

Enterprise Router

API Reference

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1 Before You Start

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](#).

If you plan to call enterprise router APIs, ensure that you are familiar with enterprise router concepts. For details, see [What's an Enterprise Router?](#)

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 Constraints

The number of enterprise routers you can create is determined by your quota. To view or increase the quota, see [Increasing Quotas](#).

For more constraints, see API description.

1.4 Concepts

- Account

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

user passwords and grant user permissions. The account is a payment entity, which should not be used directly to perform routine management. For security purposes, create Identity and Access Management (IAM) users and grant them permissions for routine management.

- User

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

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

- Region

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

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

- AZ

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

- Project

A project corresponds to a region. Default projects are defined. Users can be granted permissions in a default project to access all resources under their accounts in the region associated with the project. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can assign users the permissions required to access only the resources in the specific subprojects.

- Enterprise project

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

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

2 API Overview

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 Regions and Endpoints. For example, the endpoint of IAM in region Dublin is iam.myhuaweicloud.eu . |
| resource-path | Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the resource-path of the API used to obtain a user token is /v3/auth/tokens . |

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

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

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

NOTE

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

Request Methods

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

Table 3-2 HTTP methods

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

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

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

Request Header

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

Common request header fields are as follows.

Table 3-3 Common request header fields

| Parameter | Description | Mandatory | Example Value |
|----------------|---|---|--|
| Host | Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of <i>Hostname:Port number</i> . If the port number is not specified, the default port is used. The default port number for https is 443 . | No This field is mandatory for AK/SK authentication. | code.test.com or code.test.com:443 |
| Content-Type | Specifies the type (or format) of the message body. The default value application/json is recommended. Other values of this field will be provided for specific APIs if any. | Yes | application/json |
| Content-Length | Specifies the length of the request body. The unit is byte. | No | 3495 |
| X-Project-Id | Specifies the project ID. Obtain the project ID by following the instructions in Obtaining a Project ID . | No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario. | e9993fc787d94b6c886cbaa340f9c0f4 |

| Parameter | Description | Mandatory | Example Value |
|--------------|--|--|---|
| X-Auth-Token | <p>Specifies the user token.</p> <p>It is a response to the API for obtaining a user token (This is the only API that does not require authentication).</p> <p>After the request is processed, the value of X-Subject-Token in the response header is the token value.</p> | <p>No</p> <p>This field is mandatory for token authentication.</p> | <p>The following is part of an example token:</p> <p>MIIPAgYJKoZlhvc NAQcCo...ggg1B BIINPXsidG9rZ</p> |

NOTE

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

For more details, see "Authentication Using AK/SK" in [Authentication](#).

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

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

(Optional) Request Body

This part is optional. The body of a request is often sent in a structured format (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 Regions and Endpoints.

NOTE

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

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

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "$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": "xxxxxxxxxxxxxxxxxxxxxx"
      }
    }
  }
}
```

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 a 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://iam.myhuaweicloud.eu/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK Authentication

NOTE

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

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

- AK: 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.

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

NOTE

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

3.3 Response

Status Code

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

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

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

Response Header

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

Figure 3-1 shows the response header fields for the API used to [obtain a user token](#). The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

NOTE

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

Figure 3-1 Header fields of the response to the request for obtaining a user token

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

(Optional) Response Body

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

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

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

```



```
.....  
    "region_id": "az-01",
```

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

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

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

4 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: 1 Maximum: 64 |

Table 4-3 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------------------------------------|-------------------|
| instance | Yes | CreateEnterpriseRouter 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: 1 Maximum: 64 |
| description | No | String | Description of an enterprise router Minimum: 0 Maximum: 255 |
| asn | Yes | Long | Enterprise router BGP ASN |
| enterprise_project_id | No | String | Enterprise project ID |
| charge_mode | No | String | Billing mode Default: postPaid |
| tags | No | Array of Tag objects | Tag information |

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

Table 4-5 Tag

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|--|
| key | No | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|--|
| value | No | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_:=+@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Response Parameters

Status code: 202

Table 4-6 Response header parameters

| Parameter | Type | Description |
|----------------|------|------------------------|
| X-Client-Token | - | Idempotence identifier |

Table 4-7 Response body parameters

| Parameter | Type | Description |
|------------|---|-------------------|
| instance | EnterpriseRouter 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: pending , available , modifying , deleting , deleted , and failed |

| Parameter | Type | Description |
|------------------------------------|--------------------------------------|---|
| tags | Array of Tag objects | Tag information |
| charge_mode | String | Billing mode Default: postPaid |
| 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 the Default Route Table Propagation function. The default value is false , indicating that the function is disabled. |
| enable_default_association | Boolean | Whether to enable the Default Route Table Association function. The default value is false , indicating that the function 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 automatically accept shared attachments. The default value is false , indicating that the function is disabled. |

Table 4-9 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |

| Parameter | Type | Description |
|-----------|--------|--|
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_:=+@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Example Requests

Creating an enterprise router

POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbbef3c/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": "08d5a9564a704afda6039ae2babbbef3c",
    "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 | UpdateEnterpriseRouter object | Request body for updating an enterprise router |

Table 4-12 UpdateEnterpriseRouter

| Parameter | Mandatory | Type | Description |
|------------------------------------|-----------|---------|---|
| name | No | String | Enterprise router name Minimum: 1 Maximum: 64 |
| description | No | String | Description of an enterprise router Minimum: 0 Maximum: 255 |
| 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 automatically accept shared attachments. The default value is false , indicating that the function is disabled. |

Response Parameters

Status code: 200

Table 4-13 Response body parameters

| Parameter | Type | Description |
|------------|---|-------------------|
| instance | EnterpriseRouter object | Enterprise router |
| request_id | String | Request ID |

Table 4-14 EnterpriseRouter

| Parameter | Type | Description |
|-----------|--------|----------------------|
| id | String | Enterprise router ID |

| Parameter | Type | Description |
|------------------------------------|-----------------------------|--|
| name | String | Enterprise router name |
| description | String | Description of an enterprise router |
| state | String | Enterprise router status. Value options: pending , available , modifying , deleting , deleted , and failed |
| tags | Array of Tag objects | Tag information |
| charge_mode | String | Billing mode Default: postPaid |
| 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 the Default Route Table Propagation function. The default value is false , indicating that the function is disabled. |
| enable_default_association | Boolean | Whether to enable the Default Route Table Association function. The default value is false , indicating that the function 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 automatically accept shared attachments. The default value is false , indicating that the function is disabled. |

Table 4-15 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>._:=-+@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

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}/v3/08d5a9564a704afda6039ae2babbef3c/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": "08d5a9564a704afda6039ae2babbef3c",
    "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 | EnterpriseRouter 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: pending , available , modifying , deleting , deleted , and failed |
| tags | Array of Tag objects | Tag information |
| charge_mode | String | Billing mode Default: postPaid |
| 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_route_propagation | Boolean | Whether to enable the Default Route Table Propagation function. The default value is false , indicating that the function is disabled. |
| enable_default_route_association | Boolean | Whether to enable the Default Route Table Association function. The default value is false , indicating that the function is disabled. |
| default_propagation_route_table_id | String | Default propagation route table ID |

| Parameter | Type | Description |
|------------------------------------|------------------|---|
| 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 automatically accept shared attachments. The default value is false , indicating that the function is disabled. |

Table 4-19 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">Tag values consist of letters, digits, spaces, and special characters _:=-+@Tag values can contain 0 to 255 characters.Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

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

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: 0 to 2000 Minimum: 0 Maximum: 2000 |
| 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: 1 Maximum: 128 |
| enterprise_project_id | No | Array | Enterprise project ID |
| state | No | Array | Resource status. Value options: pending, available, modifying, deleting, deleted, failed and frozen |
| id | No | Array | Query by resource ID. Multiple resources can be queried at a time. |
| resource_id | No | Array | Attachment resource IDs |
| owned_by_self | No | Boolean | Whether the resources belong to the current account. <ul style="list-style-type: none">• If the value is true, the resources belong to the current account.• If the value is false, the resources include those in the current account and those shared with the current account. |
| sort_key | No | Array | Keyword for sorting. The keyword can be id, name, or state . By default, id is used. |
| sort_dir | No | Array | Sorting order. There are two value options: asc (ascending order) and desc (descending order). The default value is asc . |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-22 Response body parameters

| Parameter | Type | Description |
|------------|---|------------------------------|
| instances | Array of EnterpriseRouter objects | Enterprise routers |
| page_info | PageInfo 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: pending , available , modifying , deleting , deleted , and failed |
| tags | Array of Tag objects | Tag information |
| charge_mode | String | Billing mode Default: postPaid |
| 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 |

| Parameter | Type | Description |
|------------------------------------|------------------|---|
| enable_default_propagation | Boolean | Whether to enable the Default Route Table Propagation function. The default value is false , indicating that the function is disabled. |
| enable_default_association | Boolean | Whether to enable the Default Route Table Association function. The default value is false , indicating that the function 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 automatically accept shared attachments. The default value is false , indicating that the function is disabled. |

Table 4-24 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters _:=-+@• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

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" ]
  } ],
  "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: 1 Maximum: 64 |

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: 1 Maximum: 64 |
| 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: 0 Maximum: 255 |
| 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: false |
| tags | No | Array of Tag objects | Tag information |

Table 4-31 Tag

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|--|
| key | No | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|--|
| value | No | String | Tag value. <ul style="list-style-type: none">Tag values consist of letters, digits, spaces, and special characters <code>_:=+@</code>Tag values can contain 0 to 255 characters.Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Response Parameters

Status code: 202

Table 4-32 Response header parameters

| Parameter | Type | Description |
|----------------|------|------------------------|
| X-Client-Token | - | Idempotence identifier |

Table 4-33 Response body parameters

| Parameter | Type | Description |
|----------------|---|----------------|
| vpc_attachment | VpcAttachmentDetails 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 |
| virsubnet_id | String | VPC subnet ID |

| Parameter | Type | Description |
|------------------------|-----------------------------|---|
| auto_create_vpc_routes | Boolean | The default value is false . If this parameter is set to true , 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: false |
| state | String | VPC attachment status. Value options: pending , available , modifying , deleting , deleted , failed , initiating_request , rejected , and pending_acceptance |
| 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 Tag 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 |

Table 4-35 Tag

| Parameter | Type | Description |
|-----------|--------|---|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_.:=+@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Example Requests

Creating a VPC attachment named **vpc-atta**

```
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 4-36 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 4-37 Request body parameters

| Parameter | Mandatory | Type | Description |
|----------------|-----------|--|---|
| vpc_attachment | No | UpdateVpcAttachmentBody object | Request body for updating VPC information |

Table 4-38 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: 0 Maximum: 255 |
| name | No | String | VPC attachment name. The value can contain 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.). Minimum: 1 Maximum: 64 |

Response Parameters

Status code: 200

Table 4-39 Response body parameters

| Parameter | Type | Description |
|----------------|---|----------------|
| vpc_attachment | VpcAttachmentDetails object | VPC attachment |
| request_id | String | Request ID |

Table 4-40 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 false . If this parameter is set to true , 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: false |
| state | String | VPC attachment status. Value options: pending, available, modifying, deleting, deleted, failed, initiating_request, rejected, and pending_acceptance |
| 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 Tag 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 |

Table 4-41 Tag

| Parameter | Type | Description |
|-----------|--------|---|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">Tag values consist of letters, digits, spaces, and special characters <code>_:+=-@</code>Tag values can contain 0 to 255 characters.Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Example Requests

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

```
PUT https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/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" : "08d5a9564a704afda6039ae2babbef3c",
    "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 4-42 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 4-43 Response body parameters

| Parameter | Type | Description |
|----------------|---|----------------|
| vpc_attachment | VpcAttachmentDetails object | VPC attachment |
| request_id | String | Request ID |

Table 4-44 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 false . If this parameter is set to true , 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: false |
| state | String | VPC attachment status. Value options: pending , available , modifying , deleting , deleted , failed , initiating_request , rejected , and pending_acceptance |
| 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 Tag 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 |

Table 4-45 Tag

| Parameter | Type | Description |
|-----------|--------|---|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">Tag values consist of letters, digits, spaces, and special characters _.:=-+@Tag values can contain 0 to 255 characters.Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Example Requests

Querying details about a VPC attachment

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/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" : "08d5a9564a704afda6039ae2babbef3c",
    "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

VPC attachments can be queried in the following methods:

- Filtering query is supported. You can query by 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 4-46 Path Parameters

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

Table 4-47 Query Parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|---------|---|
| limit | No | Integer | Number of records on each page. Value range: 0 to 2000 Minimum: 0 Maximum: 2000 |

| 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: 1 Maximum: 128 |
| state | No | Array | Attachment status. Value options: pending , available , modifying , deleting , deleted , failed , pending_acceptance , rejected , and initiating_request |
| id | No | Array | Query by resource ID. Multiple resources can be queried at a time. |
| sort_key | No | Array | Keyword for sorting. The keyword can be id , name , or state . By default, id is used. |
| sort_dir | No | Array | Sorting order. There are two value options: asc (ascending order) and desc (descending order). The default value is asc . |
| vpc_id | No | Array | VPC id |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-48 Response body parameters

| Parameter | Type | Description |
|-----------------|--|-----------------|
| vpc_attachments | Array of VpcAttachmentDetails objects | VPC attachments |

| Parameter | Type | Description |
|------------|---------------------------------|------------------------------|
| page_info | PageInfo object | Pagination query information |
| request_id | String | Request ID |

Table 4-49 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 false . If this parameter is set to true , 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: false |
| state | String | VPC attachment status. Value options: pending, available, modifying, deleting, deleted, failed, initiating_request, rejected, and pending_acceptance |
| 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 Tag 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 |

Table 4-50 Tag

| Parameter | Type | Description |
|-----------|--------|---|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_:=-+@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Table 4-51 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",
  "vpc_subnet_id" : "2b55f334-a15e-43a9-ab11-b34c2dbb6fac",
  "project_id" : "08d5a9564a704afda6039ae2babbbef3c",
  "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 4-52 Path Parameters

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

| Parameter | Mandatory | Type | Description |
|-------------------|-----------|--------|----------------------|
| 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}/v3/08d5a9564a704afda6039ae2babbef3c/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 4-53 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 4-54 Request body parameters

| Parameter | Mandatory | Type | Description |
|------------|-----------|---|--|
| attachment | No | UpdateAttachmentBody object | Change basic information about the attachment. |

Table 4-55 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: 0 Maximum: 255 |
| name | No | String | Attachment name. The value can contain 1 to 64 characters, including letters, digits, underscores (_), hyphens (-), and periods (.). Minimum: 1 Maximum: 64 |

Response Parameters

Status code: 200

Table 4-56 Response body parameters

| Parameter | Type | Description |
|------------|---|------------------------------|
| attachment | AttachmentResponse object | Attachment basic information |
| request_id | String | Request ID |

Table 4-57 AttachmentResponse

| Parameter | Type | Description |
|---------------------|--------------------------------------|---|
| name | String | Attachment name |
| id | String | Attachment ID |
| description | String | Description |
| state | String | Attachment status. Value options: pending , available , modifying , deleting , deleted , failed , pending_acceptance , rejected , and initiating_request |
| 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 Tag 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">● vpc: VPC attachment● vpn: VPN gateway attachment● vgw: virtual gateway attachment |
| resource_project_id | String | ID of the project that the resource belongs to |

Table 4-58 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_:=-@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Example Requests

Updating an attachment (not a VPC attachment)

```
PUT https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbf3c/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": "08d5a9564a704afda6039ae2babbf3c",
    "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 4-59 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 4-60 Response body parameters

| Parameter | Type | Description |
|------------|---|------------------------------|
| attachment | AttachmentResponse 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: pending , available , modifying , deleting , deleted , failed , pending_acceptance , rejected , and initiating_request |
| 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 Tag 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">● vpc: VPC attachment● vpn: VPN gateway attachment● vgw: virtual gateway attachment |
| resource_project_id | String | ID of the project that the resource belongs to |

Table 4-62 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">Tag values consist of letters, digits, spaces, and special characters _:=-+@Tag values can contain 0 to 255 characters.Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

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

- Filtering query is supported. The 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 4-63 Path Parameters

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

Table 4-64 Query Parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|---------|---|
| limit | No | Integer | Number of records on each page. Value range: 0 to 2000 Minimum: 0 Maximum: 2000 |

| 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: 1 Maximum: 128 |
| state | No | Array | Attachment status. Value options: pending , available , modifying , deleting , deleted , failed , pending_acceptance , rejected , and initiating_request |
| resource_type | No | Array | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| resource_id | No | Array | Attachment resource IDs |
| sort_key | No | Array | Keyword for sorting. The keyword can be id , name , or state . By default, id is used. |
| sort_dir | No | Array | Sorting order. There are two value options: asc (ascending order) and desc (descending order). The default value is asc . |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-65 Response body parameters

| Parameter | Type | Description |
|-------------|---|------------------------------|
| attachments | Array of AttachmentDetails objects | Attachments |
| page_info | PageInfo object | Pagination query information |
| request_id | String | Request ID |

Table 4-66 AttachmentDetails

| Parameter | Type | Description |
|---------------------|-----------------------------|---|
| id | String | Attachment ID |
| name | String | Attachment name |
| description | String | Attachment description |
| state | String | Attachment status. Value options: pending , available , modifying , deleting , deleted , failed , pending_acceptance , rejected , and initiating_request |
| 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 Tag 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. <ul style="list-style-type: none">● vgw: virtual gateway attachment● vpn: VPN gateway attachment● vpc: VPC attachments |
| 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 4-67 Tag

| Parameter | Type | Description |
|-----------|--------|---|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_:=-+@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Table 4-68 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](#).

4.4 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 4-69 Path Parameters

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

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|----------------------|
| er_id | Yes | String | Enterprise router ID |

Request Parameters

Table 4-70 Request header parameters

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

Table 4-71 Request body parameters

| Parameter | Mandatory | Type | Description |
|-------------|-----------|---|-------------|
| route_table | No | CreateRouteTable object | Route table |

Table 4-72 CreateRouteTable

| Parameter | Mandatory | Type | Description |
|-------------|-----------|--------------------------------------|--|
| name | Yes | String | Route table name Minimum: 1 Maximum: 64 |
| description | No | String | Description of the route table Minimum: 0 Maximum: 255 |
| tags | No | Array of Tag objects | Tag information |

Table 4-73 Tag

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|---|
| key | No | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | No | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_.:=-@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Response Parameters

Status code: 202

Table 4-74 Response header parameters

| Parameter | Type | Description |
|----------------|------|------------------------|
| X-Client-Token | - | Idempotence identifier |

Table 4-75 Response body parameters

| Parameter | Type | Description |
|-------------|--------------------------|-------------|
| route_table | RouteTable object | Route table |
| request_id | String | Request ID |

Table 4-76 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: false |
| 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 Tag 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 4-77 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_.:=-+@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Example Requests

Creating a route table

```
POST https://{router_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 4-78 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 4-79 Request body parameters

| Parameter | Mandatory | Type | Description |
|-------------|-----------|---|---|
| route_table | No | UpdateRouteTable object | Request body for updating a route table |

Table 4-80 UpdateRouteTable

| Parameter | Mandatory | Type | Description |
|-------------|-----------|--------|--|
| name | No | String | Route table name Minimum: 1 Maximum: 64 |
| description | No | String | Description of the route table Minimum: 0 Maximum: 255 |

Response Parameters

Status code: 200

Table 4-81 Response body parameters

| Parameter | Type | Description |
|-------------|-----------------------------------|-------------|
| route_table | RouteTable object | Route table |
| request_id | String | Request ID |

Table 4-82 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: false |
| 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 Tag 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 4-83 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_.:=-+@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

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 4-84 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 4-85 Response body parameters

| Parameter | Type | Description |
|-------------|-----------------------------------|-------------|
| route_table | RouteTable object | Route table |
| request_id | String | Request ID |

Table 4-86 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: false |
| 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 Tag objects | Tag |
| 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 |

Table 4-87 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters _:=-+@• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

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

- Pagination query is supported. The supported query criteria are **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 4-88 Path Parameters

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

Table 4-89 Query Parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|---------|---|
| limit | No | Integer | Number of records on each page. Value range: 0 to 2000 Minimum: 0 Maximum: 2000 |

| 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: 1 Maximum: 128 |
| state | No | Array | 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 | Keyword for sorting. The keyword can be id , name , or state . By default, id is used. |
| sort_dir | No | Array | Sorting order. There are two value options: asc (ascending order) and desc (descending order). The default value is asc . |

Request Parameters

None

Response Parameters

Status code: **200**

Table 4-90 Response body parameters

| Parameter | Type | Description |
|--------------|---|------------------------------|
| route_tables | Array of RouteTable objects | Route tables |
| request_id | String | Request ID |
| page_info | PageInfo object | Pagination query information |

Table 4-91 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: false |
| 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 Tag 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 4-92 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_:=+@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Table 4-93 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 4-94 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}/v3/08d5a9564a704afda6039ae2babbef3c/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 4-95 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 4-96 Request header parameters

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

Table 4-97 Request body parameters

| Parameter | Mandatory | Type | Description |
|---------------|-----------|--------|---|
| attachment_id | No | String | Unique ID of the attachment Maximum: 36 |

Response Parameters

Status code: 202

Table 4-98 Response header parameters

| Parameter | Type | Description |
|----------------|------|------------------------|
| X-Client-Token | - | Idempotence identifier |

Table 4-99 Response body parameters

| Parameter | Type | Description |
|-------------|---------------------------|---------------------|
| association | Association object | Association details |
| request_id | String | Request ID |

Table 4-100 Association

| Parameter | Type | Description |
|----------------|--------|---|
| id | String | Unique association ID Maximum: 36 |
| route_table_id | String | Unique ID of the route table Maximum: 36 |
| attachment_id | String | Unique ID of the attachment Maximum: 36 |
| resource_type | String | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| resource_id | String | Unique ID of the attachment |
| state | String | Status. Value options: pending , available , modifying , deleting , deleted , and failed |

| Parameter | Type | Description |
|------------|--------|---|
| 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://{erouter_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

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}/associations

Table 4-101 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 4-102 Query Parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|---------|---|
| limit | No | Integer | Number of records on each page. Value range: 0 to 2000 Minimum: 0 Maximum: 2000 |
| 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: 1 Maximum: 128 |

| Parameter | Mandatory | Type | Description |
|---------------|-----------|-------|---|
| attachment_id | No | Array | Attachment ID |
| resource_type | No | Array | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| state | No | Array | Status. Value options: pending , available , modifying , deleting , deleted , and failed |
| sort_key | No | Array | Keyword for sorting. The keyword can be id , name , or state . By default, id is used. |
| sort_dir | No | Array | Sorting order. There are two value options: asc (ascending order) and desc (descending order). The default value is asc . |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-103 Response body parameters

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

Table 4-104 Association

| Parameter | Type | Description |
|----------------|--------|---|
| id | String | Unique association ID Maximum: 36 |
| route_table_id | String | Unique ID of the route table Maximum: 36 |
| attachment_id | String | Unique ID of the attachment Maximum: 36 |
| resource_type | String | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| resource_id | String | Unique ID of the attachment |
| state | String | Status. Value options: pending , available , modifying , deleting , deleted , and failed |
| 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 4-105 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 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 4-106 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 4-107 Request body parameters

| Parameter | Mandatory | Type | Description |
|---------------|-----------|--------|---|
| attachment_id | No | String | Unique ID of the attachment Maximum: 36 |

Response Parameters

None

Example Requests

Deleting a route table association

```
POST https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/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 4-108 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 4-109 Request header parameters

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

Table 4-110 Request body parameters

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

Response Parameters

Status code: 202

Table 4-111 Response header parameters

| Parameter | Type | Description |
|----------------|------|------------------------|
| X-Client-Token | - | Idempotence identifier |

Table 4-112 Response body parameters

| Parameter | Type | Description |
|-------------|------------------------------------|---------------------|
| propagation | Propagation object | Propagation details |
| request_id | String | Request ID |

Table 4-113 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. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| resource_id | String | Unique ID of the attachment |
| state | String | Status. Value options: pending , available , modifying , deleting , deleted , and failed |
| 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

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 4-114 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 4-115 Query Parameters

| Parameter | Mandatory | Type | Description |
|---------------|-----------|---------|---|
| limit | No | Integer | Number of records on each page. Value range: 0 to 2000 Minimum: 0 Maximum: 2000 |
| 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: 1 Maximum: 128 |
| attachment_id | No | Array | Attachment ID |
| resource_type | No | Array | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| state | No | Array | Resource status. Value options: pending, available, modifying, deleting, deleted, failed and frozen |
| sort_key | No | Array | Keyword for sorting. The keyword can be id, name, or state . By default, id is used. |
| sort_dir | No | Array | Sorting order. There are two value options: asc (ascending order) and desc (descending order). The default value is asc . |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-116 Response body parameters

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

Table 4-117 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. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| resource_id | String | Unique ID of the attachment |
| state | String | Status. Value options: pending, available, modifying, deleting, deleted, and failed |
| 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 4-118 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 4-119 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 4-120 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 carried. 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 4-121 Path Parameters

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

Request Parameters

Table 4-122 Request header parameters

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

Table 4-123 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|------------------------------------|-----------------------------------|
| route | Yes | CreateRoute object | Request body for creating a route |

Table 4-124 CreateRoute

| Parameter | Mandatory | Type | Description |
|---------------|-----------|---------|--|
| destination | Yes | String | Destination address of the route Minimum: 0 Maximum: 256 |
| 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 4-125 Response header parameters

| Parameter | Type | Description |
|----------------|------|------------------------|
| X-Client-Token | - | Idempotence identifier |

Table 4-126 Response body parameters

| Parameter | Type | Description |
|------------|------------------------------|-------------|
| route | Route object | Route |
| request_id | String | Request ID |

Table 4-127 Route

| Parameter | Type | Description |
|----------------|--|--|
| id | String | Route ID |
| type | String | Route type. The value is static . |
| state | String | Route status. Value options: pending , available , modifying , deleting , deleted , and failed |
| is_blackhole | Boolean | Whether the route is a blackhole route |
| destination | String | Destination address of the route |
| attachments | Array of RouteAttachment 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 4-128 RouteAttachment

| Parameter | Type | Description |
|---------------|--------|---|
| resource_id | String | Attached resource ID |
| resource_type | String | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| attachment_id | String | Attachment ID |

Example Requests

Creating a static route

```
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",
    "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 carried. 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 4-129 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 4-130 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|------------------------------------|-------------|
| route | Yes | UpdateRoute object | Route |

Table 4-131 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 4-132 Response body parameters

| Parameter | Type | Description |
|------------|------------------------------|-------------|
| route | Route object | Route |
| request_id | String | Request ID |

Table 4-133 Route

| Parameter | Type | Description |
|----------------|--|--|
| id | String | Route ID |
| type | String | Route type. The value is static . |
| state | String | Route status. Value options: pending , available , modifying , deleting , deleted , and failed |
| is_blackhole | Boolean | Whether the route is a blackhole route |
| destination | String | Destination address of the route |
| attachments | Array of RouteAttachment 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 4-134 RouteAttachment

| Parameter | Type | Description |
|---------------|--------|---|
| resource_id | String | Attached resource ID |
| resource_type | String | Attachment type. <ul style="list-style-type: none">● vpc: VPC attachment● vpn: VPN gateway attachment● vgw: virtual gateway attachment |
| attachment_id | String | Attachment ID |

Example Requests

Modifying a static route

```
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 4-135 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 4-136 Response body parameters

| Parameter | Type | Description |
|------------|------------------------------|-------------|
| route | Route object | Route |
| request_id | String | Request ID |

Table 4-137 Route

| Parameter | Type | Description |
|----------------|--|--|
| id | String | Route ID |
| type | String | Route type. The value is static . |
| state | String | Route status. Value options: pending , available , modifying , deleting , deleted , and failed |
| is_blackhole | Boolean | Whether the route is a blackhole route |
| destination | String | Destination address of the route |
| attachments | Array of RouteAttachment 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 4-138 RouteAttachment

| Parameter | Type | Description |
|---------------|--------|---|
| resource_id | String | Attached resource ID |
| resource_type | String | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| 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",
    "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

- Pagination query is supported. The supported query criteria are **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 4-139 Path Parameters

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

Table 4-140 Query Parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|---------|---|
| limit | No | Integer | Number of records on each page. Value range: 0 to 2000 Minimum: 0 Maximum: 2000 |

| 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: 1 Maximum: 128 |
| destination | No | Array | Destination address of the route |
| attachment_id | No | Array | Attachment ID |
| resource_type | No | Array | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| sort_key | No | Array | Keyword for sorting. The keyword can be id , name , or state . By default, id is used. |
| sort_dir | No | Array | Sorting order. There are two value options: asc (ascending order) and desc (descending order). The default value is asc . |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-141 Response body parameters

| Parameter | Type | Description |
|------------|--|-------------|
| routes | Array of Route objects | Routes |
| request_id | String | Request ID |

| Parameter | Type | Description |
|-----------|---------------------------------|------------------------------|
| page_info | PageInfo object | Pagination query information |

Table 4-142 Route

| Parameter | Type | Description |
|----------------|--|--|
| id | String | Route ID |
| type | String | Route type. The value is static . |
| state | String | Route status. Value options: pending , available , modifying , deleting , deleted , and failed |
| is_blackhole | Boolean | Whether the route is a blackhole route |
| destination | String | Destination address of the route |
| attachments | Array of RouteAttachment 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 4-143 RouteAttachment

| Parameter | Type | Description |
|---------------|--------|---|
| resource_id | String | Attached resource ID |
| resource_type | String | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |
| attachment_id | String | Attachment ID |

Table 4-144 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",
    "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 4-145 Path Parameters

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

Table 4-146 Query Parameters

| Parameter | Mandatory | Type | Description |
|---------------|-----------|---------|---|
| limit | No | Integer | Number of records on each page. Value range: 0 to 2000 Minimum: 0 Maximum: 2000 |
| 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: 1 Maximum: 128 |
| destination | No | Array | Destination address of the route |
| resource_type | No | Array | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-147 Response body parameters

| Parameter | Type | Description |
|------------|---|------------------------------|
| routes | Array of EffectiveRoute objects | Routes |
| request_id | String | Request ID |
| page_info | PageInfo object | Pagination query information |

Table 4-148 EffectiveRoute

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

Table 4-149 RouteAttachment

| Parameter | Type | Description |
|---------------|--------|---|
| resource_id | String | Attached resource ID |
| resource_type | String | Attachment type. <ul style="list-style-type: none">• vpc: VPC attachment• vpn: VPN gateway attachment• vgw: virtual gateway attachment |

| Parameter | Type | Description |
|---------------|--------|---------------|
| attachment_id | String | Attachment ID |

Table 4-150 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 effective routes

```
GET https://{erouter_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/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",
    "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": "",
    "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 4-151 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 Tags

4.8.1 Querying Project Tags

Function

This API is used to query tags of resources of a specific type.

Calling Method

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

URI

GET /v3/{project_id}/{resource_type}/tags

Table 4-152 Path Parameters

| Parameter | Mandatory | Type | Description |
|---------------|-----------|--------|---|
| project_id | Yes | String | Project ID |
| resource_type | Yes | String | Resource type. <ul style="list-style-type: none">● instance: enterprise router● route-table: route table● vpc-attachment: VPC attachment |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-153 Response body parameters

| Parameter | Type | Description |
|-----------|------------------------------|-------------|
| tags | Array of Tags objects | Tags |

Table 4-154 Tags

| Parameter | Type | Description |
|-----------|------------------|---|
| key | String | Tag key, which cannot be empty and can contain a maximum of 127 Unicode characters. |
| values | Array of strings | Tag values. Each value can contain a maximum of 255 Unicode characters. |

Example Requests

Querying tags of an enterprise router

```
https://{router_endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/instance/tags
```

Example Responses

Status code: 200

OK

```
{
  "tags" : [ {
    "key" : "keys",
    "values" : [ "value" ]
  }, {
    "key" : "key3",
    "values" : [ "value3", "value33" ]
  }, {
    "key" : "key1",
    "values" : [ "value1" ]
  }, {
    "key" : "key2",
    "values" : [ "value2", "value22" ]
  } ]
}
```

Status Codes

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

Error Codes

See [Error Codes](#).

4.8.2 Querying Resource Tags

Function

This API is used to query tags of resources of a specific type.

Calling Method

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

URI

GET /v3/{project_id}/{resource_type}/{resource_id}/tags

Table 4-155 Path Parameters

| Parameter | Mandatory | Type | Description |
|---------------|-----------|--------|---|
| project_id | Yes | String | Project ID |
| resource_id | Yes | String | Resource ID |
| resource_type | Yes | String | Resource type. <ul style="list-style-type: none">● instance: enterprise router● route-table: route table● vpc-attachment: VPC attachment |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-156 Response body parameters

| Parameter | Type | Description |
|-----------|--------------------------------------|-------------|
| tags | Array of Tag objects | Tags |

Table 4-157 Tag

| Parameter | Type | Description |
|-----------|--------|--|
| key | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters _:=-+@• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Example Requests

Querying tags of an enterprise router

```
https://{router_endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/instance/f1a28dfd-186f-4625-b6b1-f05e5e8609c0/tags
```

Example Responses

Status code: 200

OK

```
{
  "tags": [ {
    "key": "key2",
    "value": "value2"
  }, {
    "key": "key1",
    "value": "value1"
  }, {
    "key": "key3",
    "value": "value3"
  } ]
}
```

Status Codes

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

Error Codes

See [Error Codes](#).

4.8.3 Creating Resource Tags

Function

This API is used to create tags for resources of a specific type.

Constraints

- A resource can have up to 10 tags.
- This API is idempotent.
- If a tag to be created has the same key as an existing tag, the tag will be created and overwrite the existing one.

Calling Method

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

URI

POST /v3/{project_id}/{resource_type}/{resource_id}/tags

Table 4-158 Path Parameters

| Parameter | Mandatory | Type | Description |
|---------------|-----------|--------|---|
| project_id | Yes | String | Project ID |
| resource_id | Yes | String | Resource ID |
| resource_type | Yes | String | Resource type. <ul style="list-style-type: none">• instance: enterprise router• route-table: route table• vpc-attachment: VPC attachment |

Request Parameters

Table 4-159 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|----------------------------|--------------|
| tag | Yes | Tag object | Resource tag |

Table 4-160 Tag

| Parameter | Mandatory | Type | Description |
|-----------|-----------|--------|---|
| key | No | String | Tag key. The value can contain a maximum of 36 Unicode characters, including uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_). Minimum: 1 Maximum: 128 |
| value | No | String | Tag value. <ul style="list-style-type: none">• Tag values consist of letters, digits, spaces, and special characters <code>_.:=-@</code>• Tag values can contain 0 to 255 characters.• Tag values can be left blank or set to null. Minimum: 0 Maximum: 255 |

Response Parameters

None

Example Requests

Creating tags for a resource

```
POST https://{erouter-endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/instance/3320166e-b937-40cc-a35c-02cd3f2b3ee2/tags
```

```
{
  "tag" : {
    "key" : "key1",
    "value" : "value1"
  }
}
```

Example Responses

None

Status Codes

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

Error Codes

See [Error Codes](#).

4.8.4 Deleting Resource Tags

Function

This API is used to delete tags for resources of a specific type.

Constraints

This API is idempotent. The key cannot be left blank or be an empty string.

Calling Method

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

URI

DELETE /v3/{project_id}/{resource_type}/{resource_id}/tags/{key}

Table 4-161 Path Parameters

| Parameter | Mandatory | Type | Description |
|---------------|-----------|--------|---|
| key | Yes | String | Tag key |
| project_id | Yes | String | Project ID |
| resource_id | Yes | String | Resource ID |
| resource_type | Yes | String | Resource type. <ul style="list-style-type: none">● instance: enterprise router● route-table: route table● vpc-attachment: VPC attachment |

Request Parameters

None

Response Parameters

None

Example Requests

```
DELETE https://{erouter-endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/instance/3320166e-b937-40cc-a35c-02cd3f2b3ee2/tags/key1
```

Example Responses

None

Status Codes

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

Error Codes

See [Error Codes](#).

4.9 Resource Quotas

4.9.1 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 4-162 Path Parameters

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

Table 4-163 Query Parameters

| Parameter | Mandatory | Type | Description |
|--------------|-----------|---------|--|
| limit | No | Integer | Number of records on each page. Value range: 0 to 2000 Minimum: 0 Maximum: 2000 |
| 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: 1 Maximum: 128 |
| type | No | Array | You can query the quotas of the following resources: <ul style="list-style-type: none">• er_instance: total and used quotas of enterprise routers• dc_attachment: total and used quotas of Direct Connect gateway attachments• vpc_attachment: total and used quotas of VPC attachments• vpn_attachment: total and used quotas of VPN gateways• route_table: total and used quotas of route tables• static_route: total and used quotas of static routes• vpc_er: total and used quotas of enterprise routers that a VPC can be attached to• flow_log: total and used quotas of flow logs that can be created for each attachment |
| 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 4-164 Response body parameters

| Parameter | Type | Description |
|-----------|--|--------------------|
| quotas | Array of Quota objects | Used quota details |

Table 4-165 Quota

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

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": "connect_attachment",
  "quota_limit": 20,
  "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"
}]
}
```

Status Codes

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

Error Codes

See [Error Codes](#).

4.10 AZs

4.10.1 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 4-166 Path Parameters

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

Table 4-167 Query Parameters

| Parameter | Mandatory | Type | Description |
|----------------|-----------|---------|--|
| instance_id | No | String | Enterprise router ID |
| bandwidth_size | No | Integer | Bandwidth size, in Mbit/s Minimum: -1 |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-168 Response body parameters

| Parameter | Type | Description |
|--------------------|--|-------------|
| availability_zones | Array of AvailableZone objects | AZ list |
| request_id | String | Request ID |

Table 4-169 AvailableZone

| Parameter | Type | Description |
|-----------|--------|---|
| code | String | AZ code |
| state | String | Whether the AZ is available. Value options: available and unavailable |

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](#).

4.11 Flow Logs

4.11.1 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 4-170 Path Parameters

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

Request Parameters

Table 4-171 Request header parameters

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

Table 4-172 Request body parameters

| Parameter | Mandatory | Type | Description |
|-----------|-----------|---------------------------------------|--------------------------------------|
| flow_log | Yes | FlowLogRequest object | Request body for creating a flow log |

Table 4-173 FlowLogRequest

| Parameter | Mandatory | Type | Description |
|----------------|-----------|--------|---|
| name | Yes | String | Flow log name Minimum: 1 Maximum: 64 |
| description | No | String | Flow log description Minimum: 0 Maximum: 255 |
| resource_type | Yes | String | Type of resource whose flow logs are collected. <ul style="list-style-type: none">• VPC attachments• Virtual gateway attachments |
| 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. LTS: Logs are stored on LTS servers. |

Response Parameters

Status code: 202

Table 4-174 Response header parameters

| Parameter | Type | Description |
|----------------|------|------------------------|
| X-Client-Token | - | Idempotence identifier |

Table 4-175 Response body parameters

| Parameter | Type | Description |
|------------|-----------------------|------------------|
| flow_log | FlowLog object | Flow log details |
| request_id | String | Request ID |

Table 4-176 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 attachment . |
| 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 60 to 600 . |
| 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: pending , available , modifying , deleting , deleted , and failed |

| Parameter | Type | Description |
|-----------|---------|---|
| enabled | Boolean | Whether to enable flow logs. The value can be true or false . |

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](#).

4.11.2 Querying Flow Logs

Function

This API is used to query the flow log list.

Constraints

- Filtering query is supported. You can use **resource_type**, **resource_id**, and **enterprise_project_id** for query. 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.
- Sorting by a single field. You can use **id**, **name**, or **state** to sort resources. Sorting by multiple fields is not supported.

Calling Method

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

URI

GET /v3/{project_id}/enterprise-router/{er_id}/flow-logs

Table 4-177 Path Parameters

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

Table 4-178 Query Parameters

| Parameter | Mandatory | Type | Description |
|---------------|-----------|---------|---|
| resource_type | No | String | Resource type |
| resource_id | No | Array | Attachment resource IDs |
| limit | No | Integer | Number of records on each page. Value range: 0 to 2000 Minimum: 0 Maximum: 2000 |

| 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: 1 Maximum: 128 |
| sort_key | No | Array | Keyword for sorting. The keyword can be id , name , or state . By default, id is used. |
| sort_dir | No | Array | Sorting order. There are two value options: asc (ascending order) and desc (descending order). The default value is asc . |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-179 Response body parameters

| Parameter | Type | Description |
|------------|---------------------------------|------------------------------|
| flow_logs | Array of FlowLog objects | Flow log details |
| request_id | String | Request ID |
| page_info | PageInfo object | Pagination query information |

Table 4-180 FlowLog

| Parameter | Type | Description |
|-----------|--------|---------------|
| id | String | Flow log ID |
| name | String | Flow log name |

| Parameter | Type | Description |
|--------------------------|---------|---|
| description | String | Flow log description |
| project_id | String | Project ID of the flow log task creator |
| resource_type | String | Resource type. The value is attachment . |
| 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 60 to 600 . |
| 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: pending , available , modifying , deleting , deleted , and failed |
| enabled | Boolean | Whether to enable flow logs. The value can be true or false . |

Table 4-181 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](#).

4.11.3 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 4-182 Path Parameters

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

| Parameter | Mandatory | Type | Description |
|-------------|-----------|--------|-------------|
| flow_log_id | Yes | String | Flow log ID |

Request Parameters

None

Response Parameters

Status code: 200

Table 4-183 Response body parameters

| Parameter | Type | Description |
|------------|--------------------------------|------------------|
| flow_log | FlowLog object | Flow log details |
| request_id | String | Request ID |

Table 4-184 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 attachment . |
| 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 60 to 600 . |
| 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> |

| Parameter | Type | Description |
|-----------|---------|---|
| state | String | Flow log status. Value options: pending , available , modifying , deleting , deleted , and failed |
| enabled | Boolean | Whether to enable flow logs. The value can be true or false . |

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](#).

4.11.4 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 4-185 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 4-186 Request body parameters

| Parameter | Mandatory | Type | Description |
|-------------|-----------|--------|--|
| name | No | String | Flow log name Minimum: 1 Maximum: 64 |
| description | No | String | Minimum: 0 Maximum: 255 |

Response Parameters

Status code: 200

Table 4-187 Response body parameters

| Parameter | Type | Description |
|------------|--------------------------------|------------------|
| flow_log | FlowLog object | Flow log details |
| request_id | String | Request ID |

Table 4-188 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 attachment . |
| 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 60 to 600 . |
| 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: pending , available , modifying , deleting , deleted , and failed |
| enabled | Boolean | Whether to enable flow logs. The value can be true or false . |

Example Requests

Updating a flow log

```
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](#).

4.11.5 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 4-189 Path Parameters

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

| Parameter | Mandatory | Type | Description |
|-------------|-----------|--------|----------------------|
| 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](#).

4.11.6 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 4-190 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 4-191 Response body parameters

| Parameter | Type | Description |
|------------|--------------------------------|------------------|
| flow_log | FlowLog object | Flow log details |
| request_id | String | Request ID |

Table 4-192 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 attachment . |
| 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 60 to 600 . |

| 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.sssZ</i> |
| state | String | Flow log status. Value options: pending , available , modifying , deleting , deleted , and failed |
| enabled | Boolean | Whether to enable flow logs. The value can be true or false . |

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](#).

4.11.7 Disabling Flow Logs

Function

This API is used to disable flow logs.

Calling Method

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

URI

POST /v3/{project_id}/enterprise-router/{er_id}/flow-logs/{flow_log_id}/disable

Table 4-193 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 4-194 Response body parameters

| Parameter | Type | Description |
|------------|--------------------------------|------------------|
| flow_log | FlowLog object | Flow log details |
| request_id | String | Request ID |

Table 4-195 FlowLog

| Parameter | Type | Description |
|-----------|--------|-------------|
| id | String | Flow log ID |

| Parameter | Type | Description |
|--------------------------|---------|---|
| 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 attachment . |
| 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 60 to 600 . |
| 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: pending , available , modifying , deleting , deleted , and failed |
| enabled | Boolean | Whether to enable flow logs. The value can be true or false . |

Example Requests

Disabling flow logs

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

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](#)
- [Other Types of 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 a project ID by calling the API used to [query projects based on specified criteria](#).

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

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

```
{
  "projects": [
    {
      "domain_id": "65ewtrgaggshhk1223245sghjlse684b",
      "is_domain": false,
      "parent_id": "65ewtrgaggshhk1223245sghjlse684b",
      "name": "project_name",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4adasfjljaaakla12334jklga9sasfg"
      },
      "id": "a4adasfjljaaakla12334jklga9sasfg",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

Obtain a Project ID from the Console

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

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

B Change History

| Released On | Description |
|-------------|---|
| 2024-01-15 | This issue is the first official release. |