</b> .
resource_id	String	Resource ID
log_group_id	String	Log group ID
log_stream_id	String	Log stream ID
log_store_type	String	Flow log storage type. LTS is used for log storage.
log_aggregation_interval	Integer	Log aggregation time, in seconds. The value ranges from <b>60</b> to <b>600</b> .
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
state	String	Flow log status. Value options: <b>pending, available, modifying, deleting, deleted, and failed</b>

Parameter	Type	Description
enabled	Boolean	Whether to enable flow logs. The value can be <b>true</b> or <b>false</b> .

## Example Requests

Updating a flow log (with the name changed to flow\_log\_update and description to flow log update test)

```
PUT https://{erouter_endpoint}/v3/0605767a9980d5762fbcc00b3537e757/enterprise-router/6f83b848-8331-4271-ac0c-ef94b7686402/flow_logs/b216bc1d-5963-41a7-89f9-779a5128c5ac
{
  "name" : "flow_log_update",
  "description" : "flow log update test"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "flow_log" : {
    "id" : "b216bc1d-5963-41a7-89f9-779a5128c5ac",
    "name" : "flow_log_update",
    "project_id" : "0605767a9980d5762fbcc00b3537e757",
    "resource_type" : "attachment",
    "resource_id" : "6f83b848-8331-4271-ac0c-ef94b7686402",
    "log_group_id" : "0139393c-eeb2-49f0-bbd4-c5faec6b1497",
    "log_stream_id" : "d22c3b44-2f71-470f-83f3-96a8af6956ad",
    "log_store_type" : "LTS",
    "log_aggregation_interval" : 600,
    "created_at" : "2020-03-11T15:13:31Z",
    "updated_at" : "2022-03-11T15:13:31Z",
    "state" : "available",
    "enabled" : true,
    "description" : "flow log update test"
  },
  "request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).



## 4.10.5 Deleting a Flow Log

### Function

This API is used to delete a flow log.

### Constraints

A flow log can be deleted only when it is in the **available**, **deleting**, or **failed** state.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /v3/{project\_id}/enterprise-router/{er\_id}/flow-logs/{flow\_log\_id}

**Table 4-198** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
flow_log_id	Yes	String	Flow log ID

### Request Parameters

None

### Response Parameters

None

### Example Requests

Deleting a flow log

```
DELETE https://{erouter_endpoint}/v3/0605767a9980d5762fbcc00b3537e757/enterprise-router/6f83b848-8331-4271-ac0c-ef94b7686402/flow_logs/b216bc1d-5963-41a7-89f9-779a5128c5ac
```

### Example Responses

None

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

## 4.10.6 Enabling Flow Logs

### Function

This API is used to enable flow logs.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v3/{project\_id}/enterprise-router/{er\_id}/flow-logs/{flow\_log\_id}/enable

**Table 4-199** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
er_id	Yes	String	Enterprise router ID
flow_log_id	Yes	String	Flow log ID

### Request Parameters

None

### Response Parameters

Status code: 202

**Table 4-200** Response body parameters

Parameter	Type	Description
flow_log	<a href="#">FlowLog</a> object	Flow log details
request_id	String	Request ID

**Table 4-201** FlowLog

Parameter	Type	Description
id	String	Flow log ID
name	String	Flow log name
description	String	Flow log description
project_id	String	Project ID of the flow log task creator
resource_type	String	Resource type. The value is <b>attachment</b> .
resource_id	String	Resource ID
log_group_id	String	Log group ID
log_stream_id	String	Log stream ID
log_store_type	String	Flow log storage type. LTS is used for log storage.
log_aggregation_interval	Integer	Log aggregation time, in seconds. The value ranges from <b>60</b> to <b>600</b> .
created_at	String	Creation time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
updated_at	String	Update time in the format of <i>YYYY-MM-DDTHH:mm:ss.sssZ</i>
state	String	Flow log status. Value options: <b>pending, available, modifying, deleting, deleted, and failed</b>
enabled	Boolean	Whether to enable flow logs. The value can be <b>true</b> or <b>false</b> .

## Example Requests

Enabling flow logs

```
POST https://{erouter_endpoint}/v3/0605767a9980d5762fbcc00b3537e757/enterprise-router/a43c55e9-4911-4030-90e1-5c2bf6ae6fe2/flow-logs/b216bc1d-5963-41a7-89f9-779a5128c5ac/enable
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "flow_log" : {
    "id" : "b216bc1d-5963-41a7-89f9-779a5128c5ac",
```

```
"name" : "flow_log_update",
"project_id" : "0605767a9980d5762fbcc00b3537e757",
"resource_type" : "attachment",
"resource_id" : "6f83b848-8331-4271-ac0c-ef94b7686402",
"log_group_id" : "0139393c-eeb2-49f0-bbd4-c5faec6b1497",
"log_stream_id" : "d22c3b44-2f71-470f-83f3-96a8af6956ad",
"log_store_type" : "LTS",
"log_aggregation_interval" : 600,
"created_at" : "2020-03-11T15:13:31Z",
"updated_at" : "2022-03-11T15:13:31Z",
"state" : "available",
"enabled" : true,
"description" : "Flow Logs"
},
"request_id" : "915a14a6-867b-4af7-83d1-70efceb146f9"
}
```

## Status Codes

Status Code	Description
202	Accepted

## Error Codes

See [Error Codes](#).

# 5 Permissions Policies and Supported Actions

---

## 5.1 Introduction

This topic describes fine-grained permissions management for your Enterprise Router resources. If your account does not need individual IAM users, you may skip this topic.

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

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

## 5.2 Supported Actions in RBAC

This topic describes the actions supported by Enterprise Router in RBAC.

### Supported Actions

Enterprise Router provides system-defined policies that can be directly used. You can also create custom policies to work with system-defined policies for more refined access control. Actions supported by policies are specific to APIs. Common concepts related to policies include:

- Permissions: allow or deny operations on specified resources under specific conditions.
- APIs: REST APIs that can be called by a user who has been granted specific permissions.

- **Actions:** specific operations that are allowed or denied.
- **Related actions:** actions on which a specific action depends. When assigning permissions for the action to a user, you also need to assign permissions for the dependent actions.
- **IAM projects or enterprise projects:** type of projects for which an action will take effect. For example, if you set the authorization scope of a custom policy to both IAM projects and enterprise projects, the policy takes effect for user groups in either IAM or enterprise projects. If the authorization scope is set to IAM projects only, the custom policy will take effect only for user groups in IAM projects. Administrators can check whether an action supports IAM projects or enterprise projects in the action list. "√" indicates that the action supports the project and "×" indicates that the action does not support the project.

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

- [Enterprise Routers](#)
- [VPC Attachments](#)
- [Route Tables](#)
- [Associations](#)
- [Propagations](#)
- [Routes](#)
- [Flow Logs](#)
- [Tags](#)
- [Quota Management](#)

## 5.3 Enterprise Routers

Permission	API	Action	IAM Project	Enterprise Project
Creating an enterprise router	POST /v3/{project_id}/enterprise-router/instances	er:instances:create	√	√
Updating an enterprise router	PUT /v3/{project_id}/enterprise-router/instances/{enterprise_router_id}	er:instances:update	√	√
Querying details about an enterprise router	GET /v3/{project_id}/enterprise-router/instances/{enterprise_router_id}	er:instances:get	√	√
Querying the enterprise router list	GET /v3/{project_id}/enterprise-router/instances	er:instances:list	√	√

Permission	API	Action	IAM Project	Enterprise Project
Deleting an enterprise router	DELETE /v3/{project_id}/enterprise-router/instances/{enterprise_router_id}	er:instances:delete	√	√

## 5.4 VPC Attachments

Permission	API	Action	Project	Enterprise Project
Creating a VPC attachment	POST /v3/{project_id}/enterprise-router/{er_id}/vpc-attachments	er:attachments:create	√	√
Updating a VPC attachment	PUT /v3/{project_id}/enterprise-router/{er_id}/vpc-attachments/{vpc_attachment_id}	er:attachments:update	√	√
Querying details about a VPC attachment	GET /v3/{project_id}/enterprise-router/{er_id}/vpc-attachments/{vpc_attachment_id}	er:attachments:get	√	√
Querying the VPC attachment list	GET /v3/{project_id}/enterprise-router/{er_id}/vpc-attachments	er:attachments:list	√	√
Deleting a VPC attachment	DELETE /v3/{project_id}/enterprise-router/{er_id}/vpc-attachments/{vpc_attachment_id}	er:attachments:delete	√	√

## 5.5 Other Types of Attachments

Permission	API	Action	IAM Project	Enterprise Project
Updating an attachment	PUT /v3/{project_id}/enterprise-router/{er_id}/attachments/{attachment_id}	er:attachments:update	√	√

Permission	API	Action	IAM Project	Enterprise Project
Querying details about an attachment	GET /v3/{project_id}/enterprise-router/{er_id}/attachments/{attachment_id}	er:attachments:get	√	√
Querying the attachment list	GET /v3/{project_id}/enterprise-router/{er_id}/attachments	er:attachments:list	√	√

## 5.6 Route Tables

Permission	API	Action	IAM Project	Enterprise Project
Creating a route table	POST /v3/{project_id}/enterprise-router/{er_id}/route-tables	er:routeTables:create	√	√
Updating a route table	PUT /v3/{project_id}/enterprise-router/{er_id}/route-tables/{route_table_id}	er:routeTables:update	√	√
Querying details about a route table	GET /v3/{project_id}/enterprise-router/{er_id}/route-tables/{route_table_id}	er:routeTables:get	√	√
Querying the route table list	GET /v3/{project_id}/enterprise-router/{er_id}/route-tables	er:routeTables:list	√	√
Deleting a route table	DELETE /v3/{project_id}/enterprise-router/{er_id}/route-tables/{route_table_id}	er:routeTables:delete	√	√



## 5.7 Associations

Permission	API	Action	IAM Project	Enterprise Project
Creating an association	POST /v3/{project_id}/enterprise-router/{er_id}/route-tables/{route_table_id}/associate	er:associations:associate	√	√
Querying the association list	GET /v3/{project_id}/enterprise-router/{er_id}/route-tables/{route_table_id}/associations	er:associations:list	√	√
Deleting an association	POST /v3/{project_id}/enterprise-router/{er_id}/route-tables/{route_table_id}/disassociate	er:associations:disassociate	√	√

## 5.8 Propagations

Permission	API	Action	IAM Project	Enterprise Project
Creating a propagation	POST /v3/{project_id}/enterprise-router/{er_id}/route-tables/{route_table_id}/enable-propagations	er:propagations:enable	√	√
Querying the propagation list	GET /v3/{project_id}/enterprise-router/{er_id}/route-tables/{route_table_id}/propagations	er:propagations:list	√	√
Deleting a propagation	POST /v3/{project_id}/enterprise-router/{er_id}/route-tables/{route_table_id}/disable-propagations	er:propagations:disable	√	√

## 5.9 Routes

Permission	API	Action	IAM Project	Enterprise Project
Creating a static route	POST /v3/{project_id}/enterprise-router/route-tables/{route_table_id}/static-routes	er:routes:create	√	√
Updating a static route	PUT /v3/{project_id}/enterprise-router/route-tables/{route_table_id}/static-routes/{route_id}	er:routes:update	√	√
Querying details about a static route	GET /v3/{project_id}/enterprise-router/route-tables/{route_table_id}/static-routes/{route_id}	er:routes:get	√	√
Querying static routes	GET /v3/{project_id}/enterprise-router/route-tables/{route_table_id}/static-routes	er:routes:list	√	√
Querying effective routes	GET /v3/{project_id}/enterprise-router/route-tables/{route_table_id}/routes	er:routes:list	√	√
Deleting a static route	DELETE /v3/{project_id}/enterprise-router/route-tables/{route_table_id}/static-routes/{route_id}	er:routes:delete	√	√

## 5.10 Flow Logs

Permission	API	Action	IAM Project	Enterprise Project
Creating a flow log	POST /v3/{project_id}/enterprise-router/{er_id}/flow-logs	er:flowlogs:create	√	√
Querying the flow log list	GET /v3/{project_id}/enterprise-router/{er_id}/flow-logs	er:flowlogs:list	√	√

Permission	API	Action	IAM Project	Enterprise Project
Querying details about a flow log	GET /v3/{project_id}/enterprise-router/{er_id}/flow-logs/{flow_log_id}	er:flowlogs:show	√	√
Updating a flow log	PUT /v3/{project_id}/enterprise-router/{er_id}/flow-logs/{flow_log_id}	er:flowlogs:update	√	√
Deleting a flow log	DELETE /v3/{project_id}/enterprise-router/{er_id}/flow-logs/{flow_log_id}	er:flowlogs:delete	√	√
Enabling flow logging	POST /v3/{project_id}/enterprise-router/{er_id}/flow-logs/{flow_log_id}/enable	er:flowlogs:enable	√	√
Disabling flow logging	POST /v3/{project_id}/enterprise-router/{er_id}/flow-logs/{flow_log_id}/disable	er:flowlogs:disable	√	√

## 5.11 Tags

Permission	API	Action	IAM Project	Enterprise Project
Querying tags by resource type	GET /v3/{project_id}/{resource_type}/tags	er:tags:list	√	√
Querying resource tags	GET /v3/{project_id}/{resource_type}/{resource_id}/tags	er:tags:get	√	√
Creating a resource tag	POST /v3/{project_id}/{resource_type}/{resource_id}/tags	er:tags:create	√	√
Adding or deleting resource tags in batches	POST /v3/{project_id}/{resource_type}/{resource_id}/tags/action	er:tags:create	√	√

Permission	API	Action	IAM Project	Enterprise Project
Deleting a resource tag	POST /v3/{project_id}/ {resource_type}/ {resource_id}/tags/{key}	er:tags:delete	√	√

## 5.12 Quota Management

Permission	API	Action	IAM Project	Enterprise Project
Querying quotas	GET /v3/{project_id}/ enterprise-router/quotas	er:quotas:list	√	√

# A Appendixes

## A.1 Status Codes

Table A-1 Normal status codes

Status Code	Message	Description
200	OK	Normal response code for the GET, PUT, and POST operations
201	Created	Normal response code for POST operations
202	Accepted	Operations that take a long time to process. The request has been accepted but the processing is not complete.
204	No Content	Normal response code for DELETE operations

Table A-2 Abnormal status codes

Status Code	Message	Description
400	Bad Request	The server failed to process the request.
401	Unauthorized	You must enter a username and the password to access the requested page.
403	Forbidden	Access to the requested page is forbidden.
404	Not Found	The requested page was not found.
405	Method Not Allowed	The request method is not allowed.

Status Code	Message	Description
406	Not Acceptable	Response generated by the server is not acceptable to the client.
407	Proxy Authentication Required	You must use the proxy server for authentication. Then, the request can be processed.
408	Request Timeout	The request timed out.
409	Conflict	The request could not be processed due to a conflict.
500	Internal Server Error	The request is not completed because an exception occurs.
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 response from the upstream server.
503	Service Unavailable	The request is not completed because the system is temporarily abnormal.
504	Gateway Timeout	The gateway timed out.

## A.2 Error Codes

Status Code	Error Codes	Error Message	Description	Solution
400	ER.04001003	The enterprise router is unavailable or is being operated.	The enterprise router is unavailable or is being operated.	Check whether the enterprise router is available and try again.
400	ER.04001104	The default route table association function is not enabled.	The default route table association function is not enabled.	Enable the default route table association function and try again.

Status Code	Error Codes	Error Message	Description	Solution
400	ER.04001105	The default route table propagation function is not enabled.	The default route table propagation function is not enabled.	Enable the default route table propagation function and try again.
400	ER.04001106	Invalid ASN.	Invalid ASN.	Enter a valid ASN.
400	ER.04002002	The association already exists.	The association already exists.	Check the association and try again.
400	ER.04002003	An operation is being performed on this association.	An operation is being performed on this association.	Try again after the association status changes to Normal.
400	ER.04003002	The propagation already exists.	The propagation already exists.	Check the propagation and try again.
400	ER.04003003	An operation is being performed on this propagation.	An operation is being performed on this propagation.	Try again after the propagation status changes to Normal.
400	ER.04004002	This attachment is being used by other resources.	This attachment is being used by other resources.	Check whether the attachment is being used by other resources. If there are such resources, delete them and try again.
400	ER.04004003	This attachment is unavailable or is being operated.	This attachment is unavailable or is being operated.	Check whether the attachment is available and try again.
400	ER.04004004	This resource is being used by another attachment.	This resource is being used by another attachment.	Check whether an attachment has been created for the resource.
400	ER.04004101	This route already exists in the VPC route table.	This route already exists in the VPC route table.	Disable the Auto Add Routes function and try again.

Status Code	Error Codes	Error Message	Description	Solution
400	ER.04004102	Failed to add the route to the VPC route table.	Failed to add the route to the VPC route table.	Check whether a route with the same destination already exists in the VPC route table.
400	ER.04005003	This route table is unavailable or is being operated.	This route table is unavailable or is being operated.	Check whether the route table is available and try again.
400	ER.04006002	The destination of the route already exists.	The destination of the route already exists.	Check the destination in the route.
400	ER.04006103	The destination of the route is invalid.	The destination of the route is invalid.	Check the destination in the route.
400	ER.04006104	The destination cannot be 127.0.0.0/8, 169.254.0.0/16, 224.0.0.0/4, or any of their subnets.	The destination cannot be 127.0.0.0/8, 169.254.0.0/16, 224.0.0.0/4, or any of their subnets.	Do not add a route with destination set to 127.0.0.0/8, 169.254.0.0/16, 224.0.0.0/4, or any of their subnets.
400	ER.04006105	The network instance type of the next hop is not supported.	The network instance type of the next hop is not supported.	Use another type of network instance.
400	ER.04006106	A blackhole route cannot have a next hop. A non-blackhole route must have a next hop.	Invalid route.	Check the route.
400	ER.04008500	Flow logs are not supported by the resource type.	Flow logs are not supported by the resource type.	Check the resource type.



Status Code	Error Codes	Error Message	Description	Solution
400	ER.04008501	The flow log task does not exist.	The flow log task does not exist.	Check the flow log ID.
400	ER.04008502	The flow log task is being operated.	The flow log task is being operated.	Check the flow log task status and try again later.
400	ER.04008503	The flow log task already exists.	The flow log task already exists.	Check the flow log task.
400	ER.04009005	Invalid parameters.	Invalid parameters.	Check the parameters.
400	ER.04009008	Insufficient quota.	Insufficient quota.	Submit a service ticket to apply for quota increase.
400	ER.04009009	The quota type does not exist.	The quota type does not exist.	Check the parameters.
400	ER.04009011	The resource is frozen.	The resource is frozen.	Unfreeze the resource and try again.
400	ER.04009012	This account is frozen or restricted.	This account is frozen or restricted.	Contact customer service.
400	ER.04009013	This enterprise router has frozen attachments.	This enterprise router has frozen attachments.	Contact customer service.
400	ER.04009019	This feature is not available yet.	This feature is not available yet.	Contact customer service.
404	ER.04041001	This enterprise router does not exist.	This enterprise router does not exist.	Check the parameters.
404	ER.04042001	This association does not exist.	This association does not exist.	Check the parameters.

Status Code	Error Codes	Error Message	Description	Solution
404	ER.04043001	This propagation does not exist.	This propagation does not exist.	Check the parameters.
404	ER.04044001	This attachment does not exist.	This attachment does not exist.	Check the parameters.
404	ER.04045001	This route table does not exist.	This route table does not exist.	Check the parameters.
404	ER.04046001	This route does not exist.	This route does not exist.	Check the parameters.
409	ER.04091002	This enterprise router is being used by other resources.	This enterprise router is being used by other resources.	Delete the resources and try again.
409	ER.04095002	This route table is being used by other resources.	This route table is being used by other resources.	Delete the resources and try again.
409	ER.04095104	The default association route table cannot be deleted.	The default association route table cannot be deleted.	Disable the Default Route Table Association function.
409	ER.04095105	The default propagation route table cannot be deleted.	The default propagation route table cannot be deleted.	Disable the Default Route Table Propagation function.
503	ER.05039006	This service is temporarily unavailable.	This service is temporarily unavailable.	Contact customer service or try again later.

## A.3 Obtaining a Project ID

### Scenarios

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

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

### Obtain the Project ID by Calling an API

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

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

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

```
{
  "projects": [
    {
      "domain_id": "65ewtrgaggshhk1223245sghjlse684b",
      "is_domain": false,
      "parent_id": "65ewtrgaggshhk1223245sghjlse684b",
      "name": "project_name",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4adasfjljaaaakla12334jklga9sasfg"
      },
      "id": "a4adasfjljaaaakla12334jklga9sasfg",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

### Obtain a Project ID from the Console

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

1. Log in to the management console.
2. Click the username and select **My Credentials** from the drop-down list.

On the **My Credentials** page, view the project ID (value in the **Project ID** column).

# B Change History

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Released On	Description
2024-12-16	This issue is the first official release.