

Direct Connect

API Reference

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1 API Overview

Direct Connect provides Huawei-developed REST APIs.

These APIs allow you to use all Direct Connect functions, for example, performing operations on connections, virtual gateways, virtual interfaces, quotas, and tags.

Table 1-1 describes the APIs provided by Direct Connect.

Table 1-1 Direct Connect APIs

Resource	APIs
Connections	APIs for querying connection details, updating a connection, deleting a connection, querying the connection list, querying the hosted connection list, creating a hosted connection, querying hosted connection details, updating a hosted connection, and deleting a hosted connection
Virtual gateways	APIs for querying virtual gateway details, updating a virtual gateway, deleting a virtual gateway, querying the virtual gateway list, and creating a virtual gateway
Virtual interfaces	APIs for querying virtual interface details, updating a virtual interface, deleting a virtual interface, querying the virtual interface list, creating a virtual interface, updating a virtual interface peer, deleting a virtual interface peer, and creating a virtual interface peer
Tags	APIs for querying project tags, querying resource tags, adding a resource tag, batch adding or deleting resource tags, deleting a resource tag, and querying resources by tag
Quotas	API for querying resource quotas
Global DC gateway	APIs for querying global DC gateway details, updating a global DC gateway, deleting a global DC gateway, querying the list of global DC gateways, and creating a global DC gateway

Resource	APIs
Peer link	APIs for querying the peer link details, updating a peer link, deleting a peer link, querying the peer link list, and creating a peer link
Global DC gateway route table	APIs for updating a global DC gateway route table and querying the details about a global DC gateway route table

2 Calling APIs

2.1 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 2-1 URI parameter description

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

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 **EU-Dublin** region, obtain the endpoint of IAM (**iam.myhuaweicloud.eu**) 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.myhuaweicloud.eu/v3.0/OS-USER/users
```

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 2-2 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.myhuaweicloud.eu/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 2-3 Common request header fields

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

Parameter	Description	Mandatory	Example Value
X-Auth-Token	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.myhuaweicloud.eu/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.myhuaweicloud.eu/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.

2.2 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.
- The AK/SK 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.

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

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

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

NOTE

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

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 a User Token](#) API.

IMS 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": SADMIN_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": "xxxxxxx" // 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 **ABCDEFGH....**, **X-Auth-Token: ABCDEFGH....** can be added to a request as follows:

```
GET https://iam.myhuaweicloud.eu/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFGH....
```

2.3 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 [Common 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 2-1 shows the response header fields for the API used to **create an IAM user**. The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

NOTE

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

Figure 2-1 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_ 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.

3

API

3.1 Connections

3.1.1 Querying the Connection List

Function

This API is used to query the connection list.

Debugging

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

URI

GET /v3/{project_id}/dcaas/direct-connects

Table 3-1 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Table 3-2 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1–2000 Minimum: 1 Maximum: 2000 Default: 2000
marker	No	String	Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit . Minimum: 0 Maximum: 36
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5
sort_key	No	String	Specifies the field for sorting. Default: id Minimum: 0 Maximum: 36
sort_dir	No	Array	Specifies the sorting order of returned results, which can be asc (ascending order) or desc (descending order). The default value is asc .
hosting_id	No	Array	Specifies operations connection ID by which hosted connections are queried. Array length: 0–5
enterprise_project_id	No	Array	Filters resource instances by enterprise project ID. Array length: 1–10
id	No	Array	Specifies the resource ID by which instances are queried. Array length: 1–5

Parameter	Mandatory	Type	Description
name	No	Array	Specifies the resource name by which instances are queried. You can specify multiple names. Array length: 1–5

Request Parameters

Table 3-3 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-4 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
direct_connections	Array of DirectConnect objects	Specifies the connection list.
page_info	PageInfo object	Specifies the pagination query information.

Table 3-5 DirectConnect

Parameter	Type	Description
id	String	Specifies the connection ID.

Parameter	Type	Description
tenant_id	String	Specifies the project ID.
name	String	Specifies the connection name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the connection. Minimum: 0 Maximum: 128
port_type	String	Specifies the type of the port used by the connection. The value can be 1G , 10G , 40G , or 100G . Enumeration values: • 1G • 10G • 40G • 100G
bandwidth	Integer	Specifies the connection bandwidth, in Mbit/s. Minimum: 2 Maximum: 100000
location	String	Specifies information about the Direct Connect location. Minimum: 0 Maximum: 255
peer_location	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255
device_id	String	Specifies the ID of the device connected to the connection. Minimum: 0 Maximum: 36

Parameter	Type	Description
type	String	Specifies the type of a connection. The value can be standard (a standard connection), hosting (an operations connection) or hosted (a hosted connection). Default: standard Enumeration values: • standard • hosting • hosted
hosting_id	String	Specifies the ID of the operations connection on which the hosted connection is created.
charge_mode	String	Specifies the billing mode. The value can be prepayment , bandwidth , or traffic . Enumeration values: • prepayment • bandwidth • traffic
provider	String	Specifies the line carrier of a connection.
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
vlan	Integer	Specifies the VLAN allocated to the hosted connection. Minimum: 0 Maximum: 3999

Parameter	Type	Description
status	String	Specifies the connection status. • ACTIVE: The connection is in the normal state. • DOWN: The port for the connection is in the down state, which may cause line faults. • BUILD: Operations related to the connection are being performed. • ERROR: The connection configuration is incorrect. Contact customer service to rectify the fault. • PENDING_DELETE: The connection is being deleted. • DELETED: The connection has been deleted. • APPLY: A request for a connection is submitted. • DENY: A site survey is rejected because the customer fails to meet the requirements. • PENDING_PAY: The order for the connection is to be paid. • PAID: The order for the connection has been paid. • PENDING_SURVEY: A site survey is required for the connection. • LEASED_LINE_DELIVERY: The carrier is deploying the line. Enumeration values: • BUILD • PAID • APPLY • PENDING_SURVEY • ACTIVE • DOWN • ERROR • PENDING_DELETE • DELETED • DENY • PENDING_PAY • LEASED_LINE_DELIVERY
apply_time	String	Specifies when the connection was requested. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i>.

Parameter	Type	Description
create_time	String	Specifies when the connection was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
provider_status	String	Specifies the carrier status. The status can be ACTIVE or DOWN . Enumeration values: • ACTIVE • DOWN
peer_port_type	String	Specifies the peer port type.
peer_provider	String	Specifies the carrier of the leased line.
order_id	String	Specifies the connection order ID, which is used to support duration-based billing and identify user orders.
product_id	String	Specifies the product ID corresponding to the connection's order. The product ID is used to specify billing policies such as duration-based packages.
spec_code	String	Specifies the product specifications corresponding to the connection's order. The specifications are used to specify billing policies such as duration-based packages.
period_type	Integer	Specifies whether a connection in a specified order is billed by year or month.
period_num	Integer	Specifies the required service duration of a yearly/monthly connection.
vgw_type	String	Specifies the gateway type required by a connection. Default: default Enumeration values: • default
lag_id	String	Specifies the ID of the LAG that the connection belongs to.
signed_agreement_status	String	Specifies the signing status of the Direct Connect Disclaimers. Enumeration values: • signed
signed_agreement_time	String	Specifies when the Direct Connect Disclaimers were signed.

Parameter	Type	Description
enterprise_project_id	String	Specifies the ID of the enterprise project that the connection belongs to. Minimum: 36 Maximum: 36
tags	Array of Tag objects	Specifies the tags. Array length: 0-10
locales	LocalesBody object	Specifies the region of the connection.
supported_features	Array of strings	Lists the features supported by the connection.
edge_site_id	String	Specifies the edge site ID.
reason	String	Displays error information if the status of a line is Error .
email	String	Specifies the customer email information.
onestop_product_id	String	Specifies the product ID if the connection is a full-service connection. This parameter is used in line sales scenarios.
building_line_product_id	String	Specifies the product ID of the line resource used in the equipment room. This parameter is used in line sales scenarios.
last_onestop_product_id	String	Specifies the product ID of a full-service connection before the change. This parameter is used in line sales scenarios and used to save the last record when the line bandwidth is changed.
last_building_line_product_id	String	Specifies the product ID of the line resource used in the equipment room before the change. This parameter is used in line sales scenarios and used to save the last record when the line bandwidth is changed.
modified_bandwidth	Integer	Specifies the new bandwidth after the line bandwidth is changed.
change_mode	Integer	Specifies the status of a renewal change.
onestopdc_status	String	Specifies the status of a full-service connection.
public_border_group	String	Specifies the public border group of the AZ, indicating whether the site is a HomeZones site.

Parameter	Type	Description
auto_renew	Integer	Specifies whether to automatically renew a yearly/monthly subscription.
ratio_95peak	Integer	Specifies the percentage of the minimum bandwidth for 95th percentile billing. Minimum: 0 Maximum: 100

Table 3-6 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Table 3-7 LocalesBody

Parameter	Type	Description
en_us	String	Specifies the region name in English. Minimum: 0 Maximum: 255
zh_cn	String	Specifies the region name in Chinese. Minimum: 0 Maximum: 255

Table 3-8 PageInfo

Parameter	Type	Description
previous_marker	String	Specifies the marker of the previous page. The value is the resource UUID. Minimum: 0 Maximum: 36
current_count	Integer	Specifies the number of resources in the current list. Minimum: 0 Maximum: 2000
next_marker	String	Specifies the marker of the next page. The value is the resource UUID. If this parameter is left empty, the resource is on the last page. Minimum: 0 Maximum: 36

Example Requests

Querying the connection list

```
GET https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/direct-connects
```

Example Responses

Status code: 200

OK

- The connection list is queried.

```
{
  "request_id": "9a4f4dfc4fb2fc101e65bba07d908535",
  "direct_connects": [ {
    "bandwidth": 100,
    "create_time": "2018-10-19T09:53:26.000Z",
    "port_type": "10G",
    "id": "6ecd9cf3-ca64-46c7-863f-f2eb1b9e838a",
    "apply_time": "2018-10-19T09:53:26.000Z",
    "peer_location": "",
    "peer_port_type": null,
    "peer_provider": null,
    "location": "ExampleLocation",
    "provider": "ExampleProvider",
    "type": "standard",
    "status": "BUILD",
    "description": "",
    "provider_status": "ACTIVE",
    "order_id": "",
    "vlan": null,
    "device_id": "172.16.40.2",
    "name": "direct connect1",
    "admin_state_up": true,
    "tenant_id": "6fbe9263116a4b68818cf1edce16bc4f",
    "hosting_id": null,
    "product_id": ""
  }
]
```

```
"vgw_type" : "default",
"spec_code" : "100ge",
"charge_mode" : null,
"support_feature" : [ ],
"ies_id" : null,
"reason" : null,
"email" : "cloud@example.com",
"onestop_product_id" : null,
"building_line_product_id" : null,
"last_building_line_product_id" : null,
"last_onestop_product_id" : null,
"modified_bandwidth" : null,
"change_mode" : null,
"onestopdc_status" : null,
"public_border_group" : "center",
"auto_renew" : 0,
"ratio_95peak" : null
}]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.1.2 Querying Details About a Connection

Function

This API is used to query details about a connection.

Debugging

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

URI

GET /v3/{project_id}/dcaas/direct-connects/{direct_connect_id}

Table 3-9 URI parameters

Parameter	Mandatory	Type	Description
direct_connect_id	Yes	String	Specifies the connection ID. Minimum: 36 Maximum: 36
project_id	Yes	String	Specifies the project ID.

Table 3-10 Query parameters

Parameter	Mandatory	Type	Description
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5

Request Parameters

Table 3-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-12 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
direct_connect	DirectConnect object	Specifies the connection.

Table 3-13 DirectConnect

Parameter	Type	Description
id	String	Specifies the connection ID.
tenant_id	String	Specifies the project ID.

Parameter	Type	Description
name	String	Specifies the connection name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the connection. Minimum: 0 Maximum: 128
port_type	String	Specifies the type of the port used by the connection. The value can be 1G , 10G , 40G , or 100G . Enumeration values: • 1G • 10G • 40G • 100G
bandwidth	Integer	Specifies the connection bandwidth, in Mbit/s. Minimum: 2 Maximum: 100000
location	String	Specifies information about the Direct Connect location. Minimum: 0 Maximum: 255
peer_location	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255
device_id	String	Specifies the ID of the device connected to the connection. Minimum: 0 Maximum: 36

Parameter	Type	Description
type	String	Specifies the type of a connection. The value can be standard (a standard connection), hosting (an operations connection) or hosted (a hosted connection). Default: standard Enumeration values: • standard • hosting • hosted
hosting_id	String	Specifies the ID of the operations connection on which the hosted connection is created.
charge_mode	String	Specifies the billing mode. The value can be prepayment , bandwidth , or traffic . Enumeration values: • prepayment • bandwidth • traffic
provider	String	Specifies the line carrier of a connection.
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
vlan	Integer	Specifies the VLAN allocated to the hosted connection. Minimum: 0 Maximum: 3999

Parameter	Type	Description
status	String	Specifies the connection status. • ACTIVE: The connection is in the normal state. • DOWN: The port for the connection is in the down state, which may cause line faults. • BUILD: Operations related to the connection are being performed. • ERROR: The connection configuration is incorrect. Contact customer service to rectify the fault. • PENDING_DELETE: The connection is being deleted. • DELETED: The connection has been deleted. • APPLY: A request for a connection is submitted. • DENY: A site survey is rejected because the customer fails to meet the requirements. • PENDING_PAY: The order for the connection is to be paid. • PAID: The order for the connection has been paid. • PENDING_SURVEY: A site survey is required for the connection. • LEASED_LINE_DELIVERY: The carrier is deploying the line. Enumeration values: • BUILD • PAID • APPLY • PENDING_SURVEY • ACTIVE • DOWN • ERROR • PENDING_DELETE • DELETED • DENY • PENDING_PAY • LEASED_LINE_DELIVERY
apply_time	String	Specifies when the connection was requested. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i>.

Parameter	Type	Description
create_time	String	Specifies when the connection was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
provider_status	String	Specifies the carrier status. The status can be ACTIVE or DOWN . Enumeration values: • ACTIVE • DOWN
peer_port_type	String	Specifies the peer port type.
peer_provider	String	Specifies the carrier of the leased line.
order_id	String	Specifies the connection order ID, which is used to support duration-based billing and identify user orders.
product_id	String	Specifies the product ID corresponding to the connection's order. The product ID is used to specify billing policies such as duration-based packages.
spec_code	String	Specifies the product specifications corresponding to the connection's order. The specifications are used to specify billing policies such as duration-based packages.
period_type	Integer	Specifies whether a connection in a specified order is billed by year or month.
period_num	Integer	Specifies the required service duration of a yearly/monthly connection.
vgw_type	String	Specifies the gateway type required by a connection. Default: default Enumeration values: • default
lag_id	String	Specifies the ID of the LAG that the connection belongs to.
signed_agreement_status	String	Specifies the signing status of the Direct Connect Disclaimers. Enumeration values: • signed
signed_agreement_time	String	Specifies when the Direct Connect Disclaimers were signed.

Parameter	Type	Description
enterprise_project_id	String	Specifies the ID of the enterprise project that the connection belongs to. Minimum: 36 Maximum: 36
tags	Array of Tag objects	Specifies the tags. Array length: 0-10
locales	LocalesBody object	Specifies the region of the connection.
supported_features	Array of strings	Lists the features supported by the connection.
edge_site_id	String	Specifies the edge site ID.
reason	String	Displays error information if the status of a line is Error .
email	String	Specifies the customer email information.
onestop_product_id	String	Specifies the product ID if the connection is a full-service connection. This parameter is used in line sales scenarios.
building_line_product_id	String	Specifies the product ID of the line resource used in the equipment room. This parameter is used in line sales scenarios.
last_onestop_product_id	String	Specifies the product ID of a full-service connection before the change. This parameter is used in line sales scenarios and used to save the last record when the line bandwidth is changed.
last_building_line_product_id	String	Specifies the product ID of the line resource used in the equipment room before the change. This parameter is used in line sales scenarios and used to save the last record when the line bandwidth is changed.
modified_bandwidth	Integer	Specifies the new bandwidth after the line bandwidth is changed.
change_mode	Integer	Specifies the status of a renewal change.
onestopdc_status	String	Specifies the status of a full-service connection.
public_border_group	String	Specifies the public border group of the AZ, indicating whether the site is a HomeZones site.

Parameter	Type	Description
auto_renew	Integer	Specifies whether to automatically renew a yearly/monthly subscription.
ratio_95peak	Integer	Specifies the percentage of the minimum bandwidth for 95th percentile billing. Minimum: 0 Maximum: 100

Table 3-14 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Table 3-15 LocalesBody

Parameter	Type	Description
en_us	String	Specifies the region name in English. Minimum: 0 Maximum: 255
zh_cn	String	Specifies the region name in Chinese. Minimum: 0 Maximum: 255

Example Requests

Querying a connection

```
GET https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/direct-connects/6ecd9cf3-ca64-46c7-863f-f2eb1b9e838a
```

Example Responses

Status code: 200

OK

- The details of the connection are queried.

```
{
  "direct_connect": {
    "bandwidth": 100,
    "create_time": "2018-10-19T09:53:26.000Z",
    "port_type": "10G",
    "id": "6ecd9cf3-ca64-46c7-863f-f2eb1b9e838a",
    "apply_time": "2018-10-19T09:53:26.000Z",
    "peer_location": "",
    "peer_port_type": null,
    "peer_provider": null,
    "location": "ExampleLocation",
    "provider": "ExampleProvider",
    "type": "standard",
    "status": "BUILD",
    "description": "",
    "provider_status": "ACTIVE",
    "order_id": "",
    "vlan": null,
    "device_id": "172.16.40.2",
    "name": "direct connect1",
    "admin_state_up": true,
    "tenant_id": "6fbe9263116a4b68818cf1edce16bc4f",
    "hosting_id": null,
    "product_id": "",
    "vgw_type": "default",
    "spec_code": "100ge",
    "charge_mode": null,
    "support_feature": [ ],
    "ies_id": null,
    "reason": null,
    "email": "cloud@example.com",
    "onestop_product_id": null,
    "building_line_product_id": null,
    "last_building_line_product_id": null,
    "last_onestop_product_id": null,
    "modified_bandwidth": null,
    "change_mode": null,
    "onestopdc_status": null,
    "public_border_group": "center",
    "auto_renew": 0,
    "ratio_95peak": null
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.1.3 Updating a Connection

Function

This API is used to update a connection, such as its name and description.

Debugging

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

URI

PUT /v3/{project_id}/dcaas/direct-connects/{direct_connect_id}

Table 3-16 URI parameters

Parameter	Mandatory	Type	Description
direct_connect_id	Yes	String	Specifies the connection ID. Minimum: 36 Maximum: 36
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 3-17 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-18 Request body parameters

Parameter	Mandatory	Type	Description
direct_connect	No	UpdateDirectConnect object	Specifies the connection to be updated.

Table 3-19 UpdateDirectConnect

Parameter	Mandatory	Type	Description
name	No	String	Specifies the connection name. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the connection. Minimum: 0 Maximum: 128
bandwidth	No	Integer	Specifies the bandwidth of the hosted connection, in Mbit/s. Minimum: 2 Maximum: 100000
peer_location	No	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255
status	No	String	Specifies the resource status. The value can be PENDING_PAY or APPLY . Enumeration values: • PENDING_PAY • APPLY
provider_statuses	No	String	Specifies the carrier status. The value can be ACTIVE or DOWN . Enumeration values: • ACTIVE • DOWN

Response Parameters

Status code: 200

Table 3-20 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
direct_connect	DirectConnect object	Specifies the connection.

Table 3-21 DirectConnect

Parameter	Type	Description
id	String	Specifies the connection ID.
tenant_id	String	Specifies the project ID.
name	String	Specifies the connection name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the connection. Minimum: 0 Maximum: 128
port_type	String	Specifies the type of the port used by the connection. The value can be 1G , 10G , 40G , or 100G . Enumeration values: • 1G • 10G • 40G • 100G
bandwidth	Integer	Specifies the connection bandwidth, in Mbit/s. Minimum: 2 Maximum: 100000
location	String	Specifies information about the Direct Connect location. Minimum: 0 Maximum: 255

Parameter	Type	Description
peer_location	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255
device_id	String	Specifies the ID of the device connected to the connection. Minimum: 0 Maximum: 36
type	String	Specifies the type of a connection. The value can be standard (a standard connection), hosting (an operations connection) or hosted (a hosted connection). Default: standard Enumeration values: • standard • hosting • hosted • onestop_standard • onestop_hosted
hosting_id	String	Specifies the ID of the operations connection on which the hosted connection is created.
charge_mode	String	Specifies the billing mode. The value can be prepayment , bandwidth , or traffic . Enumeration values: • prepayment • bandwidth • traffic
provider	String	Specifies the line carrier of a connection.
admin_state_up	Boolean	Specifies the administrative status. The value can be true (default) or false .
vlan	Integer	Specifies the VLAN allocated to the hosted connection. Minimum: 0 Maximum: 3999

Parameter	Type	Description
status	String	Specifies the connection status. • ACTIVE: The connection is in the normal state. • DOWN: The port for the connection is in the down state, which may cause line faults. • BUILD: Operations related to the connection are being performed. • ERROR: The connection configuration is incorrect. Contact customer service to rectify the fault. • PENDING_DELETE: The connection is being deleted. • DELETED: The connection has been deleted. • APPLY: A request for a connection is submitted. • DENY: A site survey is rejected because the customer fails to meet the requirements. • PENDING_PAY: The order for the connection is to be paid. • PAID: The order for the connection has been paid. • PENDING_SURVEY: A site survey is required for the connection. • LEASED_LINE_DELIVERY: The carrier is deploying the line. Enumeration values: • BUILD • PAID • APPLY • PENDING_SURVEY • ACTIVE • DOWN • ERROR • PENDING_DELETE • DELETED • DENY • PENDING_PAY • LEASED_LINE_DELIVERY
apply_time	String	Specifies when the connection was requested. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i>.

Parameter	Type	Description
create_time	String	Specifies when the connection was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
provider_status	String	Specifies the carrier status. The status can be ACTIVE or DOWN . Enumeration values: • ACTIVE • DOWN
peer_port_type	String	Specifies the peer port type.
peer_provider	String	Specifies the carrier of the leased line.
order_id	String	Specifies the connection order ID, which is used to support duration-based billing and identify user orders.
product_id	String	Specifies the product ID corresponding to the connection's order. The product ID is used to specify billing policies such as duration-based packages.
spec_code	String	Specifies the product specifications corresponding to the connection's order. The specifications are used to specify billing policies such as duration-based packages.
period_type	Integer	Specifies whether a connection in a specified order is billed by year or month.
period_num	Integer	Specifies the required service duration of a yearly/monthly connection.
vgw_type	String	Specifies the gateway type required by a connection. Default: default Enumeration values: • default
lag_id	String	Specifies the ID of the LAG that the connection belongs to.
signed_agreement_status	String	Specifies the signing status of the Direct Connect Disclaimers. Enumeration values: • signed
signed_agreement_time	String	Specifies when the Direct Connect Disclaimers were signed.

Parameter	Type	Description
enterprise_project_id	String	Specifies the ID of the enterprise project that the connection belongs to. Minimum: 36 Maximum: 36
tags	Array of Tag objects	Specifies the tags. Array length: 0-10
locales	LocalesBody object	Specifies the region of the connection.
supported_features	Array of strings	Lists the features supported by the connection.
edge_site_id	String	Specifies the edge site ID.
reason	String	Displays error information if the status of a line is Error .
email	String	Specifies the customer email information.
onestop_product_id	String	Specifies the product ID if the connection is a full-service connection. This parameter is used in line sales scenarios.
building_line_product_id	String	Specifies the product ID of the line resource used in the equipment room. This parameter is used in line sales scenarios.
last_onestop_product_id	String	Specifies the product ID of a full-service connection before the change. This parameter is used in line sales scenarios and used to save the last record when the line bandwidth is changed.
last_building_line_product_id	String	Specifies the product ID of the line resource used in the equipment room before the change. This parameter is used in line sales scenarios and used to save the last record when the line bandwidth is changed.
modified_bandwidth	Integer	Specifies the new bandwidth after the line bandwidth is changed.
change_mode	Integer	Specifies the status of a renewal change.
onestopdc_status	String	Specifies the status of a full-service connection.
public_border_group	String	Specifies the public border group of the AZ, indicating whether the site is a HomeZones site.

Parameter	Type	Description
auto_renew	Integer	Specifies whether to automatically renew a yearly/monthly subscription.
ratio_95peak	Integer	Specifies the percentage of the minimum bandwidth for 95th percentile billing. Minimum: 0 Maximum: 100

Table 3-22 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Table 3-23 LocalesBody

Parameter	Type	Description
en_us	String	Specifies the region name in English. Minimum: 0 Maximum: 255
zh_cn	String	Specifies the region name in Chinese. Minimum: 0 Maximum: 255

Example Requests

Updating the name and description of a connection

```
PUT https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/direct-connects/6ecd9cf3-ca64-46c7-863f-f2eb1b9e838a
```

```
{
  "direct_connect": {
    "description": "",
    "name": "direct connect1"
  }
}
```

Example Responses

Status code: 200

OK

- The connection is updated.

```
{
  "request_id": "9a4f4dfc4fb2fc101e65bba07d908535",
  "direct_connect": {
    "bandwidth": 100,
    "create_time": "2018-10-19T09:53:26.000Z",
    "port_type": "10G",
    "id": "6ecd9cf3-ca64-46c7-863f-f2eb1b9e838a",
    "apply_time": "2018-10-19T09:53:26.000Z",
    "peer_location": "",
    "peer_port_type": null,
    "peer_provider": null,
    "location": "ExampleLocation",
    "provider": "ExampleProvider",
    "type": "standard",
    "status": "BUILD",
    "description": "",
    "provider_status": "ACTIVE",
    "order_id": "",
    "vlan": null,
    "device_id": "172.16.40.2",
    "name": "direct connect1",
    "admin_state_up": true,
    "tenant_id": "6fbe9263116a4b68818cf1edce16bc4f",
    "hosting_id": null,
    "product_id": "",
    "vgw_type": "default",
    "spec_code": "100ge",
    "charge_mode": null,
    "support_feature": [ ],
    "ies_id": null,
    "reason": null,
    "email": "cloud@example.com",
    "onestop_product_id": null,
    "building_line_product_id": null,
    "last_building_line_product_id": null,
    "last_onestop_product_id": null,
    "modified_bandwidth": null,
    "change_mode": null,
    "onestopdc_status": null,
    "public_border_group": "center",
    "auto_renew": 0,
    "ratio_95peak": null
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.1.4 Deleting a Connection

Function

This API is used to delete a connection.

This API is only used to delete pay-per-use connections. You can only unsubscribe them yearly/monthly connections.

Debugging

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

URI

DELETE /v3/{project_id}/dcaas/direct-connects/{direct_connect_id}

Table 3-24 URI parameters

Parameter	Mandatory	Type	Description
direct_connect_id	Yes	String	Specifies the connection ID. Minimum: 36 Maximum: 36
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 3-25 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

None

Example Requests

Deleting a connection

```
DELETE https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/direct-connects/6ecd9cf3-ca64-46c7-863f-f2eb1b9e838a
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

3.1.5 Creating a Hosted Connection

Function

This API is used by partners to create a hosted connection for their users. The creator must have the partner qualification and have an operations connection.

Debugging

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

URI

POST /v3/{project_id}/dcaas/hosted-connects

Table 3-26 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 3-27 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-28 Request body parameters

Parameter	Mandatory	Type	Description
hosted_connect	Yes	CreateHostedDirectConnect object	Specifies the hosted connection to be created.

Table 3-29 CreateHostedDirectConnect

Parameter	Mandatory	Type	Description
name	No	String	Specifies the hosted connection name. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the hosted connection. Minimum: 0 Maximum: 128
bandwidth	Yes	Integer	Specifies the bandwidth of the hosted connection, in Mbit/s. Minimum: 2 Maximum: 400000
hosting_id	Yes	String	Specifies the ID of the operations connection on which the hosted connection is created.
vlan	Yes	Integer	Specifies the VLAN allocated to the hosted connection. Minimum: 0 Maximum: 3999
resource_tenant_id	Yes	String	Specifies the project ID of the specified tenant for whom a hosted connection is to be created. Minimum: 0 Maximum: 32
peer_location	No	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255

Response Parameters

Status code: 201

Table 3-30 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
hosted_connect	HostedDirectConnect object	Specifies the hosted connection.

Table 3-31 HostedDirectConnect

Parameter	Type	Description
id	String	Specifies the hosted connection ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the project ID.
name	String	Specifies the connection name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the connection. Minimum: 0 Maximum: 128
bandwidth	Integer	Specifies the connection bandwidth, in Mbit/s. Minimum: 2 Maximum: 400000
location	String	Specifies information about the Direct Connect location. Minimum: 0 Maximum: 255
peer_location	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255
hosting_id	String	Specifies the ID of the operations connection on which the hosted connection is created.
provider	String	Specifies the provider of the leased line.

Parameter	Type	Description
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
vlan	Integer	Specifies the VLAN allocated to the hosted connection. Minimum: 0 Maximum: 3999
status	String	Specifies the operating status. • BUILD: The hosted connection has been created. • ACTIVE: The hosted connection is normal. • DOWN: The port used by the hosted connection is down, indicating that there may be line faults. • ERROR: The hosted connection is abnormal. • PENDING_DELETE: The hosted connection is being deleted. • PENDING_UPDATE: The hosted connection is being updated. • PENDING_CREATE: The hosted connection is being created. Enumeration values: • BUILD • ACTIVE • DOWN • ERROR • PENDING_DELETE • PENDING_UPDATE • PENDING_CREATE
apply_time	String	Specifies when the connection was requested. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
create_time	String	Specifies when the connection was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
provider_statuses	String	Specifies the carrier status. The status can be ACTIVE or DOWN . Enumeration values: • ACTIVE • DOWN

Parameter	Type	Description
port_type	String	Specifies the type of the port used by the connection. The value can be 1G , 10G , 40G , or 100G . Enumeration values: • 1G • 10G • 40G • 100G
type	String	Specifies the type of the connection. The value is hosted . Default: hosted

Example Requests

Creating a hosting connection with the bandwidth set to 10 Mbit/s and VLAN to 441

```
POST https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/hosted-connects
```

```
{
  "hosted_connect" : {
    "name" : "client-dc-faf1",
    "description" : "Hosted Connect",
    "resource_tenant_id" : "0605768a3300d5762f82c01180692873",
    "hosting_id" : "2cfb53be-b05f-40d5-a2f8-3a59ac383836",
    "vlan" : 441,
    "bandwidth" : 10
  }
}
```

Example Responses

Status code: 201

Created

- The hosted connection is created.

```
{
  "hosted_connect" : {
    "id" : "0278b472-ffa5-4eb3-8c0d-979d479f8ef6",
    "name" : "client-dc-faf1",
    "description" : "Hosted Connect",
    "tenant_id" : "0605768a3300d5762f82c01180692873",
    "hosting_id" : "2cfb53be-b05f-40d5-a2f8-3a59ac383836",
    "vlan" : 441,
    "bandwidth" : 10,
    "location" : "ExampleLocation",
    "peer_location" : "",
    "provider" : "ExampleProvider",
    "type" : "hosted",
    "port_type" : "10G",
    "provider_status" : "ACTIVE",
    "status" : "ACTIVE",
    "apply_time" : "2022-07-13T08:25:38.000Z",
    "admin_state_up" : true,
  }
}
```

```
"create_time" : "2022-07-13T08:25:38.000Z"  
},  
"request_id" : "a59a3776faa1d055f8124dc7b0977a90"  
}
```

Status Codes

Status Code	Description
201	Created

Error Codes

See [Error Codes](#).

3.1.6 Querying the Hosted Connection List

Function

This API is used to query hosted connections created by partners.

Debugging

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

URI

GET /v3/{project_id}/dcaas/hosted-connects

Table 3-32 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Table 3-33 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1–2000 Minimum: 1 Maximum: 2000 Default: 2000

Parameter	Mandatory	Type	Description
marker	No	String	Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit . Minimum: 0 Maximum: 36
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5
sort_dir	No	Array	Specifies the sorting order of returned results, which can be asc (ascending order) or desc (descending order). The default value is asc .
sort_key	No	String	Specifies the field for sorting. Default: id Minimum: 0 Maximum: 36
hosting_id	No	Array	Specifies operations connection ID by which hosted connections are queried. Array length: 0–5
id	No	Array	Specifies the resource ID by which instances are queried. Array length: 1–5
name	No	Array	Specifies the resource name by which instances are queried. You can specify multiple names. Array length: 1–5

Request Parameters

Table 3-34 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-35 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID of the current operation.
hosted_conne cts	Array of HostedDirect Connect objects	Specifies the hosted connection.
page_info	PageInfo object	Specifies the pagination query information.

Table 3-36 HostedDirectConnect

Parameter	Type	Description
id	String	Specifies the hosted connection ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the project ID.
name	String	Specifies the connection name. Minimum: 0 Maximum: 64

Parameter	Type	Description
description	String	Provides supplementary information about the connection. Minimum: 0 Maximum: 128
bandwidth	Integer	Specifies the connection bandwidth, in Mbit/s. Minimum: 2 Maximum: 400000
location	String	Specifies information about the Direct Connect location. Minimum: 0 Maximum: 255
peer_location	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255
hosting_id	String	Specifies the ID of the operations connection on which the hosted connection is created.
provider	String	Specifies the provider of the leased line.
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
vlan	Integer	Specifies the VLAN allocated to the hosted connection. Minimum: 0 Maximum: 3999

Parameter	Type	Description
status	String	Specifies the operating status. • BUILD: The hosted connection has been created. • ACTIVE: The hosted connection is normal. • DOWN: The port used by the hosted connection is down, indicating that there may be line faults. • ERROR: The hosted connection is abnormal. • PENDING_DELETE: The hosted connection is being deleted. • PENDING_UPDATE: The hosted connection is being updated. • PENDING_CREATE: The hosted connection is being created. Enumeration values: • BUILD • ACTIVE • DOWN • ERROR • PENDING_DELETE • PENDING_UPDATE • PENDING_CREATE
apply_time	String	Specifies when the connection was requested. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i>.
create_time	String	Specifies when the connection was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i>.
provider_statuses	String	Specifies the carrier status. The status can be ACTIVE or DOWN. Enumeration values: • ACTIVE • DOWN

Parameter	Type	Description
port_type	String	Specifies the type of the port used by the connection. The value can be 1G , 10G , 40G , or 100G . Enumeration values: • 1G • 10G • 40G • 100G
type	String	Specifies the type of the connection. The value is hosted . Default: hosted

Table 3-37 PageInfo

Parameter	Type	Description
previous_marker	String	Specifies the marker of the previous page. The value is the resource UUID. Minimum: 0 Maximum: 36
current_count	Integer	Specifies the number of resources in the current list. Minimum: 0 Maximum: 2000
next_marker	String	Specifies the marker of the next page. The value is the resource UUID. If this parameter is left empty, the resource is on the last page. Minimum: 0 Maximum: 36

Example Requests

Querying the hosted connection list

```
GET https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/hosted-connects
```

Example Responses

Status code: 200

OK

- The hosted connection list is queried.

```
{
  "request_id": "a59a3776faa1d055f8124dc7b0977a90",
  "hosted_connects": [ {
    "id": "0278b472-ffa5-4eb3-8c0d-979d479f8ef6",
    "name": "client-dc-faf1",
    "description": "Hosted Connect",
    "tenant_id": "0605768a3300d5762f82c01180692873",
    "hosting_id": "2cfb53be-b05f-40d5-a2f8-3a59ac383836",
    "vlan": 441,
    "bandwidth": 10,
    "location": "ExampleLocation",
    "peer_location": "",
    "provider": "ExampleProvider",
    "type": "hosted",
    "port_type": "10G",
    "provider_status": "ACTIVE",
    "status": "ACTIVE",
    "apply_time": "2022-07-13T08:25:38.000Z",
    "admin_state_up": true,
    "create_time": "2022-07-13T08:25:38.000Z"
  } ]
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.1.7 Querying Details About a Hosted Connection

Function

This API is used by partners to query a hosted connection.

Debugging

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

URI

GET /v3/{project_id}/dcaas/hosted-connects/{hosted_connect_id}

Table 3-38 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Parameter	Mandatory	Type	Description
hosted_connection_id	Yes	String	Specifies the hosted connection ID. Minimum: 36 Maximum: 36

Table 3-39 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1-2000 Minimum: 1 Maximum: 2000 Default: 2000
marker	No	String	Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit . Minimum: 0 Maximum: 36
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1-5
sort_dir	No	Array	Specifies the sorting order of returned results, which can be asc (ascending order) or desc (descending order). The default value is asc .
sort_key	No	String	Specifies the field for sorting. Default: id Minimum: 0 Maximum: 36
hosting_id	No	Array	Specifies operations connection ID by which hosted connections are queried. Array length: 0-5

Request Parameters

Table 3-40 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-41 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
hosted_connect	HostedDirectConnect object	Specifies the hosted connection.

Table 3-42 HostedDirectConnect

Parameter	Type	Description
id	String	Specifies the hosted connection ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the project ID.
name	String	Specifies the connection name. Minimum: 0 Maximum: 64

Parameter	Type	Description
description	String	Provides supplementary information about the connection. Minimum: 0 Maximum: 128
bandwidth	Integer	Specifies the connection bandwidth, in Mbit/s. Minimum: 2 Maximum: 400000
location	String	Specifies information about the Direct Connect location. Minimum: 0 Maximum: 255
peer_location	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255
hosting_id	String	Specifies the ID of the operations connection on which the hosted connection is created.
provider	String	Specifies the provider of the leased line.
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
vlan	Integer	Specifies the VLAN allocated to the hosted connection. Minimum: 0 Maximum: 3999

Parameter	Type	Description
status	String	Specifies the operating status. • BUILD: The hosted connection has been created. • ACTIVE: The hosted connection is normal. • DOWN: The port used by the hosted connection is down, indicating that there may be line faults. • ERROR: The hosted connection is abnormal. • PENDING_DELETE: The hosted connection is being deleted. • PENDING_UPDATE: The hosted connection is being updated. • PENDING_CREATE: The hosted connection is being created. Enumeration values: • BUILD • ACTIVE • DOWN • ERROR • PENDING_DELETE • PENDING_UPDATE • PENDING_CREATE
apply_time	String	Specifies when the connection was requested. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i>.
create_time	String	Specifies when the connection was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i>.
provider_statuses	String	Specifies the carrier status. The status can be ACTIVE or DOWN. Enumeration values: • ACTIVE • DOWN

Parameter	Type	Description
port_type	String	Specifies the type of the port used by the connection. The value can be 1G , 10G , 40G , or 100G . Enumeration values: • 1G • 10G • 40G • 100G
type	String	Specifies the type of the connection. The value is hosted . Default: hosted

Example Requests

Querying details about a hosted connection created by a partner

```
GET https://{dc_endpoint}/v3/6f9e9263116a4b68818cf1edce16bc4f/dcaas/hosted-connects/0278b472-ffa5-4eb3-8c0d-979d479f8ef6
```

Example Responses

Status code: 200

OK

- The details of the hosted connection are queried.

```
{
  "hosted_connect" : {
    "id" : "0278b472-ffa5-4eb3-8c0d-979d479f8ef6",
    "name" : "client-dc-faf1",
    "description" : "",
    "tenant_id" : "0605768a3300d5762f82c01180692873",
    "hosting_id" : "2cfb53be-b05f-40d5-a2f8-3a59ac383836",
    "vlan" : 441,
    "bandwidth" : 10,
    "location" : "ExampleLocation",
    "peer_location" : "",
    "provider" : "ExampleProvider",
    "type" : "hosted",
    "port_type" : "10G",
    "provider_status" : "ACTIVE",
    "status" : "ACTIVE",
    "apply_time" : "2022-07-13T08:25:38.000Z",
    "admin_state_up" : true,
    "create_time" : "2022-07-13T08:25:38.000Z"
  },
  "request_id" : "a59a3776faa1d055f8124dc7b0977a90"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.1.8 Updating a Hosted Connection

Function

This API is used by partners to update a hosted connection.

Debugging

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

URI

PUT /v3/{project_id}/dcaas/hosted-connects/{hosted_connect_id}

Table 3-43 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
hosted_connect_id	Yes	String	Specifies the hosted connection ID. Minimum: 36 Maximum: 36

Request Parameters

Table 3-44 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-45 Request body parameters

Parameter	Mandatory	Type	Description
hosted_connect	No	UpdateHostedDirectConnect object	Specifies the hosted connection to be updated.

Table 3-46 UpdateHostedDirectConnect

Parameter	Mandatory	Type	Description
name	No	String	Specifies the connection name. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the connection. Minimum: 0 Maximum: 128
bandwidth	No	Integer	Specifies the bandwidth of the hosted connection, in Mbit/s. Minimum: 2 Maximum: 400000

Parameter	Mandatory	Type	Description
peer_location	No	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255

Response Parameters

Status code: 200

Table 3-47 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
hosted_connect	HostedDirectConnect object	Specifies the hosted connection.

Table 3-48 HostedDirectConnect

Parameter	Type	Description
id	String	Specifies the hosted connection ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the project ID.
name	String	Specifies the connection name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the connection. Minimum: 0 Maximum: 128
bandwidth	Integer	Specifies the connection bandwidth, in Mbit/s. Minimum: 2 Maximum: 400000

Parameter	Type	Description
location	String	Specifies information about the Direct Connect location. Minimum: 0 Maximum: 255
peer_location	String	Specifies the location of the on-premises facility at the other end of the connection, specific to the street or data center name. Minimum: 0 Maximum: 255
hosting_id	String	Specifies the ID of the operations connection on which the hosted connection is created.
provider	String	Specifies the provider of the leased line.
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
vlan	Integer	Specifies the VLAN allocated to the hosted connection. Minimum: 0 Maximum: 3999

Parameter	Type	Description
status	String	Specifies the operating status. • BUILD: The hosted connection has been created. • ACTIVE: The hosted connection is normal. • DOWN: The port used by the hosted connection is down, indicating that there may be line faults. • ERROR: The hosted connection is abnormal. • PENDING_DELETE: The hosted connection is being deleted. • PENDING_UPDATE: The hosted connection is being updated. • PENDING_CREATE: The hosted connection is being created. Enumeration values: • BUILD • ACTIVE • DOWN • ERROR • PENDING_DELETE • PENDING_UPDATE • PENDING_CREATE
apply_time	String	Specifies when the connection was requested. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i>.
create_time	String	Specifies when the connection was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i>.
provider_statuses	String	Specifies the carrier status. The status can be ACTIVE or DOWN. Enumeration values: • ACTIVE • DOWN

Parameter	Type	Description
port_type	String	Specifies the type of the port used by the connection. The value can be 1G , 10G , 40G , or 100G . Enumeration values: • 1G • 10G • 40G • 100G
type	String	Specifies the type of the connection. The value is hosted . Default: hosted

Example Requests

Updating the name and description of a hosted connection

```
PUT https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/hosted-connects/0278b472-ffa5-4eb3-8c0d-979d479f8ef6
```

```
{
  "hosted_connect" : {
    "name" : "client-dc-faf1",
    "description" : ""
  }
}
```

Example Responses

Status code: 200

OK

- The hosted connection is updated.

```
{
  "hosted_connect" : {
    "id" : "0278b472-ffa5-4eb3-8c0d-979d479f8ef6",
    "name" : "client-dc-faf1",
    "description" : "",
    "tenant_id" : "0605768a3300d5762f82c01180692873",
    "hosting_id" : "2cfb53be-b05f-40d5-a2f8-3a59ac383836",
    "vlan" : 441,
    "bandwidth" : 10,
    "location" : "ExampleLocation",
    "peer_location" : "",
    "provider" : "ExampleProvider",
    "type" : "hosted",
    "port_type" : "10G",
    "provider_status" : "ACTIVE",
    "status" : "ACTIVE",
    "apply_time" : "2022-07-13T08:25:38.000Z",
    "admin_state_up" : true,
    "create_time" : "2022-07-13T08:25:38.000Z"
  },
  "request_id" : "a59a3776faa1d055f8124dc7b0977a90"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.1.9 Deleting a Hosted Connection

Function

This API is used by partners to delete a hosted connection.

Debugging

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

URI

DELETE /v3/{project_id}/dcaas/hosted-connects/{hosted_connect_id}

Table 3-49 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
hosted_connect_id	Yes	String	Specifies the hosted connection ID. Minimum: 36 Maximum: 36

Request Parameters

Table 3-50 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

None

Example Requests

Deleting a hosted connection

```
DELETE https://{dc_endpoint}/v3/08d5a9564a704afda6039ae2babbef3c/dcaas/hosted-connects/  
94c2b814-99dc-939a-e811-ae84c61ea3ff
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

3.2 Virtual Gateways

3.2.1 Creating a Virtual Gateway

Function

This API is used to create a virtual gateway.

Debugging

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

URI

POST /v3/{project_id}/dcaas/virtual-gateways

Table 3-51 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 3-52 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-53 Request body parameters

Parameter	Mandatory	Type	Description
virtual_gateway	No	CreateVirtualGateway object	Specifies the virtual gateway to be created.

Table 3-54 CreateVirtualGateway

Parameter	Mandatory	Type	Description
vpc_id	Yes	String	Specifies the ID of the VPC that the virtual gateway is associated with.
name	No	String	Specifies the virtual gateway name. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the virtual gateway. Minimum: 0 Maximum: 128
local_ep_group	Yes	Array of strings	Specifies the IPv4 subnets of the associated VPC that can be accessed over the virtual gateway.
local_ep_group_ipv6	No	Array of strings	Specifies the IPv6 subnets of the associated VPC that can be accessed over the virtual gateway. This is a reserved field.
bgp_asn	No	Integer	Specifies the local BGP autonomous system number (ASN) of the virtual gateway. Minimum: 1 Maximum: 4294967295
enterprise_project_id	No	String	Specifies the ID of the enterprise project that the virtual gateway belongs to. Minimum: 36 Maximum: 36
tags	No	Array of Tag objects	Specifies the tags. Array length: 0-10

Table 3-55 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	No	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Response Parameters

Status code: 201

Table 3-56 Response body parameters

Parameter	Type	Description
virtual_gateway	VirtualGateway object	Specifies the virtual gateway.
request_id	String	Specifies the request ID.

Table 3-57 VirtualGateway

Parameter	Type	Description
id	String	Specifies the virtual gateway ID.
vpc_id	String	Specifies the ID of the VPC connected using the virtual gateway.

Parameter	Type	Description
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32
name	String	Specifies the virtual gateway name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual gateway. Minimum: 0 Maximum: 128
type	String	Specifies the virtual gateway type. The value can only be default . Default: default
local_ep_group	Array of strings	Specifies the IPv4 subnets of the associated VPC that can be accessed over the virtual gateway.
local_ep_group_ipv6	Array of strings	Specifies the IPv6 subnets of the associated VPC that can be accessed over the virtual gateway. This is a reserved field.
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
status	String	Specifies the operating status. The value can be ACTIVE , DOWN , BUILD , ERROR , PENDING_CREATE , PENDING_UPDATE , or PENDING_DELETE .
bgp_asn	Integer	Specifies the local BGP ASN of the virtual gateway. Minimum: 1 Maximum: 4294967295
enterprise_project_id	String	Specifies the ID of the enterprise project that the virtual gateway belongs to. Minimum: 36 Maximum: 36
device_id	String	Specifies the ID of the device that the virtual interface belongs to.
redundant_device_id	String	Specifies the ID of the redundant device.

Parameter	Type	Description
public_border_group	String	Specifies the public border group of the AZ, indicating whether the site is a HomeZones site.
tags	Array of Tag objects	Specifies the tags. Array length: 0–10

Table 3-58 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Example Requests

- Creating a virtual gateway that will be used to access a VPC, with the local BGP ASN set to 64512 and the IPv4 subnet to 192.168.1.0/24

POST https://{dc_endpoint}/v3/0605768a3300d5762f82c01180692873/dcaas/virtual-gateways

```
{
  "virtual_gateway": {
    "name": "vgw-c7b22",
    "description": "",
    "vpc_id": "6592c28e-95d7-4b0a-9f61-004fdf03420c",
    "bgp_asn": 64512,
    "local_ep_group": [ "192.168.1.0/24" ]
  }
}
```

Example Responses

Status code: 201

Created

- The virtual gateway for accessing the VPC is created

```
{
  "virtual_gateway": {
    "id": "20082c1b-3c99-48d8-8e8c-116af5d7e9f0",
    "name": "vgw-c7b22",
    "description": "",
    "tenant_id": "0605768a3300d5762f82c01180692873",
    "vpc_id": "6592c28e-95d7-4b0a-9f61-004fdf03420c",
    "tags": [],
    "device_id": "26.151.63.100",
    "redundant_device_id": "26.152.128.20",
    "type": "default",
    "status": "ACTIVE",
    "admin_state_up": true,
    "bgp_asn": 64512,
    "local_ep_group": [ "192.168.1.0/24" ],
    "enterprise_project_id": "0",
    "public_border_group": "center"
  }
}
```

Status Codes

Status Code	Description
201	Created

Error Codes

See [Error Codes](#).

3.2.2 Querying the Virtual Gateway List

Function

This API is used to query the virtual gateway list.

Debugging

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

URI

GET /v3/{project_id}/dcaas/virtual-gateways

Table 3-59 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Table 3-60 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1–2000 Minimum: 1 Maximum: 2000 Default: 2000
marker	No	String	Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit . Minimum: 0 Maximum: 36
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5
sort_dir	No	Array	Specifies the sorting order of returned results, which can be asc (ascending order) or desc (descending order). The default value is asc .
sort_key	No	String	Specifies the field for sorting. Default: id Minimum: 0 Maximum: 36
id	No	Array	Specifies the resource ID by which instances are queried. Array length: 1–5
enterprise_project_id	No	Array	Filters resource instances by enterprise project ID. Array length: 1–10
vpc_id	No	Array	Specifies the VPC ID by which virtual gateways are queried.

Request Parameters

Table 3-61 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-62 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
virtual_gateways	Array of VirtualGateway objects	Specifies the virtual gateway list.
page_info	PageInfo object	Specifies the pagination query information.

Table 3-63 VirtualGateway

Parameter	Type	Description
id	String	Specifies the virtual gateway ID.
vpc_id	String	Specifies the ID of the VPC connected using the virtual gateway.
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32

Parameter	Type	Description
name	String	Specifies the virtual gateway name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual gateway. Minimum: 0 Maximum: 128
type	String	Specifies the virtual gateway type. The value can only be default . Default: default
local_ep_group	Array of strings	Specifies the IPv4 subnets of the associated VPC that can be accessed over the virtual gateway.
local_ep_group_ipv6	Array of strings	Specifies the IPv6 subnets of the associated VPC that can be accessed over the virtual gateway. This is a reserved field.
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
status	String	Specifies the operating status. The value can be ACTIVE , DOWN , BUILD , ERROR , PENDING_CREATE , PENDING_UPDATE , or PENDING_DELETE .
bgp_asn	Integer	Specifies the local BGP ASN of the virtual gateway. Minimum: 1 Maximum: 4294967295
enterprise_project_id	String	Specifies the ID of the enterprise project that the virtual gateway belongs to. Minimum: 36 Maximum: 36
device_id	String	Specifies the ID of the device that the virtual interface belongs to.
redundant_device_id	String	Specifies the ID of the redundant device.
public_border_group	String	Specifies the public border group of the AZ, indicating whether the site is a HomeZones site.

Parameter	Type	Description
tags	Array of Tag objects	Specifies the tags. Array length: 0–10

Table 3-64 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Table 3-65 PageInfo

Parameter	Type	Description
previous_marker	String	Specifies the marker of the previous page. The value is the resource UUID. Minimum: 0 Maximum: 36
current_count	Integer	Specifies the number of resources in the current list. Minimum: 0 Maximum: 2000
next_marker	String	Specifies the marker of the next page. The value is the resource UUID. If this parameter is left empty, the resource is on the last page. Minimum: 0 Maximum: 36

Example Requests

Querying the virtual gateway list

```
GET https://{dc_endpoint}/v3/0605768a3300d5762f82c01180692873/dcaas/virtual-gateways
```

Example Responses

Status code: 200

OK

- The list of virtual gateways associated with VPCs is queried.

```
{
  "virtual_gateways": [ {
    "id": "20082c1b-3c99-48d8-8e8c-116af5d7e9f0",
    "name": "vgw-c7b22",
    "description": "",
    "tenant_id": "0605768a3300d5762f82c01180692873",
    "vpc_id": "6592c28e-95d7-4b0a-9f61-004fdf03420c",
    "tags": [],
    "device_id": "26.151.63.100",
    "redundant_device_id": "26.152.128.20",
    "type": "default",
    "status": "ACTIVE",
    "admin_state_up": true,
    "bgp_asn": 64512,
    "local_ep_group": [ "192.168.1.0/24" ],
    "enterprise_project_id": "0",
    "public_border_group": "center"
  } ],
  "request_id": "765f7aaf8f2edd0e719de564ef72e2de"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.2.3 Querying Details About a Virtual Gateway

Function

This API is used to query details about a specific virtual gateway.

Debugging

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

URI

```
GET /v3/{project_id}/dcaas/virtual-gateways/{virtual_gateway_id}
```

Table 3-66 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
virtual_gateway_id	Yes	String	Specifies the virtual gateway ID.

Table 3-67 Query parameters

Parameter	Mandatory	Type	Description
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5

Request Parameters

Table 3-68 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-69 Response body parameters

Parameter	Type	Description
virtual_gateway	VirtualGateway object	Specifies the virtual gateway.
request_id	String	Specifies the request ID.

Table 3-70 VirtualGateway

Parameter	Type	Description
id	String	Specifies the virtual gateway ID.
vpc_id	String	Specifies the ID of the VPC connected using the virtual gateway.
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32
name	String	Specifies the virtual gateway name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual gateway. Minimum: 0 Maximum: 128
type	String	Specifies the virtual gateway type. The value can only be default . Default: default
local_ep_group	Array of strings	Specifies the IPv4 subnets of the associated VPC that can be accessed over the virtual gateway.
local_ep_group_ipv6	Array of strings	Specifies the IPv6 subnets of the associated VPC that can be accessed over the virtual gateway. This is a reserved field.
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
status	String	Specifies the operating status. The value can be ACTIVE , DOWN , BUILD , ERROR , PENDING_CREATE , PENDING_UPDATE , or PENDING_DELETE .
bgp_asn	Integer	Specifies the local BGP ASN of the virtual gateway. Minimum: 1 Maximum: 4294967295
enterprise_project_id	String	Specifies the ID of the enterprise project that the virtual gateway belongs to. Minimum: 36 Maximum: 36

Parameter	Type	Description
device_id	String	Specifies the ID of the device that the virtual interface belongs to.
redundant_device_id	String	Specifies the ID of the redundant device.
public_border_group	String	Specifies the public border group of the AZ, indicating whether the site is a HomeZones site.
tags	Array of Tag objects	Specifies the tags. Array length: 0–10

Table 3-71 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Example Requests

Querying a virtual gateway

```
GET https://{dc_endpoint}/v3/0605768a3300d5762f82c01180692873/dcaas/virtual-gateways/20082c1b-3c99-48d8-8e8c-116af5d7e9f0
```

Example Responses

Status code: 200

OK

- The details of the virtual gateway associated with a VPC are queried.

```
{
  "virtual_gateway": {
    "id": "20082c1b-3c99-48d8-8e8c-116af5d7e9f0",
    "name": "vgw-c7b22",
    "description": "",
    "tenant_id": "0605768a3300d5762f82c01180692873",
    "vpc_id": "6592c28e-95d7-4b0a-9f61-004fdf03420c",
    "tags": [],
    "device_id": "26.151.63.100",
    "redundant_device_id": "26.152.128.20",
    "type": "default",
    "status": "ACTIVE",
    "admin_state_up": true,
    "bgp_asn": 64512,
    "local_ep_group": [ "192.168.1.0/24" ],
    "enterprise_project_id": "0",
    "public_border_group": "center"
  },
  "request_id": "765f7aaf8f2edd0e719de564ef72e2de"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.2.4 Updating a Virtual Gateway

Function

This API is used to update a virtual gateway.

Debugging

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

URI

PUT /v3/{project_id}/dcaas/virtual-gateways/{virtual_gateway_id}

Table 3-72 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
virtual_gateway_id	Yes	String	Specifies the virtual gateway ID.

Request Parameters

Table 3-73 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-74 Request body parameters

Parameter	Mandatory	Type	Description
virtual_gateway	No	UpdateVirtualGateway object	Specifies the virtual gateway to be updated.

Table 3-75 UpdateVirtualGateway

Parameter	Mandatory	Type	Description
name	No	String	Specifies the virtual gateway name. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the virtual gateway. Minimum: 0 Maximum: 128
local_ep_group	No	Array of strings	Specifies the IPv4 subnets of the associated VPC that can be accessed over the virtual gateway. Array length: 1-200

Parameter	Mandatory	Type	Description
local_ep_group_ipv6	No	Array of strings	Specifies the IPv6 subnets of the associated VPC that can be accessed over the virtual gateway. Array length: 1–50

Response Parameters

Status code: 200

Table 3-76 Response body parameters

Parameter	Type	Description
virtual_gateway	VirtualGateway object	Specifies the virtual gateway.
request_id	String	Specifies the request ID.

Table 3-77 VirtualGateway

Parameter	Type	Description
id	String	Specifies the virtual gateway ID.
vpc_id	String	Specifies the ID of the VPC connected using the virtual gateway.
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32
name	String	Specifies the virtual gateway name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual gateway. Minimum: 0 Maximum: 128
type	String	Specifies the virtual gateway type. The value can only be default . Default: default

Parameter	Type	Description
local_ep_group	Array of strings	Specifies the IPv4 subnets of the associated VPC that can be accessed over the virtual gateway.
local_ep_group_ipv6	Array of strings	Specifies the IPv6 subnets of the associated VPC that can be accessed over the virtual gateway. This is a reserved field.
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false . Default: true
status	String	Specifies the operating status. The value can be ACTIVE , DOWN , BUILD , ERROR , PENDING_CREATE , PENDING_UPDATE , or PENDING_DELETE .
bgp_asn	Integer	Specifies the local BGP ASN of the virtual gateway. Minimum: 1 Maximum: 4294967295
enterprise_project_id	String	Specifies the ID of the enterprise project that the virtual gateway belongs to. Minimum: 36 Maximum: 36
device_id	String	Specifies the ID of the device that the virtual interface belongs to.
redundant_device_id	String	Specifies the ID of the redundant device.
public_border_group	String	Specifies the public border group of the AZ, indicating whether the site is a HomeZones site.
tags	Array of Tag objects	Specifies the tags. Array length: 0-10

Table 3-78 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Example Requests

Updating the name and description of a virtual gateway and changing its IPv4 subnet to 192.168.3.0/24

```
PUT https://{dc_endpoint}/v3/0605768a3300d5762f82c01180692873/dcaas/virtual-gateways/  
20082c1b-3c99-48d8-8e8c-116af5d7e9f0
```

```
{  
  "virtual_gateway" : {  
    "name" : "update-vgw-c7b22",  
    "description" : "",  
    "local_ep_group" : [ "192.168.3.0/24" ]  
  }  
}
```

Example Responses

Status code: 200

OK

- The virtual gateway associated with a VPC is updated.

```
{  
  "virtual_gateway" : {  
    "id" : "20082c1b-3c99-48d8-8e8c-116af5d7e9f0",  
    "name" : "update-vgw-c7b22",  
    "description" : "",  
    "tenant_id" : "0605768a3300d5762f82c01180692873",  
    "vpc_id" : "6592c28e-95d7-4b0a-9f61-004fdf03420c",  
    "tags": [],  
    "device_id" : "26.151.63.100",  
    "redundant_device_id" : "26.152.128.20",  
    "type" : "default",  
    "status" : "ACTIVE",  
  }  
}
```

```
"admin_state_up" : true,
"bgp_asn" : 64512,
"local_ep_group" : [ "192.168.3.0/24" ],
"enterprise_project_id" : "0",
"public_border_group" : "center"
},
"request_id" : "765f7aaf8f2edd0e719de564ef72e2de"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.2.5 Deleting a Virtual Gateway

Function

The API is used to delete a specific virtual gateway.

Debugging

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

URI

DELETE /v3/{project_id}/dcaas/virtual-gateways/{virtual_gateway_id}

Table 3-79 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
virtual_gateway_id	Yes	String	Specifies the virtual gateway ID.

Request Parameters

Table 3-80 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

None

Example Requests

Deleting a virtual gateway

```
DELETE https://{dc_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/dcaas/virtual-gateways/  
20082c1b-3c99-48d8-8e8c-116af5d7e9f0
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

3.3 Virtual Interfaces

3.3.1 Creating a Virtual Interface

Function

This API is used to create a virtual interface.

Debugging

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

URI

POST /v3/{project_id}/dcaas/virtual-interfaces

Table 3-81 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 3-82 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-83 Request body parameters

Parameter	Mandatory	Type	Description
virtual_interface	Yes	CreateVirtualInterface object	Specifies the virtual interface to be created.

Table 3-84 CreateVirtualInterface

Parameter	Mandatory	Type	Description
name	No	String	Specifies the virtual interface name. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the virtual interface. Minimum: 0 Maximum: 128
direct_connect_id	No	String	Specifies the ID of the connection associated with the virtual interface. When creating a virtual interface, you need to specify direct_connect_id or lag_id . This parameter is mandatory when LAG is not supported at the site.
type	Yes	String	Specifies the type of the virtual interface. The value is private . Enumeration values: private
service_type	No	String	Specifies the gateway type. The value can be VGW , GDGW , or LGW . This parameter cannot be configured if a virtual gateway is used. Enumeration values: • VGW • GDGW • LGW
gateway_id	No	String	Specifies the ID of the gateway associated with the virtual interface. If service_type is set to GDGW , this parameter is required. gateway_id indicates the ID of the global DC gateway.

Parameter	Mandatory	Type	Description
vlan	Yes	Integer	Specifies the customer VLAN to be connected. If you select a hosted connection, the VLAN must be the same as that of the hosted connection. Minimum: 0 Maximum: 3999
bandwidth	Yes	Integer	Specifies the virtual interface bandwidth. Minimum: 2 Maximum: 2147483647
priority	No	String	Specifies the priority of a virtual interface. The value can be normal or low . If the priorities are the same, the virtual interfaces work in load balancing mode. If the priorities are different, the virtual interfaces work in active/standby pairs. Outbound traffic is preferentially forwarded to the normal virtual interface with a higher priority. This option is only supported by virtual interfaces that use BGP routing. Default: normal Enumeration values: • normal • low
local_gateway_v4_ip	No	String	Specifies the IPv4 interface address of the gateway used on the cloud. This parameter is mandatory if address_family is set to an IPv4 address.
remote_gateway_v4_ip	No	String	Specifies the IPv4 interface address of the gateway on the on-premises network. This parameter is mandatory if address_family is set to an IPv4 address.

Parameter	Mandatory	Type	Description
address_family	No	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 . Default: ipv4
local_gateway_v6_ip	No	String	Specifies the IPv6 interface address of the gateway used on the cloud. This parameter is mandatory if address_family is set to an IPv6 address.
remote_gateway_v6_ip	No	String	Specifies the IPv6 interface address of the gateway on the on-premises network. This parameter is mandatory if address_family is set to an IPv6 address.
vgw_id	No	String	Specifies the ID of the virtual gateway connected by the virtual interface.
route_mode	Yes	String	Specifies the routing mode. The value can be static or bgp . Default: static Enumeration values: • static • bgp
bgp_asn	No	Integer	Specifies the ASN of the BGP peer on the customer side. Minimum: 1 Maximum: 4294967295
bgp_md5	No	String	Specifies the MD5 password of the BGP peer.
remote_ep_group	Yes	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.
service_ep_group	No	Array of strings	Specifies the subnets that access Internet services through a connection.

Parameter	Mandatory	Type	Description
enable_bfd	No	Boolean	Specifies whether to enable BFD (Bidirectional Forwarding Detection). The value can be true or false . Default: false
enable_nqa	No	Boolean	Specifies whether to enable NQA (Network Quality Analysis). The value can be true or false . Default: false
lag_id	No	String	Specifies the ID of the LAG associated with the virtual interface. Minimum: 36 Maximum: 36
resource_tenant_id	No	String	Specifies the project ID of another tenant, which is used to create virtual interfaces across tenants.
enterprise_project_id	No	String	Specifies the ID of the enterprise project that the virtual interface belongs to. Minimum: 36 Maximum: 36
tags	No	Array of Tag objects	Specifies the tags. Array length: 0-10

Table 3-85 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Parameter	Mandatory	Type	Description
value	No	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Response Parameters

Status code: 201

Table 3-86 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
virtual_interface	VirtualInterface object	Specifies the virtual interface.

Table 3-87 VirtualInterface

Parameter	Type	Description
id	String	Specifies the virtual interface ID. Maximum: 36
name	String	Specifies the virtual interface name. Maximum: 64
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false .
bandwidth	Integer	Specifies the virtual interface bandwidth. Minimum: 2 Maximum: 2147483647
create_time	String	Specifies when the virtual interface was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> . Maximum: 255

Parameter	Type	Description
update_time	String	Specifies when the virtual interface was updated. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> . Maximum: 255
description	String	Provides supplementary information about the virtual interface. Maximum: 128
direct_connect_id	String	Specifies the connection ID. Maximum: 36
service_type	String	Specifies the gateway type. The value can be VGW , GDGW , or LGW . This parameter cannot be configured if a virtual gateway is used. Enumeration values: • VGW • GDGW • LGW
status	String	Specifies the operating status. The value can be ACTIVE , DOWN , BUILD , ERROR , PENDING_CREATE , PENDING_UPDATE , PENDING_DELETE , DELETED , AUTHORIZATION , or REJECTED .
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32
type	String	Specifies the type of the virtual interface. The value is private . Default: private Maximum: 255 Enumeration values: private
vgw_id	String	Specifies the virtual gateway ID. Minimum: 36 Maximum: 36
vlan	Integer	Specifies the VLAN for connecting to the customer gateway. The value ranges from 0 to 3999 . Minimum: 0 Maximum: 3999

Parameter	Type	Description
route_limit	Integer	Specifies the remote subnet route configurations of the virtual interface. Minimum: 1 Maximum: 200 Default: 50
enable_nqa	Boolean	Specifies whether to enable NQA (Network Quality Analysis). The value can be true or false .
enable_bfd	Boolean	Specifies whether to enable BFD (Bidirectional Forwarding Detection). The value can be true or false .
lag_id	String	Specifies the ID of the LAG associated with the virtual interface. Minimum: 36 Maximum: 36
device_id	String	Specifies the ID of the device that the virtual interface belongs to.
enterprise_project_id	String	Specifies the ID of the enterprise project that the virtual interface belongs to. Minimum: 36 Maximum: 36
tags	Array of Tag objects	Specifies the tags. Array length: 0-10
local_gateway_v4_ip	String	Specifies the IPv4 interface address of the gateway used on the cloud. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
remote_gateway_v4_ip	String	Specifies the IPv4 interface address of the gateway used on premises. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
ies_id	String	Specifies the edge site ID.
reason	String	Displays error information if the status of a line is Error .
rate_limit	Boolean	Specifies whether rate limiting is enabled on a virtual interface.
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 . This parameter has been migrated to the vifpeer parameter list and will be discarded later.

Parameter	Type	Description
local_gateway_v6_ip	String	Specifies the IPv6 interface address of the gateway used on the cloud. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
remote_gateway_v6_ip	String	Specifies the IPv6 interface address of the gateway used on premises. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
lgw_id	String	Specifies the ID of the local gateway, which is used in IES scenarios.
gateway_id	String	Specifies the ID of the gateway associated with the virtual interface.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
bgp_route_limit	Integer	Specifies the BGP route configuration.
priority	String	Specifies the priority of a virtual interface. The value can be normal or low. If the priorities are the same, the virtual interfaces work in load balancing mode. If the priorities are different, the virtual interfaces work in active/standby pairs. Outbound traffic is preferentially forwarded to the normal virtual interface with a higher priority. This option is only supported by virtual interfaces that use BGP routing. Default: normal Enumeration values: • normal • low
vif_peers	Array of VifPeer objects	Provides information about virtual interface peers.
extend_attribute	VifExtendAttribute object	Provides extended parameter information.

Table 3-88 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Table 3-89 VifPeer

Parameter	Type	Description
id	String	Specifies the resource ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the ID of the project that the virtual interface peer belongs to. Minimum: 36 Maximum: 36
name	String	Specifies the name of the virtual interface peer. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual interface peer. Minimum: 0 Maximum: 128
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 .

Parameter	Type	Description
local_gateway_ip	String	Specifies the gateway address of the virtual interface peer used on the cloud.
remote_gateway_ip	String	Specifies the gateway of the virtual interface peer used in the on-premises data center.
route_mode	String	Specifies the routing mode. The value can be static or bgp . Maximum: 255 Enumeration values: • bgp • static
bgp_asn	Integer	Specifies the ASN of the BGP peer. Minimum: 1 Maximum: 4294967295
bgp_md5	String	Specifies the MD5 password of the BGP peer.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections.
device_id	String	Specifies the ID of the device that the virtual interface peer belongs to.
bgp_route_limit	Integer	Specifies the BGP route configuration.
bgp_status	String	Specifies the BGP protocol status of the virtual interface peer. If the virtual interface peer uses static routing, the status is null . Maximum: 10
status	String	Specifies the status of the virtual interface peer.
vif_id	String	Specifies the ID of the virtual interface corresponding to the virtual interface peer. Minimum: 36 Maximum: 36

Parameter	Type	Description
receive_route_num	Integer	Specifies the number of received BGP routes if BGP routing is used. If static routing is used, this parameter is meaningless and the value is -1 . If this parameter cannot be obtained, contact customer service to migrate your ports.
enable_nqa	Boolean	Specifies whether to enable NQA (Network Quality Analysis). The value can be true or false .
enable_bfd	Boolean	Specifies whether to enable BFD (Bidirectional Forwarding Detection). The value can be true or false .

Table 3-90 VifExtendAttribute

Parameter	Type	Description
ha_type	String	Specifies the availability detection type of the virtual interface. Enumeration values: • nqa • bfd
ha_mode	String	Specifies the availability detection mode. Enumeration values: • auto_single • auto_multi • static_single • static_multi • enhance_nqa
detect_multiplier	Integer	Specifies the number of detection retries. Default: 5
min_rx_interval	Integer	Specifies the interval for receiving detection packets. Default: 1000
min_tx_interval	Integer	Specifies the interval for sending detection packets. Default: 1000
remote_disclaim	Integer	Specifies the remote identifier of the static BFD session.

Parameter	Type	Description
local_disclaim	Integer	Specifies the local identifier of the static BFD session.

Example Requests

- Creating a private virtual interface, with the bandwidth set to 2 Mbit/s, VLAN to 332, local gateway to 1.1.1.1/30, and remote gateway to 1.1.1.2/30, and routing mode to static routing

POST https://{dc_endpoint}/v3/0605768a3300d5762f82c01180692873/dcaas/virtual-interfaces

```
{
  "virtual_interface": {
    "name": "vif-0819",
    "description": "mytest",
    "direct_connect_id": "4673e339-8412-4ee1-b73e-2ba9cdfa54c1",
    "vgw_id": "8a47064a-f34c-4f94-b7fe-cac456c9b37b",
    "vlan": 332,
    "bandwidth": 2,
    "local_gateway_v4_ip": "1.1.1.1/30",
    "remote_gateway_v4_ip": "1.1.1.2/30",
    "type": "private",
    "route_mode": "static",
    "remote_ep_group": [ "1.1.2.0/30" ]
  }
}
```

Example Responses

Status code: 201

Created

```
{
  "virtual_interface": {
    "id": "0d0fdf63-f2c4-491c-8866-d504796189be",
    "name": "vif-0819",
    "description": "mytest",
    "tenant_id": "0605768a3300d5762f82c01180692873",
    "direct_connect_id": "4673e339-8412-4ee1-b73e-2ba9cdfa54c1",
    "vgw_id": "8a47064a-f34c-4f94-b7fe-cac456c9b37b",
    "type": "private",
    "service_type": "VGW",
    "vlan": 332,
    "bandwidth": 2,
    "device_id": "18.9.215.131",
    "status": "ACTIVE",
    "create_time": "2022-08-19T11:28:06.000Z",
    "update_time": "2022-08-19T11:28:06.000Z",
    "admin_state_up": true,
    "enable_bfd": false,
    "route_limit": 50,
    "enable_nqa": false,
    "local_gateway_v4_ip": "1.1.1.1/30",
    "remote_gateway_v4_ip": "1.1.1.2/30",
    "ies_id": null,
    "reason": null,
    "rate_limit": false,
    "local_gateway_v6_ip": null,
    "remote_gateway_v6_ip": null,
    "lgw_id": null,
    "lag_id": null,
    "priority": "normal",
  }
}
```

```
"tags": [],
"vif_peers": [ {
  "id": "c768eb52-12a8-4859-9b43-81194643040c",
  "tenant_id": "0605768a3300d5762f82c01180692873",
  "name": "vif-0819",
  "description": "",
  "address_family": "ipv4",
  "local_gateway_ip": "1.1.1.1/30",
  "remote_gateway_ip": "1.1.1.2/30",
  "route_mode": "static",
  "bgp_asn": null,
  "bgp_md5": null,
  "device_id": "18.9.215.131",
  "bgp_route_limit": 100,
  "bgp_status": null,
  "status": "ACTIVE",
  "vif_id": "0d0fdf63-f2c4-491c-8866-d504796189be",
  "receive_route_num": -1,
  "remote_ep_group": [ "1.1.2.0/30" ],
  "enable_bfd": false,
  "enable_nqa": false,
  "service_ep_group": null
} ],
"enterprise_project_id": "0"
},
"request_id": "5633df7af874576d819a481c76673236"
}
```

Status Codes

Status Code	Description
201	Created

Error Codes

See [Error Codes](#).

3.3.2 Querying the Virtual Interface List

Function

This API is used to query the virtual interface list.

Debugging

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

URI

GET /v3/{project_id}/dcaas/virtual-interfaces

Table 3-91 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Table 3-92 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1–2000 Minimum: 1 Maximum: 2000 Default: 2000
marker	No	String	Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit . Minimum: 0 Maximum: 36
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5
sort_dir	No	Array	Specifies the sorting order of returned results, which can be asc (ascending order) or desc (descending order). The default value is asc .
sort_key	No	String	Specifies the field for sorting. Default: id Minimum: 0 Maximum: 36
enterprise_project_id	No	Array	Filters resource instances by enterprise project ID. Array length: 1–10
id	No	Array	Specifies the resource ID by which instances are queried. Array length: 1–5

Parameter	Mandatory	Type	Description
status	No	Array	Specifies the status by which instances are queried. Array length: 1–5
direct_connect_id	No	Array	Specifies the connection ID by which virtual interfaces are queried. Array length: 1–5
vgw_id	No	Array	Specifies the virtual gateway ID by which virtual interfaces are queried. Array length: 1–5

Request Parameters

Table 3-93 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-94 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
virtual_interfaces	Array of VirtualInterface objects	Specifies the virtual interface.

Parameter	Type	Description
page_info	PageInfo object	Specifies the pagination query information.

Table 3-95 VirtualInterface

Parameter	Type	Description
id	String	Specifies the virtual interface ID. Maximum: 36
name	String	Specifies the virtual interface name. Maximum: 64
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false .
bandwidth	Integer	Specifies the virtual interface bandwidth. Minimum: 2 Maximum: 2147483647
create_time	String	Specifies when the virtual interface was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> . Maximum: 255
update_time	String	Specifies when the virtual interface was updated. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> . Maximum: 255
description	String	Provides supplementary information about the virtual interface. Maximum: 128
direct_connect_id	String	Specifies the connection ID. Maximum: 36
service_type	String	Specifies the gateway type. The value can be VGW , GDGW , or LGW . This parameter cannot be configured if a virtual gateway is used. Enumeration values: • VGW • GDGW • LGW

Parameter	Type	Description
status	String	Specifies the operating status. The value can be ACTIVE , DOWN , BUILD , ERROR , PENDING_CREATE , PENDING_UPDATE , PENDING_DELETE , DELETED , AUTHORIZATION , or REJECTED .
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32
type	String	Specifies the type of the virtual interface. The value is private . Default: private Maximum: 255 Enumeration values: private
vgw_id	String	Specifies the virtual gateway ID. Minimum: 36 Maximum: 36
vlan	Integer	Specifies the VLAN for connecting to the customer gateway. The value ranges from 0 to 3999 . Minimum: 0 Maximum: 3999
route_limit	Integer	Specifies the remote subnet route configurations of the virtual interface. Minimum: 1 Maximum: 200 Default: 50
enable_nqa	Boolean	Specifies whether NQA (Network Quality Analysis) is enabled. The value can be true or false .
enable_bfd	Boolean	Specifies whether BFD (Bidirectional Forwarding Detection) is enabled. The value can be true or false .
lag_id	String	Specifies the ID of the LAG associated with the virtual interface. Minimum: 36 Maximum: 36
device_id	String	Specifies the ID of the device that the virtual interface belongs to.

Parameter	Type	Description
enterprise_project_id	String	Specifies the ID of the enterprise project that the virtual interface belongs to. Minimum: 36 Maximum: 36
tags	Array of Tag objects	Specifies the tags. Array length: 0-10
local_gateway_v4_ip	String	Specifies the IPv4 interface address of the gateway used on the cloud. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
remote_gateway_v4_ip	String	Specifies the IPv4 interface address of the gateway used on premises. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
ies_id	String	Specifies the edge site ID.
reason	String	Displays error information if the status of a line is Error .
rate_limit	Boolean	Specifies whether rate limiting is enabled on a virtual interface.
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 . This parameter has been migrated to the vifpeer parameter list and will be discarded later.
local_gateway_v6_ip	String	Specifies the IPv6 interface address of the gateway used on the cloud. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
remote_gateway_v6_ip	String	Specifies the IPv6 interface address of the gateway used on premises. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
lgw_id	String	Specifies the ID of the local gateway, which is used in IES scenarios.
gateway_id	String	Specifies the ID of the gateway associated with the virtual interface.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center. This parameter has been migrated to the vifpeer parameter list and will be discarded later.

Parameter	Type	Description
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
bgp_route_limit	Integer	Specifies the BGP route configuration.
priority	String	Specifies the priority of a virtual interface. The value can be normal or low. If the priorities are the same, the virtual interfaces work in load balancing mode. If the priorities are different, the virtual interfaces work in active/standby pairs. Outbound traffic is preferentially forwarded to the normal virtual interface with a higher priority. This option is only supported by virtual interfaces that use BGP routing. Default: normal Enumeration values: • normal • low
vif_peers	Array of VifPeer objects	Provides information about virtual interface peers.
extend_attribute	VifExtendAttribute object	Provides extended parameter information.

Table 3-96 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Parameter	Type	Description
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Table 3-97 VifPeer

Parameter	Type	Description
id	String	Specifies the resource ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the ID of the project that the virtual interface peer belongs to. Minimum: 36 Maximum: 36
name	String	Specifies the name of the virtual interface peer. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual interface peer. Minimum: 0 Maximum: 128
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 .
local_gateway_ip	String	Specifies the gateway address of the virtual interface peer used on the cloud.
remote_gateway_ip	String	Specifies the gateway of the virtual interface peer used in the on-premises data center.
route_mode	String	Specifies the routing mode. The value can be static or bgp . Maximum: 255 Enumeration values: • bgp • static

Parameter	Type	Description
bgp_asn	Integer	Specifies the ASN of the BGP peer. Minimum: 1 Maximum: 4294967295
bgp_md5	String	Specifies the MD5 password of the BGP peer.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections.
device_id	String	Specifies the ID of the device that the virtual interface peer belongs to.
bgp_route_limit	Integer	Specifies the BGP route configuration.
bgp_status	String	Specifies the BGP protocol status of the virtual interface peer. If the virtual interface peer uses static routing, the status is null . Maximum: 10
status	String	Specifies the status of the virtual interface peer.
vif_id	String	Specifies the ID of the virtual interface corresponding to the virtual interface peer. Minimum: 36 Maximum: 36
receive_route_num	Integer	Specifies the number of received BGP routes if BGP routing is used. If static routing is used, this parameter is meaningless and the value is -1 . If this parameter cannot be obtained, contact customer service to migrate your ports.
enable_nqa	Boolean	Specifies whether NQA (Network Quality Analysis) is enabled. The value can be true or false .
enable_bfd	Boolean	Specifies whether BFD (Bidirectional Forwarding Detection) is enabled. The value can be true or false .

Table 3-98 VifExtendAttribute

Parameter	Type	Description
ha_type	String	Specifies the availability detection type of the virtual interface. Enumeration values: • nqa • bfd
ha_mode	String	Specifies the availability detection mode. Enumeration values: • auto_single • auto_multi • static_single • static_multi • enhance_nqa
detect_multiplier	Integer	Specifies the number of detection retries. Default: 5
min_rx_interval	Integer	Specifies the interval for receiving detection packets. Default: 1000
min_tx_interval	Integer	Specifies the interval for sending detection packets. Default: 1000
remote_disclaim	Integer	Specifies the remote identifier of the static BFD session.
local_disclaim	Integer	Specifies the local identifier of the static BFD session.

Table 3-99 PageInfo

Parameter	Type	Description
previous_marker	String	Specifies the marker of the previous page. The value is the resource UUID. Minimum: 0 Maximum: 36
current_count	Integer	Specifies the number of resources in the current list. Minimum: 0 Maximum: 2000

Parameter	Type	Description
next_marker	String	Specifies the marker of the next page. The value is the resource UUID. If this parameter is left empty, the resource is on the last page. Minimum: 0 Maximum: 36

Example Requests

Querying the virtual interface list

```
GET https://{dc_endpoint}/v3/0605768a3300d5762f82c01180692873/dcaas/virtual-interfaces
```

Example Responses

Status code: 200

OK

```
{
  "virtual_interfaces" : [ {
    "id" : "0d0fdf63-f2c4-491c-8866-d504796189be",
    "name" : "vif-0819",
    "description" : "mytest",
    "tenant_id" : "0605768a3300d5762f82c01180692873",
    "direct_connect_id" : "4673e339-8412-4ee1-b73e-2ba9cdfa54c1",
    "vgw_id" : "8a47064a-f34c-4f94-b7fe-cac456c9b37b",
    "type" : "private",
    "service_type" : "VGW",
    "vlan" : 332,
    "bandwidth" : 2,
    "status" : "ACTIVE",
    "create_time" : "2022-08-19T11:28:06.000Z",
    "update_time" : "2022-08-19T11:28:06.000Z",
    "admin_state_up" : true,
    "enable_bfd" : false,
    "route_limit" : 50,
    "enable_nqa" : false,
    "local_gateway_v4_ip" : "1.1.1.1/30",
    "remote_gateway_v4_ip" : "1.1.1.2/30",
    "ies_id" : null,
    "reason" : null,
    "rate_limit" : false,
    "address_family" : "ipv4",
    "local_gateway_v6_ip" : null,
    "remote_gateway_v6_ip" : null,
    "lgw_id" : null,
    "gateway_id" : null,
    "remote_ep_group" : [ "1.1.2.0/30" ],
    "service_ep_group" : [ ],
    "bgp_route_limit" : 100,
    "priority" : "normal",
    "tags" : [],
    "vif_peers" : [ {
      "id" : "c768eb52-12a8-4859-9b43-81194643040c",
      "tenant_id" : "0605768a3300d5762f82c01180692873",
      "name" : "vif-0819",
      "description" : "",
      "address_family" : "ipv4",
      "local_gateway_ip" : "1.1.1.1/30",
      "remote_gateway_ip" : "1.1.1.2/30",
    }
  ]
}
```

```
{
  "route_mode": "static",
  "bgp_asn": null,
  "bgp_md5": null,
  "device_id": "18.9.215.131",
  "bgp_route_limit": 100,
  "bgp_status": null,
  "status": "ACTIVE",
  "vif_id": "0d0fdf63-f2c4-491c-8866-d504796189be",
  "receive_route_num": -1,
  "remote_ep_group": [ "1.1.2.0/30" ],
  "service_ep_group": null,
  "enable_bfd": false,
  "enable_nqa": false
} ],
"enterprise_project_id": "0"
} ],
"request_id": "5633df7af874576d819a481c76673236"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.3.3 Querying Details About a Virtual Interface

Function

This API is used to querying details about a virtual interface.

Debugging

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

URI

GET /v3/{project_id}/dcaas/virtual-interfaces/{virtual_interface_id}

Table 3-100 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
virtual_interface_id	Yes	String	Specifies the virtual interface ID. Minimum: 36 Maximum: 36

Table 3-101 Query parameters

Parameter	Mandatory	Type	Description
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5

Request Parameters

Table 3-102 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-103 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
virtual_interface	VirtualInterface object	Specifies the virtual interface.

Table 3-104 VirtualInterface

Parameter	Type	Description
id	String	Specifies the virtual interface ID. Maximum: 36
name	String	Specifies the virtual interface name. Maximum: 64

Parameter	Type	Description
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false .
bandwidth	Integer	Specifies the virtual interface bandwidth. Minimum: 2 Maximum: 2147483647
create_time	String	Specifies when the virtual interface was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> . Maximum: 255
update_time	String	Specifies when the virtual interface was updated. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> . Maximum: 255
description	String	Provides supplementary information about the virtual interface. Maximum: 128
direct_connect_id	String	Specifies the connection ID. Maximum: 36
service_type	String	Specifies the gateway type. The value can be VGW , GDGW , or LGW . This parameter cannot be configured if a virtual gateway is used. Enumeration values: • VGW • GDGW • LGW
status	String	Specifies the operating status. The value can be ACTIVE , DOWN , BUILD , ERROR , PENDING_CREATE , PENDING_UPDATE , PENDING_DELETE , DELETED , AUTHORIZATION , or REJECTED .
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32
type	String	Specifies the type of the virtual interface. The value is private . Default: private Maximum: 255 Enumeration values: private

Parameter	Type	Description
vgw_id	String	Specifies the virtual gateway ID. Minimum: 36 Maximum: 36
vlan	Integer	Specifies the VLAN for connecting to the customer gateway. The value ranges from 0 to 3999 . Minimum: 0 Maximum: 3999
route_limit	Integer	Specifies the remote subnet route configurations of the virtual interface. Minimum: 1 Maximum: 200 Default: 50
enable_nqa	Boolean	Specifies whether NQA (Network Quality Analysis) is enabled. The value can be true or false .
enable_bfd	Boolean	Specifies whether BFD (Bidirectional Forwarding Detection) is enabled. The value can be true or false .
lag_id	String	Specifies the ID of the LAG associated with the virtual interface. Minimum: 36 Maximum: 36
device_id	String	Specifies the ID of the device that the virtual interface belongs to.
enterprise_project_id	String	Specifies the ID of the enterprise project that the virtual interface belongs to. Minimum: 36 Maximum: 36
tags	Array of Tag objects	Specifies the tags. Array length: 0-10
local_gateway_v4_ip	String	Specifies the IPv4 interface address of the gateway used on the cloud. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
remote_gateway_v4_ip	String	Specifies the IPv4 interface address of the gateway used on premises. This parameter has been migrated to the vifpeer parameter list and will be discarded later.

Parameter	Type	Description
ies_id	String	Specifies the edge site ID.
reason	String	Displays error information if the status of a line is Error .
rate_limit	Boolean	Specifies whether rate limiting is enabled on a virtual interface.
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 . This parameter has been migrated to the vifpeer parameter list and will be discarded later.
local_gateway_v6_ip	String	Specifies the IPv6 interface address of the gateway used on the cloud. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
remote_gateway_v6_ip	String	Specifies the IPv6 interface address of the gateway used on premises. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
lgw_id	String	Specifies the ID of the local gateway, which is used in IES scenarios.
gateway_id	String	Specifies the ID of the gateway associated with the virtual interface.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
bgp_route_limit	Integer	Specifies the BGP route configuration.

Parameter	Type	Description
priority	String	Specifies the priority of a virtual interface. The value can be normal or low. If the priorities are the same, the virtual interfaces work in load balancing mode. If the priorities are different, the virtual interfaces work in active/standby pairs. Outbound traffic is preferentially forwarded to the normal virtual interface with a higher priority. This option is only supported by virtual interfaces that use BGP routing. Default: normal Enumeration values: • normal • low
vif_peers	Array of VifPeer objects	Provides information about virtual interface peers.
extend_attribute	VifExtendAttribute object	Provides extended parameter information.

Table 3-105 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Table 3-106 VifPeer

Parameter	Type	Description
id	String	Specifies the resource ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the ID of the project that the virtual interface peer belongs to. Minimum: 36 Maximum: 36
name	String	Specifies the name of the virtual interface peer. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual interface peer. Minimum: 0 Maximum: 128
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 .
local_gateway_ip	String	Specifies the gateway address of the virtual interface peer used on the cloud.
remote_gateway_ip	String	Specifies the gateway of the virtual interface peer used in the on-premises data center.
route_mode	String	Specifies the routing mode. The value can be static or bgp . Maximum: 255 Enumeration values: • bgp • static
bgp_asn	Integer	Specifies the ASN of the BGP peer. Minimum: 1 Maximum: 4294967295
bgp_md5	String	Specifies the MD5 password of the BGP peer.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections.

Parameter	Type	Description
device_id	String	Specifies the ID of the device that the virtual interface peer belongs to.
bgp_route_limit	Integer	Specifies the BGP route configuration.
bgp_status	String	Specifies the BGP protocol status of the virtual interface peer. If the virtual interface peer uses static routing, the status is null . Maximum: 10
status	String	Specifies the status of the virtual interface peer.
vif_id	String	Specifies the ID of the virtual interface corresponding to the virtual interface peer. Minimum: 36 Maximum: 36
receive_route_num	Integer	Specifies the number of received BGP routes if BGP routing is used. If static routing is used, this parameter is meaningless and the value is -1. If this parameter cannot be obtained, contact customer service to migrate your ports.
enable_nqa	Boolean	Specifies whether NQA (Network Quality Analysis) is enabled. The value can be true or false .
enable_bfd	Boolean	Specifies whether BFD (Bidirectional Forwarding Detection) is enabled. The value can be true or false .

Table 3-107 VifExtendAttribute

Parameter	Type	Description
ha_type	String	Specifies the availability detection type of the virtual interface. Enumeration values: • nqa • bfd

Parameter	Type	Description
ha_mode	String	Specifies the availability detection mode. Enumeration values: • auto_single • auto_multi • static_single • static_multi • enhance_nqa
detect_multiplier	Integer	Specifies the number of detection retries. Default: 5
min_rx_interval	Integer	Specifies the interval for receiving detection packets. Default: 1000
min_tx_interval	Integer	Specifies the interval for sending detection packets. Default: 1000
remote_disclaim	Integer	Specifies the remote identifier of the static BFD session.
local_disclaim	Integer	Specifies the local identifier of the static BFD session.

Example Requests

Querying a virtual interface

```
POST https://{dc_endpoint}/v3/0605768a3300d5762f82c01180692873/dcaas/virtual-interfaces/0d0fdf63-f2c4-491c-8866-d504796189be
```

Example Responses

Status code: 200

OK

```
{
  "virtual_interface": {
    "id": "0d0fdf63-f2c4-491c-8866-d504796189be",
    "name": "vif-0819",
    "description": "",
    "tenant_id": "0605768a3300d5762f82c01180692873",
    "direct_connect_id": "4673e339-8412-4ee1-b73e-2ba9cdfa54c1",
    "vgw_id": "8a47064a-f34c-4f94-b7fe-cac456c9b37b",
    "type": "private",
    "service_type": "VGW",
    "vlan": 332,
    "bandwidth": 2,
    "status": "ACTIVE",
    "create_time": "2022-08-19T11:28:06.000Z",
    "update_time": "2022-08-19T11:28:06.000Z",
  }
}
```

```
"admin_state_up" : true,
"enable_bfd" : false,
"route_limit" : 50,
"enable_nqa" : false,
"local_gateway_v4_ip" : "1.1.1.1/30",
"remote_gateway_v4_ip" : "1.1.1.2/30",
"ies_id" : null,
"reason" : null,
"rate_limit" : false,
"address_family" : "ipv4",
"local_gateway_v6_ip" : null,
"remote_gateway_v6_ip" : null,
"lgw_id" : null,
"lag_id" : null,
"gateway_id" : null,
"remote_ep_group" : [ "1.1.2.0/30" ],
"service_ep_group" : [ ],
"bgp_route_limit" : 100,
"priority" : "normal",
"tags": [ ],
"vif_peers" : [ {
  "id" : "c768eb52-12a8-4859-9b43-81194643040c",
  "tenant_id" : "0605768a3300d5762f82c01180692873",
  "name" : "vif-0819",
  "description" : "",
  "address_family" : "ipv4",
  "local_gateway_ip" : "1.1.1.1/30",
  "remote_gateway_ip" : "1.1.1.2/30",
  "route_mode" : "static",
  "bgp_asn" : null,
  "bgp_md5" : null,
  "device_id" : "18.9.215.131",
  "bgp_route_limit" : 100,
  "bgp_status" : null,
  "status" : "ACTIVE",
  "vif_id" : "0d0fdf63-f2c4-491c-8866-d504796189be",
  "receive_route_num" : -1,
  "remote_ep_group" : [ "1.1.2.0/30" ],
  "service_ep_group" : null,
  "enable_bfd" : false,
  "enable_nqa" : false
} ],
"enterprise_project_id" : "0"
},
"request_id" : "5633df7af874576d819a481c76673236"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.3.4 Updating a Virtual Interface

Function

This API is used to update a virtual interface.

Debugging

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

URI

PUT /v3/{project_id}/dcaas/virtual-interfaces/{virtual_interface_id}

Table 3-108 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
virtual_interface_id	Yes	String	Specifies the virtual interface ID. Minimum: 36 Maximum: 36

Request Parameters

Table 3-109 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-110 Request body parameters

Parameter	Mandatory	Type	Description
virtual_interface	Yes	UpdateVirtualInterface object	Specifies the virtual interface to be updated.

Table 3-111 UpdateVirtualInterface

Parameter	Mandatory	Type	Description
name	No	String	Specifies the virtual interface name. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the virtual interface. Minimum: 0 Maximum: 128
bandwidth	No	Integer	Specifies the virtual interface bandwidth configuration. Minimum: 2 Maximum: 2147483647
priority	No	String	Specifies the priority of a virtual interface. The value can be normal or low . If the priorities are the same, the virtual interfaces work in load balancing mode. If the priorities are different, the virtual interfaces work in active/standby pairs. Outbound traffic is preferentially forwarded to the normal virtual interface with a higher priority. This option is only supported by virtual interfaces that use BGP routing. Enumeration values: • normal • low

Parameter	Mandatory	Type	Description
remote_ep_group	No	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.
service_ep_group	No	Array of strings	Specifies the local endpoint group that is connected to the public network over a connection.
enable_bfd	No	Boolean	Specifies whether to enable BFD (Bidirectional Forwarding Detection). The value can be true or false .
enable_nqa	No	Boolean	Specifies whether to enable NQA (Network Quality Analysis). The value can be true or false .
status	No	String	Confirms the virtual interfaces created by other users. The value can be ACCEPTED or REJECTED . Enumeration values: • ACCEPTED • REJECTED

Response Parameters

Status code: 200

Table 3-112 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
virtual_interface	VirtualInterface object	Specifies the virtual interface.

Table 3-113 VirtualInterface

Parameter	Type	Description
id	String	Specifies the virtual interface ID. Maximum: 36

Parameter	Type	Description
name	String	Specifies the virtual interface name. Maximum: 64
admin_state_up	Boolean	Specifies the administrative status. The value can be true or false .
bandwidth	Integer	Specifies the virtual interface bandwidth. Minimum: 2 Maximum: 2147483647
create_time	String	Specifies when the virtual interface was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> . Maximum: 255
update_time	String	Specifies when the virtual interface was updated. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> . Maximum: 255
description	String	Provides supplementary information about the virtual interface. Maximum: 128
direct_connect_id	String	Specifies the connection ID. Maximum: 36
service_type	String	Specifies the gateway type. The value can be VGW , GDGW , or LGW . This parameter cannot be configured if a virtual gateway is used. Enumeration values: • VGW • GDGW • LGW
status	String	Specifies the operating status. The value can be ACTIVE , DOWN , BUILD , ERROR , PENDING_CREATE , PENDING_UPDATE , PENDING_DELETE , DELETED , AUTHORIZATION , or REJECTED .
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32

Parameter	Type	Description
type	String	Specifies the type of the virtual interface. The value is private . Default: private Maximum: 255 Enumeration values: private
vgw_id	String	Specifies the virtual gateway ID. Minimum: 36 Maximum: 36
vlan	Integer	Specifies the VLAN for connecting to the customer gateway. The value ranges from 0 to 3999 . Minimum: 0 Maximum: 3999
route_limit	Integer	Specifies the remote subnet route configurations of the virtual interface. Minimum: 1 Maximum: 200 Default: 50
enable_nqa	Boolean	Specifies whether to enable NQA (Network Quality Analysis). The value can be true or false .
enable_bfd	Boolean	Specifies whether to enable BFD (Bidirectional Forwarding Detection). The value can be true or false .
lag_id	String	Specifies the ID of the LAG associated with the virtual interface. Minimum: 36 Maximum: 36
device_id	String	Specifies the ID of the device that the virtual interface belongs to.
enterprise_project_id	String	Specifies the ID of the enterprise project that the virtual interface belongs to. Minimum: 36 Maximum: 36
tags	Array of Tag objects	Specifies the tags. Array length: 0-10

Parameter	Type	Description
local_gateway_v4_ip	String	Specifies the IPv4 interface address of the gateway used on the cloud. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
remote_gateway_v4_ip	String	Specifies the IPv4 interface address of the gateway used on premises. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
ies_id	String	Specifies the edge site ID.
reason	String	Displays error information if the status of a line is Error .
rate_limit	Boolean	Specifies whether rate limiting is enabled on a virtual interface.
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 . This parameter has been migrated to the vifpeer parameter list and will be discarded later.
local_gateway_v6_ip	String	Specifies the IPv6 interface address of the gateway used on the cloud. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
remote_gateway_v6_ip	String	Specifies the IPv6 interface address of the gateway used on premises. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
lgw_id	String	Specifies the ID of the local gateway, which is used in IES scenarios.
gateway_id	String	Specifies the ID of the gateway associated with the virtual interface.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections. This parameter has been migrated to the vifpeer parameter list and will be discarded later.
bgp_route_limit	Integer	Specifies the BGP route configuration.

Parameter	Type	Description
priority	String	Specifies the priority of a virtual interface. The value can be normal or low. If the priorities are the same, the virtual interfaces work in load balancing mode. If the priorities are different, the virtual interfaces work in active/standby pairs. Outbound traffic is preferentially forwarded to the normal virtual interface with a higher priority. This option is only supported by virtual interfaces that use BGP routing. Default: normal Enumeration values: • normal • low
vif_peers	Array of VifPeer objects	Provides information about virtual interface peers.
extend_attribute	VifExtendAttribute object	Provides extended parameter information.

Table 3-114 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Table 3-115 VifPeer

Parameter	Type	Description
id	String	Specifies the resource ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the ID of the project that the virtual interface peer belongs to. Minimum: 36 Maximum: 36
name	String	Specifies the name of the virtual interface peer. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual interface peer. Minimum: 0 Maximum: 128
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 .
local_gateway_ip	String	Specifies the gateway address of the virtual interface peer used on the cloud.
remote_gateway_ip	String	Specifies the gateway of the virtual interface peer used in the on-premises data center.
route_mode	String	Specifies the routing mode. The value can be static or bgp . Maximum: 255 Enumeration values: • bgp • static
bgp_asn	Integer	Specifies the ASN of the BGP peer. Minimum: 1 Maximum: 4294967295
bgp_md5	String	Specifies the MD5 password of the BGP peer.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections.

Parameter	Type	Description
device_id	String	Specifies the ID of the device that the virtual interface peer belongs to.
bgp_route_limit	Integer	Specifies the BGP route configuration.
bgp_status	String	Specifies the BGP protocol status of the virtual interface peer. If the virtual interface peer uses static routing, the status is null . Maximum: 10
status	String	Specifies the status of the virtual interface peer.
vif_id	String	Specifies the ID of the virtual interface corresponding to the virtual interface peer. Minimum: 36 Maximum: 36
receive_route_num	Integer	Specifies the number of received BGP routes if BGP routing is used. If static routing is used, this parameter is meaningless and the value is -1. If this parameter cannot be obtained, contact customer service to migrate your ports.
enable_nqa	Boolean	Specifies whether to enable NQA (Network Quality Analysis). The value can be true or false .
enable_bfd	Boolean	Specifies whether to enable BFD (Bidirectional Forwarding Detection). The value can be true or false .

Table 3-116 VifExtendAttribute

Parameter	Type	Description
ha_type	String	Specifies the availability detection type of the virtual interface. Enumeration values: • nqa • bfd

Parameter	Type	Description
ha_mode	String	Specifies the availability detection mode. Enumeration values: • auto_single • auto_multi • static_single • static_multi • enhance_nqa
detect_multiplier	Integer	Specifies the number of detection retries. Default: 5
min_rx_interval	Integer	Specifies the interval for receiving detection packets. Default: 1000
min_tx_interval	Integer	Specifies the interval for sending detection packets. Default: 1000
remote_disclaim	Integer	Specifies the remote identifier of the static BFD session.
local_disclaim	Integer	Specifies the local identifier of the static BFD session.

Example Requests

Updating the name and description of a virtual interface and changing its bandwidth to 2 Mbit/s

```
PUT https://{dc_endpoint}/v3/0605768a3300d5762f82c01180692873/dcaas/virtual-interfaces/0d0fdf63-f2c4-491c-8866-d504796189be
```

```
{
  "virtual_interface": {
    "name": "vif-0819",
    "description": "mytest",
    "bandwidth": 2
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "virtual_interface": {
    "id": "0d0fdf63-f2c4-491c-8866-d504796189be",
    "name": "vif-0819",
    "description": "mytest",
    "tenant_id": "0605768a3300d5762f82c01180692873",
  }
}
```

```
{
  "direct_connect_id" : "4673e339-8412-4ee1-b73e-2ba9cdfa54c1",
  "vgw_id" : "8a47064a-f34c-4f94-b7fe-cac456c9b37b",
  "type" : "private",
  "service_type" : "VGW",
  "vlan" : 332,
  "bandwidth" : 2,
  "status" : "ACTIVE",
  "create_time" : "2022-08-19T11:28:06.000Z",
  "update_time" : "2022-08-19T11:28:06.000Z",
  "admin_state_up" : true,
  "enable_bfd" : false,
  "route_limit" : 50,
  "enable_nqa" : false,
  "local_gateway_v4_ip" : "1.1.1.1/30",
  "remote_gateway_v4_ip" : "1.1.1.2/30",
  "ies_id" : null,
  "reason" : null,
  "rate_limit" : false,
  "address_family" : "ipv4",
  "local_gateway_v6_ip" : null,
  "remote_gateway_v6_ip" : null,
  "lgw_id" : null,
  "lag_id" : null,
  "gateway_id" : null,
  "remote_ep_group" : [ "1.1.2.0/30" ],
  "service_ep_group" : [ ],
  "bgp_route_limit" : 100,
  "priority" : "normal",
  "tags" : [],
  "vif_peers" : [ {
    "id" : "c768eb52-12a8-4859-9b43-81194643040c",
    "tenant_id" : "0605768a3300d5762f82c01180692873",
    "name" : "vif-0819",
    "description" : "",
    "address_family" : "ipv4",
    "local_gateway_ip" : "1.1.1.1/30",
    "remote_gateway_ip" : "1.1.1.2/30",
    "route_mode" : "static",
    "bgp_asn" : null,
    "bgp_md5" : null,
    "device_id" : "18.9.215.131",
    "bgp_route_limit" : 100,
    "bgp_status" : null,
    "status" : "ACTIVE",
    "vif_id" : "0d0fdf63-f2c4-491c-8866-d504796189be",
    "receive_route_num" : -1,
    "remote_ep_group" : [ "1.1.2.0/30" ],
    "service_ep_group" : null,
    "enable_bfd" : false,
    "enable_nqa" : false
  } ],
  "enterprise_project_id" : "0"
},
{
  "request_id" : "5633df7af874576d819a481c76673236"
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.3.5 Deleting a Virtual Interface

Function

This API is used to delete a virtual interface.

Debugging

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

URI

DELETE /v3/{project_id}/dcaas/virtual-interfaces/{virtual_interface_id}

Table 3-117 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
virtual_interface_id	Yes	String	Specifies the virtual interface ID. Minimum: 36 Maximum: 36

Request Parameters

Table 3-118 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

None

Example Requests

Deleting a virtual interface

```
DELETE https://{dc_endpoint}/v3/0605768a3300d5762f82c01180692873/dcaas/virtual-interfaces/0d0fdf63-f2c4-491c-8866-d504796189be
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

3.3.6 Creating a Virtual Interface Peer

Function

This API is used to create an IPv6 virtual interface peer. Each virtual interface can have two peers: an IPv4 peer and an IPv6 peer. When a virtual interface is created, an IPv4 peer is created by default.

Debugging

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

URI

POST /v3/{project_id}/dcaas/vif-peers

Table 3-119 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 3-120 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-121 Request body parameters

Parameter	Mandatory	Type	Description
vif_peer	No	CreateVifPeer object	Specifies the virtual interface peer to be created.

Table 3-122 CreateVifPeer

Parameter	Mandatory	Type	Description
name	No	String	Specifies the name of the virtual interface peer. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the virtual interface peer. Minimum: 0 Maximum: 128
address_family	No	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 .
local_gateway_ip	No	String	Specifies the gateway address of the virtual interface peer used on the cloud.

Parameter	Mandatory	Type	Description
remote_gateway_ip	No	String	Specifies the gateway of the virtual interface peer used in the on-premises data center.
route_mode	No	String	Specifies the routing mode. The value can be static or bgp . Maximum: 255 Enumeration values: • bgp • static
bgp_asn	No	Integer	Specifies the ASN of the BGP peer. Minimum: 1 Maximum: 4294967295
bgp_md5	No	String	Specifies the MD5 password of the BGP peer.
remote_ep_group	No	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.
vif_id	No	String	Specifies the ID of the virtual interface corresponding to the virtual interface peer. Minimum: 36 Maximum: 36

Response Parameters

Status code: 201

Table 3-123 Response body parameters

Parameter	Type	Description
vif_peer	VifPeer object	Specifies the virtual interface peer.

Table 3-124 VifPeer

Parameter	Type	Description
id	String	Specifies the resource ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the ID of the project that the virtual interface peer belongs to. Minimum: 36 Maximum: 36
name	String	Specifies the name of the virtual interface peer. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual interface peer. Minimum: 0 Maximum: 128
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 .
local_gateway_ip	String	Specifies the gateway address of the virtual interface peer used on the cloud.
remote_gateway_ip	String	Specifies the gateway of the virtual interface peer used in the on-premises data center.
route_mode	String	Specifies the routing mode. The value can be static or bgp . Maximum: 255 Enumeration values: • bgp • static
bgp_asn	Integer	Specifies the ASN of the BGP peer. Minimum: 1 Maximum: 4294967295
bgp_md5	String	Specifies the MD5 password of the BGP peer.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections.

Parameter	Type	Description
device_id	String	Specifies the ID of the device that the virtual interface peer belongs to.
bgp_route_limit	Integer	Specifies the BGP route configuration.
bgp_status	String	Specifies the BGP protocol status of the virtual interface peer. If the virtual interface peer uses static routing, the status is null . Maximum: 10
status	String	Specifies the status of the virtual interface peer.
vif_id	String	Specifies the ID of the virtual interface corresponding to the virtual interface peer. Minimum: 36 Maximum: 36
receive_route_num	Integer	Specifies the number of received BGP routes if BGP routing is used. If static routing is used, this parameter is meaningless and the value is -1 . If this parameter cannot be obtained, contact customer service to migrate your ports.
enable_nqa	Boolean	Specifies whether to enable NQA (Network Quality Analysis). The value can be true or false .
enable_bfd	Boolean	Specifies whether to enable BFD (Bidirectional Forwarding Detection). The value can be true or false .

Example Requests

Creating a virtual interface peer with the remote subnet set to 20.1.1.0/24

```
POST https://{endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/dcaas/vif-peers
{
  "vif_peer": {
    "name": "vif-0819",
    "address_family": "ipv4",
    "description": "mytest",
    "local_gateway_ip": "12.3.4.1/30",
    "remote_gateway_ip": "12.3.4.2/30",
    "vif_id": "5d6c17bc-0ebe-420b-8734-21f519e9d7ad",
    "remote_ep_group": [ "20.1.1.0/24" ]
  }
}
```

Example Responses

Status code: 201

Created

```
{
  "vif_peer" : {
    "name" : "vif-0819",
    "description" : "mytest",
    "id" : "4c95de3e-9f75-4357-9c79-b22498dd71c7",
    "tenant_id" : "ed28c294165741faeccab26913122a1",
    "address_family" : "ipv4",
    "local_gateway_ip" : "12.3.4.1/30",
    "remote_gateway_ip" : "12.3.4.2/30",
    "route_mode" : "static",
    "bgp_asn" : null,
    "bgp_md5" : null,
    "bgp_route_limit" : 100,
    "bgp_status" : null,
    "status" : "ACTIVE",
    "vif_id" : "5d6c17bc-0ebe-420b-8734-21f519e9d7ad",
    "receive_route_num" : -1,
    "remote_ep_group" : [ "12.3.4.0/30 172.56.0.0/16" ]
  }
}
```

Status Codes

Status Code	Description
201	Created

Error Codes

See [Error Codes](#).

3.3.7 Updating a Virtual Interface Peer

Function

This API is used to update a virtual interface peer. The following parameters can be updated: **name**, **description**, and **remote_ep_group**.

Debugging

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

URI

PUT /v3/{project_id}/dcaas/vif-peers/{vif_peer_id}

Table 3-125 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Parameter	Mandatory	Type	Description
vif_peer_id	Yes	String	Specifies the virtual interface peer ID.

Request Parameters

Table 3-126 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-127 Request body parameters

Parameter	Mandatory	Type	Description
vif_peer	No	UpdateVifPeer object	Specifies the virtual interface peer to be updated.

Table 3-128 UpdateVifPeer

Parameter	Mandatory	Type	Description
name	No	String	Specifies the name of the virtual interface peer. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the virtual interface peer. Minimum: 0 Maximum: 128

Parameter	Mandatory	Type	Description
remote_ep_group	No	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.

 NOTE

When you update a virtual interface peer, at least one of the following parameters needs to be specified: **name**, **description**, and **remote_ep_group**.

Response Parameters

Status code: 200

Table 3-129 Response body parameters

Parameter	Type	Description
vif_peer	VifPeer object	Specifies the virtual interface peer.

Table 3-130 VifPeer

Parameter	Type	Description
id	String	Specifies the resource ID. Minimum: 36 Maximum: 36
tenant_id	String	Specifies the ID of the project that the virtual interface peer belongs to. Minimum: 36 Maximum: 36
name	String	Specifies the name of the virtual interface peer. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the virtual interface peer. Minimum: 0 Maximum: 128
address_family	String	Specifies the address family of the virtual interface. The value can be IPv4 or IPv6 .

Parameter	Type	Description
local_gateway_ip	String	Specifies the gateway of the virtual interface peer used on the cloud.
remote_gateway_ip	String	Specifies the gateway of the virtual interface peer used in the on-premises data center.
route_mode	String	Specifies the routing mode. The value can be static or bgp . Maximum: 255 Enumeration values: • bgp • static
bgp_asn	Integer	Specifies the ASN of the BGP peer. Minimum: 1 Maximum: 4294967295
bgp_md5	String	Specifies the MD5 password of the BGP peer.
remote_ep_group	Array of strings	Specifies the remote subnet list, which records the CIDR blocks used in the on-premises data center.
service_ep_group	Array of strings	Specifies the list of public network addresses that can be accessed by the on-premises data center. This field is required in the APIs of public network connections.
device_id	String	Specifies the ID of the device that the virtual interface peer belongs to.
bgp_route_limit	Integer	Specifies the BGP route configuration.
bgp_status	String	Specifies the BGP protocol status of the virtual interface peer. If the virtual interface peer uses static routing, the status is null . Maximum: 10
status	String	Specifies the status of the virtual interface peer.
vif_id	String	Specifies the ID of the virtual interface corresponding to the virtual interface peer. Minimum: 36 Maximum: 36

Parameter	Type	Description
receive_route_num	Integer	Specifies the number of received BGP routes if BGP routing is used. If static routing is used, this parameter is meaningless and the value is -1 . If this parameter cannot be obtained, contact customer service to migrate your ports.
enable_nqa	Boolean	Specifies whether to enable NQA (Network Quality Analysis). The value can be true or false .
enable_bfd	Boolean	Specifies whether to enable BFD (Bidirectional Forwarding Detection). The value can be true or false .

Example Requests

Updating the name, description, and remote subnet of a virtual interface peer

PUT https://{endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/dcaas/vif-peers/68250543-0a13-4ac7-aa36-d018856ac640

```
{
  "vif_peer": {
    "name": "vif-0819",
    "description": "mytest",
    "remote_ep_group": [ "20.1.1.0/24" ]
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "vif_peer": {
    "name": "vif-0819",
    "description": "mytest",
    "id": "4c95de3e-9f75-4357-9c79-b22498dd71c7",
    "tenant_id": "ed28c294165741faecccab26913122a1",
    "address_family": "ipv4",
    "local_gateway_ip": "12.3.4.1/30",
    "remote_gateway_ip": "12.3.4.2/30",
    "route_mode": "static",
    "bgp_asn": null,
    "bgp_md5": null,
    "bgp_route_limit": 100,
    "bgp_status": null,
    "status": "ACTIVE",
    "vif_id": "5d6c17bc-0ebe-420b-8734-21f519e9d7ad",
    "receive_route_num": -1,
    "remote_ep_group": [ "20.1.1.0/24" ]
  }
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.3.8 Deleting a Virtual Interface Peer

Function

This API is used to delete a virtual interface peer. A virtual interface must have at least one peer. The last peer cannot be deleted.

This API is available only in regions that support IPv6. To use this API, contact customer service.

Debugging

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

URI

DELETE /v3/{project_id}/dcaas/vif-peers/{vif_peer_id}

Table 3-131 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
vif_peer_id	Yes	String	Specifies the virtual interface peer ID.

Request Parameters

Table 3-132 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

None

Example Requests

Deleting a virtual interface peer

```
DELETE https://{endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/dcaas/vif-peers/68250543-0a13-4ac7-aa36-d018856ac640
```

Example Responses

None

Status Codes

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

3.3.9 Performing a Virtual Interface Switchover Test

Function

Two connections require an automatic switchover to test network connectivity. An automatic switchover causes the virtual interfaces to be disabled or enabled and service traffic to be interrupted.

You can disable or enable a virtual interface.

- If you disable a virtual interface, the **shutdown** command is executed, and a switchover performed.
- If you enable a virtual interface, the **undo_shutdown** command is executed.

When a virtual interface is disabled for a switchover, the virtual interface is in the **ADMIN_SHUTDOWN** state, and no other operations are allowed on the virtual interface. If **undo_shutdown** is executed, the virtual interface is in the **ACTIVE** state.

Debugging

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

URI

POST /v3/{project_id}/dcaas/switchover-test

Table 3-133 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 3-134 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-135 Request body parameters

Parameter	Mandatory	Type	Description
switchover_test_record	No	CreateSwitchoverTest object	Specifies the parameters for creating a switchover test record.

Table 3-136 CreateSwitchoverTest

Parameter	Mandatory	Type	Description
resource_id	Yes	String	Specifies the ID of the resource on which the switchover test is to be performed.
resource_type	No	String	Specifies the type of the resource on which the switchover test is to be performed. Default: virtual_interface Minimum: 0 Maximum: 128 Enumeration values: • virtual_interface
operation	Yes	String	Specifies whether to perform a switchover test. Value options: shutdown and undo_shutdown Minimum: 0 Maximum: 128 Enumeration values: • shutdown • undo_shutdown

Response Parameters

Status code: 201

Table 3-137 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
switchover_test_record	SwitchoverTestRecord object	Provides supplementary information about the switchover test record.

Table 3-138 SwitchoverTestRecord

Parameter	Type	Description
id	String	Specifies the unique ID of the switchover test record.
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32
resource_id	String	Specifies the ID of the resource on which the switchover test is to be performed.
resource_type	String	Specifies the type of the resource on which the switchover test is to be performed. Default: virtual_interface Minimum: 0 Maximum: 128 Enumeration values: • virtual_interface
operation	String	Specifies whether to perform a switchover test. Value options: shutdown and undo_shutdown Minimum: 0 Maximum: 128 Enumeration values: • shutdown • undo_shutdown
start_time	String	Specifies the start time of the switchover test.
end_time	String	Specifies the end time of the switchover test.
operate_statuses	String	Specifies the switchover test status. • STARTING: indicates the initial status. • INPROGRESS: The configuration is being delivered. • COMPLETE: The configuration is delivered. • ERROR: The configuration fails to be delivered. Enumeration values: • STARTING • INPROGRESS • COMPLETE • ERROR

Example Requests

Shutting down the virtual interface to perform a switchover test

```
POST https://{dc_endpoint}/v3/de58f033eb664102ba85e4a5db473ca5/dcaas/switchover-test
{
  "switchover_test_record": {
    "resource_type": "virtual_interface",
    "resource_id": "d0b3329c-0063-470c-b1dc-657656b2e540",
    "operation": "shutdown"
  }
}
```

Example Responses

Status code: 201

Created

```
{
  "switchover_test_record": {
    "id": "862d61f1-d9ea-4093-ba0e-2b8d415e3ab3",
    "tenant_id": "de58f033eb664102ba85e4a5db473ca5",
    "resource_type": "virtual_interface",
    "resource_id": "d0b3329c-0063-470c-b1dc-657656b2e540",
    "operation": "shutdown",
    "start_time": "2023-10-09T18:41:23.000Z",
    "end_time": "2023-10-09T18:41:23.000Z",
    "operate_status": "STARTING"
  },
  "request_id": "f91634a12b116b6f946d7871f5b4de18"
}
```

Status Code

Status Code	Description
201	Created

Error Codes

See [Error Codes](#).

3.3.10 Querying the List of Virtual Interface Switchover Test Records

Function

This API is used to query the list of switchover test records. Only the records whose **operate_status** is **COMPLETE** are displayed.

Debugging

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

URI

GET /v3/{project_id}/dcaas/switchover-test

Table 3-139 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Table 3-140 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1–2000 Minimum: 1 Maximum: 2000 Default: 2000
marker	No	String	Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit . Minimum: 0 Maximum: 36
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5
sort_dir	No	Array	Specifies the sorting order of returned results, which can be asc (ascending order) or desc (descending order). The default value is asc .
sort_key	No	String	Specifies the field for sorting. Default: id Minimum: 0 Maximum: 36
resource_id	No	Array	Specifies the resource ID used for querying switchover test records.

Request Parameters

Table 3-141 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-142 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
switchover_test_records	Array of SwitchoverTestRecord objects	Lists the switchover test records.
page_info	PageInfo object	Specifies the pagination query information.

Table 3-143 SwitchoverTestRecord

Parameter	Type	Description
id	String	Specifies the unique ID of the switchover test record.
tenant_id	String	Specifies the project ID. Minimum: 32 Maximum: 32
resource_id	String	Specifies the ID of the resource on which the switchover test is to be performed.

Parameter	Type	Description
resource_type	String	Specifies the type of the resource on which the switchover test is to be performed. Default: virtual_interface Minimum: 0 Maximum: 128 Enumeration values: • virtual_interface
operation	String	Specifies whether to perform a switchover test. Value options: shutdown and undo_shutdown Minimum: 0 Maximum: 128 Enumeration values: • shutdown • undo_shutdown
start_time	String	Specifies the start time of the switchover test.
end_time	String	Specifies the end time of the switchover test.
operate_status	String	Specifies the switchover test status. • STARTING: indicates the initial status. • INPROGRESS: The configuration is being delivered. • COMPLETE: The configuration is delivered. • ERROR: The configuration fails to be delivered. Enumeration values: • STARTING • INPROGRESS • COMPLETE • ERROR

Table 3-144 PageInfo

Parameter	Type	Description
previous_marker	String	Specifies the marker of the previous page. The value is the resource UUID. Minimum: 0 Maximum: 36

Parameter	Type	Description
current_count	Integer	Specifies the number of resources in the current list. Minimum: 0 Maximum: 2000
next_marker	String	Specifies the marker of the next page. The value is the resource UUID. If this parameter is left empty, the resource is on the last page. Minimum: 0 Maximum: 36

Example Requests

Querying the switchover test record list

GET https://{dc_endpoint}/v3/de58f033eb664102ba85e4a5db473ca5/dcaas/switchover-test

Example Responses

Status code: 200

OK

```
{
  "request_id" : "bb154519fb167f99cdb01b7b9995ad14",
  "switchover_test_records" : [ {
    "id" : "862d61f1-d9ea-4093-ba0e-2b8d415e3ab3",
    "tenant_id" : "de58f033eb664102ba85e4a5db473ca5",
    "resource_type" : "virtual_interface",
    "resource_id" : "d0b3329c-0063-470c-b1dc-657656b2e540",
    "operation" : "shutdown",
    "start_time" : "2023-10-10T10:41:23.000Z",
    "end_time" : "2023-10-10T10:41:23.000Z",
    "operate_status" : "COMPLETE"
  } ]
}
```

Status Code

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.4 Tag Management

3.4.1 Adding a Resource Tag

Function

- You can add up to 10 tags to a resource.
- The API is idempotent.
- If a tag to be added has the same key as an existing tag, the tag will be added and overwrite the existing one.

Debugging

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

URI

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

Table 3-145 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
resource_id	Yes	String	Specifies the resource ID.
resource_type	Yes	String	• Specifies the Direct Connect resource type. The value can be dc-directconnect, dc-vgw, or dc-vif. • dc-directconnect: Direct Connect connection • dc-vgw: virtual gateway • dc-vif: virtual interface Enumeration values: • dc-directconnect • dc-vgw • dc-vif

Request Parameters

Table 3-146 Request body parameters

Parameter	Mandatory	Type	Description
tag	Yes	Tag object	Specifies the tag.

Table 3-147 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	No	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Response Parameters

None

Example Requests

Adding a resource tag

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

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

Example Responses

None

Status Code

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

3.4.2 Querying Tags by Project

Function

- This API is used to query all resource tags of a resource in a specified project.
- TMS uses this API to list tags created by a tenant to ease tag creation and resource filtering.

Debugging

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

URI

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

Table 3-148 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
resource_type	Yes	String	• Specifies the Direct Connect resource type. The value can be dc-directconnect, dc-vgw, or dc-vif. • dc-directconnect: Direct Connect connection • dc-vgw: virtual gateway • dc-vif: virtual interface Enumeration values: • dc-directconnect • dc-vgw • dc-vif

Request Parameters

None

Response Parameters

Status code: 200

Table 3-149 Response body parameters

Parameter	Type	Description
tags	Array of Tag objects	Specifies the tag list.
request_id	String	Specifies the request ID.

Table 3-150 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Example Requests

```
GET https://{dc_endpoint}/v3/ed28c294165741faecccab26913122a1/dc-directconnect/tags
```

Example Responses

Status code: 200

OK

```
{  
  "tags" : [ {
```

```
"key" : "department",  
"value" : "finance"  
}]  
}
```

Status Code

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.4.3 Querying Tags of a Resource

Function

This API is used to query the tags of a resource.

Debugging

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

URI

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

Table 3-151 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
resource_type	Yes	String	- Specifies the Direct Connect resource type. The value can be dc-directconnect, dc-vgw, or dc-vif. dc-directconnect: Direct Connect connection dc-vgw: virtual gateway dc-vif: virtual interface Enumeration values: dc-directconnect dc-vgw dc-vif
resource_id	Yes	String	Specifies the resource ID.

Request Parameters

None

Response Parameters

Status code: 200

Table 3-152 Response body parameters

Parameter	Type	Description
tags	Array of Tag objects	Specifies the tag list.
sys_tags	Array of Tag objects	Specifies the list of queried tags. If no tag is matched, an empty array is returned.
request_id	String	Specifies the request ID.

Table 3-153 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Example Requests

Querying tags of a resource

`https://{endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/dc-vgw/resource-instances/action`

Example Responses

Status code: 200

OK

```
{
  "request_id" : "80ef5f21-b81a-4546-b23d-84272507d330",
  "tags" : [ {
    "key" : "key2",
    "value" : "value2"
  }, {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key3",
    "value" : "value3"
  } ]
}
```

Status Code

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.4.4 Querying Resources by Tag

Function

This API is used to query resources by tag.

Debugging

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

URI

POST /v3/{project_id}/{resource_type}/resource-instances/action

Table 3-154 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Parameter	Mandatory	Type	Description
resource_type	Yes	String	- Specifies the Direct Connect resource type. The value can be dc-directconnect, dc-vgw, or dc-vif. dc-directconnect: Direct Connect connection dc-vgw: virtual gateway dc-vif: virtual interface Enumeration values: dc-directconnect dc-vgw dc-vif

Request Parameters

Table 3-155 Request body parameters

Parameter	Mandatory	Type	Description
offset	No	String	Specifies the index position. The query starts from the next image indexed by this parameter. This parameter is not required when you query data on the first page. The value in the response returned for querying data on the previous page will be included in this parameter for querying data on subsequent pages. This parameter is not available when action is set to count . If action is set to filter , the value must be a number, and the default value is 0 . The value cannot be a negative number.

Parameter	Mandatory	Type	Description
limit	No	String	Number of records. This parameter is not available when action is set to count . The default value is 1000 when action is set to filter . The maximum value is 1000 , and the minimum value is 1 . The value cannot be a negative number.
action	Yes	String	The value can only be filter or count . The value filter indicates pagination query. The value count indicates that the total number of query results meeting the search criteria will be returned. Returning other fields is not allowed. Enumeration values: • filter • count
matches	No	Array of Match objects	Specifies the search criteria. The tag key is the parameter to match, for example, resource_name . The tag value indicates the value to be matched. This field is a fixed dictionary value. Determine whether fuzzy match is required based on different fields. For example, if key is resource_name , fuzzy search (case insensitive) is used by default. If value is an empty string, exact match is used. If key is resource_id , exact match is used. Only resource_name for key is supported. Other key values will be available later.

Parameter	Mandatory	Type	Description
not_tags	No	Array of Tags objects	Specifies the excluded tags. Each tag contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or set to an empty string. Each tag key must be unique, and each tag value of a tag must also be unique. Resources not identified by different keys are in AND relationship, and values in one tag are in OR relationship. If not_tags_any is not specified, all resources will be returned.
tags	No	Array of Tags objects	A maximum of 10 keys can be queried at a time, and each key can contain a maximum of 10 values. The structure body must be included. The tag key cannot be left blank or be an empty string. Each tag key must be unique, and each tag value of a tag must also be unique. Resources identified by different keys are in AND relationship, and values in one tag are in OR relationship. If no tag filtering criteria is specified, full data is returned.

Parameter	Mandatory	Type	Description
tags_any	No	Array of Tags objects	Specifies any included tags. Each tag contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or set to an empty string. Each tag key must be unique, and each tag value of a tag must also be unique. Resources identified by different keys are in OR relationship, and values in one tag are in OR relationship. If not_tags_any is not specified, all resources will be returned.
not_tags_any	No	Array of Tags objects	Specifies any excluded tags. Each tag contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or set to an empty string. Each tag key must be unique, and each tag value of a tag must also be unique. Resources not identified by different keys are in OR relationship, and values in one tag are in OR relationship. If not_tags_any is not specified, all resources will be returned.

Parameter	Mandatory	Type	Description
sys_tags	No	Array of Tags objects	Only users with the op_service permission can use this parameter to filter resources. Only one tag structure is contained when this API is called by Tag Management Service (TMS). The key is _sys_enterprise_project_id , and the value is the enterprise project ID list. Currently, each key can contain only one value. 0 indicates the default enterprise project. sys_tags and tenant tag filtering conditions (without_any_tag , tags , tags_any , not_tags , and not_tags_any) cannot be used at the same time.

Table 3-156 Match

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. The value can be dc-directconnect , dc-vgw , or dc-vif .
value	Yes	String	Specifies the tag value. It can contain a maximum of 255 Unicode characters.

Table 3-157 Tags

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. A key can contain a maximum of 127 Unicode characters. The tag key cannot be left blank.
values	Yes	Array of strings	Lists the tag values. It can contain a maximum of 255 Unicode characters.

Response Parameters

Status code: 200

Table 3-158 Response body parameters

Parameter	Type	Description
resources	Array of Resource objects	Specifies the resource list.
total_count	Integer	Specifies the total number of resources.
request_id	String	Specifies the request ID.

Table 3-159 Resource

Parameter	Type	Description
resource_detail	Object	Provides details about the resource. The value is a resource object, used for extension. resource_detail is left blank by default.
resource_id	String	Specifies the resource ID.
resource_name	String	Resource name. This parameter is an empty string by default if there is no resource name.
tags	Array of Tag objects	Specifies the list of queried tags. If no tag is matched, an empty array is returned.
sys_tags	Array of Tag objects	Specifies the list of queried tags. If no tag is matched, an empty array is returned.

Table 3-160 Tag

Parameter	Type	Description
key	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Parameter	Type	Description
value	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Example Requests

- Querying resources (**action** set to **filter**)

`https://{endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/dc-vgw/resource-instances/action`

```
{
  "offset": "10",
  "limit": "10",
  "action": "filter",
  "matches": [ {
    "key": "resource_name",
    "value": "resource1"
  } ],
  "not_tags": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ],
  "tags": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ],
  "tags_any": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ],
  "not_tags_any": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ]
}
```

- Querying the total number of resources (**action** set to **count**)

`https://{endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/dc-vgw/resource_instances/action`

```
{
  "action": "count",
  "not_tags": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ],
  "tags": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  }, {
    "key": "key2",
    "values": [ "value1", "value2" ]
  } ],
  "tags_any": [ {
    "key": "key1",
    "values": [ "value1", "value2" ]
  } ],
  "not_tags_any": [ {
    "key": "key1",

```

```
{
  "values": [ "value1", "value2" ]
},
"sys_tags": [ {
  "key": "_sys_enterprise_project_id",
  "values": [ "5aa119a8-d25b-45a7-8d1b-88e127885635" ]
} ],
"matches": [ {
  "key": "resource_name",
  "value": "resource1"
} ]
}
```

Example Responses

Status code: 200

OK

```
{
  "resources": [ ],
  "total_count": 0,
  "request_id": "9a4f4dfc4fb2fc101e65bba07d908535"
}
```

Status Code

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.4.5 Deleting a Resource Tag

Function

When a tag is deleted, the tag character set is not verified. Before calling this API, perform the encodeURI operation. The server must perform decodeURI on the API URI. The tag key cannot be left blank or be an empty string. If the key of the tag to be deleted is not found, 404 will be returned.

Debugging

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

URI

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

Table 3-161 URI parameters

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key.
project_id	Yes	String	Specifies the project ID.
resource_id	Yes	String	Specifies the resource ID.
resource_type	Yes	String	- Specifies the Direct Connect resource type. The value can be dc-directconnect, dc-vgw, or dc-vif. dc-directconnect: Direct Connect connection dc-vgw: virtual gateway dc-vif: virtual interface Enumeration values: dc-directconnect dc-vgw dc-vif

Request Parameters

None

Response Parameters

None

Example Requests

Deleting a resource tag

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

Example Responses

None

Status Code

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

3.4.6 Adding or Deleting Tags in Batches

Function

- This API is used to add or delete tags of a specific resource in batches.
- TMS may use this API to manage service resource tags.
- A resource can have a maximum of 10 tags.

Debugging

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

URI

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

Table 3-162 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
resource_id	Yes	String	Specifies the resource ID.
resource_type	Yes	String	• Specifies the Direct Connect resource type. The value can be dc-directconnect, dc-vgw, or dc-vif. • dc-directconnect: Direct Connect connection • dc-vgw: virtual gateway • dc-vif: virtual interface Enumeration values: • dc-directconnect • dc-vgw • dc-vif

Request Parameters

Table 3-163 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Specifies the action type. Value options: create and delete Enumeration values: • create • delete
tags	No	Array of Tag objects	Specifies the tag list.
sys_tags	No	Array of Tag objects	Specifies the tag list.

Table 3-164 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. The key: • Cannot be left blank. • Must be unique for each resource. • Can contain a maximum of 36 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).
value	No	String	Specifies the tag value. The value: • Can be left blank. • Can contain a maximum of 43 Unicode characters. • Can contain only digits, letters, hyphens (-), underscores (_), at signs (@), and periods (.).

Response Parameters

None

Example Requests

- Batch adding resource tags

POST https://{endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/dc-vgw/3320166e-b937-40cc-a35c-02cd3f2b3ee2/tags/action

```
{
  "action": "create",
  "tags": [ {
    "key": "key1",
    "value": "value1"
  }, {
    "key": "key2",
    "value": "value2"
  } ]
}
```

- Batch deleting resource tags

POST https://{endpoint}/v3/cfa563efb77d4b6d9960781d82530fd8/dc-vgw/3320166e-b937-40cc-a35c-02cd3f2b3ee2/tags/action

```
{
  "action": "delete",
  "tags": [ {
    "key": "key1"
  }, {
    "key": "key2",
    "value": "value3"
  } ]
}
```

Example Responses

None

Status Code

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

3.5 Quota Management

3.5.1 Querying Quotas

Function

This API is used to query resource quotas, for example, how many connections and virtual interfaces have been created.

Debugging

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

URI

GET /v3/{project_id}/dcaas/quotas

Table 3-165 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Table 3-166 Query parameters

Parameter	Mandatory	Type	Description
type	No	Array	Specifies resource quotas. - physicalConnect: connection quota and used quota - virtualInterface: virtual-interface quota and used quota

Request Parameters

None

Response Parameters

Status code: 201

Table 3-167 Response body parameters

Parameter	Type	Description
quotas	quotas object	Provides used quota details.

Table 3-168 quotas

Parameter	Type	Description
resources	Array of Info objects	Specifies the used resource quotas.

Table 3-169 Info

Parameter	Type	Description
type	String	Specifies the quota type.
quota	Long	Specifies the available quota. The value -1 indicates that there is no quota limit.
used	Long	Specifies the used quota.
unit	String	Specifies the measurement unit of resource usage.

Example Requests

Querying quotas

```
GET https://{dc_endpoint}/v3/08d5a9564a704afda6039ae2babbe3c/dcaas/quotas
```

Example Responses

Status code: 201

Quotas are queried.

```
{
  "quotas": {
    "resources": [ {
      "type": "direct_connect",
      "quota": 1,
      "used": 0,
      "unit": "count"
    } ]
  }
}
```

Status Code

Status Code	Description
201	Quotas are queried.

Error Codes

See [Error Codes](#).

3.6 LAGs

3.6.1 Creating a LAG

Function

This API is used to create a LAG. Before creating a LAG, you need to request connections.

Debugging

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

URI

POST /v3/{project_id}/dcaas/link-aggregation-groups

Table 3-170 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Request Parameters

Table 3-171 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-172 Request body parameters

Parameter	Mandatory	Type	Description
link_aggregation_group	No	CreateLinkAggregationGroup object	Specifies the LAG.

Table 3-173 CreateLinkAggregationGroup

Parameter	Mandatory	Type	Description
tenant_id	No	String	Specifies the project ID.
name	No	String	Specifies the LAG name. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the LAG. Minimum: 0 Maximum: 128
region_id	No	String	Specifies the ID of the region where the LAG is used.
work_mode	Yes	String	Indicates the negotiation mode of the LAG. If Manual is selected, LACP is not enabled on the on-premises gateway, and manual configuration is required so that the load can be evenly shared among all the connections. If Static is selected, LACP is enabled on your on-premises gateway and will automatically determine the connections to which the load will be shared by checking the health status of each port. Enumeration values: • Manual • Static
min_up_num	No	Integer	Specifies the lower threshold of active links in a LAG. When the number of active links is smaller than the lower threshold, the LAG status changes to Down . Minimum: 1 Maximum: 16
admin_state_up	No	Boolean	Specifies the administrative status of the LAG.
direct_connect_ids	Yes	Array of strings	Lists the IDs of connections added to the LAG.

Parameter	Mandatory	Type	Description
ies_id	No	String	Specifies the ID of the IES site that the LAG belongs to. This parameter is not specified for non-IES sites.
enterprise_project_id	No	String	Specifies the ID of the enterprise project that the LAG belongs to.
tags	No	Array of Tag objects	Specifies the tag list.

Table 3-174 Tag

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. The key can contain a maximum of 36 Unicode characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. Minimum: 0 Maximum: 36
value	No	String	Specifies the tag value. The value can contain a maximum of 43 Unicode characters. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed. Minimum: 0 Maximum: 43

Response Parameters

Status code: 201

Table 3-175 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
link_aggregation_group	LinkAggregationGroup object	Specifies the LAG.

Table 3-176 LinkAggregationGroup

Parameter	Type	Description
id	String	Specifies the LAG ID.
tenant_id	String	Specifies the project ID.
name	String	Specifies the LAG name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the LAG. Minimum: 0 Maximum: 128
work_mode	String	Specifies the negotiation mode of the LAG. Enumeration values: • Manual • Static
min_up_num	Integer	Specifies the lower threshold of active links in a LAG. When the number of active links is smaller than the lower threshold, the LAG status changes to Down . Minimum: 1 Maximum: 16
device_id	String	Specifies the ID of the device on which the LAG is used.
status	String	Specifies the LAG status.
admin_state_up	Boolean	Specifies the administrative status of the LAG.
enterprise_project_id	String	Specifies the ID of the enterprise project that the LAG belongs to.
apply_time	String	Specifies the time when the LAG was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
create_time	String	Specifies the time when the LAG was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
delete_time	String	Specifies the time when the LAG was deleted.
public_border_group	String	Specifies the public border group corresponding to the AZ where the LAG is used.

Example Requests

Creating a LAG with the lower threshold of active links set to **1** and the negotiation mode to **Static**

GET https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/link-aggregation-groups

```
{
  "link_aggregation_group": {
    "name": "Lag01-02",
    "description": "to idc1",
    "min_up_num": 1,
    "work_mode": "Static",
    "direct_connect_ids": [ "6ecd9cf3-ca64-46c7-863f-f2eb1b9e838a" ]
  }
}
```

Example Responses

Status code: 201

Created

```
{
  "request_id": "9a4f4dfc4fb2fc101e65bba07d908535",
  "link_aggregation_group": {
    "id": "a7c5ce8a-62a8-433e-94af-d1894effce59",
    "name": "Lag01-02",
    "description": "to idc1",
    "tenant_id": "ed28c294165741faaeccab26913122a1",
    "min_up_num": 1,
    "enterprise_project_id": 0,
    "work_mode": "Static",
    "device_id": "26.151.63.100",
    "status": "DOWN",
    "admin_state_up": null,
    "public_border_group": null,
    "apply_time": "2023-06-14T07:29:25.000Z",
    "create_time": "2023-06-14T07:29:25.000Z"
  }
}
```

Status Code

Status Code	Description
201	Created

Error Codes

See [Error Codes](#).

3.6.2 Querying the LAG List

Function

This API is used to query the LAG list.

Debugging

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

URI

GET /v3/{project_id}/dcaas/link-aggregation-groups

Table 3-177 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.

Table 3-178 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1–2000 Minimum: 1 Maximum: 2000 Default: 2000
marker	No	String	Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit . Minimum: 0 Maximum: 36
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5
sort_dir	No	Array	Specifies the sorting order of returned results, which can be asc (ascending order) or desc (descending order). The default value is asc .
sort_key	No	String	Specifies the field for sorting. Default: id Minimum: 0 Maximum: 36

Parameter	Mandatory	Type	Description
enterprise_project_id	No	Array	Filters resource instances by enterprise project ID. Array length: 1–10
id	No	Array	Specifies the resource ID by which instances are queried. Array length: 1–5

Request Parameters

Table 3-179 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-180 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
link_aggregation_groups	Array of LinkAggregationGroup objects	Specifies the LAG.
page_info	PageInfo object	Specifies the pagination query information.

Table 3-181 LinkAggregationGroup

Parameter	Type	Description
id	String	Specifies the LAG ID.
tenant_id	String	Specifies the project ID.
name	String	Specifies the LAG name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the LAG. Minimum: 0 Maximum: 128
work_mode	String	Specifies the negotiation mode of the LAG. Enumeration values: • Manual • Static
min_up_num	Integer	Specifies the lower threshold of active links in a LAG. When the number of active links is smaller than the lower threshold, the LAG status changes to Down . Minimum: 1 Maximum: 16
device_id	String	Specifies the ID of the device on which the LAG is used.
status	String	Specifies the LAG status.
admin_state_up	Boolean	Specifies the administrative status of the LAG.
enterprise_project_id	String	Specifies the ID of the enterprise project that the LAG belongs to.
apply_time	String	Specifies the time when the LAG was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
create_time	String	Specifies the time when the LAG was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
delete_time	String	Specifies the time when the LAG was deleted.
public_border_group	String	Specifies the public border group corresponding to the AZ where the LAG is used.

Table 3-182 PageInfo

Parameter	Type	Description
previous_marker	String	Specifies the marker of the previous page. The value is the resource UUID. Minimum: 0 Maximum: 36
current_count	Integer	Specifies the number of resources in the current list. Minimum: 0 Maximum: 2000
next_marker	String	Specifies the marker of the next page. The value is the resource UUID. If this parameter is left empty, the resource is on the last page. Minimum: 0 Maximum: 36

Example Requests

Querying the LAG list

```
GET https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/link-aggregation-groups
```

Example Responses

Status code: 200

OK

```
{
  "request_id" : "9a4f4dfc4fb2fc101e65bba07d908535",
  "link_aggregation_groups" : [ {
    "id" : "a7c5ce8a-62a8-433e-94af-d1894effce59",
    "name" : "Lag01-02",
    "description" : "to idc1",
    "tenant_id" : "ed28c294165741faecccab26913122a1",
    "min_up_num" : 1,
    "enterprise_project_id" : 0,
    "work_mode" : "Static",
    "device_id" : "26.151.63.100",
    "status" : "DOWN",
    "admin_state_up" : null,
    "public_border_group" : null,
    "apply_time" : "2023-06-14T07:29:25.000Z",
    "create_time" : "2023-06-14T07:29:25.000Z"
  } ]
}
```

Status Code

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.6.3 Querying Details About a LAG

Function

This API is used to query the details about a LAG.

Debugging

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

URI

GET /v3/{project_id}/dcaas/link-aggregation-groups/{dc_lag_id}

Table 3-183 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
dc_lag_id	Yes	String	Specifies the LAG ID.

Table 3-184 Query parameters

Parameter	Mandatory	Type	Description
fields	No	Array	Specifies the list of fields to be displayed. Array length: 1–5

Request Parameters

Table 3-185 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-186 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
link_aggregation_group	LinkAggregationGroup object	Specifies the LAG.

Table 3-187 LinkAggregationGroup

Parameter	Type	Description
id	String	Specifies the LAG ID.
tenant_id	String	Specifies the project ID.
name	String	Specifies the LAG name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the LAG. Minimum: 0 Maximum: 128

Parameter	Type	Description
work_mode	String	Specifies the negotiation mode of the LAG. Enumeration values: • Manual • Static
min_up_num	Integer	Specifies the lower threshold of active links in a LAG. When the number of active links is smaller than the lower threshold, the LAG status changes to Down . Minimum: 1 Maximum: 16
device_id	String	Specifies the ID of the device on which the LAG is used.
status	String	Specifies the LAG status.
admin_state_up	Boolean	Specifies the administrative status of the LAG.
enterprise_project_id	String	Specifies the ID of the enterprise project that the LAG belongs to.
apply_time	String	Specifies the time when the LAG was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
create_time	String	Specifies the time when the LAG was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
delete_time	String	Specifies the time when the LAG was deleted.
public_border_group	String	Specifies the public border group corresponding to the AZ where the LAG is used.

Example Requests

Querying details about a LAG

```
GET https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/link-aggregation-groups/a7c5ce8a-62a8-433e-94af-d1894effce59
```

Example Responses

Status code: 200

OK

```
{
  "request_id": "9a4f4dfc4fb2fc101e65bba07d908535",
  "link_aggregation_group": {
```

```
{
  "id" : "a7c5ce8a-62a8-433e-94af-d1894effce59",
  "name" : "Lag01-02",
  "description" : "to idc1",
  "tenant_id" : "ed28c294165741faecccab26913122a1",
  "min_up_num" : 1,
  "enterprise_project_id" : 0,
  "work_mode" : "Static",
  "device_id" : "26.151.63.100",
  "status" : "DOWN",
  "admin_state_up" : null,
  "public_border_group" : null,
  "apply_time" : "2023-06-14T07:29:25.000Z",
  "create_time" : "2023-06-14T07:29:25.000Z"
}
```

Status Code

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.6.4 Updating a LAG

Function

This API is used to update a LAG, including the name and description.

Debugging

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

URI

PUT /v3/{project_id}/dcaas/link-aggregation-groups/{dc_lag_id}

Table 3-188 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
dc_lag_id	Yes	String	Specifies the LAG ID.

Request Parameters

Table 3-189 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-190 Request body parameters

Parameter	Mandatory	Type	Description
link_aggregation_group	No	UpdateLinkAggregationGroup object	Specifies the LAG.

Table 3-191 UpdateLinkAggregationGroup

Parameter	Mandatory	Type	Description
name	No	String	Specifies the LAG name. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the LAG. Minimum: 0 Maximum: 128
min_up_num	No	Integer	Specifies the lower threshold of active links in a LAG. When the number of active links is smaller than the lower threshold, the LAG status changes to Down . Minimum: 1 Maximum: 16

Parameter	Mandatory	Type	Description
associate_dc	No	Array of strings	Lists the IDs of connections to be added to the LAG.
disassociate_dc	No	Array of strings	Lists the IDs of connections to be deleted from the LAG.

Response Parameters

Status code: 200

Table 3-192 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID.
link_aggregation_group	LinkAggregationGroup object	Specifies the LAG.

Table 3-193 LinkAggregationGroup

Parameter	Type	Description
id	String	Specifies the LAG ID.
tenant_id	String	Specifies the project ID.
name	String	Specifies the LAG name. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the LAG. Minimum: 0 Maximum: 128
work_mode	String	Specifies the negotiation mode of the LAG. Enumeration values: • Manual • Static

Parameter	Type	Description
min_up_num	Integer	Specifies the lower threshold of active links in a LAG. When the number of active links is smaller than the lower threshold, the LAG status changes to Down . Minimum: 1 Maximum: 16
device_id	String	Specifies the ID of the device on which the LAG is used.
status	String	Specifies the LAG status.
admin_state_up	Boolean	Specifies the administrative status of the LAG.
enterprise_project_id	String	Specifies the ID of the enterprise project that the LAG belongs to.
apply_time	String	Specifies the time when the LAG was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
create_time	String	Specifies the time when the LAG was created. The UTC time format is <i>yyyy-MM-ddTHH:mm:ss.SSSZ</i> .
delete_time	String	Specifies the time when the LAG was deleted.
public_border_group	String	Specifies the public border group corresponding to the AZ where the LAG is used.

Example Requests

Updating the name and description of a LAG

```
PUT https://{dc_endpoint}/v3/6f9e9263116a4b68818cf1edce16bc4f/dcaas/link-aggregation-groups/a7c5ce8a-62a8-433e-94af-d1894effce59
```

```
{
  "link_aggregation_group" : {
    "name" : "Lag01-02",
    "description" : "to idc1"
  }
}
```

Example Responses

Status code: 200

OK

```
{
  "request_id" : "9a4f4dfc4fb2fc101e65bba07d908535",
  "link_aggregation_group" : {
```

```
{
  "id" : "a7c5ce8a-62a8-433e-94af-d1894effce59",
  "name" : "Lag02-02",
  "description" : "to bj1",
  "tenant_id" : "ed28c294165741faecccab26913122a1",
  "min_up_num" : 1,
  "enterprise_project_id" : 0,
  "work_mode" : "Static",
  "device_id" : "26.151.63.100",
  "status" : "DOWN",
  "admin_state_up" : null,
  "public_border_group" : null,
  "apply_time" : "2023-06-14T07:29:25.000Z",
  "create_time" : "2023-06-14T07:29:25.000Z"
}
```

Status Code

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.6.5 Deleting a LAG

Function

This API is used to delete a LAG.

Debugging

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

URI

DELETE /v3/{project_id}/dcaas/link-aggregation-groups/{dc_lag_id}

Table 3-194 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID.
dc_lag_id	Yes	String	Specifies the LAG ID.

Request Parameters

Table 3-195 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

None

Example Requests

Deleting a LAG

```
DELETE https://{dc_endpoint}/v3/6fbe9263116a4b68818cf1edce16bc4f/dcaas/link-aggregation-groups/a7c5ce8a-62a8-433e-94af-d1894effce59
```

Example Responses

None

Status Code

Status Code	Description
204	No Content

Error Codes

See [Error Codes](#).

3.7 Global DC Gateways

3.7.1 Querying the Global DC Gateway List

Function

This API is used to query the global DC gateway list. Pagination query is recommended. The **marker** and **limit** parameters are used for pagination query. The two parameters take effect only when they are used together.

Calling Method

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

URI

GET /v3/{project_id}/dcaas/global-dc-gateways

Table 3-196 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum: 0 Maximum: 36

Table 3-197 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1 to 2000 Minimum: 1 Maximum: 2000 Default: 2000
fields	No	Array of strings	Specifies the list of fields to be displayed. Array Length: 1 - 5

Parameter	Mandatory	Type	Description
marker	No	String	Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit . Minimum: 0 Maximum: 36
sort_key	No	String	Specifies the sorting field. Default: id Minimum: 0 Maximum: 36
sort_dir	No	Array of strings	Specifies the sorting order of returned results. There are two options: asc (default) and desc .
id	No	Array of strings	Specifies the resource ID for querying instances. Array Length: 1 - 5
name	No	Array of strings	Specifies the resource name for querying instances. You can specify multiple names. Array Length: 1 - 5
enterprise_project_id	No	Array of strings	Specifies the enterprise project ID for querying instances. Array Length: 1 - 10
site_network_id	No	Array of strings	Specifies the site network ID.
cloud_connection_id	No	Array of strings	Specifies the cloud connection ID.
status	No	Array of strings	Specifies the status by which instances are queried. Array Length: 1 - 5
global_center_network_id	No	Array of strings	Specifies the central network ID.

Request Parameters

Table 3-198 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-199 Response body parameters

Parameter	Type	Description
global_dc_gateways	Array of GlobalDcGatewayEntry objects	Lists the global DC gateways. Array Length: 0 - 2000
page_info	PageInfo object	Specifies the pagination query information.
request_id	String	Specifies the request ID. Minimum: 0 Maximum: 36

Table 3-200 GlobalDcGatewayEntry

Parameter	Type	Description
id	String	Specifies the global DC gateway ID. Minimum: 0 Maximum: 36
tenant_id	String	Specifies the project ID. Minimum: 0 Maximum: 255

Parameter	Type	Description
name	String	Specifies the name of the global DC gateway. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the global DC gateway. Minimum: 0 Maximum: 128
reason	String	Specifies the cause of the failure to create the global DC gateway. Minimum: 0 Maximum: 255
enterprise_project_id	String	Specifies the ID of the enterprise project that the global DC gateway belongs to. Minimum: 0 Maximum: 36
global_center_network_id	String	Specifies the ID of the central network that the global DC gateway is added to. Minimum: 0 Maximum: 36
bgp_asn	Long	Specifies the BGP ASN of the global DC gateway. Minimum: 0 Maximum: 65535
region_id	String	Specifies the region of the global DC gateway. Minimum: 0 Maximum: 36
location_name	String	Specifies the location where the underlying device of the global DC gateway is deployed. Minimum: 0 Maximum: 36
locales	LocalesBody object	Specifies the locale.

Parameter	Type	Description
current_peer_link_count	Integer	Specifies the number of peer links allowed on a global DC gateway, indicating the number of enterprise routers that the global DC gateway can be attached to.
available_peer_link_count	Integer	Specifies the number of peer links that can be created for a global DC gateway.
admin_state_up	Boolean	Specifies the administrative status of the global DC gateway. • true: The global DC gateway is available. • false: The global DC gateway is frozen.
status	String	Specifies the status of the global DC gateway.- DOWN : The global DC gateway is faulty.- PENDING_UPDATE : The global DC gateway is being updated.- ACTIVE : The global DC gateway is available.- ERROR : An error occurred.
created_time	String	Specifies the time when the global DC gateway was created.
updated_time	String	Specifies the time when the global DC gateway was updated.
address_family	String	Specifies the IP address family of the global DC gateway. • ipv4: Only IPv4 is supported. • dual: Both IPv4 and IPv6 are supported.

Table 3-201 LocalesBody

Parameter	Type	Description
en_us	String	Specifies the region name in English. Minimum: 0 Maximum: 255
zh_cn	String	Specifies the region name in Chinese. Minimum: 0 Maximum: 255

Table 3-202 PageInfo

Parameter	Type	Description
previous_marker	String	Specifies the marker of the previous page. The value is the resource UUID. Minimum: 0 Maximum: 36
current_count	Integer	Specifies the number of resources in the current list. Minimum: 0 Maximum: 2000
next_marker	String	Specifies the marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page. Minimum: 0 Maximum: 36

Example Requests

Querying the global DC gateway list

GET https://{dc_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways

Example Responses

Status code: 200

OK

- Global DC gateway list that has been queried

```
{
  "request_id" : "f7fdbf6618bc3b3e8750340cb37d1761",
  "global_dc_gateways" : [ {
    "enterprise_project_id" : "0",
    "name" : "zss-ipv6-test",
    "id" : "0790b22c-42db-4051-b974-b80c5cd61a7b",
    "tenant_id" : "b197c48159d44a66b32c538c3f8da89a",
    "description" : "",
    "tags" : [ ],
    "status" : "ACTIVE",
    "reason" : null,
    "admin_state_up" : true,
    "created_time" : "2024-06-06T01:33:21.000Z",
    "updated_time" : "2024-09-12T08:32:49.831Z",
    "bgp_asn" : 64511,
    "global_center_network_id" : null,
    "current_peer_link_count" : 0,
    "available_peer_link_count" : 3,
    "location_name" : "Beijing4",
    "locales" : {
      "en_us" : "xxx",
      "zh_cn" : "xxx"
    },
    "region_id" : "xxxxxx",
```

```
"address_family" : "ipv4"  
} ]  
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.7.2 Creating a Global DC Gateway

Function

This API is used to create a global DC gateway that can be attached to an enterprise router.

Calling Method

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

URI

POST /v3/{project_id}/dcaas/global-dc-gateways

Table 3-203 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum: 0 Maximum: 36

Request Parameters

Table 3-204 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-205 Request body parameters

Parameter	Mandatory	Type	Description
global_dc_gateway	Yes	CreateGlobalDcGateway object	Specifies the global DC gateway to be created.

Table 3-206 CreateGlobalDcGateway

Parameter	Mandatory	Type	Description
tenant_id	No	String	Specifies the tenant ID. Minimum: 0 Maximum: 255
name	Yes	String	Specifies the name of the global DC gateway. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the global DC gateway. Minimum: 0 Maximum: 255

Parameter	Mandatory	Type	Description
bgp_asn	No	Long	Specifies the ASN assigned to the global DC gateway. Minimum: 1 Maximum: 4294967295
enterprise_project_id	No	String	Specifies the ID of the enterprise project that the global DC gateway belongs to. Default: 0 Minimum: 0 Maximum: 36
address_family	No	String	Specifies the IP address family of the global DC gateway. • ipv4: Only IPv4 is supported. • dual: Both IPv4 and IPv6 are supported.

Response Parameters

Status code: 201

Table 3-207 Response body parameters

Parameter	Type	Description
global_dc_gateway	CreateGlobalDcGatewayEntry object	Specifies the global DC gateway.
request_id	String	Specifies the request ID. Minimum: 0 Maximum: 36

Table 3-208 CreateGlobalDcGatewayEntry

Parameter	Type	Description
id	String	Specifies the global DC gateway ID. Minimum: 0 Maximum: 36

Parameter	Type	Description
tenant_id	String	Specifies the project ID. Minimum: 0 Maximum: 255
name	String	Specifies the name of the global DC gateway. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the global DC gateway. Minimum: 0 Maximum: 128
enterprise_project_id	String	Specifies the ID of the enterprise project that the global DC gateway belongs to. Minimum: 0 Maximum: 36
global_center_network_id	String	Specifies the ID of the central network that the global DC gateway is added to. Minimum: 0 Maximum: 36
bgp_asn	Long	Specifies the BGP ASN of the global DC gateway. Minimum: 0 Maximum: 65535
region_id	String	Specifies the region of the global DC gateway. Minimum: 0 Maximum: 36
location_name	String	Specifies the location of the global DC gateway. Minimum: 0 Maximum: 36
current_peer_link_count	Integer	Specifies the number of peer links allowed on a global DC gateway, indicating the number of enterprise routers that the global DC gateway can be attached to.

Parameter	Type	Description
available_peer_link_count	Integer	Specifies the number of peer links that can be created for a global DC gateway.
admin_state_up	Boolean	Specifies the administrative status of the global DC gateway. • true: The global DC gateway is available. • false: The global DC gateway is frozen.
status	String	Specifies the status of the global DC gateway.- DOWN : The global DC gateway is faulty.- PENDING_UPDATE : The global DC gateway is being updated.- ACTIVE : The global DC gateway is available.- ERROR : An error occurred.
created_time	String	Specifies the time when the global DC gateway was created.
address_family	String	Specifies the IP address family of the global DC gateway. • ipv4: Only IPv4 is supported. • dual: Both IPv4 and IPv6 are supported.

Example Requests

Creating a global DC gateway

```
POST https://{dc_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways
{
  "global_dc_gateway" : {
    "bgp_asn" : "64512",
    "description" : "",
    "enterprise_project_id" : "0",
    "name" : "dgw-2c18",
    "tags" : [ {
      "key" : "key1",
      "value" : "value1"
    } ],
    "address_family" : "ipv4"
  }
}
```

Example Responses

Status code: 201

Created

- Global DC gateway that has been created

```
{
  "request_id" : "2e97ccd07037d0f48abc620979b65976",
  "global_dc_gateway" : {
    "enterprise_project_id" : "0",
    "name" : "dgw-2c18",
    "id" : "71f6ac9b-2745-4fb8-96c8-9d97d969c4b5",
    "tenant_id" : "b197c48159d44a66b32c538c3f8da89a",
    "description" : "",
    "status" : "DOWN",
    "tags" : [ {
      "key" : "key1",
      "value" : "value1"
    } ],
    "admin_state_up" : true,
    "created_time" : "2024-12-11T23:33:19.000Z",
    "bgp_asn" : 64512,
    "global_center_network_id" : null,
    "current_peer_link_count" : null,
    "available_peer_link_count" : 3,
    "location_name" : null,
    "region_id" : null,
    "address_family" : "ipv4"
  }
}
```

Status Codes

Status Code	Description
201	Created

Error Codes

See [Error Codes](#).

3.7.3 Querying Details About a Global DC Gateway

Function

This API is used to query details about a global DC gateway.

Calling Method

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

URI

GET /v3/{project_id}/dcaas/global-dc-gateways/{global_dc_gateway_id}

Table 3-209 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum: 0 Maximum: 36
global_dc_gateway_id	Yes	String	Specifies the global DC gateway ID.

Table 3-210 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1 to 2000 Minimum: 1 Maximum: 2000 Default: 2000
fields	No	Array of strings	Specifies the list of fields to be displayed. Array Length: 1 - 5
ext_fields	No	Array of strings	show response ext-fields Array Length: 0 - 5
enterprise_project_id	No	Array of strings	Specifies the enterprise project ID for querying instances. Array Length: 1 - 10

Request Parameters

Table 3-211 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-212 Response body parameters

Parameter	Type	Description
global_dc_gateway	GlobalDcGatewayEntry object	Specifies the global DC gateway.
request_id	String	Specifies the request ID. Minimum: 0 Maximum: 36

Table 3-213 GlobalDcGatewayEntry

Parameter	Type	Description
id	String	Specifies the global DC gateway ID. Minimum: 0 Maximum: 36
tenant_id	String	Specifies the project ID. Minimum: 0 Maximum: 255

Parameter	Type	Description
name	String	Specifies the name of the global DC gateway. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the global DC gateway. Minimum: 0 Maximum: 128
reason	String	Specifies the cause of the failure to create the global DC gateway. Minimum: 0 Maximum: 255
enterprise_project_id	String	Specifies the ID of the enterprise project that the global DC gateway belongs to. Minimum: 0 Maximum: 36
global_center_network_id	String	Specifies the ID of the central network that the global DC gateway is added to. Minimum: 0 Maximum: 36
bgp_asn	Long	Specifies the BGP ASN of the global DC gateway. Minimum: 0 Maximum: 65535
region_id	String	Specifies the region of the global DC gateway. Minimum: 0 Maximum: 36
location_name	String	Specifies the location where the underlying device of the global DC gateway is deployed. Minimum: 0 Maximum: 36
locales	LocalesBody object	Specifies the locale.

Parameter	Type	Description
current_peer_link_count	Integer	Specifies the number of peer links allowed on a global DC gateway, indicating the number of enterprise routers that the global DC gateway can be attached to.
available_peer_link_count	Integer	Specifies the number of peer links that can be created for a global DC gateway.
admin_state_up	Boolean	Specifies the administrative status of the global DC gateway. • true: The global DC gateway is available. • false: The global DC gateway is frozen.
status	String	Specifies the status of the global DC gateway.- DOWN : The global DC gateway is faulty.- PENDING_UPDATE : The global DC gateway is being updated.- ACTIVE : The global DC gateway is available.- ERROR : An error occurred.
created_time	String	Specifies the time when the global DC gateway was created.
updated_time	String	Specifies the time when the global DC gateway was updated.
address_family	String	Specifies the IP address family of the global DC gateway. • ipv4: Only IPv4 is supported. • dual: Both IPv4 and IPv6 are supported.

Table 3-214 LocalesBody

Parameter	Type	Description
en_us	String	Specifies the region name in English. Minimum: 0 Maximum: 255
zh_cn	String	Specifies the region name in Chinese. Minimum: 0 Maximum: 255

Example Requests

Querying details about a global DC gateway

```
GET https://{dc_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways/  
71f6ac9b-2745-4fb8-96c8-9d97d969c4b5
```

Example Responses

Status code: 200

OK

- Global DC gateway details that have been queried

```
{  
  "global_dc_gateway": {  
    "enterprise_project_id": "0",  
    "name": "dgv-2c18",  
    "id": "71f6ac9b-2745-4fb8-96c8-9d97d969c4b5",  
    "tenant_id": "b197c48159d44a66b32c538c3f8da89a",  
    "description": "",  
    "tags": [ ],  
    "status": "DOWN",  
    "reason": null,  
    "admin_state_up": true,  
    "created_time": "2024-12-12T07:33:19.000Z",  
    "updated_time": "2024-12-12T07:33:19.000Z",  
    "bgp_asn": 64512,  
    "global_center_network_id": null,  
    "current_peer_link_count": 0,  
    "available_peer_link_count": 3,  
    "location_name": null,  
    "locales": null,  
    "region_id": null,  
    "address_family": "ipv4"  
  }  
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.7.4 Updating a Global DC Gateway

Function

This API is used to update a global DC gateway, for example, the name and description of a global DC gateway.

Calling Method

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

URI

PUT /v3/{project_id}/dcaas/global-dc-gateways/{global_dc_gateway_id}

Table 3-215 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum: 0 Maximum: 36
global_dc_gateway_id	Yes	String	Specifies the global DC gateway ID.

Request Parameters

Table 3-216 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Table 3-217 Request body parameters

Parameter	Mandatory	Type	Description
global_dc_gateway	Yes	UpdateGlobalDcGateway object	Specifies the global DC gateway to be updated.

Table 3-218 UpdateGlobalDcGateway

Parameter	Mandatory	Type	Description
name	No	String	Specifies the name of the global DC gateway. Minimum: 0 Maximum: 64
description	No	String	Provides supplementary information about the global DC gateway. Minimum: 0 Maximum: 255
address_family	No	String	Specifies the IP address family of the global DC gateway. Minimum: 0 Maximum: 36

Response Parameters

Status code: 200

Table 3-219 Response body parameters

Parameter	Type	Description
global_dc_gateway	GlobalDcGatewayEntry object	Specifies the global DC gateway.
request_id	String	Specifies the request ID. Minimum: 0 Maximum: 36

Table 3-220 GlobalDcGatewayEntry

Parameter	Type	Description
id	String	Specifies the global DC gateway ID. Minimum: 0 Maximum: 36
tenant_id	String	Specifies the project ID. Minimum: 0 Maximum: 255

Parameter	Type	Description
name	String	Specifies the name of the global DC gateway. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the global DC gateway. Minimum: 0 Maximum: 128
reason	String	Specifies the cause of the failure to create the global DC gateway. Minimum: 0 Maximum: 255
enterprise_project_id	String	Specifies the ID of the enterprise project that the global DC gateway belongs to. Minimum: 0 Maximum: 36
global_center_network_id	String	Specifies the ID of the central network that the global DC gateway is added to. Minimum: 0 Maximum: 36
bgp_asn	Long	Specifies the BGP ASN of the global DC gateway. Minimum: 0 Maximum: 65535
region_id	String	Specifies the region of the global DC gateway. Minimum: 0 Maximum: 36
location_name	String	Specifies the location where the underlying device of the global DC gateway is deployed. Minimum: 0 Maximum: 36
locales	LocalesBody object	Specifies the locale.

Parameter	Type	Description
current_peer_link_count	Integer	Specifies the number of peer links allowed on a global DC gateway, indicating the number of enterprise routers that the global DC gateway can be attached to.
available_peer_link_count	Integer	Specifies the number of peer links that can be created for a global DC gateway.
admin_state_up	Boolean	Specifies the administrative status of the global DC gateway. • true: The global DC gateway is available. • false: The global DC gateway is frozen.
status	String	Specifies the status of the global DC gateway.- DOWN : The global DC gateway is faulty.- PENDING_UPDATE : The global DC gateway is being updated.- ACTIVE : The global DC gateway is available.- ERROR : An error occurred.
created_time	String	Specifies the time when the global DC gateway was created.
updated_time	String	Specifies the time when the global DC gateway was updated.
address_family	String	Specifies the IP address family of the global DC gateway. • ipv4: Only IPv4 is supported. • dual: Both IPv4 and IPv6 are supported.

Table 3-221 LocalesBody

Parameter	Type	Description
en_us	String	Specifies the region name in English. Minimum: 0 Maximum: 255
zh_cn	String	Specifies the region name in Chinese. Minimum: 0 Maximum: 255

Example Requests

Updating a global DC gateway

```
PUT https://{dc_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways/  
71f6ac9b-2745-4fb8-96c8-9d97d969c4b5  
  
{  
  "global_dc_gateway" : {  
    "name" : "dgw-2c19"  
  }  
}
```

Example Responses

Status code: 200

OK

- Global DC gateway that has been updated

```
{  
  "request_id" : "fa70b8d1f22787684bba9407779b8bf2",  
  "global_dc_gateway" : {  
    "enterprise_project_id" : "0",  
    "name" : "dgw-2c19",  
    "id" : "71f6ac9b-2745-4fb8-96c8-9d97d969c4b5",  
    "tenant_id" : "b197c48159d44a66b32c538c3f8da89a",  
    "description" : "",  
    "status" : "DOWN",  
    "admin_state_up" : true,  
    "created_time" : "2024-12-12T07:33:19.000Z",  
    "updated_time" : "2024-12-12T07:36:04.257Z",  
    "bgp_asn" : 64512,  
    "global_center_network_id" : null,  
    "current_peer_link_count" : 0,  
    "available_peer_link_count" : 3,  
    "location_name" : null,  
    "region_id" : null  
  }  
}
```

Status Codes

Status Code	Description
200	OK

Error Codes

See [Error Codes](#).

3.7.5 Deleting a Global DC Gateway

Function

This API is used to delete a global DC gateway.

Calling Method

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

URI

DELETE /v3/{project_id}/dcaas/global-dc-gateways/{global_dc_gateway_id}

Table 3-222 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum: 0 Maximum: 36
global_dc_gateway_id	Yes	String	Specifies the global DC gateway ID.

Request Parameters

Table 3-223 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

None

Example Requests

Deleting a global DC gateway

```
DELETE https://{dc_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways/71f6ac9b-2745-4fb8-96c8-9d97d969c4b5
```

Example Responses

None

Status Codes

Status Code	Description
204	NO CONTENT

Error Codes

See [Error Codes](#).

3.8 Peer Links

3.8.1 Querying the Peer Link List

Function

This API is used to query the peer link list. The **marker** and **limit** parameters are used for pagination query. The two parameters take effect only when they are used together.

Calling Method

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

URI

GET /v3/{project_id}/dcaas/global-dc-gateways/{global_dc_gateway_id}/peer-links

Table 3-224 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum: 0 Maximum: 36
global_dc_gateway_id	Yes	String	Specifies the global DC gateway ID.

Table 3-225 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Specifies the number of records returned on each page. Value range: 1 to 2000 Minimum: 1 Maximum: 2000 Default: 2000
offset	No	Integer	Specifies the pagination offset. Minimum: 1 Maximum: 1000
marker	No	String	Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried. This parameter must be used together with limit . Minimum: 0 Maximum: 36
page_reverse	No	Boolean	Specifies the pagination parameter.
fields	No	Array of strings	Specifies the list of fields to be displayed. Array Length: 1 - 5
ext_fields	No	Array of strings	show response ext-fields Array Length: 0 - 5
sort_key	No	String	Specifies the sorting field. Default: id Minimum: 0 Maximum: 36
sort_dir	No	Array of strings	Specifies the sorting order of returned results. There are two options: asc (default) and desc .
id	No	Array of strings	Specifies the resource ID for querying instances. Array Length: 1 - 5

Parameter	Mandatory	Type	Description
name	No	Array of strings	Specifies the resource name for querying instances. You can specify multiple names. Array Length: 1 - 5

Request Parameters

Table 3-226 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of X-Subject-Token in the response header. Minimum: 0 Maximum: 10240

Response Parameters

Status code: 200

Table 3-227 Response body parameters

Parameter	Type	Description
peer_links	Array of PeerLinkEntry objects	Lists the peer links. Array Length: 0 - 2000
page_info	PageInfo object	Specifies the pagination query information.
request_id	String	Specifies the request ID. Minimum: 0 Maximum: 36

Table 3-228 PeerLinkEntry

Parameter	Type	Description
id	String	Specifies the peer link ID. Minimum: 0 Maximum: 36
tenant_id	String	Specifies the tenant ID. Minimum: 0 Maximum: 255
name	String	Specifies the name of the peer link. Minimum: 0 Maximum: 64
description	String	Provides supplementary information about the peer link. Minimum: 0 Maximum: 255
reason	String	Specifies the cause of the failure to add the peer link. Minimum: 0 Maximum: 255
global_dc_gateway_id	String	Specifies the ID of the global DC gateway that the peer link is added for. Minimum: 0 Maximum: 64
bandwidth_info	BandWidthInfo object	Provides bandwidth information.
peer_site	PeerSite object	Describes the peer site.
status	String	Specifies the status of the peer link.- PENDING_CREATE : The peer link is being created.- PENDING_UPDATE : The peer link is being updated.- ACTIVE : The peer link is available.- ERROR : An error occurred.
created_time	String	Specifies the time when the peer link was added.
updated_time	String	Specifies the time when the peer link was updated.

Parameter	Type	Description
create_owner	String	Specifies the cloud service where the peer link is used. • cc: Cloud Connect • dc: Direct Connect
instance_id	String	Specifies the ID of the instance associated with the peer link.

Table 3-229 BandWidthInfo

Parameter	Type	Description
bandwidth_size	Integer	Specifies the bandwidth. Minimum: 0 Maximum: 268435455
gcb_id	String	Specifies the global connection bandwidth ID. Minimum: 0 Maximum: 36

Table 3-230 PeerSite

Parameter	Type	Description
gateway_id	String	Specifies the peer gateway ID. Minimum: 0 Maximum: 36
link_id	String	Specifies the connection ID of the peer gateway at the peer site. For example, if the peer gateway is an enterprise router, this parameter is set to the attachment ID. If the peer gateway is a global DC gateway, this parameter is set to the peer link ID. Minimum: 0 Maximum: 64
region_id	String	Specifies the region ID of the peer site. Minimum: 0 Maximum: 36

Parameter	Type	Description
site_code	String	Specifies the site information of the global DC gateway. Minimum: 0 Maximum: 64
project_id	String	Specifies the project ID of the peer site. Minimum: 0 Maximum: 36
type	String	Specifies the type of the peer gateway. • er: enterprise router • GDGW: global DC gateway Minimum: 0 Maximum: 64

Table 3-231 PageInfo

Parameter	Type	Description
previous_marker	String	Specifies the marker of the previous page. The value is the resource UUID. Minimum: 0 Maximum: 36
current_count	Integer	Specifies the number of resources in the current list. Minimum: 0 Maximum: 2000
next_marker	String	Specifies the marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page. Minimum: 0 Maximum: 36

Example Requests

Querying the peer link list

```
GET https://{dc_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways/  
1c6edc27-5fdb-4dae-ac77-72d47c70ed83/peer-links
```

Example Responses

Status code: 200

OK

- Peer link list that has been queried
- ```
{
 "request_id": "d6f35fa3bde2e26efad6253bd32b4837",
 "peer_links": [{
 "name": "dgw-zss-02_1_peer_link",
 "id": "5ad07c58-71a8-41b7-a5c0-5b6148d518b2",
 "tenant_id": "b197c48159d44a66b32c538c3f8da89a",
 "description": "",
 "reason": null,
 "status": "ACTIVE",
 "created_time": "2024-06-21T01:48:57.000Z",
 "updated_time": "2024-11-17T08:44:18.504Z",
 "global_dc_gateway_id": "1c6edc27-5fdb-4dae-ac77-72d47c70ed83",
 "bandwidth_info": {
 "bandwidth_size": 0,
 "gcb_id": null
 },
 "peer_site": {
 "gateway_id": "f8551651-0f42-48ff-9088-fff87e6d74e2",
 "link_id": "c794a0f3-e89d-4e64-a614-9b6be4394b07",
 "region_id": "xxxxxx",
 "site_code": "xxxxxx",
 "project_id": "6bea6e6ed6b34892bd2e195cad496348",
 "type": "ER"
 },
 "create_owner": "cc",
 "instance_id": "f174fa3e-d63a-45bb-a5a4-b56782552494"
 }]
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 3.8.2 Adding a Peer Link

### Function

This API is used to add a peer link between a global DC gateway and an enterprise router or another global DC gateway.

### Calling Method

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

## URI

POST /v3/{project\_id}/dcaas/global-dc-gateways/{global\_dc\_gateway\_id}/peer-links

**Table 3-232** Path Parameters

| Parameter            | Mandatory | Type   | Description                                                          |
|----------------------|-----------|--------|----------------------------------------------------------------------|
| project_id           | Yes       | String | Specifies the project ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |
| global_dc_gateway_id | Yes       | String | Specifies the global DC gateway ID.                                  |

## Request Parameters

**Table 3-233** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                               |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of <b>X-Subject-Token</b> in the response header.<br>Minimum: <b>0</b><br>Maximum: <b>10240</b> |

**Table 3-234** Request body parameters

| Parameter | Mandatory | Type                             | Description                           |
|-----------|-----------|----------------------------------|---------------------------------------|
| peer_link | Yes       | <a href="#">peer_link</a> object | Request body for creating a peer link |

**Table 3-235** peer\_link

| Parameter   | Mandatory | Type                             | Description                                                                                         |
|-------------|-----------|----------------------------------|-----------------------------------------------------------------------------------------------------|
| name        | Yes       | String                           | Specifies the name of the peer link.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>                     |
| description | No        | String                           | Provides supplementary information about the peer link.<br>Minimum: <b>0</b><br>Maximum: <b>128</b> |
| peer_site   | Yes       | <a href="#">peer_site</a> object | Specifies the site of the peer link.                                                                |

**Table 3-236** peer\_site

| Parameter  | Mandatory | Type   | Description                                                                                                                             |
|------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|
| gateway_id | Yes       | String | Specifies the ID of enterprise router that the global DC gateway is attached to.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>             |
| project_id | Yes       | String | Specifies the project ID of the enterprise router that the global DC gateway is attached to.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |
| region_id  | Yes       | String | Specifies the region ID of the enterprise router that the global DC gateway is attached to.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>  |

## Response Parameters

**Status code: 201**

**Table 3-237** Response body parameters

| Parameter  | Type                                          | Description               |
|------------|-----------------------------------------------|---------------------------|
| request_id | String                                        | Specifies the request ID. |
| peer_link  | <a href="#">ExternalCreatePeerLink</a> object | Specifies the peer link.  |

**Table 3-238** ExternalCreatePeerLink

| Parameter            | Type                                         | Description                                                                                                                                                                         |
|----------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id                   | String                                       | Specifies the peer link ID.                                                                                                                                                         |
| instance_id          | String                                       | Specifies the peer link ID.                                                                                                                                                         |
| tenant_id            | String                                       | Specifies the tenant ID.                                                                                                                                                            |
| name                 | String                                       | Specifies the peer link name.                                                                                                                                                       |
| description          | String                                       | Provides supplementary information about the peer link.                                                                                                                             |
| global_dc_gateway_id | String                                       | Specifies the global DC gateway ID.                                                                                                                                                 |
| bandwidth_info       | <a href="#">BandwidthInfoExternal</a> object | Provides bandwidth information.                                                                                                                                                     |
| peer_site            | <a href="#">PeerSiteExternal</a> object      | Specifies the site to be connected.                                                                                                                                                 |
| status               | String                                       | Specifies the status of the peer link. <ul style="list-style-type: none"><li>• <b>ACTIVE</b>: The peer link is normal.</li><li>• <b>ERROR</b>: The peer link is abnormal.</li></ul> |
| reason               | String                                       | Specifies the cause of the failure to add the peer link.                                                                                                                            |
| created_time         | String                                       | Specifies the time when the peer link was added.                                                                                                                                    |
| updated_time         | String                                       | Specifies the time when the peer link was updated.                                                                                                                                  |

**Table 3-239** BandwidthInfoExternal

| Parameter      | Type | Description              |
|----------------|------|--------------------------|
| bandwidth_size | Long | Specifies the bandwidth. |

| Parameter | Type   | Description                                   |
|-----------|--------|-----------------------------------------------|
| gcb_id    | String | Specifies the global connection bandwidth ID. |

**Table 3-240** PeerSiteExternal

| Parameter  | Type   | Description                         |
|------------|--------|-------------------------------------|
| gateway_id | String | Specifies the global DC gateway ID. |
| link_id    | String | Specifies the peer link ID.         |
| region_id  | String | Specifies the site ID.              |
| project_id | String | Specifies the project ID.           |
| site_code  | String | Specifies the site code.            |
| type       | String | Specifies the peer link type.       |

## Example Requests

### Adding a peer link

POST https://{dc\_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways/1c6edc27-5fdb-4dae-ac77-72d47c70ed83/peer-links

```
{
 "peer_link": {
 "name": "dgw-peer-link-94dc",
 "peer_site": {
 "gateway_id": "70e29908-12f8-4d5d-9adf-4da5465b91b2",
 "project_id": "b197c48159d44a66b32c538c3f8da89a",
 "region_id": "xxxxxx"
 }
 }
}
```

## Example Responses

### Status code: 201

#### Created

- Peer link that has been created

```
{
 "peer_link": {
 "name": "dgw-peer-link-94dc",
 "id": "d6ea4641-9575-4675-ac4f-906884e37f28",
 "tenant_id": "b197c48159d44a66b32c538c3f8da89a",
 "description": null,
 "status": "PENDING_CREATE",
 "reason": null,
 "created_time": "2024-12-12T00:16:40.000Z",
 "global_dc_gateway_id": "335cb548-0ea0-4aff-80f5-502a2dab5325",
 "bandwidth_info": {
 "bandwidth_size": 0,

```

```
 "gcb_id" : null
 },
 "peer_site" : {
 "gateway_id" : "70e29908-12f8-4d5d-9adf-4da5465b91b2",
 "link_id" : null,
 "region_id" : "xxxxxx",
 "site_code" : "xxxxxx",
 "project_id" : "b197c48159d44a66b32c538c3f8da89a",
 "type" : "ER"
 },
 "instance_id" : null
},
"request_id" : "196ab00b7bbf03be9187606853d80cee"
}
```

### Status Codes

| Status Code | Description |
|-------------|-------------|
| 201         | Created     |

### Error Codes

See [Error Codes](#).

## 3.8.3 Querying Details About a Peer Link

### Function

This API is used to query details about a peer link of a global DC gateway.

### Calling Method

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

### URI

GET /v3/{project\_id}/dcaas/global-dc-gateways/{global\_dc\_gateway\_id}/peer-links/{peer\_link\_id}

**Table 3-241** Path Parameters

| Parameter            | Mandatory | Type   | Description                                                          |
|----------------------|-----------|--------|----------------------------------------------------------------------|
| project_id           | Yes       | String | Specifies the project ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |
| global_dc_gateway_id | Yes       | String | Specifies the global DC gateway ID.                                  |
| peer_link_id         | Yes       | String | Specifies the peer link of the global DC gateway.                    |

**Table 3-242** Query Parameters

| Parameter  | Mandatory | Type             | Description                                                                 |
|------------|-----------|------------------|-----------------------------------------------------------------------------|
| fields     | No        | Array of strings | Specifies the list of fields to be displayed.<br>Array Length: <b>1 - 5</b> |
| ext_fields | No        | Array of strings | show response ext-fields<br>Array Length: <b>0 - 5</b>                      |

## Request Parameters

**Table 3-243** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                               |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of <b>X-Subject-Token</b> in the response header.<br>Minimum: <b>0</b><br>Maximum: <b>10240</b> |

## Response Parameters

**Status code: 200**

**Table 3-244** Response body parameters

| Parameter  | Type                        | Description                                                          |
|------------|-----------------------------|----------------------------------------------------------------------|
| peer_link  | <b>PeerLinkEntry</b> object | Specifies the details about the peer link.                           |
| request_id | String                      | Specifies the request ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |

**Table 3-245** PeerLinkEntry

| Parameter            | Type                        | Description                                                                                                                                                                                                                              |
|----------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id                   | String                      | Specifies the peer link ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                                                                                                                                                                   |
| tenant_id            | String                      | Specifies the tenant ID.<br>Minimum: <b>0</b><br>Maximum: <b>255</b>                                                                                                                                                                     |
| name                 | String                      | Specifies the name of the peer link.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>                                                                                                                                                          |
| description          | String                      | Provides supplementary information about the peer link.<br>Minimum: <b>0</b><br>Maximum: <b>255</b>                                                                                                                                      |
| reason               | String                      | Specifies the cause of the failure to add the peer link.<br>Minimum: <b>0</b><br>Maximum: <b>255</b>                                                                                                                                     |
| global_dc_gateway_id | String                      | Specifies the ID of the global DC gateway that the peer link is added for.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>                                                                                                                    |
| bandwidth_info       | <b>BandWidthInfo</b> object | Provides bandwidth information.                                                                                                                                                                                                          |
| peer_site            | <b>PeerSite</b> object      | Describes the peer site.                                                                                                                                                                                                                 |
| status               | String                      | Specifies the status of the peer link.- <b>PENDING_CREATE</b> : The peer link is being created.- <b>PENDING_UPDATE</b> : The peer link is being updated.- <b>ACTIVE</b> : The peer link is available.- <b>ERROR</b> : An error occurred. |
| created_time         | String                      | Specifies the time when the peer link was added.                                                                                                                                                                                         |
| updated_time         | String                      | Specifies the time when the peer link was updated.                                                                                                                                                                                       |

| Parameter    | Type   | Description                                                                                                                                                             |
|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| create_owner | String | Specifies the cloud service where the peer link is used. <ul style="list-style-type: none"><li>• <b>cc</b>: Cloud Connect</li><li>• <b>dc</b>: Direct Connect</li></ul> |
| instance_id  | String | Specifies the ID of the instance associated with the peer link.                                                                                                         |

**Table 3-246** BandWidthInfo

| Parameter      | Type    | Description                                                                              |
|----------------|---------|------------------------------------------------------------------------------------------|
| bandwidth_size | Integer | Specifies the bandwidth.<br>Minimum: <b>0</b><br>Maximum: <b>268435455</b>               |
| gcb_id         | String  | Specifies the global connection bandwidth ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |

**Table 3-247** PeerSite

| Parameter  | Type   | Description                                                                                                                                                                                                                                                                                               |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| gateway_id | String | Specifies the peer gateway ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                                                                                                                                                                                                                                 |
| link_id    | String | Specifies the connection ID of the peer gateway at the peer site. For example, if the peer gateway is an enterprise router, this parameter is set to the attachment ID. If the peer gateway is a global DC gateway, this parameter is set to the peer link ID.<br>Minimum: <b>0</b><br>Maximum: <b>64</b> |
| region_id  | String | Specifies the region ID of the peer site.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                                                                                                                                                                                                                      |

| Parameter  | Type   | Description                                                                                                                                                                                             |
|------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| site_code  | String | Specifies the site information of the global DC gateway.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>                                                                                                     |
| project_id | String | Specifies the project ID of the peer site.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                                                                                                                   |
| type       | String | Specifies the type of the peer gateway. <ul style="list-style-type: none"><li>• <b>er</b>: enterprise router</li><li>• <b>GDGW</b>: global DC gateway</li></ul> Minimum: <b>0</b><br>Maximum: <b>64</b> |

## Example Requests

Querying details about a peer link

```
GET https://{dc_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways/
335cb548-0ea0-4aff-80f5-502a2dab5325/peer-links/d6ea4641-9575-4675-ac4f-906884e37f28
```

## Example Responses

**Status code: 200**

OK

- Peer link details that have been queried

```
{
 "peer_link": {
 "name": "dgw-peer-link-94dc",
 "id": "d6ea4641-9575-4675-ac4f-906884e37f28",
 "tenant_id": "b197c48159d44a66b32c538c3f8da89a",
 "description": null,
 "status": "ACTIVE",
 "reason": null,
 "created_time": "2024-12-12T08:16:40.000Z",
 "updated_time": "2024-12-12T08:17:10.796Z",
 "global_dc_gateway_id": "335cb548-0ea0-4aff-80f5-502a2dab5325",
 "bandwidth_info": {
 "bandwidth_size": 0,
 "gcb_id": null
 },
 },
 "peer_site": {
 "gateway_id": "70e29908-12f8-4d5d-9adf-4da5465b91b2",
 "link_id": null,
 "region_id": "xxxxxx",
 "site_code": "xxxxxx",
 "project_id": "b197c48159d44a66b32c538c3f8da89a",
 "type": "ER"
 },
 "create_owner": "dc",
 "instance_id": null
}
```

```
}
"request_id" : "d4b6270f377d1cfc90edd12fc737b1f"
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 3.8.4 Updating a Peer Link

### Function

This API is used to update a peer link between a global DC gateway and an enterprise router.

### Calling Method

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

### URI

PUT /v3/{project\_id}/dcaas/global-dc-gateways/{global\_dc\_gateway\_id}/peer-links/{peer\_link\_id}

**Table 3-248** Path Parameters

| Parameter            | Mandatory | Type   | Description                                                          |
|----------------------|-----------|--------|----------------------------------------------------------------------|
| project_id           | Yes       | String | Specifies the project ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |
| global_dc_gateway_id | Yes       | String | Specifies the global DC gateway ID.                                  |
| peer_link_id         | Yes       | String | Specifies the peer link of the global DC gateway.                    |

## Request Parameters

**Table 3-249** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                               |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of <b>X-Subject-Token</b> in the response header.<br>Minimum: <b>0</b><br>Maximum: <b>10240</b> |

**Table 3-250** Request body parameters

| Parameter | Mandatory | Type                             | Description                           |
|-----------|-----------|----------------------------------|---------------------------------------|
| peer_link | No        | <a href="#">peer_link</a> object | Request body for updating a peer link |

**Table 3-251** peer\_link

| Parameter   | Mandatory | Type   | Description                                                                                         |
|-------------|-----------|--------|-----------------------------------------------------------------------------------------------------|
| name        | No        | String | Specifies the name of the peer link.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>                     |
| description | No        | String | Provides supplementary information about the peer link.<br>Minimum: <b>0</b><br>Maximum: <b>128</b> |

## Response Parameters

Status code: 200

**Table 3-252** Response body parameters

| Parameter  | Type                                          | Description                           |
|------------|-----------------------------------------------|---------------------------------------|
| request_id | String                                        | Specifies the request ID.             |
| peer_link  | <a href="#">ExternalUpdatePeerLink</a> object | Request body for updating a peer link |

**Table 3-253** ExternalUpdatePeerLink

| Parameter            | Type                                         | Description                                                                  |
|----------------------|----------------------------------------------|------------------------------------------------------------------------------|
| id                   | String                                       | Specifies the peer link ID.                                                  |
| tenant_id            | String                                       | Specifies the tenant ID of the peer link.                                    |
| name                 | String                                       | Specifies the name of the peer link.                                         |
| description          | String                                       | Provides supplementary information about the peer link.                      |
| global_dc_gateway_id | String                                       | Specifies the ID of the global DC gateway that the peer link is created for. |
| bandwidth_info       | <a href="#">BandwidthInfoExternal</a> object | Provides bandwidth information.                                              |
| peer_site            | <a href="#">PeerSiteExternal</a> object      | Specifies the site to be connected.                                          |
| status               | String                                       | Specifies the status of the peer link.                                       |
| reason               | String                                       | Specifies the cause of the failure to add the peer link.                     |
| created_time         | String                                       | Specifies the time when the peer link was added.                             |
| updated_time         | String                                       | Specifies the time when the peer link was updated.                           |

**Table 3-254** BandwidthInfoExternal

| Parameter      | Type   | Description                                   |
|----------------|--------|-----------------------------------------------|
| bandwidth_size | Long   | Specifies the bandwidth.                      |
| gcb_id         | String | Specifies the global connection bandwidth ID. |

**Table 3-255** PeerSiteExternal

| Parameter  | Type   | Description                         |
|------------|--------|-------------------------------------|
| gateway_id | String | Specifies the global DC gateway ID. |
| link_id    | String | Specifies the peer link ID.         |
| region_id  | String | Specifies the site ID.              |
| project_id | String | Specifies the project ID.           |
| site_code  | String | Specifies the site code.            |
| type       | String | Specifies the peer link type.       |

## Example Requests

Updating a peer link

```
PUT https://{dc_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways/
335cb548-0ea0-4aff-80f5-502a2dab5325/peer-links/d6ea4641-9575-4675-ac4f-906884e37f28
```

```
{
 "peer_link": {
 "name": "dgw-peer-link-test",
 "description": "test"
 }
}
```

## Example Responses

**Status code: 200**

OK

- Peer link that has been updated

```
{
 "peer_link": {
 "name": "dgw-peer-link-test",
 "id": "d6ea4641-9575-4675-ac4f-906884e37f28",
 "tenant_id": "b197c48159d44a66b32c538c3f8da89a",
 "description": "test",
 "status": "ACTIVE",
 "reason": null,
 "created_time": "2024-12-12T08:16:40.000Z",
 "updated_time": "2024-12-12T08:22:21.910Z",
 "global_dc_gateway_id": "335cb548-0ea0-4aff-80f5-502a2dab5325",
 "bandwidth_info": {
 "bandwidth_size": 0,
 "gcb_id": null
 },
 },
 "peer_site": {
 "gateway_id": "70e29908-12f8-4d5d-9adf-4da5465b91b2",
 "link_id": null,
 "region_id": "xxxxxx",
 "site_code": "xxxxxx",
 "project_id": "b197c48159d44a66b32c538c3f8da89a",
 "type": "ER"
 },
 "request_id": "e5406bdd85ca945d6a574e1a297abd1d"
}
```

### Status Codes

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

### Error Codes

See [Error Codes](#).

## 3.8.5 Deleting a Peer Link

### Function

This API is used to delete a peer link between a global DC gateway and an enterprise router.

### Calling Method

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

### URI

DELETE /v3/{project\_id}/dcaas/global-dc-gateways/{global\_dc\_gateway\_id}/peer-links/{peer\_link\_id}

**Table 3-256** Path Parameters

| Parameter            | Mandatory | Type   | Description                                                          |
|----------------------|-----------|--------|----------------------------------------------------------------------|
| project_id           | Yes       | String | Specifies the project ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |
| global_dc_gateway_id | Yes       | String | Specifies the global DC gateway ID.                                  |
| peer_link_id         | Yes       | String | Specifies the peer link of the global DC gateway.                    |

## Request Parameters

**Table 3-257** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                   |
|--------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of <b>X-Subject-Token</b> in the response header.<br><br>Minimum: <b>0</b><br>Maximum: <b>10240</b> |

## Response Parameters

None

## Example Requests

Deleting a peer link

```
DELETE https://{dc_endpoint}/v3/b197c48159d44a66b32c538c3f8da89a/dcaas/global-dc-gateways/
335cb548-0ea0-4aff-80f5-502a2dab5325/peer-links/d6ea4641-9575-4675-ac4f-906884e37f28
```

## Example Responses

None

## Status Codes

| Status Code | Description |
|-------------|-------------|
| 204         | NO CONTENT  |

## Error Codes

See [Error Codes](#).

## 3.9 Direct Connect Locations

## 3.9.1 Querying the Direct Connect Location List

### Function

This API is used to query all the Direct Connect locations in a region. The **marker** and **limit** parameters are used for pagination query. The two parameters take effect only when they are used together.

### Calling Method

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

### URI

GET /v3/{project\_id}/dcaas/direct-connect-locations

**Table 3-258** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                          |
|------------|-----------|--------|----------------------------------------------------------------------|
| project_id | Yes       | String | Specifies the project ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |

**Table 3-259** Query Parameters

| Parameter | Mandatory | Type    | Description                                                                                                                                                                                                                           |
|-----------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| limit     | No        | Integer | Specifies the number of records returned on each page.<br>Value range: 1 to 2000<br>Minimum: <b>1</b><br>Maximum: <b>2000</b><br>Default: <b>2000</b>                                                                                 |
| marker    | No        | String  | Specifies the ID of the last resource record on the previous page. If this parameter is left blank, the first page is queried.<br>This parameter must be used together with <b>limit</b> .<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |

| Parameter | Mandatory | Type             | Description                                                                                                       |
|-----------|-----------|------------------|-------------------------------------------------------------------------------------------------------------------|
| sort_key  | No        | String           | Specifies the sorting field.<br>Default: <b>id</b><br>Minimum: <b>0</b><br>Maximum: <b>36</b>                     |
| sort_dir  | No        | Array of strings | Specifies the sorting order of returned results. There are two options: <b>asc</b> (default) and <b>desc</b> .    |
| id        | No        | Array of strings | Specifies the resource ID for querying instances.<br>Array Length: <b>1 - 5</b>                                   |
| name      | No        | Array of strings | Specifies the resource name for querying instances. You can specify multiple names.<br>Array Length: <b>1 - 5</b> |
| status    | No        | Array of strings | Specifies the status by which instances are queried.<br>Array Length: <b>1 - 5</b>                                |

## Request Parameters

**Table 3-260** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                               |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of <b>X-Subject-Token</b> in the response header.<br>Minimum: <b>0</b><br>Maximum: <b>10240</b> |

## Response Parameters

Status code: 200

**Table 3-261** Response body parameters

| Parameter                | Type                                                        | Description                                                          |
|--------------------------|-------------------------------------------------------------|----------------------------------------------------------------------|
| direct_connect_locations | Array of <a href="#">DirectConnectLocationEntry</a> objects | Lists the Direct Connect locations.<br>Array Length: <b>0 - 2000</b> |
| page_info                | <a href="#">PageInfo</a> object                             | Specifies the pagination query information.                          |
| request_id               | String                                                      | Specifies the request ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |

**Table 3-262** DirectConnectLocationEntry

| Parameter     | Type                                                  | Description                                                                                                  |
|---------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| id            | String                                                | Specifies the ID of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                  |
| name          | String                                                | Specifies the name of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>                |
| region_id     | String                                                | Specifies the region that the Direct Connect location belongs to.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |
| site_code     | String                                                | Specifies the site code of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>           |
| address       | <a href="#">AddressBody</a> object                    | Provides the address of the Direct Connect location.                                                         |
| locales       | <a href="#">LocalesBody</a> object                    | Specifies the locale.                                                                                        |
| provider_list | Array of <a href="#">ProviderResponseBody</a> objects | Lists the supported carriers.                                                                                |

| Parameter             | Type             | Description                                                                                                                              |
|-----------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| public_border_group   | String           | Specifies the public border group that the Direct Connect location belongs to.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>                |
| latitude              | String           | Specifies the latitude of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                                        |
| longitude             | String           | Specifies the longitude of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                                       |
| description           | String           | Provides supplementary information about the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>255</b>                        |
| created_time          | String           | Specifies the time when the Direct Connect location was created.                                                                         |
| updated_time          | String           | Specifies the time when the Direct Connect location was updated.                                                                         |
| available_port_speeds | Array of strings | Specifies available port types at the Direct Connect location.<br>Minimum: <b>1</b><br>Maximum: <b>255</b><br>Array Length: <b>0 - 6</b> |

**Table 3-263** AddressBody

| Parameter | Type   | Description                                               |
|-----------|--------|-----------------------------------------------------------|
| en_us     | String | English name.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |
| zh_cn     | String | Chinese name.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |

**Table 3-264** LocalesBody

| Parameter | Type   | Description                                                                       |
|-----------|--------|-----------------------------------------------------------------------------------|
| en_us     | String | Specifies the region name in English.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |
| zh_cn     | String | Specifies the region name in Chinese.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |

**Table 3-265** ProviderResponseBody

| Parameter      | Type                                     | Description                                                                                      |
|----------------|------------------------------------------|--------------------------------------------------------------------------------------------------|
| id             | String                                   | Specifies the carrier ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                             |
| short_name     | String                                   | Specifies the carrier name abbreviation.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>              |
| type           | String                                   | Specifies the carrier type.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                           |
| provider_value | <a href="#">ProviderValueBody</a> object | Specifies the carrier name.                                                                      |
| description    | String                                   | Provides supplementary information about the carrier.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |

**Table 3-266** ProviderValueBody

| Parameter | Type   | Description                                                                        |
|-----------|--------|------------------------------------------------------------------------------------|
| en_us     | String | Specifies the carrier name in English.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |

| Parameter | Type   | Description                                                                        |
|-----------|--------|------------------------------------------------------------------------------------|
| zh_cn     | String | Specifies the carrier name in Chinese.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |

**Table 3-267** PageInfo

| Parameter       | Type    | Description                                                                                                                                                                |
|-----------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| previous_marker | String  | Specifies the marker of the previous page. The value is the resource UUID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                                                      |
| current_count   | Integer | Specifies the number of resources in the current list.<br>Minimum: <b>0</b><br>Maximum: <b>2000</b>                                                                        |
| next_marker     | String  | Specifies the marker of the next page. The value is the resource UUID. If the value is empty, the resource is on the last page.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |

## Example Requests

Querying the Direct Connect location list

```
GET https://{dc_endpoint}/v3/92ea72fe26294aa180a2712c28e43c21/dcaas/direct-connect-locations
```

## Example Responses

**Status code: 200**

OK

- Direct Connect location list that has been queried

```
{
 "request_id": "cb4aaa7fe6b5d4d769e84935aed477a2",
 "direct_connect_locations": [{
 "name": "Beijing4",
 "id": "00825bc2-59e9-4e00-a7f9-e8164971bd93",
 "region_id": "xxxxxx",
 "site_code": "xxxxxx",
 "address": {
 "en_us": "xxx",
 "zh_cn": "xxx"
 },
 "public_border_group": null,
```

```
"locales" : {
 "en_us" : "xxx",
 "zh_cn" : "xxx"
},
"provider_list" : [{
 "id" : "773dd278-1cae-4a8c-ad53-f2d8e8a9b9f9",
 "short_name" : "others",
 "type" : "LEVEL_TWO",
 "provider_value" : {
 "en_us" : "Other",
 "zh_cn" : "Other"
 }
}, {
 "id" : "b6fd0ad8-dac4-4e21-a987-bce2f28ee861",
 "short_name" : "telcom",
 "type" : "LEVEL_ONE",
 "provider_value" : {
 "en_us" : "China Telecom",
 "zh_cn" : "China Telecom"
 }
}, {
 "id" : "ea30d085-aa48-49b0-a519-8f3085e8137a",
 "short_name" : "mobile",
 "type" : "LEVEL_ONE",
 "provider_value" : {
 "en_us" : "China Mobile",
 "zh_cn" : "China Mobile"
 }
}, {
 "id" : "a237b909-e60d-4292-8afe-9600ddfef755",
 "short_name" : "unicom",
 "type" : "LEVEL_ONE",
 "provider_value" : {
 "en_us" : "China Unicom",
 "zh_cn" : "China Unicom"
 }
}
],
"latitude" : "26.6476",
"longitude" : "106.6302",
"description" : "test",
"created_time" : "2023-11-23T01:24:52.000Z",
"updated_time" : "2024-08-24T01:26:18.911Z",
"available_port_speeds" : ["100G", "1G", "10G", "40G"],
"location_type" : "pop",
"city" : "Beijing",
"support_region_type" : "None"
}],
"page_info" : {
 "previous_marker" : "00825bc2-59e9-4e00-a7f9-e8164971bd93",
 "current_count" : 1
}
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 3.9.2 Querying Details About a Direct Connect Location

### Function

This API is used to query details about a Direct Connect location.

### Calling Method

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

### URI

GET /v3/{project\_id}/dcaas/direct-connect-locations/{direct\_connect\_location\_id}

**Table 3-268** Path Parameters

| Parameter                  | Mandatory | Type   | Description                                                          |
|----------------------------|-----------|--------|----------------------------------------------------------------------|
| project_id                 | Yes       | String | Specifies the project ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |
| direct_connect_location_id | Yes       | String | Specifies the Direct Connect location ID.                            |

### Request Parameters

**Table 3-269** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                               |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of <b>X-Subject-Token</b> in the response header.<br>Minimum: <b>0</b><br>Maximum: <b>10240</b> |

### Response Parameters

**Status code: 200**

**Table 3-270** Response body parameters

| Parameter               | Type                                              | Description                                                          |
|-------------------------|---------------------------------------------------|----------------------------------------------------------------------|
| direct_connect_location | <a href="#">DirectConnectLocationEntry</a> object | Specifies the details about the Direct Connect location.             |
| request_id              | String                                            | Specifies the request ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |

**Table 3-271** DirectConnectLocationEntry

| Parameter           | Type                                                  | Description                                                                                                               |
|---------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| id                  | String                                                | Specifies the ID of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                               |
| name                | String                                                | Specifies the name of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>                             |
| region_id           | String                                                | Specifies the region that the Direct Connect location belongs to.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>              |
| site_code           | String                                                | Specifies the site code of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>64</b>                        |
| address             | <a href="#">AddressBody</a> object                    | Provides the address of the Direct Connect location.                                                                      |
| locales             | <a href="#">LocalesBody</a> object                    | Specifies the locale.                                                                                                     |
| provider_list       | Array of <a href="#">ProviderResponseBody</a> objects | Lists the supported carriers.                                                                                             |
| public_border_group | String                                                | Specifies the public border group that the Direct Connect location belongs to.<br>Minimum: <b>0</b><br>Maximum: <b>64</b> |

| Parameter             | Type             | Description                                                                                                                              |
|-----------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| latitude              | String           | Specifies the latitude of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                                        |
| longitude             | String           | Specifies the longitude of the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                                       |
| description           | String           | Provides supplementary information about the Direct Connect location.<br>Minimum: <b>0</b><br>Maximum: <b>255</b>                        |
| created_time          | String           | Specifies the time when the Direct Connect location was created.                                                                         |
| updated_time          | String           | Specifies the time when the Direct Connect location was updated.                                                                         |
| available_port_speeds | Array of strings | Specifies available port types at the Direct Connect location.<br>Minimum: <b>1</b><br>Maximum: <b>255</b><br>Array Length: <b>0 - 6</b> |

**Table 3-272** AddressBody

| Parameter | Type   | Description                                               |
|-----------|--------|-----------------------------------------------------------|
| en_us     | String | English name.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |
| zh_cn     | String | Chinese name.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |

**Table 3-273** LocalesBody

| Parameter | Type   | Description                                                                       |
|-----------|--------|-----------------------------------------------------------------------------------|
| en_us     | String | Specifies the region name in English.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |
| zh_cn     | String | Specifies the region name in Chinese.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |

**Table 3-274** ProviderResponseBody

| Parameter      | Type                                     | Description                                                                                      |
|----------------|------------------------------------------|--------------------------------------------------------------------------------------------------|
| id             | String                                   | Specifies the carrier ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                             |
| short_name     | String                                   | Specifies the carrier name abbreviation.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>              |
| type           | String                                   | Specifies the carrier type.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                           |
| provider_value | <a href="#">ProviderValueBody</a> object | Specifies the carrier name.                                                                      |
| description    | String                                   | Provides supplementary information about the carrier.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |

**Table 3-275** ProviderValueBody

| Parameter | Type   | Description                                                                        |
|-----------|--------|------------------------------------------------------------------------------------|
| en_us     | String | Specifies the carrier name in English.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |

| Parameter | Type   | Description                                                                        |
|-----------|--------|------------------------------------------------------------------------------------|
| zh_cn     | String | Specifies the carrier name in Chinese.<br>Minimum: <b>0</b><br>Maximum: <b>255</b> |

## Example Requests

Querying details about a Direct Connect location

```
GET https://{dc_endpoint}/v3/92ea72fe26294aa180a2712c28e43c21/dcaas/direct-connect-locations/00825bc2-59e9-4e00-a7f9-e8164971bd93
```

## Example Responses

**Status code: 200**

OK

- Direct Connect location details that have been queried

```
{
 "direct_connect_location": {
 "name": "Beijing4",
 "id": "00825bc2-59e9-4e00-a7f9-e8164971bd93",
 "region_id": "xxxxxx",
 "site_code": "xxxxxx",
 "address": {
 "en_us": "xxx",
 "zh_cn": "xxx"
 },
 "public_border_group": null,
 "locales": {
 "en_us": "xxx",
 "zh_cn": "xxx"
 },
 "provider_list": [{
 "id": "773dd278-1cae-4a8c-ad53-f2d8e8a9b9f9",
 "short_name": "others",
 "type": "LEVEL_TWO",
 "provider_value": {
 "en_us": "Other",
 "zh_cn": "Other"
 }
 }, {
 "id": "b6fd0ad8-dac4-4e21-a987-bce2f28ee861",
 "short_name": "telcom",
 "type": "LEVEL_ONE",
 "provider_value": {
 "en_us": "China Telecom",
 "zh_cn": "China Telecom"
 }
 }, {
 "id": "ea30d085-aa48-49b0-a519-8f3085e8137a",
 "short_name": "mobile",
 "type": "LEVEL_ONE",
 "provider_value": {
 "en_us": "China Mobile",
 "zh_cn": "China Mobile"
 }
 }, {
 "id": "a237b909-e60d-4292-8afe-9600dddef755",
 "short_name": "unicom",
```

```
{
 "type": "LEVEL_ONE",
 "provider_value": {
 "en_us": "China Unicom",
 "zh_cn": "China Unicom"
 },
 "latitude": "26.6476",
 "longitude": "106.6302",
 "description": "test",
 "created_time": "2023-11-23T01:24:52.000Z",
 "updated_time": "2024-08-24T01:26:18.911Z",
 "available_port_speeds": ["100G", "1G", "10G", "40G"],
 "location_type": "pop",
 "city": "Beijing",
 "support_region_type": "None"
},
"request_id": "81cb340e3c33c47c678c7b06a3502552"
}
```

### Status Codes

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

### Error Codes

See [Error Codes](#).

## 3.10 Global DC Gateway Route Tables

### 3.10.1 Querying Global DC Gateway Route Tables

#### Function

This API is used to query the route tables for a global DC gateway.

#### Calling Method

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

#### URI

GET /v3/{project\_id}/dcaas/gdgw/{gdgw\_id}/routetables

**Table 3-276** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                          |
|------------|-----------|--------|----------------------------------------------------------------------|
| project_id | Yes       | String | Specifies the project ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |
| gdgw_id    | Yes       | String | Specifies the global DC gateway ID.                                  |

**Table 3-277** Query Parameters

| Parameter      | Mandatory | Type             | Description                                                                 |
|----------------|-----------|------------------|-----------------------------------------------------------------------------|
| fields         | No        | Array of strings | Specifies the list of fields to be displayed.<br>Array Length: <b>1 - 5</b> |
| ext_fields     | No        | Array of strings | show response ext-fields<br>Array Length: <b>0 - 5</b>                      |
| nexthop        | No        | Array of strings | Specifies the next hop ID.                                                  |
| destination    | No        | Array of strings | Specifies the destination.                                                  |
| address_family | No        | Array of strings | Specifies the address family.                                               |

## Request Parameters

**Table 3-278** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                               |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of <b>X-Subject-Token</b> in the response header.<br>Minimum: <b>0</b><br>Maximum: <b>10240</b> |

## Response Parameters

Status code: 200

**Table 3-279** Response body parameters

| Parameter       | Type                                     | Description                                                                           |
|-----------------|------------------------------------------|---------------------------------------------------------------------------------------|
| request_id      | String                                   | Specifies the request ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                  |
| gdgw_routetable | Array of <b>CommonRoutetable</b> objects | Specifies the route table for the global DC gateway.<br>Array Length: <b>0 - 2000</b> |

**Table 3-280** CommonRoutetable

| Parameter   | Type   | Description                                                                                                                                                                          |
|-------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id          | String | Specifies the route ID.<br>Minimum: <b>36</b><br>Maximum: <b>36</b>                                                                                                                  |
| tenant_id   | String | Specifies the tenant ID.<br>Minimum: <b>64</b><br>Maximum: <b>64</b>                                                                                                                 |
| gateway_id  | String | Specifies the gateway ID.<br>Minimum: <b>36</b><br>Maximum: <b>36</b>                                                                                                                |
| destination | String | Specifies the subnet the route is destined for.<br>Minimum: <b>64</b><br>Maximum: <b>64</b>                                                                                          |
| nexthop     | String | Specifies the next hop ID.<br>Minimum: <b>36</b><br>Maximum: <b>36</b>                                                                                                               |
| obtain_mode | String | Specifies the route type. <ul style="list-style-type: none"><li>• <b>customized</b>: default route</li><li>• <b>specific</b>: custom route</li><li>• <b>bgp</b>: BGP route</li></ul> |

| Parameter      | Type   | Description                                                                                                                                                                                                                                    |
|----------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status         | String | Specifies the route status. <ul style="list-style-type: none"><li>• <b>ACTIVE</b>: The route has been delivered.</li><li>• <b>ERROR</b>: Failed to deliver the route.</li><li>• <b>PENDING_CREATE</b>: The route is to be delivered.</li></ul> |
| address_family | String | Specifies the address family. <ul style="list-style-type: none"><li>• <b>ipv4</b>: IPv4 addresses</li><li>• <b>ipv6</b>: IPv6 addresses</li></ul>                                                                                              |
| description    | String | Describes the route.<br>Minimum: <b>0</b><br>Maximum: <b>1024</b>                                                                                                                                                                              |
| type           | String | Specifies the next hop type. <ul style="list-style-type: none"><li>• <b>vif_peer</b>: virtual interface peer</li><li>• <b>gdgw</b>: global DC gateway</li></ul> Minimum: <b>0</b><br>Maximum: <b>255</b>                                       |

## Example Requests

Querying the route tables for a global DC gateway

```
GET https://{dc_endpoint}/v3/4bd6efdb0fb747b39aa2c0162c112226/dcaas/gdgw/0851a5e0-6623-42c2-bb02-b8956e313dd8/routetables
```

## Example Responses

Status code: 200

OK

- Response body for querying global DC gateway route tables

```
{
 "request_id": "409ed40b-7ccf-4514-8ca8-af2b994e4023",
 "gdgw_routetable": [{
 "id": "14d55a22-9d08-46af-bc2e-f965f9558234",
 "description": "IPv4 subnet route",
 "tenant_id": "00000000000000000000000000000000",
 "gateway_id": "5791e3c8-b43d-4751-bfeb-a643e40e6086",
 "destination": "x.x.0.0/16",
 "nexthop": "409ed40b-7ccf-4514-8ca8-af2b994e4023",
 "type": "vif_peer",
 "obtain_mode": "customized",
 "status": "ACTIVE",
 "address_family": "ipv4"
 }]
}
```

Status Codes

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

Error Codes

See [Error Codes](#).

3.10.2 Modifying Global DC Gateway Route Tables

Function

This API is used to modify the route tables for a global DC gateway.

Calling Method

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

URI

PUT /v3/{project\_id}/dcaas/gdgw/{gdgw\_id}/routetables

Table 3-281 Path Parameters

| Parameter  | Mandatory | Type   | Description                                                          |
|------------|-----------|--------|----------------------------------------------------------------------|
| project_id | Yes       | String | Specifies the project ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b> |
| gdgw_id    | Yes       | String | Specifies the global DC gateway ID.                                  |

## Request Parameters

**Table 3-282** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                               |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | Specifies the user token. To obtain the token, see section "Obtaining the User Token" in the <i>Identity and Access Management API Reference</i> . The token is the value of <b>X-Subject-Token</b> in the response header.<br>Minimum: <b>0</b><br>Maximum: <b>10240</b> |

**Table 3-283** Request body parameters

| Parameter       | Mandatory | Type                                         | Description                                                                  |
|-----------------|-----------|----------------------------------------------|------------------------------------------------------------------------------|
| dry_run         | No        | Boolean                                      | Specifies whether dry run is allowed.                                        |
| gdgw_routetable | No        | <a href="#">GdgwRouteTableRequest</a> object | Specifies the global DC gateway route table whose routes are to be modified. |

**Table 3-284** GdgwRouteTableRequest

| Parameter  | Mandatory | Type             | Description                                                         |
|------------|-----------|------------------|---------------------------------------------------------------------|
| add_routes | No        | Array of objects | Specifies the routes to be added.<br>Array Length: <b>0 - 100</b>   |
| del_routes | No        | Array of objects | Specifies the routes to be deleted.<br>Array Length: <b>0 - 100</b> |

| Parameter     | Mandatory | Type             | Description                                                                                                                                                                                                                    |
|---------------|-----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| update_routes | No        | Array of objects | Route to be updated<br>Only the additional information about the route is updated. The route update operation of the switch is not performed. Currently, the route description can be updated.<br>Array Length: <b>0 - 100</b> |

**Table 3-285** add\_routes

| Parameter   | Mandatory | Type   | Description                                                                                                                                                     |
|-------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type        | Yes       | String | Specifies the next hop type. <ul style="list-style-type: none"><li>• <b>vif_peer</b>: virtual interface peer</li><li>• <b>gdgw</b>: global DC gateway</li></ul> |
| destination | Yes       | String | Specifies the subnet the route is destined for.                                                                                                                 |
| nexthop     | Yes       | String | Specifies the next hop ID.                                                                                                                                      |
| description | No        | String | Provides supplementary information about the route.                                                                                                             |

**Table 3-286** del\_routes

| Parameter   | Mandatory | Type   | Description                                                                                                                                                     |
|-------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type        | Yes       | String | Specifies the next hop type. <ul style="list-style-type: none"><li>• <b>vif_peer</b>: virtual interface peer</li><li>• <b>gdgw</b>: global DC gateway</li></ul> |
| destination | Yes       | String | Specifies the subnet the route is destined for.                                                                                                                 |
| nexthop     | Yes       | String | Specifies the next hop ID.                                                                                                                                      |

**Table 3-287** update\_routes

| Parameter   | Mandatory | Type   | Description                                         |
|-------------|-----------|--------|-----------------------------------------------------|
| destination | Yes       | String | Specifies the subnet the route is destined for.     |
| nexthop     | Yes       | String | Specifies the next hop ID.                          |
| description | No        | String | Provides supplementary information about the route. |

## Response Parameters

Status code: 200

**Table 3-288** Response body parameters

| Parameter       | Type                                              | Description                                                                                     |
|-----------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------|
| request_id      | String                                            | Specifies the request ID.<br>Minimum: <b>0</b><br>Maximum: <b>36</b>                            |
| gdgw_routetable | Array of <a href="#">CommonRoutetable</a> objects | Specifies the ID of the route table for the global DC gateway.<br>Array Length: <b>0 - 2000</b> |

**Table 3-289** CommonRoutetable

| Parameter   | Type   | Description                                                                                 |
|-------------|--------|---------------------------------------------------------------------------------------------|
| id          | String | Specifies the route ID.<br>Minimum: <b>36</b><br>Maximum: <b>36</b>                         |
| tenant_id   | String | Specifies the tenant ID.<br>Minimum: <b>64</b><br>Maximum: <b>64</b>                        |
| gateway_id  | String | Specifies the gateway ID.<br>Minimum: <b>36</b><br>Maximum: <b>36</b>                       |
| destination | String | Specifies the subnet the route is destined for.<br>Minimum: <b>64</b><br>Maximum: <b>64</b> |

| Parameter      | Type   | Description                                                                                                                                                                                                                                    |
|----------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| nexthop        | String | Specifies the next hop ID.<br>Minimum: <b>36</b><br>Maximum: <b>36</b>                                                                                                                                                                         |
| obtain_mode    | String | Specifies the route type. <ul style="list-style-type: none"><li>• <b>customized</b>: default route</li><li>• <b>specific</b>: custom route</li><li>• <b>bgp</b>: BGP route</li></ul>                                                           |
| status         | String | Specifies the route status. <ul style="list-style-type: none"><li>• <b>ACTIVE</b>: The route has been delivered.</li><li>• <b>ERROR</b>: Failed to deliver the route.</li><li>• <b>PENDING_CREATE</b>: The route is to be delivered.</li></ul> |
| address_family | String | Specifies the address family. <ul style="list-style-type: none"><li>• <b>ipv4</b>: IPv4 addresses</li><li>• <b>ipv6</b>: IPv6 addresses</li></ul>                                                                                              |
| description    | String | Describes the route.<br>Minimum: <b>0</b><br>Maximum: <b>1024</b>                                                                                                                                                                              |
| type           | String | Specifies the next hop type. <ul style="list-style-type: none"><li>• <b>vif_peer</b>: virtual interface peer</li><li>• <b>gdgw</b>: global DC gateway</li></ul> Minimum: <b>0</b><br>Maximum: <b>255</b>                                       |

## Example Requests

Updating the route tables for a global DC gateway

PUT [https://{dc\\_endpoint}/v3/4bd6efdb0fb747b39aa2c0162c112226/dcaas/gdgw/0851a5e0-6623-42c2-bb02-b8956e313dd8/routetables](https://{dc_endpoint}/v3/4bd6efdb0fb747b39aa2c0162c112226/dcaas/gdgw/0851a5e0-6623-42c2-bb02-b8956e313dd8/routetables)

```
{
 "gdgw_routetable" : {
 "add_routes" : [{
 "destination" : "1.1.1.0/24",
 "nexthop" : "b9060822-06bf-4c48-995d-29a3fb04a3c3",
 "type" : "vif_peer",
 "description" : ""
 }]
 }
}
```

## Example Responses

### Status code: 200

OK

- Response body for updating the route tables for a global DC gateway

```
{
 "request_id": "d365091f89df06c8737bd81a72efc8b2",
 "gdgw_routetable": [{
 "id": "94912503-0a97-48ee-909b-6676129a565e",
 "description": "",
 "tenant_id": "4bd6efdb0fb747b39aa2c0162c112226",
 "gateway_id": "0851a5e0-6623-42c2-bb02-b8956e313dd8",
 "destination": "1.1.1.0/24",
 "nexthop": "b9060822-06bf-4c48-995d-29a3fb04a3c3",
 "type": "vif_peer",
 "obtain_mode": "specific",
 "status": "PENDING_CREATE",
 "address_family": "ipv4"
 }]
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

# 4 Public Parameters

## 4.1 Common Status Codes

| Successful Response | Message    | Description                                     |
|---------------------|------------|-------------------------------------------------|
| 200                 | OK         | Normal response code for GET and PUT operations |
| 201                 | Created    | Normal response code for POST operations        |
| 204                 | No Content | Normal response code for DELETE operations      |

| Error Response                    | Description                                                                            |
|-----------------------------------|----------------------------------------------------------------------------------------|
| 400 Bad Request                   | The server failed to process the request.                                              |
| 401 Unauthorized                  | You must enter the username and password to access the requested page.                 |
| 403 Forbidden                     | You are forbidden to access the requested page.                                        |
| 404 Not Found                     | The server could not find the requested page.                                          |
| 405 Method Not Allowed            | You are not allowed to use the method specified in the request.                        |
| 406 Not Acceptable                | The response generated by the server could not be received by the client.              |
| 407 Proxy Authentication Required | You must use the proxy server for authentication so that the request can be processed. |

| Error Response            | Description                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------|
| 408 Request Timeout       | The request timed out.                                                                                |
| 409 Conflict              | The request could not be processed due to a conflict.                                                 |
| 500 Internal Server Error | The request is not completed because the service is abnormal.                                         |
| 501 Not Implemented       | The request is not completed because the server does not support the requested function.              |
| 502 Bad Gateway           | The request is not completed because the server receives an invalid response from an upstream server. |
| 503 Service Unavailable   | The request is not completed because the system is out of service temporarily.                        |
| 504 Gateway Timeout       | A gateway timed out.                                                                                  |

## 4.2 Error Codes

| Status Code | Error Code | Description                   | Solution                                                   |
|-------------|------------|-------------------------------|------------------------------------------------------------|
| 400         | DC.0000    | The request body is abnormal. | Correct the parameter settings and send the request again. |
| 400         | DC.0001    | Request parameter error.      | Correct the parameter settings and send the request again. |
| 400         | DC.0002    | The resource does not exist.  | Correct the parameter settings and send the request again. |
| 400         | DC.0003    | System error.                 | Correct the parameter settings and send the request again. |
| 400         | DC.0004    | Invalid IP address.           | Correct the parameter settings and send the request again. |
| 400         | DC.0005    | Failed to call the VPC API.   | Correct the parameter settings and send the request again. |

| Status Code | Error Code | Description                                                           | Solution                                                   |
|-------------|------------|-----------------------------------------------------------------------|------------------------------------------------------------|
| 400         | DC.0006    | Failed to call the MO API.                                            | Correct the parameter settings and send the request again. |
| 400         | DC.0007    | The VPC does not exist.                                               | Correct the parameter settings and send the request again. |
| 400         | DC.0008    | The BGP ASN is out of range.                                          | Correct the parameter settings and send the request again. |
| 400         | DC.0009    | Invalid policy.                                                       | Contact technical support.                                 |
| 400         | DC.0010    | The VPC_VNI does not exist.                                           | Contact technical support.                                 |
| 400         | DC.0011    | The AGENT is abnormal.                                                | Correct the parameter settings and send the request again. |
| 400         | DC.0012    | Failed to call the CBC API.                                           | Contact technical support.                                 |
| 400         | DC.0013    | You have no permission to operate the field.                          | Contact technical support.                                 |
| 400         | DC.1000    | Insufficient connection bandwidth.                                    | Contact technical support.                                 |
| 400         | DC.1005    | The connection is abnormal.                                           | Contact technical support.                                 |
| 400         | DC.1006    | The device and type cannot be modified when the connection is in use. | Contact technical support.                                 |
| 400         | DC.1007    | The connection is in use.                                             | Contact technical support.                                 |
| 400         | DC.1010    | Connection bandwidth is decreased.                                    | Contact technical support.                                 |
| 400         | DC.1011    | Connection bandwidth cannot be changed.                               | Contact technical support.                                 |
| 400         | DC.1012    | The connection does not exist.                                        | Contact technical support.                                 |
| 400         | DC.1014    | A redundant connection is set for a non-standard connection.          | Contact technical support.                                 |

| Status Code | Error Code | Description                                                              | Solution                   |
|-------------|------------|--------------------------------------------------------------------------|----------------------------|
| 400         | DC.1015    | The connection or LAG does not exist.                                    | Contact technical support. |
| 400         | DC.1019    | The connection quota has been used up.                                   | Contact technical support. |
| 400         | DC.1100    | The local endpoint group ID of the virtual gateway is invalid.           | Contact technical support. |
| 400         | DC.1101    | The number of local subnets exceeds the limit.                           | Contact technical support. |
| 400         | DC.1102    | The standby device is specified when the active device is not specified. | Contact technical support. |
| 400         | DC.1103    | The active and standby devices are the same.                             | Contact technical support. |
| 400         | DC.1104    | The device information cannot be updated for the virtual gateway.        | Contact technical support. |
| 400         | DC.1105    | The local CIDR block overlap with the remote CIDR block.                 | Contact technical support. |
| 400         | DC.1106    | The virtual gateway is in use.                                           | Contact technical support. |
| 400         | DC.1107    | Virtual gateway VLANs are exhausted.                                     | Contact technical support. |
| 400         | DC.1108    | Virtual gateway VNIs are exhausted.                                      | Contact technical support. |
| 400         | DC.1109    | Virtual gateway VRFs are exhausted.                                      | Contact technical support. |
| 400         | DC.1110    | A virtual gateway has been associated with the VPC.                      | Contact technical support. |
| 400         | DC.1111    | The virtual gateway does not exist.                                      | Contact technical support. |
| 400         | DC.1112    | The devices used by the virtual gateway are not in active/standby mode.  | Contact technical support. |
| 400         | DC.1113    | The virtual gateway is in the cutover state.                             | Contact technical support. |

| Status Code | Error Code | Description                                                                                                  | Solution                   |
|-------------|------------|--------------------------------------------------------------------------------------------------------------|----------------------------|
| 400         | DC.1114    | <b>traffic_mode</b> cannot be updated for VLANs or virtual gateways with a single VTEP device.               | Contact technical support. |
| 400         | DC.1115    | The VNI of the virtual gateway does not exist.                                                               | Contact technical support. |
| 400         | DC.1116    | Failed to update the route gateway.                                                                          | Contact technical support. |
| 400         | DC.1117    | The virtual gateway has been associated with two connections and cannot be associated with more connections. | Contact technical support. |
| 400         | DC.1118    | The virtual gateway is being operated (locked).                                                              | Contact technical support. |
| 400         | DC.1119    | Failed to create the route gateway device group.                                                             | Contact technical support. |
| 400         | DC.1120    | The <b>main_az_list</b> configuration item is incorrect.                                                     | Contact technical support. |
| 400         | DC.1200    | No LAG or connection is specified for the virtual interface.                                                 | Contact technical support. |
| 400         | DC.1201    | The connection does not match the virtual gateway type.                                                      | Contact technical support. |
| 400         | DC.1202    | Virtual interfaces of the <b>double ipsec</b> type cannot be created.                                        | Contact technical support. |
| 400         | DC.1203    | No ASN is specified for the BGP virtual interface.                                                           | Contact technical support. |
| 400         | DC.1205    | The status of the resource associated with the virtual interface is abnormal.                                | Contact technical support. |
| 400         | DC.1207    | The VLAN of the virtual interface is inconsistent with that of the hosted connection.                        | Contact technical support. |
| 400         | DC.1209    | Virtual interface VLANs conflict.                                                                            | Contact technical support. |

| Status Code | Error Code | Description                                                                                              | Solution                   |
|-------------|------------|----------------------------------------------------------------------------------------------------------|----------------------------|
| 400         | DC.1210    | The virtual interface status cannot be changed.                                                          | Contact technical support. |
| 400         | DC.1211    | The virtual interface does not exist.                                                                    | Contact technical support. |
| 400         | DC.1212    | The virtual gateway is in a different group from the connection.                                         | Contact technical support. |
| 400         | DC.1213    | The virtual interface does not match the tenant.                                                         | Contact technical support. |
| 400         | DC.1214    | The virtual interface has been used.                                                                     | Contact technical support. |
| 400         | DC.1215    | The virtual interface type does not match.                                                               | Contact technical support. |
| 400         | DC.1216    | The local gateway is invalid.                                                                            | Contact technical support. |
| 400         | DC.1218    | The local gateway does not match.                                                                        | Contact technical support. |
| 400         | DC.1219    | A virtual interface with VLAN 0 is created.                                                              | Contact technical support. |
| 400         | DC.1220    | The <b>vif_email</b> field on the public network is empty.                                               | Contact technical support. |
| 400         | DC.1221    | The selected virtual gateway device does not support access from Direct Connect locations.               | Contact technical support. |
| 400         | DC.1222    | Insufficient POP VNIs.                                                                                   | Contact technical support. |
| 400         | DC.1223    | The local BGP ASN is the same as the remote BGP ASN.                                                     | Contact technical support. |
| 400         | DC.1224    | The virtual interface of the connection terminated at a Direct Connect location does not support VLAN 0. | Contact technical support. |
| 400         | DC.1225    | The number of virtual interfaces for which traffic statistics collection is enabled reaches the limit.   | Contact technical support. |

| Status Code | Error Code | Description                                                                                               | Solution                   |
|-------------|------------|-----------------------------------------------------------------------------------------------------------|----------------------------|
| 400         | DC.1226    | Traffic statistics collection cannot be enabled on Layer 2 remote interfaces that have no sub-interfaces. | Contact technical support. |
| 400         | DC.1227    | Traffic statistics cannot be updated because the virtual interface is abnormal.                           | Contact technical support. |
| 400         | DC.1400    | The number of endpoint groups reaches the limit.                                                          | Contact technical support. |
| 400         | DC.1401    | Duplicate CIDR blocks.                                                                                    | Contact technical support. |
| 400         | DC.1402    | The endpoint group is in use.                                                                             | Contact technical support. |
| 400         | DC.1403    | The endpoint group does not exist.                                                                        | Contact technical support. |

# 5 Appendix

## 5.1 Obtaining a Project ID

### Scenarios

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

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

### Obtain the Project ID by Calling an API

You can obtain a project ID by calling the API used to [query projects based on specified criteria](#).

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

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

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

```
 "self": "https://www.example.com/v3/projects"
 }
}
```

## Obtain a Project ID from the Console

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

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