Enterprise Switch

API Reference

Issue 01

Date 2025-12-04

HUAWEI CLOUD COMPUTING TECHNOLOGIES CO., LTD.

Trademarks and Permissions


and other Huawei trademarks are the property of Huawei Technologies Co., Ltd.
All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The purchased products, services and features are stipulated by the contract made between Huawei Cloud and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

Contents

1 Before You Start

Welcome to Enterprise Switch API Reference. Enterprise switches enable Layer 2 networking for VPCs, helping you to connect cloud and on-premises networks that are highly reliable, in a large scale, and of high performance.

This document describes how to use application programming interfaces (APIs) to perform operations on enterprise switches, such as creating, querying, deleting, and updating an enterprise switch. For details about all supported operations, see **API Overview**.

Before calling an API to access enterprise switches, ensure that you are familiar with enterprise switch concepts. For details, see **Service Overview** in the *Enterprise Switch User Guide*.

Enterprise Switch supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see **Calling APIs**.

Additionally, Enterprise Switch offers software development kits (SDKs) for multiple programming languages. For details about how to use SDKs, please refer to **SDK Usage Guidelines**.

Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. Currently, Enterprise Switch and VPC use same endpoints. For the endpoints of VPC, see **Regions and Endpoints**.

Concepts

- Account

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

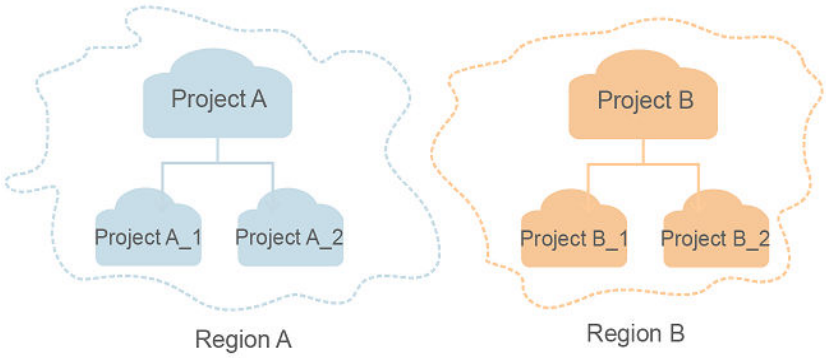
- AZ

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

  Figure 1-1 Project isolation model

- Enterprise Project

  Enterprise projects group and manage resources across regions. Resources in different enterprise projects are logically isolated. An enterprise project can contain resources of multiple regions, and resources can be added to or removed from enterprise projects.

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

2 API Overview

Enterprise Switch provides APIs for you to better manage resources.

You can call these APIs to use all functions provided by Enterprise Switch.

Enterprise Switch API Description

Table 2-1 Enterprise Switch APIs

Resource	Description
Enterprise switch	APIs for creating, querying, updating, and deleting enterprise switches. APIs for querying the quotas, specifications, AZs, and job execution status of enterprise switches.
Layer 2 connection	APIs for creating, querying, updating, and deleting Layer 2 connections. APIs for binding or unbinding a virtual IP address to or from a Layer 2 connection.

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for **creating an IAM user** as an example to demonstrate how to call an API.

Request URI

A request URI is in the following format:

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

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

Table 3-1 URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Regions and Endpoints**. For example, the endpoint of IAM in region **CN-Hong Kong** is **iam.ap-southeast-1.myhuaweicloud.com**.
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to obtain a user token is **/v3/auth/tokens**.
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of *Parameter name*=*Parameter value*. For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

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

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

Figure 3-1 Example URI

NOTE

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

Request Methods

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

Table 3-2 HTTP methods

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

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

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


Request Header

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

Common request header fields are as follows.

Table 3-3 Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of *Hostname:Port number*. If the port number is not specified, the default port is used. The default port number for **https** is **443**.	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the type (or format) of the message body. The default value **application/json** is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
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	Specifies the user token. It is a response to the API for **obtaining a user token** (This is the only API that does not require authentication). After the request is processed, the value of **X-Subject-Token** in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

NOTE

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

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

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

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

(Optional) Request Body

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

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

The following shows an example request (a request body included) of the API for **creating an IAM user**. You can learn about request parameters and related description from this example. The bold parameters need to be replaced for a real request.

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

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
```



```
Authorization: SDK-HMAC-SHA256 Access=**********, SignedHeaders=content-type;host;x-sdk-date,
Signature=**********

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

If all data required for the API request is available, you can send the request to call the API through **curl**, **Postman**, or coding.

3.2 Authentication

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

- 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: Requests are authenticated using tokens.

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.
- An AK/SK pair can either be permanent or temporary. If it is temporary, the **X-Security-Token** field must be included in the request header. The value is the security token of the temporary AK/SK pair.
- API Gateway checks the time format and compares the request time with the time when API Gateway received the request. If the time difference exceeds 15 minutes, API Gateway will reject the request. So, the local time on the client must be synchronized with the clock server to avoid a large offset in the value of **X-Sdk-Date** in the request header.

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

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

In AK/SK authentication, you can use an AK/SK pair 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 **AK/SK Signing and Authentication Guide**.

NOTE

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

Token Authentication

NOTE

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

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

Enterprise Switch 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": $ADMIN_PASS,  //IAM user password. 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"  //Name of the account that the IAM user belongs to
                    }
                }
            }
        },
        "scope": {
            "project": {
                "name": "xxxxxxxx"     // Project Name
            }
        }
    }
}
```

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

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

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 **create an IAM user**, the request is successful.

Response Header

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

Figure 3-2 shows the response header for the API used to **create an IAM user**.

NOTE

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

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

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

(Optional) Response Body

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

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

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


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 Enterprise Switch

4.1 Creating an Enterprise Switch

Function

This API is used to create an enterprise switch. This is an asynchronous API. After the request for creating an enterprise switch is delivered, the job ID and instance ID are returned. You need to call the **API for querying the job status** to query the job execution status.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:instance:create	Write	-	-	-	-

URI

POST /v3/{project_id}/l2cg/instances

Table 4-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

Table 4-2 Request body parameters

Parameter	Mandatory	Type	Description
instance	Yes	**CreatePostpaidInstanceOption** object	• **Definition**: Request body for creating an instance. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 4-3 CreatePostpaidInstanceOption

Parameter	Mandatory	Type	Description
availability_zones	Yes	**AvailabilityZones** object	• **Definition**: AZ where the enterprise switch node is located. • **Constraints**: N/A • **Range**: AZs in the current region. • **Default value**: N/A
charge_infos	Yes	**PostPaidChargeInfos** object	• **Definition**: Billing information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Mandatory	Type	Description
flavor_ref	Yes	String	• **Definition**: Enterprise switch flavors. • **Constraints**: N/A • **Range**: For details, see the response of the flavor list API. • **Default value**: N/A
ha_mode	Yes	String	• **Definition**: HA mode of the enterprise switch. • **Constraints**: Currently, only **ha** is supported. • **Range**: **ha** • **Default value**: N/A
name	Yes	String	• **Definition**: Name of the enterprise switch. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
tunnel_info	Yes	**TunnelInfoOption** object	• **Definition**: Local tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
description	No	String	• **Definition**: Description of the enterprise switch. • **Constraints**: – The value can contain 0 to 255 characters. – Angle brackets (<>) are not allowed. • **Range**: N/A • **Default value**: N/A

Table 4-4 AvailabilityZones

Parameter	Mandatory	Type	Description
primary	Yes	String	• **Definition**: AZ where the default active node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A
standby	Yes	String	• **Definition**: AZ where the default standby node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A

Table 4-5 PostPaidChargeInfos

Parameter	Mandatory	Type	Description
charge_mode	Yes	String	• **Definition**: Billing mode. • **Constraints**: N/A • **Range**: **postPaid**, indicates the pay-per-use billing mode. • **Default value**: N/A

Table 4-6 TunnelInfoOption

Parameter	Mandatory	Type	Description
vpc_id	Yes	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
virsubnet_id	Yes	String	• **Definition**: ID of the tunnel subnet where the enterprise switch is located. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
tunnel_ip	No	String	• **Definition**: Tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A

Response Parameters

Status code: 201

Table 4-7 Response body parameters

Parameter	Type	Description
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A
instance	**Instance** object	• **Definition**: Response body for creating an instance. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
job_id	String	• **Definition**: Unique job ID. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Table 4-8 Instance

Parameter	Type	Description
id	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
name	String	• **Definition**: Name of the enterprise switch. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
region	String	• **Definition**: ID of the region where the enterprise switch is created. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
flavor_ref	String	• **Definition**: Enterprise switch flavors. • **Constraints**: N/A • **Range**: For details, see the response of the flavor list API. • **Default value**: N/A
ha_mode	String	• **Definition**: HA mode of the enterprise switch. • **Constraints**: Currently, only **ha** is supported. • **Range**: **ha** • **Default value**: N/A
status	String	• **Definition**: Status of the enterprise switch. • **Constraints**: N/A • **Range**: – **active**: The enterprise switch is running. – **failed**: Failed to create the enterprise switch. – **abnormal**: The enterprise switch is abnormal. – **build**: The enterprise switch is being created. – **frozen**: The enterprise switch is frozen. • **Default value**: N/A

Parameter	Type	Description
created_at	String	• **Definition**: Time when the enterprise switch was created. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
updated_at	String	• **Definition**: Time when the enterprise switch was updated. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
description	String	• **Definition**: Description of the enterprise switch. • **Constraints**: – The value can contain 0 to 255 characters. – Angle brackets (<>) are not allowed. • **Range**: N/A • **Default value**: N/A
tunnel_info	**TunnelInfoResult** object	• **Definition**: Local tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
charge_infos	**PostPaidChargeInfos** object	• **Definition**: Billing information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
availability_zones	**AvailabilityZones** object	• **Definition**: AZ where the enterprise switch node is located. • **Constraints**: N/A • **Range**: AZs in the current region. • **Default value**: N/A

Table 4-9 TunnelInfoResult

Parameter	Type	Description
vpc_id	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
virsubnet_id	String	• **Definition**: ID of the tunnel subnet where the enterprise switch is located. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
tunnel_ip	String	• **Definition**: Local tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	Integer	• **Definition**: Tunnel port of the enterprise switch. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A
tunnel_type	String	• **Definition**: The tunnel protocol type of the enterprise switch. • **Constraints**: N/A • **Range**: **vxlan** • **Default value**: N/A

Table 4-10 PostPaidChargeInfos

Parameter	Type	Description
charge_mode	String	• **Definition**: Billing mode. • **Constraints**: N/A • **Range**: **postPaid**, indicates the pay-per-use billing mode. • **Default value**: N/A

Table 4-11 AvailabilityZones

Parameter	Type	Description
primary	String	• **Definition**: AZ where the default active node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A
standby	String	• **Definition**: AZ where the default standby node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A

Example Requests

```
POST https://{endpoint}/v3/b2782e6708b8475c993e6064bc456bf8/l2cg/instances

{
  "instance" : {
    "availability_zones" : {
      "primary" : "az1",
      "standby" : "az2"
    },
    "charge_infos" : {
      "charge_mode" : "postPaid"
    },
    "flavor_ref" : "l2cg.small.ha",
    "ha_mode" : "ha",
    "name" : "esw-88d4",
    "tunnel_info" : {
      "vpc_id" : "6ae030de-f630-476e-8284-7bcfbd94929d",
      "virsubnet_id" : "6c32956f-eb3a-4521-8b83-d5a2d5f9b978"
    },
    "description" : ""
```



```
  }
}
```

Example Responses

Status code: 201

The POST operation is successful. For more status codes, see **Status Codes**.

```
{
  "request_id" : "2f1bdab599c96eb0b47a5e99ba9574bb",
  "job_id" : "9bd12abc-17ba-4e40-9484-f4e97ee7ff59",
  "instance" : {
    "name" : "esw-88d4",
    "id" : "87fea8df-3e0d-473a-a1bd-e6a76157f4ce",
    "region" : "cn-north-213",
    "status" : "build",
    "description" : null,
    "created_at" : "2025-07-28T03:45:05Z",
    "updated_at" : "2025-07-28T03:45:05Z",
    "project_id" : "dd9e484e058b48e18b820948dcbd480e",
    "flavor_ref" : "l2cg.small.ha",
    "ha_mode" : "ha",
    "availability_zones" : {
      "standby" : "az1",
      "primary" : "az2"
    },
    "charge_infos" : {
      "charge_mode" : "postPaid"
    },
    "tunnel_info" : {
      "vpc_id" : "6ae030de-f630-476e-8284-7bcfbd94929d",
      "virsubnet_id" : "6c32956f-eb3a-4521-8b83-d5a2d5f9b978",
      "tunnel_ip" : "192.168.7.95",
      "tunnel_port" : 4789,
      "tunnel_type" : "vxlan"
    }
  }
}
```

Status Codes

Status Code	Description
201	The POST operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

4.2 Deleting an Enterprise Switch

Function

This API is used to delete an enterprise switch if you no longer need it.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:instance:delete	Write	-	-	-	-

URI

DELETE /v3/{project_id}/l2cg/instances/{instance_id}

Table 4-12 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	• **Definition**: Unique ID of an enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 204

The DELETE operation is successful. For more status codes, see **Status Codes**.

None

Example Requests

```
DELETE https://{endpoint}/v3/b2782e6708b8475c993e6064bc456bf8/l2cg/instances/
1800017b-941d-4c08-8509-40c6d102a662
```

Example Responses

None

Status Codes

Status Code	Description
204	The DELETE operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

4.3 Updating an Enterprise Switch

Function

This API is used to update the name or description of an enterprise switch.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:instance:update	Write	-	-	-	-

URI

PUT /v3/{project_id}/l2cg/instances/{instance_id}

Table 4-13 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	• **Definition**: Unique ID of an enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

Table 4-14 Request body parameters

Parameter	Mandatory	Type	Description
instance	Yes	**UpdateInstanceOption** object	• **Definition**: Request body for updating the instance information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 4-15 UpdateInstanceOption

Parameter	Mandatory	Type	Description
description	No	String	• **Definition**: Description of the enterprise switch. • **Constraints**: – The value can contain 0 to 255 characters. – Angle brackets (<>) are not allowed. • **Range**: N/A • **Default value**: N/A

Parameter	Mandatory	Type	Description
name	No	String	• **Definition**: Name of the enterprise switch. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A

Response Parameters

Status code: 200

Table 4-16 Response body parameters

Parameter	Type	Description
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A
instance	**Instance** object	• **Definition**: Response body for updating the instance information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 4-17 Instance

Parameter	Type	Description
id	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
name	String	• **Definition**: Name of the enterprise switch. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
region	String	• **Definition**: ID of the region where the enterprise switch is created. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
flavor_ref	String	• **Definition**: Enterprise switch flavors. • **Constraints**: N/A • **Range**: For details, see the response of the flavor list API. • **Default value**: N/A
ha_mode	String	• **Definition**: HA mode of the enterprise switch. • **Constraints**: Currently, only **ha** is supported. • **Range**: **ha** • **Default value**: N/A

Parameter	Type	Description
status	String	• **Definition**: Status of the enterprise switch. • **Constraints**: N/A • **Range**: – **active**: The enterprise switch is running. – **failed**: Failed to create the enterprise switch. – **abnormal**: The enterprise switch is abnormal. – **build**: The enterprise switch is being created. – **frozen**: The enterprise switch is frozen. • **Default value**: N/A
created_at	String	• **Definition**: Time when the enterprise switch was created. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
updated_at	String	• **Definition**: Time when the enterprise switch was updated. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
description	String	• **Definition**: Description of the enterprise switch. • **Constraints**: – The value can contain 0 to 255 characters. – Angle brackets (<>) are not allowed. • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
tunnel_info	**TunnelInfoResult** object	• **Definition**: Local tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
charge_infos	**PostPaidChargeInfos** object	• **Definition**: Billing information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
availability_zones	**AvailabilityZones** object	• **Definition**: AZ where the enterprise switch node is located. • **Constraints**: N/A • **Range**: AZs in the current region. • **Default value**: N/A

Table 4-18 TunnelInfoResult

Parameter	Type	Description
vpc_id	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
virsubnet_id	String	• **Definition**: ID of the tunnel subnet where the enterprise switch is located. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
tunnel_ip	String	• **Definition**: Local tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	Integer	• **Definition**: Tunnel port of the enterprise switch. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A
tunnel_type	String	• **Definition**: The tunnel protocol type of the enterprise switch. • **Constraints**: N/A • **Range**: **vxlan** • **Default value**: N/A

Table 4-19 PostPaidChargeInfos

Parameter	Type	Description
charge_mode	String	• **Definition**: Billing mode. • **Constraints**: N/A • **Range**: **postPaid**, indicates the pay-per-use billing mode. • **Default value**: N/A

Table 4-20 AvailabilityZones

Parameter	Type	Description
primary	String	• **Definition**: AZ where the default active node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A

Parameter	Type	Description
standby	String	• **Definition**: AZ where the default standby node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A

Example Requests

```
PUT https://{endpoint}/v3/88104fcc62a640bfa0a0bf687607621c/l2cg/instances/
16b2eea7-5935-445d-8410-083b7064b939

{
  "instance" : {
    "name" : "esw-online-update"
  }
}
```

Example Responses

Status code: 200

The PUT operation is successful. For more status codes, see **Status Codes**.

```
{
  "request_id" : "14f6cf49525c604e5cb67a20d1404b5d",
  "instance" : {
    "name" : "esw-online-update",
    "id" : "16b2eea7-5935-445d-8410-083b7064b939",
    "region" : "cn-southwest-242",
    "status" : "active",
    "description" : null,
    "created_at" : "2025-05-20T07:51:52Z",
    "updated_at" : "2025-07-28T08:29:14Z",
    "project_id" : "88104fcc62a640bfa0a0bf687607621c",
    "flavor_ref" : "l2cg.small.ha",
    "ha_mode" : "ha",
    "availability_zones" : {
      "standby" : "cn-southwest-242a",
      "primary" : "cn-southwest-242a"
    },
    "charge_infos" : {
      "charge_mode" : "postPaid"
    },
    "tunnel_info" : {
      "vpc_id" : "41829b5e-66c0-4928-a3d4-f4570ce81d8f",
      "virsubnet_id" : "71f74174-c3fb-4929-9207-a4256b19e280",
      "tunnel_ip" : "192.168.0.76",
      "tunnel_port" : 4789,
      "tunnel_type" : "vxlan"
    }
  }
}
```


Status Codes

Status Code	Description
200	The PUT operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

4.4 Querying the Enterprise Switches

Function

This API is used to query the details about all the enterprise switches.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:instance:list	List	-	-	-	-

URI

GET /v3/{project_id}/l2cg/instances

Table 4-21 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 4-22 Query Parameters

Parameter	Mandatory	Type	Description
id	No	String	• **Definition**: ID of an enterprise switch. Each enterprise switch comes with an ID, which uniquely identifies the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
name	No	String	• **Definition**: Name of the enterprise switch. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
project_id	No	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
description	No	String	• **Definition**: Description of the enterprise switch. • **Constraints**: – The value can contain 0 to 255 characters. – Angle brackets (<>) are not allowed. • **Range**: N/A • **Default value**: N/A

Parameter	Mandatory	Type	Description
limit	No	Integer	• **Definition**: Number of records returned on each page. • **Constraints**: **limit** must be used together with **marker**. For details, see the description of **marker**. • **Value range**: 0 to 2^31 – 1 • **Default value**: 2000
marker	No	String	• **Definition**: A resource ID for pagination query, indicating that the query starts from the next record of the specified resource ID. • **Constraints**: **marker** must be used together with **limit**. – If parameters **marker** and **limit** are not specified, all resource records on the first page will be returned. – If **marker** is not specified and **limit** is set to **10**, the first 10 resource records will be returned. – If **marker** is set to the resource ID of the tenth record and **limit** is set to **10**, the 11th to 20th resource records will be returned. – If **marker** is set to the resource ID of the tenth record and **limit** is not specified, the 11th to 2000th resource records will be returned (the default value of **limit** is **2000**). • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 200

Table 4-23 Response body parameters

Parameter	Type	Description
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A
page_info	**PageInfo** object	• **Definition**: Pagination information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
instances	Array of **Instance** objects	• **Definition**: Response body for querying the instance list. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 4-24 PageInfo

Parameter	Type	Description
next_marker	String	• **Definition**: The last record on the current page. The parameter **next_marker** does not exist on the last page. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
previous_marker	String	• **Definition**: ID of the resource from which the pagination query starts. If the parameter is left blank, only resources on the first page are queried. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
current_count	Integer	• **Definition**: Total number of records on the current page. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 4-25 Instance

Parameter	Type	Description
id	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
name	String	• **Definition**: Name of the enterprise switch. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
region	String	• **Definition**: ID of the region where the enterprise switch is created. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
flavor_ref	String	• **Definition**: Enterprise switch flavors. • **Constraints**: N/A • **Range**: For details, see the response of the flavor list API. • **Default value**: N/A
ha_mode	String	• **Definition**: HA mode of the enterprise switch. • **Constraints**: Currently, only **ha** is supported. • **Range**: **ha** • **Default value**: N/A
status	String	• **Definition**: Status of the enterprise switch. • **Constraints**: N/A • **Range**: – **active**: The enterprise switch is running. – **failed**: Failed to create the enterprise switch. – **abnormal**: The enterprise switch is abnormal. – **build**: The enterprise switch is being created. – **frozen**: The enterprise switch is frozen. • **Default value**: N/A
created_at	String	• **Definition**: Time when the enterprise switch was created. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
updated_at	String	• **Definition**: Time when the enterprise switch was updated. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
description	String	• **Definition**: Description of the enterprise switch. • **Constraints**: – The value can contain 0 to 255 characters. – Angle brackets (<>) are not allowed. • **Range**: N/A • **Default value**: N/A
tunnel_info	**TunnelInfoResult** object	• **Definition**: Local tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
charge_infos	**PostPaidChargeInfos** object	• **Definition**: Billing information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
availability_zones	**AvailabilityZones** object	• **Definition**: AZ where the enterprise switch node is located. • **Constraints**: N/A • **Range**: AZs in the current region. • **Default value**: N/A

Table 4-26 TunnelInfoResult

Parameter	Type	Description
vpc_id	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
virsubnet_id	String	• **Definition**: ID of the tunnel subnet where the enterprise switch is located. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
tunnel_ip	String	• **Definition**: Local tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	Integer	• **Definition**: Tunnel port of the enterprise switch. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A
tunnel_type	String	• **Definition**: The tunnel protocol type of the enterprise switch. • **Constraints**: N/A • **Range**: **vxlan** • **Default value**: N/A

Table 4-27 PostPaidChargeInfos

Parameter	Type	Description
charge_mode	String	• **Definition**: Billing mode. • **Constraints**: N/A • **Range**: **postPaid**, indicates the pay-per-use billing mode. • **Default value**: N/A

Table 4-28 AvailabilityZones

Parameter	Type	Description
primary	String	• **Definition**: AZ where the default active node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A
standby	String	• **Definition**: AZ where the default standby node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A

Example Requests

```
GET https://{endpoint}/v3/88104fcc62a640bfa0a0bf687607621c/l2cg/instances
```

Example Responses

Status code: 200

The GET operation is successful. For more status codes, see **Status Codes**.


```
{
  "request_id" : "ca8bd3285faf5a0e600cc9e66032b4b9",
  "instances" : [ {
    "name" : "esw-offline-inter",
    "id" : "a14aa233-3ac1-4218-8d85-b168a6c1b6df",
    "region" : "cn-southwest-242",
    "status" : "active",
    "description" : null,
    "created_at" : "2025-05-27T09:12:50Z",
```



```
  "updated_at" : "2025-07-26T04:57:15Z",
  "project_id" : "88104fcc62a640bfa0a0bf687607621c",
  "flavor_ref" : "l2cg.small.ha",
  "ha_mode" : "ha",
  "availability_zones" : {
    "standby" : "cn-southwest-242a",
    "primary" : "cn-southwest-242a"
  },
  "charge_infos" : {
    "charge_mode" : "postPaid"
  },
  "tunnel_info" : {
    "vpc_id" : "a36e12f4-b490-4b85-bf41-dc61f8f4f4d7",
    "virsubnet_id" : "fb9dee2e-88eb-4fa8-b698-e089d29a56ee",
    "tunnel_ip" : "192.168.4.202",
    "tunnel_port" : 4789,
    "tunnel_type" : "vxlan"
  }
 }, {
  "name" : "esw-online-update",
  "id" : "16b2eea7-5935-445d-8410-083b7064b939",
  "region" : "cn-southwest-242",
  "status" : "active",
  "description" : null,
  "created_at" : "2025-05-20T07:51:52Z",
  "updated_at" : "2025-07-28T08:29:14Z",
  "project_id" : "88104fcc62a640bfa0a0bf687607621c",
  "flavor_ref" : "l2cg.small.ha",
  "ha_mode" : "ha",
  "availability_zones" : {
    "standby" : "cn-southwest-242a",
    "primary" : "cn-southwest-242a"
  },
  "charge_infos" : {
    "charge_mode" : "postPaid"
  },
  "tunnel_info" : {
    "vpc_id" : "41829b5e-66c0-4928-a3d4-f4570ce81d8f",
    "virsubnet_id" : "71f74174-c3fb-4929-9207-a4256b19e280",
    "tunnel_ip" : "192.168.0.76",
    "tunnel_port" : 4789,
    "tunnel_type" : "vxlan"
  }
 } ],
 "page_info" : {
  "previous_marker" : "a14aa233-3ac1-4218-8d85-b168a6c1b6df",
  "current_count" : 2
 }
}
```


Status Codes

Status Code	Description
200	The GET operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

4.5 Querying the Details About an Enterprise Switch

Function

This API is used to query the details about an enterprise switch.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:instance:get	Read	-	-	-	-

URI

GET /v3/{project_id}/l2cg/instances/{instance_id}

Table 4-29 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	• **Definition**: Unique ID of an enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 200

Table 4-30 Response body parameters

Parameter	Type	Description
instance	**Instance** object	• **Definition**: Response body for querying an instance. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A

Table 4-31 Instance

Parameter	Type	Description
id	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
name	String	• **Definition**: Name of the enterprise switch. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
region	String	• **Definition**: ID of the region where the enterprise switch is created. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
flavor_ref	String	• **Definition**: Enterprise switch flavors. • **Constraints**: N/A • **Range**: For details, see the response of the flavor list API. • **Default value**: N/A
ha_mode	String	• **Definition**: HA mode of the enterprise switch. • **Constraints**: Currently, only **ha** is supported. • **Range**: **ha** • **Default value**: N/A
status	String	• **Definition**: Status of the enterprise switch. • **Constraints**: N/A • **Range**: – **active**: The enterprise switch is running. – **failed**: Failed to create the enterprise switch. – **abnormal**: The enterprise switch is abnormal. – **build**: The enterprise switch is being created. – **frozen**: The enterprise switch is frozen. • **Default value**: N/A

Parameter	Type	Description
created_at	String	• **Definition**: Time when the enterprise switch was created. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
updated_at	String	• **Definition**: Time when the enterprise switch was updated. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
description	String	• **Definition**: Description of the enterprise switch. • **Constraints**: – The value can contain 0 to 255 characters. – Angle brackets (<>) are not allowed. • **Range**: N/A • **Default value**: N/A
tunnel_info	**TunnelInfoResult** object	• **Definition**: Local tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
charge_infos	**PostPaidChargeInfos** object	• **Definition**: Billing information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
availability_zones	**AvailabilityZones** object	• **Definition**: AZ where the enterprise switch node is located. • **Constraints**: N/A • **Range**: AZs in the current region. • **Default value**: N/A

Table 4-32 TunnelInfoResult

Parameter	Type	Description
vpc_id	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
virsubnet_id	String	• **Definition**: ID of the tunnel subnet where the enterprise switch is located. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
tunnel_ip	String	• **Definition**: Local tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	Integer	• **Definition**: Tunnel port of the enterprise switch. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A
tunnel_type	String	• **Definition**: The tunnel protocol type of the enterprise switch. • **Constraints**: N/A • **Range**: **vxlan** • **Default value**: N/A

Table 4-33 PostPaidChargeInfos

Parameter	Type	Description
charge_mode	String	• **Definition**: Billing mode. • **Constraints**: N/A • **Range**: **postPaid**, indicates the pay-per-use billing mode. • **Default value**: N/A

Table 4-34 AvailabilityZones

Parameter	Type	Description
primary	String	• **Definition**: AZ where the default active node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A
standby	String	• **Definition**: AZ where the default standby node of the enterprise switch is located. • **Constraints**: The value can contain 1 to 128 characters. • **Range**: ID of the AZ in the current region. • **Default value**: N/A

Example Requests

```
GET https://{endpoint}/v3/b2782e6708b8475c993e6064bc456bf8/l2cg/instances/0c98a940-acf1-4eaa-852e-f3f83b8f03e8
```

Example Responses

Status code: 200

The GET operation is successful. For more status codes, see **Status Codes**.

```
{
  "instance" : {
    "name" : "esw",
    "id" : "9620118d-048b-4de7-96f9-a81adb2e8bc3",
    "region" : "cn-southwest-248",
    "status" : "active",
    "description" : "test",
    "created_at" : "2025-08-18T12:24:27Z",
```



```
  "updated_at" : "2025-08-22T07:46:11Z",
  "project_id" : "24908e6eda8547a4bee256c8a3b3e257",
  "flavor_ref" : "l2cg.large.ha",
  "ha_mode" : "ha",
  "availability_zones" : {
    "standby" : "cn-southwest-111a",
    "primary" : "cn-southwest-111a"
  },
  "charge_infos" : {
    "charge_mode" : "postPaid"
  },
  "tunnel_info" : {
    "vpc_id" : "2bbf1a14-fb12-4c8d-8720-59bbce1160d8",
    "virsubnet_id" : "159c16da-e66f-462e-b2ba-106b9e940820",
    "tunnel_ip" : "192.168.0.54",
    "tunnel_port" : 4789,
    "tunnel_type" : "vxlan"
  }
 },
 "request_id" : "90016460759578d6b92588b536a13c13"
}
```


Status Codes

Status Code	Description
200	The GET operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

4.6 Querying the Enterprise Switch Quota

Function

This API is used to query the enterprise switch quota of a tenant.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:quota:list	List	-	-	-	-

URI

GET /v3/{project_id}/l2cg/quotas

Table 4-35 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 200

Table 4-36 Response body parameters

Parameter	Type	Description
quotas	**Quotas** object	• **Definition**: Response body for querying the quotas. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A

Table 4-37 Quotas

Parameter	Type	Description
resources	Array of **QuotaObject** objects	• **Definition**: The quota information list. • **Constraints**: N/A • **Range**: **instance** • **Default value**: N/A

Table 4-38 QuotaObject

Parameter	Type	Description
type	String	• **Definition**: The quota type. • **Constraints**: N/A • **Range**: **instance** • **Default value**: N/A
quota	Integer	• **Definition**: The total quota. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
used	Integer	• **Definition**: The used quota. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
min	Integer	• **Definition**: The minimum quota. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
max	Integer	• **Definition**: The maximum quota. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Example Requests

```
GET https://{{endpoint}}/v3/060576782980d5762f9ec014dd2f1148/l2cg/quotas
```

Example Responses

Status code: 200

The GET operation is successful. For more status codes, see **Status Codes**.

```
{
  "request_id" : "e8592c6d29418fe3358ad2bfc3ad024f",
  "quotas" : {
    "resources" : [ {
      "type" : "instance",
      "min" : 1,
      "max" : 1000,
      "quota" : 21,
      "used" : 6
    } ]
  }
}
```

Status Codes

Status Code	Description
200	The GET operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

4.7 Querying Enterprise Switch Specifications

Function

This API is used to query the enterprise switch specifications available to a tenant.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:flavor:list	List	-	-	-	-

URI

GET /v3/{project_id}/l2cg/flavors

Table 4-39 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 200

Table 4-40 Response body parameters

Parameter	Type	Description
flavors	Array of **Flavor** objects	• **Definition**: Response body for querying the instance flavors. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A

Table 4-41 Flavor

Parameter	Type	Description
name	String	• **Definition**: Enterprise switch flavor name. • **Constraints**: N/A • **Range**: – l2cg.small.ha – l2cg.medium.ha – l2cg.large.ha • **Default value**: N/A
id	String	• **Definition**: Enterprise switch flavor ID. • **Constraints**: N/A • **Range**: 1 to 3. • **Default value**: N/A
connections	Integer	• **Definition**: Maximum number of Layer 2 connections that an enterprise switch with this flavor supports. • **Constraints**: N/A • **Range**: 1, 3, or 6 • **Default value**: N/A
bandwidth	Integer	• **Definition**: Maximum bandwidth that an enterprise switch with this flavor supports. • **Constraints**: The unit is Gbit/s. • **Range**: 3, 5, or 10 • **Default value**: N/A
pps	Integer	• **Definition**: Maximum number of packets that an enterprise switch with this flavor supports. • **Constraints**: N/A • **Range**: 500000, 1000000, or 2000000 • **Default value**: N/A
available_zones	Array of strings	• **Definition**: List of AZs where instances with this flavor are available. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Example Requests

```
GET https://{{endpoint}}/v3/060576782980d5762f9ec014dd2f1148/l2cg/flavors
```

Example Responses

Status code: 200

The GET operation is successful. For more status codes, see **Status Codes**.

```
{
  "flavors" : [ {
    "name" : "l2cg.small.ha",
    "id" : "1",
    "connections" : 1,
    "bandwidth" : 3,
    "pps" : 500000,
    "available_zones" : [ "cn-southwest-242b", "cn-southwest-242a" ]
  }, {
    "name" : "l2cg.medium.ha",
    "id" : "2",
    "connections" : 3,
    "bandwidth" : 5,
    "pps" : 1000000,
    "available_zones" : [ "cn-southwest-242b", "cn-southwest-242a" ]
  }, {
    "name" : "l2cg.large.ha",
    "id" : "3",
    "connections" : 6,
    "bandwidth" : 10,
    "pps" : 2000000,
    "available_zones" : [ "cn-southwest-242b", "cn-southwest-242a" ]
  } ],
  "request_id" : "7c7d90893b78412b49b2075a685fdebd"
}
```

Status Codes

Status Code	Description
200	The GET operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

4.8 Querying the AZs of an Enterprise Switch

Function

This API is used to obtain the list of AZs where the active and standby nodes of the enterprise switch can be created.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:availabilityZone:list	List	-	-	-	-

URI

GET /v3/{project_id}/l2cg/availability-zones

Table 4-42 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 200

Table 4-43 Response body parameters

Parameter	Type	Description
availability_zones	Array of strings	• **Definition**: Response body for querying AZs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A

Example Requests

```
GET https://{{endpoint}}/v3/060576782980d5762f9ec014dd2f1148/l2cg/availability-zones
```

Example Responses

Status code: 200

The GET operation is successful. For more status codes, see **Status Codes**.

```
{
  "availability_zones" : [ "az1", "az2" ],
  "request_id" : "0bbb314411921a8378671558c4e08f5b"
}
```

Status Codes

Status Code	Description
200	The GET operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

4.9 Querying the Job Execution Status

Function

This API is used to query the information about jobs of a specified resource. **COMPLETED** indicates that the job has been successfully completed. **RUNNING** indicates that the job is being executed. **FAILED** indicates that the job fails to be executed.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:job:listResourceRelatedJobs	List	-	-	-	-

URI

GET /v3/{project_id}/l2cg/resources/{resource_id}/jobs

Table 4-44 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
resource_id	Yes	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Table 4-45 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	• **Definition**: Number of records returned on each page. • **Constraints**: **limit** must be used together with **marker**. For details, see the description of **marker**. • **Value range**: 0 to 2^31 – 1 • **Default value**: 2000

Parameter	Mandatory	Type	Description
marker	No	String	• **Definition**: A resource ID for pagination query, indicating that the query starts from the next record of the specified resource ID. • **Constraints**: **marker** must be used together with **limit**. – If parameters **marker** and **limit** are not specified, all resource records on the first page will be returned. – If **marker** is not specified and **limit** is set to **10**, the first 10 resource records will be returned. – If **marker** is set to the resource ID of the tenth record and **limit** is set to **10**, the 11th to 20th resource records will be returned. – If **marker** is set to the resource ID of the tenth record and **limit** is not specified, the 11th to 2000th resource records will be returned (the default value of **limit** is **2000**). • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 200

Table 4-46 Response body parameters

Parameter	Type	Description
jobs	Array of **Job** objects	• **Definition**: Response body for querying the jobs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
page_info	**PageInfo** object	• **Definition**: Pagination information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A

Table 4-47 Job

Parameter	Type	Description
id	String	• **Definition**: Unique job ID. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
name	String	• **Definition**: Name of the current job. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
status	String	• **Definition**: Job status. • **Constraints**: N/A • **Range**: – **RUNNING** – **FAILED** – **COMPLETED** • **Default value**: N/A

Parameter	Type	Description
begin_time	String	• **Definition**: Time when the job was started. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
end_time	String	• **Definition**: Time when the job was completed. • **Constraints**: – The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. – This parameter is displayed only when the job status is **FAILED** or **COMPLETED**. • **Range**: N/A • **Default value**: N/A
process	String	• **Definition**: Current job progress, displayed as a percentage. • **Constraints**: This parameter is displayed only when the job status is **RUNNING**. • **Range**: N/A • **Default value**: N/A
fail_reason	String	• **Definition**: The reason why the job fails. • **Constraints**: This parameter is displayed only when the job status is **FAILED**. • **Range**: N/A • **Default value**: N/A
resource_id	String	• **Definition**: ID of the resource associated with the job. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
resource_name	String	• **Definition**: Name of the resource associated with the job. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
resource_type	String	• **Definition**: Type of the resource associated with the job. • **Constraints**: N/A • **Range**: – **instance**: enterprise switch • **Default value**: N/A
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 4-48 PageInfo

Parameter	Type	Description
next_marker	String	• **Definition**: The last record on the current page. The parameter **next_marker** does not exist on the last page. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
previous_marker	String	• **Definition**: ID of the resource from which the pagination query starts. If the parameter is left blank, only resources on the first page are queried. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
current_count	Integer	• **Definition**: Total number of records on the current page. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Example Requests

```
GET https://{{endpoint}}/v3/88104fcc62a640bfa0a0bf687607621c/l2cg/resources/
3bbe7af1-1355-4e41-9fee-721bd80de2ab/jobs
```

Example Responses

Status code: 200

The GET operation is successful. For more status codes, see **Status Codes**.

```
{
  "request_id" : "f8ef8704d8eb6a13988a01f4e37307fc",
  "jobs" : [ {
    "name" : "DeleteHAInstance",
    "id" : "25578d6b-7394-48fd-b647-3308c476cb6d",
    "status" : "COMPLETED",
    "resource_id" : "3bbe7af1-1355-4e41-9fee-721bd80de2ab",
    "resource_name" : "esw-fee1",
    "resource_type" : "instance",
    "project_id" : "88104fcc62a640bfa0a0bf687607621c",
    "begin_time" : "2025-10-22T03:25:41",
    "end_time" : "2025-10-22T03:25:43"
  }, {
    "name" : "CreateHAInstance",
    "id" : "71c1c3fc-c2ab-4d78-8964-b38b270dcde8",
    "status" : "FAILED",
    "resource_id" : "3bbe7af1-1355-4e41-9fee-721bd80de2ab",
    "resource_name" : "esw-fee1",
    "resource_type" : "instance",
    "project_id" : "88104fcc62a640bfa0a0bf687607621c",
    "begin_time" : "2025-10-22T03:23:13",
    "end_time" : "2025-10-22T03:25:01",
    "fail_reason" : "WaitCreateServerJobTask Failed"
  } ],
  "page_info" : {
    "previous_marker" : "25578d6b-7394-48fd-b647-3308c476cb6d",
    "current_count" : 2
  }
}
```

Status Codes

Status Code	Description
200	The GET operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

5 Layer 2 Connection

5.1 Creating a Layer 2 Connection

Function

This API is used to create a Layer 2 connection for an enterprise switch.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:connection:create	Write	-	-	-	-

URI

POST /v3/{project_id}/l2cg/instances/{instance_id}/connections

Table 5-1 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	• **Definition**: Unique ID of an enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

Table 5-2 Request body parameters

Parameter	Mandatory	Type	Description
connection	Yes	**CreateConnectionOption** object	• **Definition**: Request body for creating a Layer 2 connection. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-3 CreateConnectionOption

Parameter	Mandatory	Type	Description
fixed_ips	No	Array of strings	• **Definition**: Active and standby interface IP addresses used by the enterprise switch in the local Layer 2 subnet. • **Constraints**: The value is a string list. You can configure two strings in the standard IPv4 format. The IP address must be in the CIDR block of the Layer 2 subnet. • **Range**: N/A • **Default value**: N/A
name	Yes	String	• **Definition**: Layer 2 connection name. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
remote_infos	Yes	Array of **RemoteInfosOption** objects	• **Definition**: Remote tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Mandatory	Type	Description
virsubnet_id	Yes	String	• **Definition**: ID of the Layer 2 subnet associated with the Layer 2 connection. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
vpc_id	Yes	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Table 5-4 RemoteInfosOption

Parameter	Mandatory	Type	Description
segmentation_id	Yes	Integer	• **Definition**: The tunnel ID of the Layer 2 connection, also the VXLAN network identifier (VNI). • **Constraints**: The value must be the same as the VNI configured for the remote VXLAN. • **Range**: 1 to 16777216 • **Default value**: N/A

Parameter	Mandatory	Type	Description
tunnel_ip	Yes	String	• **Definition**: The remote tunnel IP address of the enterprise switch. • **Constraints**: The value must be the same as the VTEP IP address configured for the remote VXLAN. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	No	Integer	• **Definition**: The remote tunnel port of the Layer 2 connection. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A

Response Parameters

Status code: 201

Table 5-5 Response body parameters

Parameter	Type	Description
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A
connection	**Connection** object	• **Definition**: Response body for creating a Layer 2 connection. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-6 Connection

Parameter	Type	Description
fixed_ips	Array of strings	• **Definition**: Active and standby interface IP addresses used by the enterprise switch in the local Layer 2 subnet. • **Constraints**: The value is a string list. You can configure two strings in the standard IPv4 format. The IP address must be in the CIDR block of the Layer 2 subnet. • **Range**: N/A • **Default value**: N/A
id	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
instance_id	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
name	String	• **Definition**: Layer 2 connection name. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
remote_infos	Array of **RemoteInfosResult** objects	• **Definition**: Remote tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
status	String	• **Definition**: Status of the Layer 2 connection. • **Constraints**: N/A • **Range**: – **pending**: The Layer 2 connection is being created. – **connected**: The Layer 2 connection is connected. – **disconnect**: The Layer 2 connection is disconnected. – **failed**: Failed to create the Layer 2 connection. – **abnormal**: The Layer 2 connection is abnormal. • **Default value**: N/A
virsubnet_id	String	• **Definition**: ID of the Layer 2 subnet associated with the Layer 2 connection. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
vpc_id	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
created_at	String	• **Definition**: Time when the Layer 2 connection was created. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
updated_at	String	• **Definition**: Time when the Layer 2 connection was updated. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A

Table 5-7 RemoteInfosResult

Parameter	Type	Description
segmentation_id	Integer	• **Definition**: The tunnel ID of the Layer 2 connection, also the VXLAN network identifier (VNI). • **Constraints**: The value must be the same as the VNI configured for the remote VXLAN. • **Range**: 1 to 16777216 • **Default value**: N/A
tunnel_ip	String	• **Definition**: The remote tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	Integer	• **Definition**: The remote tunnel port of the Layer 2 connection. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A

Parameter	Type	Description
tunnel_type	String	• **Definition**: The tunnel protocol type of the enterprise switch. • **Constraints**: N/A • **Range**: **vxlan** • **Default value**: N/A

Example Requests

```
POST https://{endpoint}/v3/dd9e484e058b48e18b820948dcbd480e/l2cg/instances/87fea8df-3e0d-473a-a1bd-e6a76157f4ce/connections

{
  "connection" : {
    "virsubnet_id" : "2c649856-0d44-400c-8194-f6d67603e0eb",
    "fixed_ips" : [ "192.168.0.11", "192.168.0.12" ],
    "name" : "l2conn-7a0c",
    "remote_infos" : [ {
      "tunnel_port" : 4789,
      "segmentation_id" : 7127,
      "tunnel_ip" : "192.168.111.111"
    } ],
    "vpc_id" : "6ae030de-f630-476e-8284-7bcfbd94929d"
  }
}
```

Example Responses

Status code: 201

The POST operation is successful. For more status codes, see **Status Codes**.

```
{
  "request_id" : "318ad7fa0bae74f2b0a22b44d6740309",
  "connection" : {
    "name" : "l2conn-7a0c",
    "id" : "555fe9b7-62fe-48c6-a73d-a62413f110f1",
    "status" : "pending",
    "created_at" : "2025-07-28T08:39:59Z",
    "updated_at" : "2025-07-28T08:39:59Z",
    "project_id" : "dd9e484e058b48e18b820948dcbd480e",
    "instance_id" : "87fea8df-3e0d-473a-a1bd-e6a76157f4ce",
    "vpc_id" : "6ae030de-f630-476e-8284-7bcfbd94929d",
    "virsubnet_id" : "2c649856-0d44-400c-8194-f6d67603e0eb",
    "fixed_ips" : [ "192.168.0.11", "192.168.0.12" ],
    "remote_infos" : [ {
      "segmentation_id" : 7127,
      "tunnel_ip" : "192.168.111.111",
      "tunnel_port" : 4789,
      "tunnel_type" : "vxlan"
    } ]
  }
}
```


Status Codes

Status Code	Description
201	The POST operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

5.2 Deleting a Layer 2 Connection

Function

This API is used to delete a Layer 2 connection if you no longer need it.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:connection:delete	Write	-	-	-	-

URI

DELETE /v3/{project_id}/l2cg/instances/{instance_id}/connections/{connection_id}

Table 5-8 Path Parameters

Parameter	Mandatory	Type	Description
connection_id	Yes	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Mandatory	Type	Description
instance_id	Yes	String	• **Definition**: Unique ID of an enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 204

The DELETE operation is successful. For more status codes, see **Status Codes**.

None

Example Requests

```
DELETE https://{endpoint}/v3/b2782e6708b8475c993e6064bc456bf8/l2cg/instances/94e7bf9d-c5a0-40da-9bcb-4407fde1907d/connections/cec110e8-59eb-47ea-b449-9d1b687ef311
```

Example Responses

None

Status Codes

Status Code	Description
204	The DELETE operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

5.3 Updating a Layer 2 Connection

Function

This API is used to update the name of a Layer 2 connection.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:connection:update	Write	-	-	-	-

URI

PUT /v3/{project_id}/l2cg/instances/{instance_id}/connections/{connection_id}

Table 5-9 Path Parameters

Parameter	Mandatory	Type	Description
connection_id	Yes	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
instance_id	Yes	String	• **Definition**: Unique ID of an enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Mandatory	Type	Description
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

Table 5-10 Request body parameters

Parameter	Mandatory	Type	Description
connection	Yes	**UpdateConnectionOption** object	• **Definition**: Request body for updating a Layer 2 connection. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-11 UpdateConnectionOption

Parameter	Mandatory	Type	Description
name	Yes	String	• **Definition**: Layer 2 connection name. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A

Response Parameters

Status code: 200

Table 5-12 Response body parameters

Parameter	Type	Description
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A
connection	**Connection** object	• **Definition**: Response body for updating a Layer 2 connection. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-13 Connection

Parameter	Type	Description
fixed_ips	Array of strings	• **Definition**: Active and standby interface IP addresses used by the enterprise switch in the local Layer 2 subnet. • **Constraints**: The value is a string list. You can configure two strings in the standard IPv4 format. The IP address must be in the CIDR block of the Layer 2 subnet. • **Range**: N/A • **Default value**: N/A
id	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
instance_id	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
name	String	• **Definition**: Layer 2 connection name. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
remote_infos	Array of **RemoteInfosResult** objects	• **Definition**: Remote tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
status	String	• **Definition**: Status of the Layer 2 connection. • **Constraints**: N/A • **Range**: – **pending**: The Layer 2 connection is being created. – **connected**: The Layer 2 connection is connected. – **disconnect**: The Layer 2 connection is disconnected. – **failed**: Failed to create the Layer 2 connection. – **abnormal**: The Layer 2 connection is abnormal. • **Default value**: N/A

Parameter	Type	Description
virsubnet_id	String	• **Definition**: ID of the Layer 2 subnet associated with the Layer 2 connection. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
vpc_id	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
created_at	String	• **Definition**: Time when the Layer 2 connection was created. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
updated_at	String	• **Definition**: Time when the Layer 2 connection was updated. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A

Table 5-14 RemoteInfosResult

Parameter	Type	Description
segmentation_id	Integer	• **Definition**: The tunnel ID of the Layer 2 connection, also the VXLAN network identifier (VNI). • **Constraints**: The value must be the same as the VNI configured for the remote VXLAN. • **Range**: 1 to 16777216 • **Default value**: N/A
tunnel_ip	String	• **Definition**: The remote tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	Integer	• **Definition**: The remote tunnel port of the Layer 2 connection. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A
tunnel_type	String	• **Definition**: The tunnel protocol type of the enterprise switch. • **Constraints**: N/A • **Range**: **vxlan** • **Default value**: N/A

Example Requests

```
PUT https://{endpoint}/v3/dd9e484e058b48e18b820948dcbd480e/l2cg/instances/87fea8df-3e0d-473a-a1bd-e6a76157f4ce/connections/b6eb65d0-0079-4432-86b9-60a066fe21d4

{
  "connection" : {
    "name" : "test"
  }
}
```

Example Responses

Status code: 200

The PUT operation is successful. For more status codes, see **Status Codes**.

```
{
  "request_id" : "861c233f7fa7ace487a565ac1e2a6f19",
```



```
 "connection" : {
   "name" : "l2conn-update",
   "id" : "b6eb65d0-0079-4432-86b9-60a066fe21d4",
   "status" : "disconnect",
   "created_at" : "2025-07-28T08:22:21Z",
   "updated_at" : "2025-07-28T08:25:59Z",
   "project_id" : "dd9e484e058b48e18b820948dcbd480e",
   "instance_id" : "87fea8df-3e0d-473a-a1bd-e6a76157f4ce",
   "vpc_id" : "6ae030de-f630-476e-8284-7bcfbd94929d",
   "virsubnet_id" : "2c649856-0d44-400c-8194-f6d67603e0eb",
   "fixed_ips" : [ "192.168.0.116", "192.168.0.96" ],
   "remote_infos" : [ {
     "segmentation_id" : 7127,
     "tunnel_ip" : "192.168.111.111",
     "tunnel_port" : 4789,
     "tunnel_type" : "vxlan"
   } ]
 }
}
```


Status Codes

Status Code	Description
200	The PUT operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

5.4 Querying the Details About a Layer 2 Connection

Function

This API is used to query the details about a Layer 2 connection.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:connection:get	Read	-	-	-	-

URI

GET /v3/{project_id}/l2cg/instances/{instance_id}/connections/{connection_id}

Table 5-15 Path Parameters

Parameter	Mandatory	Type	Description
connection_id	Yes	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
instance_id	Yes	String	• **Definition**: Unique ID of an enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 200

Table 5-16 Response body parameters

Parameter	Type	Description
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
connection	Connection object	• **Definition**: Response body for querying the details of a Layer 2 connection. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-17 Connection

Parameter	Type	Description
fixed_ips	Array of strings	• **Definition**: Active and standby interface IP addresses used by the enterprise switch in the local Layer 2 subnet. • **Constraints**: The value is a string list. You can configure two strings in the standard IPv4 format. The IP address must be in the CIDR block of the Layer 2 subnet. • **Range**: N/A • **Default value**: N/A
id	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
instance_id	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
name	String	• **Definition**: Layer 2 connection name. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
remote_infos	Array of **RemoteInfosResult** objects	• **Definition**: Remote tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
status	String	• **Definition**: Status of the Layer 2 connection. • **Constraints**: N/A • **Range**: – **pending**: The Layer 2 connection is being created. – **connected**: The Layer 2 connection is connected. – **disconnect**: The Layer 2 connection is disconnected. – **failed**: Failed to create the Layer 2 connection. – **abnormal**: The Layer 2 connection is abnormal. • **Default value**: N/A

Parameter	Type	Description
virsubnet_id	String	• **Definition**: ID of the Layer 2 subnet associated with the Layer 2 connection. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
vpc_id	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
created_at	String	• **Definition**: Time when the Layer 2 connection was created. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
updated_at	String	• **Definition**: Time when the Layer 2 connection was updated. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A

Table 5-18 RemoteInfosResult

Parameter	Type	Description
segmentation_id	Integer	• **Definition**: The tunnel ID of the Layer 2 connection, also the VXLAN network identifier (VNI). • **Constraints**: The value must be the same as the VNI configured for the remote VXLAN. • **Range**: 1 to 16777216 • **Default value**: N/A
tunnel_ip	String	• **Definition**: The remote tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	Integer	• **Definition**: The remote tunnel port of the Layer 2 connection. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A
tunnel_type	String	• **Definition**: The tunnel protocol type of the enterprise switch. • **Constraints**: N/A • **Range**: **vxlan** • **Default value**: N/A

Example Requests

```
GET https://{endpoint}/v3/b2782e6708b8475c993e6064bc456bf8/l2cg/instances/94e7bf9d-c5a0-40da-9bcb-4407fde1907d/connections/cf7c95de-1464-48db-9f00-d773a5a8e29d
```

Example Responses

Status code: 200

The GET operation is successful. For more status codes, see **Status Codes**.

```
{
  "request_id" : "7d685ccd5ce38dbd41d4ed4a7ef9cf19",
  "connection" : {
    "name" : "l2conn-ba19",
    "id" : "9cb4f6bd-89a0-4633-b53e-c333b8c9277f",
    "status" : "abnormal",
    "created_at" : "2025-06-24T06:09:03Z",
```



```
  "updated_at" : "2025-08-22T02:30:50Z",
  "project_id" : "88104fcc62a640bfa0a0bf687607621c",
  "instance_id" : "16b2eea7-5935-445d-8410-083b7064b939",
  "vpc_id" : "41829b5e-66c0-4928-a3d4-f4570ce81d8f",
  "virsubnet_id" : "7ef08d1e-6e82-4133-9147-5dde6a50ee90",
  "fixed_ips" : [ "192.168.1.170", "192.168.1.140" ],
  "remote_infos" : [ {
    "segmentation_id" : 6790,
    "tunnel_ip" : "192.168.4.202",
    "tunnel_port" : 4789,
    "tunnel_type" : "vxlan"
  } ]
 }
}
```


Status Codes

Status Code	Description
200	The GET operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

5.5 Querying the Layer 2 Connections of an Enterprise Switch

Function

This API is used to query the Layer 2 connections associated with an enterprise switch.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:connection:list	List	-	-	-	-

URI

GET /v3/{project_id}/l2cg/instances/{instance_id}/connections

Table 5-19 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	• **Definition**: Unique ID of an enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-20 Query Parameters

Parameter	Mandatory	Type	Description
id	No	String	• **Definition**: ID of a Layer 2 connection. Each Layer 2 connection comes with an ID, which uniquely identifies the Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
name	No	String	• **Definition**: Layer 2 connection name. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A

Parameter	Mandatory	Type	Description
limit	No	Integer	• **Definition**: Number of records returned on each page. • **Constraints**: **limit** must be used together with **marker**. For details, see the description of **marker**. • **Value range**: 0 to 2^31 – 1 • **Default value**: 2000
marker	No	String	• **Definition**: A resource ID for pagination query, indicating that the query starts from the next record of the specified resource ID. • **Constraints**: **marker** must be used together with **limit**. – If parameters **marker** and **limit** are not specified, all resource records on the first page will be returned. – If **marker** is not specified and **limit** is set to **10**, the first 10 resource records will be returned. – If **marker** is set to the resource ID of the tenth record and **limit** is set to **10**, the 11th to 20th resource records will be returned. – If **marker** is set to the resource ID of the tenth record and **limit** is not specified, the 11th to 2000th resource records will be returned (the default value of **limit** is **2000**). • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 200

Table 5-21 Response body parameters

Parameter	Type	Description
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A
page_info	**PageInfo** object	• **Definition**: Pagination information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
connections	Array of **Connection** objects	• **Definition**: Response body for querying Layer 2 connections. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-22 PageInfo

Parameter	Type	Description
next_marker	String	• **Definition**: The last record on the current page. The parameter **next_marker** does not exist on the last page. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
previous_marker	String	• **Definition**: ID of the resource from which the pagination query starts. If the parameter is left blank, only resources on the first page are queried. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
current_count	Integer	• **Definition**: Total number of records on the current page. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-23 Connection

Parameter	Type	Description
fixed_ips	Array of strings	• **Definition**: Active and standby interface IP addresses used by the enterprise switch in the local Layer 2 subnet. • **Constraints**: The value is a string list. You can configure two strings in the standard IPv4 format. The IP address must be in the CIDR block of the Layer 2 subnet. • **Range**: N/A • **Default value**: N/A
id	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
instance_id	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
name	String	• **Definition**: Layer 2 connection name. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
remote_infos	Array of **RemoteInfosResult** objects	• **Definition**: Remote tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
status	String	• **Definition**: Status of the Layer 2 connection. • **Constraints**: N/A • **Range**: – **pending**: The Layer 2 connection is being created. – **connected**: The Layer 2 connection is connected. – **disconnect**: The Layer 2 connection is disconnected. – **failed**: Failed to create the Layer 2 connection. – **abnormal**: The Layer 2 connection is abnormal. • **Default value**: N/A

Parameter	Type	Description
virsubnet_id	String	• **Definition**: ID of the Layer 2 subnet associated with the Layer 2 connection. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
vpc_id	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
created_at	String	• **Definition**: Time when the Layer 2 connection was created. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
updated_at	String	• **Definition**: Time when the Layer 2 connection was updated. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A

Table 5-24 RemoteInfosResult

Parameter	Type	Description
segmentation_id	Integer	• **Definition**: The tunnel ID of the Layer 2 connection, also the VXLAN network identifier (VNI). • **Constraints**: The value must be the same as the VNI configured for the remote VXLAN. • **Range**: 1 to 16777216 • **Default value**: N/A
tunnel_ip	String	• **Definition**: The remote tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	Integer	• **Definition**: The remote tunnel port of the Layer 2 connection. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A
tunnel_type	String	• **Definition**: The tunnel protocol type of the enterprise switch. • **Constraints**: N/A • **Range**: **vxlan** • **Default value**: N/A

Example Requests

```
GET https://{endpoint}/v3/dd9e484e058b48e18b820948dcbd480e/l2cg/instances/87fea8df-3e0d-473a-a1bd-e6a76157f4ce/connections
```

Example Responses

Status code: 200

The GET operation is successful. For more status codes, see **Status Codes**.

```
{
  "request_id" : "e08970b5f462162c4c7553fe3a6832fc",
  "connections" : [ {
    "name" : "l2conn",
    "id" : "b6eb65d0-0079-4432-86b9-60a066fe21d4",
    "status" : "disconnect",
    "created_at" : "2025-07-28T08:22:21Z",
```



```
  "updated_at" : "2025-07-28T08:23:09Z",
  "project_id" : "dd9e484e058b48e18b820948dcbd480e",
  "instance_id" : "87fea8df-3e0d-473a-a1bd-e6a76157f4ce",
  "vpc_id" : "6ae030de-f630-476e-8284-7bcfbd94929d",
  "virsubnet_id" : "2c649856-0d44-400c-8194-f6d67603e0eb",
  "fixed_ips" : [ "192.168.0.116", "192.168.0.96" ],
  "remote_infos" : [ {
    "segmentation_id" : 7127,
    "tunnel_ip" : "192.168.111.111",
    "tunnel_port" : 4789,
    "tunnel_type" : "vxlan"
  } ]
 } ],
 "page_info" : {
  "previous_marker" : "b6eb65d0-0079-4432-86b9-60a066fe21d4",
  "current_count" : 1
 }
}
```


Status Codes

Status Code	Description
200	The GET operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

5.6 Querying Layer 2 Connections

Function

This API is used to query all the Layer 2 connections created by a tenant.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:connection:list	List	-	-	-	-

URI

GET /v3/{project_id}/l2cg/connections

Table 5-25 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-26 Query Parameters

Parameter	Mandatory	Type	Description
id	No	String	• **Definition**: ID of a Layer 2 connection. Each Layer 2 connection comes with an ID, which uniquely identifies the Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
name	No	String	• **Definition**: Layer 2 connection name. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A

Parameter	Mandatory	Type	Description
instance_id	No	String	• **Definition**: ID of an enterprise switch. Each enterprise switch comes with an ID, which uniquely identifies the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
vpc_id	No	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
virsubnet_id	No	String	• **Definition**: ID of the Layer 2 subnet associated with the Layer 2 connection. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the value of network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Mandatory	Type	Description
limit	No	Integer	• **Definition**: Number of records returned on each page. • **Constraints**: **limit** must be used together with **marker**. For details, see the description of **marker**. • **Value range**: 0 to 2^31 – 1 • **Default value**: 2000
marker	No	String	• **Definition**: A resource ID for pagination query, indicating that the query starts from the next record of the specified resource ID. • **Constraints**: **marker** must be used together with **limit**. – If parameters **marker** and **limit** are not specified, all resource records on the first page will be returned. – If **marker** is not specified and **limit** is set to **10**, the first 10 resource records will be returned. – If **marker** is set to the resource ID of the tenth record and **limit** is set to **10**, the 11th to 20th resource records will be returned. – If **marker** is set to the resource ID of the tenth record and **limit** is not specified, the 11th to 2000th resource records will be returned (the default value of **limit** is **2000**). • **Range**: N/A • **Default value**: N/A

Request Parameters

None

Response Parameters

Status code: 200

Table 5-27 Response body parameters

Parameter	Type	Description
request_id	String	• **Definition**: Unique request ID. • **Constraints**: The value is in the UUID format. • **Range**: N/A • **Default value**: N/A
page_info	**PageInfo** object	• **Definition**: Pagination information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
connections	Array of **Connection** objects	• **Definition**: Response body for querying Layer 2 connections. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-28 PageInfo

Parameter	Type	Description
next_marker	String	• **Definition**: The last record on the current page. The parameter **next_marker** does not exist on the last page. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
previous_marker	String	• **Definition**: ID of the resource from which the pagination query starts. If the parameter is left blank, only resources on the first page are queried. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
current_count	Integer	• **Definition**: Total number of records on the current page. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-29 Connection

Parameter	Type	Description
fixed_ips	Array of strings	• **Definition**: Active and standby interface IP addresses used by the enterprise switch in the local Layer 2 subnet. • **Constraints**: The value is a string list. You can configure two strings in the standard IPv4 format. The IP address must be in the CIDR block of the Layer 2 subnet. • **Range**: N/A • **Default value**: N/A
id	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
instance_id	String	• **Definition**: Unique ID of the enterprise switch. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A

Parameter	Type	Description
name	String	• **Definition**: Layer 2 connection name. • **Constraints**: – The value can contain 1 to 64 characters. – The value can contain letters, digits, underscores (_), hyphens (-), and periods (.). • **Range**: N/A • **Default value**: N/A
project_id	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
remote_infos	Array of **RemoteInfosResult** objects	• **Definition**: Remote tunnel information. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A
status	String	• **Definition**: Status of the Layer 2 connection. • **Constraints**: N/A • **Range**: – **pending**: The Layer 2 connection is being created. – **connected**: The Layer 2 connection is connected. – **disconnect**: The Layer 2 connection is disconnected. – **failed**: Failed to create the Layer 2 connection. – **abnormal**: The Layer 2 connection is abnormal. • **Default value**: N/A

Parameter	Type	Description
virsubnet_id	String	• **Definition**: ID of the Layer 2 subnet associated with the Layer 2 connection. • **Constraints**: – You need to use the IDs of the subnets that you can manage. The ID is the network ID in the subnet details. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
vpc_id	String	• **Definition**: ID of the VPC where the enterprise switch is created. • **Constraints**: – You need to use the IDs of the VPCs that you can manage. – The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
created_at	String	• **Definition**: Time when the Layer 2 connection was created. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A
updated_at	String	• **Definition**: Time when the Layer 2 connection was updated. • **Constraints**: The value is a UTC time in the format of yyyy-MM-ddTHH:mm:ss. • **Range**: N/A • **Default value**: N/A

Table 5-30 RemoteInfosResult

Parameter	Type	Description
segmentation_id	Integer	• **Definition**: The tunnel ID of the Layer 2 connection, also the VXLAN network identifier (VNI). • **Constraints**: The value must be the same as the VNI configured for the remote VXLAN. • **Range**: 1 to 16777216 • **Default value**: N/A
tunnel_ip	String	• **Definition**: The remote tunnel IP address of the enterprise switch. • **Constraints**: The value cannot conflict with an existing subnet IP address. • **Range**: A standard IPv4 address, for example, 192.168.1.1. • **Default value**: N/A
tunnel_port	Integer	• **Definition**: The remote tunnel port of the Layer 2 connection. • **Constraints**: N/A • **Range**: 4789 • **Default value**: N/A
tunnel_type	String	• **Definition**: The tunnel protocol type of the enterprise switch. • **Constraints**: N/A • **Range**: **vxlan** • **Default value**: N/A

Example Requests

```
GET https://{{endpoint}}/v3/060576782980d5762f9ec014dd2f1148/l2cg/connections
```

Example Responses

Status code: 200

The GET operation is successful. For more status codes, see **Status Codes**.

```
{
  "request_id" : "d3301f85b4951cce72aa30e6deae7022",
  "connections" : [ {
    "name" : "l2conn-ba19",
    "id" : "9cb4f6bd-89a0-4633-b53e-c333b8c9277f",
    "status" : "disconnect",
    "created_at" : "2025-06-24T06:09:03Z",
    "updated_at" : "2025-08-22T02:30:50Z",
```



```
    "project_id" : "88104fcc62a640bfa0a0bf687607621c",
    "instance_id" : "16b2eea7-5935-445d-8410-083b7064b939",
    "vpc_id" : "41829b5e-66c0-4928-a3d4-f4570ce81d8f",
    "virsubnet_id" : "7ef08d1e-6e82-4133-9147-5dde6a50ee90",
    "fixed_ips" : [ "192.168.1.170", "192.168.1.140" ],
    "remote_infos" : [ {
      "segmentation_id" : 6790,
      "tunnel_ip" : "192.168.4.202",
      "tunnel_port" : 4789,
      "tunnel_type" : "vxlan"
    } ]
  }, {
    "name" : "l2conn-89a4",
    "id" : "d5a0c32d-e52d-48d8-8afb-ee9975618ba3",
    "status" : "disconnect",
    "created_at" : "2025-08-22T02:53:04Z",
    "updated_at" : "2025-08-22T02:53:18Z",
    "project_id" : "88104fcc62a640bfa0a0bf687607621c",
    "instance_id" : "a14aa233-3ac1-4218-8d85-b168a6c1b6df",
    "vpc_id" : "a36e12f4-b490-4b85-bf41-dc61f8f4f4d7",
    "virsubnet_id" : "be272d7a-5111-451a-af8b-09b673b1a7e9",
    "fixed_ips" : [ "192.168.1.158", "192.168.1.42" ],
    "remote_infos" : [ {
      "segmentation_id" : 9732,
      "tunnel_ip" : "192.168.0.76",
      "tunnel_port" : 4789,
      "tunnel_type" : "vxlan"
    } ]
  } ],
  "page_info" : {
    "previous_marker" : "9cb4f6bd-89a0-4633-b53e-c333b8c9277f",
    "current_count" : 2
  }
}
```


Status Codes

Status Code	Description
200	The GET operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

5.7 Binding a Virtual IP Address to a Layer 2 Connection

Function

This API is used to bind a virtual IP address to a Layer 2 connection.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:connection:bindVport	Write	-	-	-	-

URI

POST /v3/{project_id}/l2cg/connections/{connection_id}/vports/bind

Table 5-31 Path Parameters

Parameter	Mandatory	Type	Description
connection_id	Yes	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

Table 5-32 Request body parameters

Parameter	Mandatory	Type	Description
vport	Yes	Vport object	• **Definition**: Request body for binding a virtual IP address port. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-33 Vport

Parameter	Mandatory	Type	Description
id	Yes	String	• **Definition**: Unique ID of the virtual IP address. • **Constraints**: The value must be the ID of a resource that can be operated by the current tenant. • **Range**: N/A • **Default value**: N/A

Response Parameters

Status code: 204

The POST operation is successful. For more status codes, see **Status Codes**.

None

Example Requests

```
POST https://{endpoint}/v3/05137572fa00d5eb2fdcc014b0f5c751/l2cg/connections/
6a9c6b1a-0d5c-495a-8e0c-4f631bde397f/vports/bind

{
  "vport" : {
    "id" : "84beed10-ef3e-42a8-902c-9d6cdc0d4e20"
  }
}
```

Example Responses

None

Status Codes

Status Code	Description
204	The POST operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

5.8 Unbinding a Virtual IP Address from a Layer 2 Connection

Function

This API is used to unbind a virtual IP address from a Layer 2 connection.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the following required identity policy-based permissions. For details about the required permissions, see **Permissions Policies and Supported Actions**.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
esw:connection:unbindVport	Write	-	-	-	-

URI

POST /v3/{project_id}/l2cg/connections/{connection_id}/vports/unbind

Table 5-34 Path Parameters

Parameter	Mandatory	Type	Description
connection_id	Yes	String	• **Definition**: ID of a Layer 2 connection. • **Constraints**: The value is in the UUID format with hyphens (-). • **Range**: N/A • **Default value**: N/A
project_id	Yes	String	• **Definition**: ID of the project to which the enterprise switch belongs. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Request Parameters

Table 5-35 Request body parameters

Parameter	Mandatory	Type	Description
vport	Yes	**Vport** object	• **Definition**: Request body for unbinding a virtual IP address port. • **Constraints**: N/A • **Range**: N/A • **Default value**: N/A

Table 5-36 Vport

Parameter	Mandatory	Type	Description
id	Yes	String	• **Definition**: Unique ID of the virtual IP address. • **Constraints**: The value must be the ID of a resource that can be operated by the current tenant. • **Range**: N/A • **Default value**: N/A

Response Parameters

Status code: 204

The POST operation is successful. For more status codes, see **Status Codes**.

None

Example Requests

```
POST https://{endpoint}/v3/05137572fa00d5eb2fdcc014b0f5c751/l2cg/connections/
6a9c6b1a-0d5c-495a-8e0c-4f631bde397f/vports/unbind

{
  "vport" : {
    "id" : "84beed10-ef3e-42a8-902c-9d6cdc0d4e20"
  }
}
```

Example Responses

None

Status Codes

Status Code	Description
204	The POST operation is successful. For more status codes, see **Status Codes**.

Error Codes

See **Error Codes**.

6 Permissions Policies and Supported Actions

6.1 Permissions and Supported Actions

You can use Identity and Access Management (IAM) for fine-grained permissions management of your enterprise switches. If your HUAWEI ID does not need individual IAM users, you can skip this section.

With IAM, you can control access to specific Huawei Cloud resources from principals (IAM users, user groups, agencies, or trust agencies). IAM supports role/policy-based authorization and identity policy-based authorization.

The following table describes the differences between the two authorization models.

Table 6-1 Differences between role/policy-based and identity policy-based authorization

Authorization Model	Authorization Using	Permissions	Authorization Method	Description
Role/Policy	User-permission-authorization scope	• System-defined roles • System-defined policies • Custom policies	Assigning roles or policies to principals	To authorize a user, you need to add it to a user group first and then specify the scope of authorization. It is hard to provide fine-grained permissions control using authorization by user groups and a limited number of condition keys. This method is suitable for small- and medium-sized enterprises.
Identity policy	User-policy	• System-defined identity policies • Custom identity policies	• Assigning identity policies to principals • Attaching identity policies to principals	You can authorize a user by attaching an identity policy to it. User-specific authorization and a variety of key conditions allow for more fine-grained permissions control. However, this model can be hard to set up. It requires a certain amount of expertise and is suitable for medium- and large-sized enterprises.

Assume that you want to grant IAM users the permission to create ECSs in region A and OBS buckets in region B. With role/policy-based authorization, the administrator needs to create two custom policies and attach both to the IAM users. With identity policy-based authorization, the administrator only needs to create one custom policy, configure the condition key **g:RequestedRegion** for the policy, and then attach the policy to the principals or grant the principals the access permissions to the specified regions. Identity policy-based authorization is more flexible than role/policy-based authorization.

Policies and actions in the two authorization models are not interoperable. You are advised to use the identity policy-based authorization model.

If you use IAM users in your account to call an API, the IAM users must be granted the required permissions. The required permissions are determined by the actions

supported by the API. Only users with the policies allowing for those actions can call the API successfully.

Assume that an IAM user wants to call an API to query enterprise switches. With policy-based authorization, the IAM user must be granted the permissions allowing for action **esw:instance:list**. With identity policy-based authorization, the IAM user must be granted the permissions allowing for action **esw:instance:list**.

6.2 Actions Supported by Policy-based Authorization

This topic describes the actions supported by enterprise switches in role/policy-based authorization.

Supported Actions

VPC provides system-defined policies that can be directly used in IAM. You can also create custom policies to supplement system-defined policies for more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

- Permissions: statements in a policy that allow or deny certain operations
- APIs: REST APIs that can be called by a user who has been granted specific permissions
- Actions: specific operations that are allowed or denied in a custom policy
- Dependencies: actions which a specific action depends on. When allowing an action for a user, you also need to allow any existing action dependencies for that user.
- IAM projects/Enterprise projects: the authorization scope of a custom policy. A custom policy can be applied to IAM projects or enterprise projects or both. Policies that contain actions for both IAM and enterprise projects can be used and applied for both IAM and Enterprise Management. Policies that contain actions only for IAM projects can be used and applied to IAM only. Administrators can check whether an action supports IAM projects or enterprise projects in the action list. For details about the differences between IAM and enterprise management, see **What Are the Differences Between IAM and Enterprise Management?**

6.3 Actions Supported by Identity Policy-based Authorization

IAM provides system-defined identity policies to define typical cloud service permissions. You can also create custom identity policies using the actions supported by cloud services for more refined access control.

In addition to IAM, the **Organizations** service also provides **Service Control Policies (SCPs)** to set access control policies.

SCPs do not actually grant any permissions to an entity. They only set the permissions boundary for the entity. When SCPs are attached to an organizational unit (OU) or a member account, the SCPs do not directly grant permissions to that OU or member account. Instead, the SCPs only determine what permissions are

available for that member account or those member accounts under that OU. The granted permissions can be applied only if they are allowed by the SCPs.

To learn more about how IAM is different from Organizations for access control, see **How IAM Is Different from Organizations for Access Control?**.

This section describes the elements used by IAM custom identity policies and Organizations SCPs. The elements include actions, resources, and conditions.

- For details about how to use these elements to edit an IAM custom identity policy, see **Creating a Custom Identity Policy**.
- For details about how to use these elements to edit a custom SCP, see **Creating an SCP**.

Actions

Actions are specific operations that are allowed or denied in an identity policy.

- The Access Level column describes how the action is classified (List, Read, or Write). This classification helps you understand the level of access that an action grants when you use it in an identity policy.
- The Resource Type column indicates whether the action supports resource-level permissions.
  - You can use a wildcard (*) to indicate all resource types. If this column is empty (-), the action does not support resource-level permissions and you must specify all resources ("*") in your identity policy statements.
  - If this column includes a resource type, you must specify the URN in the Resource element of your identity policy statements.
  - Required resources are marked with asterisks (*) in the table. If you specify a resource in a statement using this action, then it must be of this type.

  For details about the resource types defined by esw, see **Resources**.
- The Condition Key column contains keys that you can specify in the Condition element of an identity policy statement.
  - If the Resource Type column has values for an action, the condition key takes effect only for the listed resource types.
  - If the Resource Type column is empty (-) for an action, the condition key takes effect for all resources that action supports.
  - If the Condition Key column is empty (-) for an action, the action does not support any condition keys.

  For details about the condition keys defined by esw, see **Conditions**.
- The Alias column lists the policy actions that are configured in identity policies. With these actions, you can use APIs for policy-based authorization. For details, see **Policies and Identity Policies**.

The following table lists the actions that you can define in identity policy statements for esw.

Table 6-2 Actions supported by esw

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
esw:instance:create	Grants permission to create an enterprise switch.	Write	-	-	-
esw:instance:delete	Grants permission to delete an enterprise switch.	Write	-	-	-
esw:instance:update	Grants permission to update the details of an enterprise switch.	Write	-	-	-
esw:instance:list	Grants permission to query the enterprise switch list.	List	-	-	-
esw:instance:get	Grants permission to query the details of an enterprise switch.	Read	-	-	-
esw:quota:list	Grants permission to query the enterprise switch quota.	List	-	-	-
esw:flavor:list	Grants permission to query the enterprise switch specifications.	List	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
esw:availabilityZone:list	Grants permission to query the enterprise switch AZs.	List	-	-	-
esw:job:listResourceRelatedJobs	Grants permission to query the job list of an enterprise switch.	List	-	-	-
esw:connection:create	Grants permission to create a Layer 2 connection for an enterprise switch.	Write	-	-	-
esw:connection:delete	Grants permission to delete a Layer 2 connection from an enterprise switch.	Write	-	-	-
esw:connection:update	Grants permission to update the details about a Layer 2 connection of an enterprise switch.	Write	-	-	-
esw:connection:list	Grants permission to query the Layer 2 connections of an enterprise switch.	List	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
esw:connection:get	Grants permission to query the details about a Layer 2 connection of an enterprise switch.	Read	-	-	-
esw:connection:bindVport	Grants permission to bind a virtual IP address to the Layer 2 connection of an enterprise switch.	Write	-	-	-
esw:connection:unbindVport	Grants permission to unbind a virtual IP address from the Layer 2 connection of an enterprise switch.	Write	-	-	-

Each API of esw usually supports one or more actions. **Table 6-3** lists the supported actions and dependencies.

Table 6-3 Actions and dependencies supported by esw APIs

API	Action	Dependencies
POST /v3/{project_id}/l2cg/instances	esw:instance:create	-
DELETE /v3/{project_id}/l2cg/instances/{instance_id}	esw:instance:delete	-

API	Action	Dependencies
PUT /v3/{project_id}/l2cg/instances/{instance_id}	esw:instance:update	-
GET /v3/{project_id}/l2cg/instances	esw:instance:list	-
GET /v3/{project_id}/l2cg/instances/{instance_id}	esw:instance:get	-
GET /v3/{project_id}/l2cg/quotas	esw:quota:list	-
GET /v3/{project_id}/l2cg/flavors	esw:flavor:list	-
GET /v3/{project_id}/l2cg/availability-zones	esw:availabilityZone:list	-
GET /v3/{project_id}/l2cg/resources/{resource_id}/jobs	esw:job:listResourceRelatedJobs	-
POST /v3/{project_id}/l2cg/instances/{instance_id}/connections	esw:connection:create	-
DELETE /v3/{project_id}/l2cg/instances/{instance_id}/connections/{connection_id}	esw:connection:delete	-
PUT /v3/{project_id}/l2cg/instances/{instance_id}/connections/{connection_id}	esw:connection:update	-

API	Action	Dependencies
GET /v3/{project_id}/l2cg/instances/{instance_id}/connections/{connection_id}	esw:connection:get	-
GET /v3/{project_id}/l2cg/instances/{instance_id}/connections	esw:connection:list	-
GET /v3/{project_id}/l2cg/connections	esw:connection:list	-
POST /v3/{project_id}/l2cg/connections/{connection_id}/vports/bind	esw:connection:bindVport	-
POST /v3/{project_id}/l2cg/connections/{connection_id}/vports/unbind	esw:connection:unbindVport	-

Resources

esw does not support resource-level authorization. To allow access to esw, use a wildcard (*) in the Resource element of the identity policy, indicating that the identity policy will be applied to all resources.

Conditions

esw does not support service-specific condition keys in identity policies.It can only use global condition keys applicable to all services. For details, see **Global Condition Keys**.

6.4 Precautions for API Permissions

Note:

If you have insufficient permissions, response code **200** will be returned when you query network resources and an empty list will be displayed.

You can apply for the permissions and try again.

A Appendix

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 the POST operations of V3 APIs.
202	Accepted	Normal response code for the specified preflight request of V3 APIs.
204	No Content	Normal response code for the DELETE operations, and for binding or unbinding a virtual IP address to or from a Layer 2 connection

Table A-2 Error codes

Status Code	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	A username and a password are required to access a page.
403 Forbidden	The requested page cannot be accessed.
404 Not Found	The requested page cannot be found.
405 Method Not Allowed	The method specified in the request is not allowed.

Status Code	Description
406 Not Acceptable	The response cannot be accepted by the client.
407 Proxy Authentication Required	The client must be authorized by the proxy before the request can proceed.
408 Request Timeout	The request timed out.
409 Conflict	Failed to complete the request due to a conflict.
500 Internal Server Error	Failed to complete the request due to a service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the server receives an invalid response from an upstream server.
503 Service Unavailable	Failed to complete the request due to a temporary system error.
504 Gateway Timeout	Gateway timed out.

A.2 Error Codes

Description

If there is an error during API calling, error information is returned. This section describes the error codes contained in the error information for Enterprise Switch APIs.

Response Body Format

```
{
    "error_msg": "The tunnel number and the remote tunnel IP between the instance's Layer 2 connection are the same",
    "error_code": "l2cg.9935",
    "request_id": "6d09de70c2881ed2a229d512d2342a61"
}
```

Error Code Description

If an error code starting with **APIGW** is returned after you call an API, rectify the fault by referring to the instructions provided in **Error Codes**.

Module	Status Code	Error Code	Error Message	Description	Solution
Public	409	l2cg.9920	The status of the instance xxx is not active.	The enterprise switch is not running.	Check whether the instance status specified in the request is **active**. If it is not, try again after the instance status changes to **active**.
	404	l2cg.9923	instance xxx could not be found.	The enterprise switch does not exist.	Check whether the instance ID specified in the request is correct.
Instance	409	l2cg.9907	The instance contains some layer 2 connections, can not be deleted.	The enterprise switch cannot be deleted because it contains Layer 2 connections.	Delete all Layer 2 connections and try again.
	400	l2cg.9941	flavor could not be found: xxx	The enterprise switch flavor does not exist.	Check whether the flavor specified in the request is correct.
	400	l2cg.9901	The instance tunnel ip: xxx is not available.	The tunnel IP address of the enterprise switch is unavailable.	Use an unused IP address and try again.
	409	l2cg.9921	The instance xxx is being built or is being deleted.	The enterprise switch cannot be deleted in the current state.	If the instance status is **build**, wait until the instance is created and try again.

Module	Status Code	Error Code	Error Message	Description	Solution
	409	l2cg.9922	This tunnel subnet: xxx is already used by Layer 2 connection objects: xxx	The tunnel subnet of the enterprise switch cannot be the same as the Layer 2 connection subnet of any enterprise switch.	Replace the tunnel subnet specified in the request body and ensure that the tunnel subnet is not used by any Layer 2 connection.
Layer 2 connection	409	l2cg.9930	The connection xxx is being built and is not allowed to delete.	A Layer 2 connection in the current status cannot be deleted.	Check whether the Layer 2 connection status is **pending**. If it is, wait until the Layer 2 connection is created and try again.
	404	l2cg.9904	connection xxx in instance xxx could not be found.	The Layer 2 connection does not exist.	Check whether the Layer 2 connection ID in the request is correct.
	403	l2cg.9931	Instance xxx is frozen, not support this operation.	This operation is not allowed because its enterprise switch is frozen.	Wait until the instance status is restored to **active** and try again.
	409	l2cg.9932	The connection under the instance: xxx has reached its maximum: xxx.	The maximum number of Layer 2 connections on this enterprise switch has been reached.	Use an instance with higher specifications.

Module	Status Code	Error Code	Error Message	Description	Solution
	409	l2cg.9933	Layer 2 connection subnet: xxx is the same as the local tunnel subnet in the instance: xxx	This Layer 2 connection subnet cannot be the same as the tunnel subnet of any enterprise switch.	Replace the Layer 2 connection subnet specified in the request body and ensure that the subnet is not used as the tunnel subnet of any enterprise switch.
	409	l2cg.9935	The tunnel number and the remote tunnel IP between the instance's Layer 2 connection are the same	The remote tunnel VNI and tunnel IP address of a Layer 2 connection must be different from any other connection of the same enterprise switch.	Ensure that the remote tunnel VNI and tunnel IP address are different from those of other Layer 2 connections of the same enterprise switch.
	409	l2cg.9936	This subnet: xxx is already used by Layer 2 connection objects: xxx	Each subnet can only be associated with one Layer 2 connection.	Ensure that the subnet specified in the request is not used by other Layer 2 connections.
	404	l2cg.9950	vport xxx could not be found.	The virtual IP address does not exist.	Check whether the virtual IP address specified in the request exists.

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/a4adasfjljaaaakla12334jklga9sasfg"
            },
            "id": "a4adasfjljaaaakla12334jklga9sasfg",
            "enabled": true
        }
    ],
    "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```

Obtain a Project ID from the Console

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

1. Access **My Credentials**.
2. On the **API Credentials** page, check the project ID in the project list.

Figure A-1 Viewing the project ID