

# API Gateway

# API Reference

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# 1 Before You Start

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API Gateway (APIG) is a high-performance, high-availability, and high-security API hosting service that helps enterprises build, manage, and deploy APIs at any scale.

This document describes how to use REST APIs to perform operations on APIG, such as creating, deleting, and modify your own APIs. For details about all supported operations, see [API Overview](#).

If you plan to access API Gateway through APIs, ensure that you are familiar with API Gateway concepts. For details, see the [Service Overview](#).

## NOTE

V2.0 APIs are provided for the dedicated gateways and V1.0 APIs are provided for the shared gateway on the old console. The shared gateway on the old console has been removed. Please use dedicated gateways to manage your APIs instead.

## Endpoints

An endpoint is the request address for calling an API. Endpoints vary depending on services and regions. For the endpoints of all services, see [Regions and Endpoints](#).

## Concepts

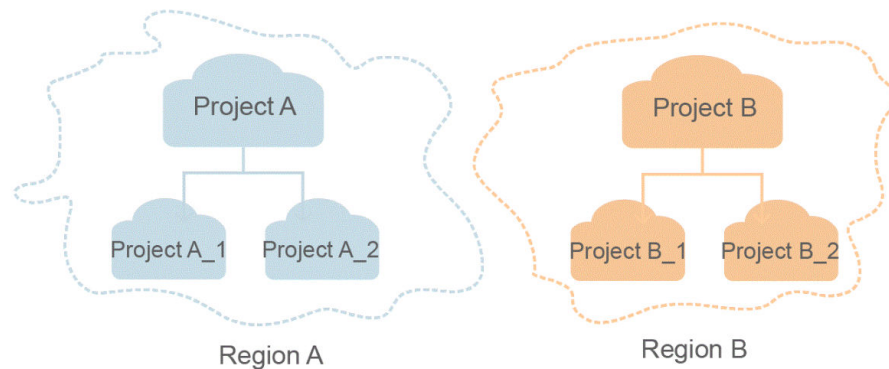
- Account  
An account is created upon successful registration with Huawei Cloud. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity and should not be used directly to perform routine management. For security purposes, create IAM users and grant them permissions for routine management.
- IAM user  
A user is created using a domain to use cloud services. Each user has its own identity credentials (password and access keys).  
An IAM user can view the account ID and user ID on the [My Credentials](#) page of the console. The domain name, username, and password will be required for API authentication.
- Region

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

For details, see [Regions and AZs](#).

- Availability zone (AZ)  
An Availability Zone (AZ) contains one or more physical data centers. Each AZ has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, compute, network, storage, and other resources are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to support cross-AZ high-availability systems.
- Project  
Projects group and isolate resources (including compute, storage, and network resources) across physical regions. A default project is provided for each Huawei Cloud region, and subprojects can be created under each default project. Users can be granted permissions to access all resources in a specific project. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can assign users the permissions required to access only the resources in the specific subprojects.

**Figure 1-1** Project isolating model



An IAM user can view the project ID on the [My Credentials](#) page of the console.

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

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

# 2 API Overview

[Table 2-1](#) describes the types and descriptions of dedicated gateway APIs. [Table 2-2](#) describes the types and descriptions of the shared gateway APIs.

**Table 2-1** Overview of dedicated gateway APIs

Type	Description
<a href="#">API Group Management</a>	Create, modify, delete, and query API groups.
<a href="#">Environment Management</a>	Create, modify, delete, and query environments.
<a href="#">Environment Variable Management</a>	Create, modify, delete, query, and list environment variables.
<a href="#">Request Throttling Policy Management</a>	Create, modify, delete, and query request throttling policies.
<a href="#">API Management</a>	Create, modify, delete, publish, query, and debug APIs, take APIs offline, verify API definitions, and switch API versions.
<a href="#">Signature Key Management</a>	Create, modify, delete, and query signature keys.
<a href="#">Binding/Unbinding Signature Keys</a>	Bind and unbind signature keys, query signature keys bound to an API, and query APIs that are bound or not bound with a signature key.
<a href="#">Binding/Unbinding Request Throttling Policies</a>	Bind and unbind request throttling policies, query APIs that are bound or not bound with a request throttling policy, and query request throttling policies bound to an API.

Type	Description
<a href="#">Excluded Request Throttling Configuration</a>	Create, modify, delete, and query excluded request throttling configurations.
<a href="#">App Authorization Management</a>	Authorize apps, cancel authorizations, query APIs that are bound or not bound with an app, and query apps bound to an API.
<a href="#">Resource Query</a>	Query the quantities of APIs, API groups, and apps.
<a href="#">Domain Name Management</a>	Bind, modify, and unbind domain names; bind, delete, and query domain name certificates.
<a href="#">Access Control Policy Management</a>	Create, modify, delete, and query access control policies.
<a href="#">Binding/Unbinding Access Control Policies</a>	Bind and unbind access control policies, query APIs that are bound or not bound with an access control policy, and query access control policies bound to an API.
<a href="#">Custom Authorizer Management</a>	Create, modify, delete, and query custom authorizers.
<a href="#">API Import and Export</a>	Import and export APIs.
<a href="#">VPC Channel Management</a>	Includes: <ul style="list-style-type: none"><li>• Create, update, delete, and query VPC channels.</li><li>• Add, query, and delete backend servers.</li><li>• Enabling/Disabling backend servers.</li><li>• Modify health check configuration of a VPC channel.</li><li>• Add, update, delete, and view backend server groups, and query backend server group list of a VPC channel.</li></ul>
<a href="#">Monitoring Information Query</a>	Query API calls within a specific period and query API calls under an API group in the last one hour.
<a href="#">Group Response Management</a>	Create, query, modify, and delete group responses; query, modify, and delete responses of an error type.



Type	Description
<b>Tag Management</b>	Query tags.
<b>Gateway Feature Management</b>	Configure and query gateway features.
<b>Configuration Management</b>	Query resource configurations of a gateway and query gateway configurations.
<b>Gateway Management</b>	Includes: <ul style="list-style-type: none"> <li>• Create, update, query, and delete dedicated gateways.</li> <li>• Bind and unbind EIPs.</li> <li>• Enable or disable public access for dedicated gateways, and update the outbound access bandwidth of dedicated gateways.</li> <li>• Query AZs.</li> <li>• Modify specifications.</li> <li>• Query gateway constraints.</li> </ul>
<b>VPC Endpoint Management</b>	Includes: <ul style="list-style-type: none"> <li>• Query the VPC endpoint connections of a gateway.</li> <li>• Query the whitelist records of a gateway's VPC endpoint service.</li> <li>• Accept or reject a VPC endpoint connection for a gateway.</li> <li>• Add whitelist records in batches for or delete those of a gateway's VPC endpoint service.</li> </ul>
<b>Gateway Tag Management</b>	Add, delete, and query gateway tags.
<b>Microservice Center Management</b>	Import microservices.
<b>SSL Certificate Management</b>	Includes: <ul style="list-style-type: none"> <li>• Create, delete, modify, and view a certificate, and query all SSL certificates.</li> <li>• Bind or unbind a domain name's SSL certificates.</li> <li>• Bind an SSL certificate to or unbind it from a domain name.</li> <li>• Obtain domain names bound to an SSL certificate.</li> </ul>

Type	Description
<b>Plug-in Management</b>	<p>Includes:</p> <ul style="list-style-type: none"> <li>● Create, modify, delete, and view a plug-in, and query all plug-ins.</li> <li>● Bind a plug-in to or unbind it from APIs.</li> <li>● Bind or unbind an API's plug-ins.</li> <li>● Query APIs bound with a plug-in or query plug-ins bound to an API.</li> <li>● Query APIs to which a plug-in can be bound or query plug-ins that can be bound to an API.</li> </ul>
<b>Credential Management</b>	<p>Includes:</p> <ul style="list-style-type: none"> <li>● Create, modify, delete, verify, and query apps, and reset AppKeys.</li> <li>● Create, automatically generate, delete, and query AppCodes.</li> <li>● Query the quotas of a credential.</li> <li>● Configure and delete access control settings of an app, and query access control details of an app.</li> </ul>
<b>Credential Quota Management</b>	<p>Includes:</p> <ul style="list-style-type: none"> <li>● Create, modify, and delete a credential quota.</li> <li>● Query credential quota details and all credential quotas.</li> <li>● Bind a credential quota to a credential, or unbind a quota from a specified credential.</li> <li>● Query credentials bound or not bound with a specified quota.</li> </ul>
<b>Asynchronous Task Management</b>	<p>Includes:</p> <ul style="list-style-type: none"> <li>● Import or export APIs asynchronously.</li> <li>● Query the result of an asynchronous task.</li> </ul>
<b>Orchestration Rule Management</b>	<p>Includes:</p> <ul style="list-style-type: none"> <li>● Create, view, update, and delete orchestration rules, and query orchestration rule details.</li> <li>● Query APIs to which an orchestration rule is bound.</li> </ul>
<b>Gateway Custom Inbound Port Management</b>	<p>Includes:</p> <ul style="list-style-type: none"> <li>● Add or delete a custom inbound port.</li> <li>● Query custom inbound ports of a gateway.</li> <li>● Query the domain names bound to a custom inbound port.</li> </ul>

**Table 2-2** Overview of shared gateway APIs (for existing users)

Type	Description
<b>API Group Management</b>	Create, modify, delete, and query API groups.
<b>API Management</b>	Create, modify, delete, publish, and query APIs, and take APIs offline.
<b>App Management</b>	Create, modify, delete, and query apps, and reset AppSecrets.
<b>App Authorization Management</b>	Authorize apps and cancel and query authorizations.
<b>Environment Management</b>	Create, modify, delete, and query environments.
<b>Environment Variable Management</b>	Create, delete, and query environment variables.
<b>Request Throttling Policy Management</b>	Create, modify, delete, and query request throttling policies.
<b>Binding/Unbinding Request Throttling Policies</b>	Query, bind, and unbind request throttling policies.
<b>Excluded Request Throttling Configuration</b>	Create, modify, delete, and query excluded request throttling configurations.
<b>Access Control Policy Management</b>	Create, modify, delete, and query blacklists and whitelists.
<b>Binding Access Control Policies</b>	Query access control policies bound to an API and APIs that are bound or not bound to an access control policy; unbind an API from an access control policy.
<b>Querying Subscription Information in KooGallery</b>	Query purchased API groups, API group details, and APIs.
<b>Configuration Management</b>	Configure object models and query configuration details.
<b>Resource Query</b>	Query the numbers of API groups, APIs, and apps.

Type	Description
<a href="#">Signature Key Management</a>	Create, modify, delete, and query signature keys.
<a href="#">Binding/Unbinding Signature Keys</a>	Bind and unbind signature keys; query APIs that are bound or not bound to a signature key; query signature keys bound to an API.
<a href="#">Domain Name Management</a>	Bind and unbind domain names; bind and delete certificates.
<a href="#">VPC Channel Management</a>	Create, update, delete, and query VPC channels; add, delete, and query cloud servers.
<a href="#">Monitoring Information Query</a>	Query the number of times an API or APIs in an API group are called.
<a href="#">API Import and Export</a>	Export Swagger definitions of APIs published in a specific environment.
<a href="#">Custom Authorizer Management</a>	Create, modify, delete, and query custom authorizers.

# 3 Calling APIs

## 3.1 Making an API Request

This section describes the structure of a REST API request, and uses the APIG API for [creating an API group \(dedicated gateways\)](#) 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.

- **URI-scheme:** Protocol used to transmit requests. All APIs use **HTTPS**.
- **Endpoint:** Domain name or IP address of the server bearing the REST service. It can be obtained from [Endpoints](#). For example, the endpoint of APIG in the **CN-Hong Kong** region is **apig.ap-southeast-1.myhuaweicloud.com**.
- **resource-path:** Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to create an API group (dedicated gateway) is **/v2/{project\_id}/apigw/instances/{instance\_id}/api-groups**. *{project\_id}* indicates a [project ID](#) and *{instance\_id}* indicates a gateway ID. The two IDs can be obtained from the gateway information on the APIG console.
- **query-string:** Query parameter, which is optional. Ensure that a question mark (?) is included in front of each query parameter that is in the format of *Parameter name=Parameter value*. For example, **limit=10** indicates that a maximum of 10 data records will be queried.

For example, if you want to create an API group in the **CN-Hong Kong** region, set **URI-scheme** to **HTTPS**, **Endpoint** to **apig.ap-southeast-1.myhuaweicloud.com**, and **resource-path** to **/v2/{project\_id}/apigw/instances/{instance\_id}/api-groups**. Combine the parameters in the URI.

```
https://apig.ap-southeast-1.myhuaweicloud.com/v2/{project_id}/apigw/instances/{instance_id}/api-groups
```

 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 Method

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

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

For example, in the case of the API used to [create an API group](#), the request method is POST. The request is as follows:

```
POST https://apig.ap-southeast-1.myhuaweicloud.com/v2/{project_id}/apigw/instances/{instance_id}/api-groups
```

## 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:

- **Content-Type**: specifies the request body type or format. This field is mandatory and its default value is **application/json**. Other values of this field will be provided for specific APIs if any.
- **X-Sdk-Date**: specifies the time when a request is sent. This field is optional. When AK/SK authentication is enabled, this field is automatically specified when SDK is used to sign the request. For more information, see [AK/SK-based Authentication](#).
- **Authorization**: specifies signature authentication information. This field is optional. When AK/SK authentication is enabled, this field is automatically specified when SDK is used to sign the request. For more information, see [AK/SK-based Authentication](#).
- **X-Auth-Token**: specifies a user token only for token-based API authentication. The user token is a response to the API used to [obtain a user token](#). This API is the only one that does not require authentication.
- **X-Project-ID**: specifies subproject ID. This field is optional and can be used in multi-project scenarios. The **X-Project-ID** field is mandatory in the request header for accessing resources in a sub-project through AK/SK-based authentication.

- **X-Domain-ID**: specifies account ID, which is optional. When you call APIs of global services using AK/SK-based authentication, **X-Domain-ID** needs to be configured in the request header.

If AK/SK authentication is used, the requests of the API used to [create an API group](#) with the added headers are as follows:

```
POST https://apig.ap-southeast-1.myhuaweicloud.com/v2/{project_id}/apigw/instances/{instance_id}/api-groups
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date,
Signature=*****
```

## Request Body

The body of a request is often sent in a structured format as specified in **Content-Type**. The request body transfers content other than the request header. If the request body contains Chinese characters, set **Content-type** to **utf-8**, for example, Content-Type: application/json; charset=utf-8.

Request bodies vary between APIs. Some APIs do not require the request body, such as the APIs requested using the **GET** and **DELETE** methods.

For the API used to [create an API group](#), you can obtain the request parameters and parameter description from the API request. Here is an example request that includes a body. The bold fields must be configured as required.

- **name**: API group name
- **remark**: API group description

```
POST https://apig.ap-southeast-1.myhuaweicloud.com/v2/{project_id}/apigw/instances/{instance_id}/api-groups
POST https://{apig_endpoint}/v2/{project_id}/v2/{project_id}/apigw/instances/{instance_id}/api-groups
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date,
Signature=*****
{
  "name": "APIGroup_test",
  "remark": "api group remark"
}
```

If all data required for the API request is available, you can send the request to call the API through [curl](#), [Postman](#), or coding.

## 3.2 Authentication

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

- **AK/SK-based authentication**: Requests are authenticated by encrypting the request body using an AK/SK pair. AK/SK-based authentication is recommended because it provides higher security than token-based authentication.
- **Token-based authentication**: Requests are authenticated using a token.

## AK/SK-based Authentication

In AK/SK-based 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 used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

Constraints:

- AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.
- Tokens obtained using an AK/SK are valid for at least 15 minutes.
- Both AK/SK in a permanent access key or in a temporary access are supported. The **X-Security-Token** field must be configured when the AK/SK in the temporary access key is used, and the field value is the **security\_token** of the temporary access key.

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

---

### NOTICE

- The signing SDK is only used for signing requests and is different from the SDKs provided by services.
  - The local time on the client must be synchronized with the clock server to avoid a large offset in the value of the **X-Sdk-Date** request header.
  - APIG checks the time format and compares the time with the time when APIG receives the request. If the time difference exceeds 15 minutes, APIG will reject the request.
- 

## Token-based Authentication

---

### NOTICE

- 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.
  - Ensure that the token is valid when you use it. Using a token that will soon expire may cause API calling failures.
- 

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.



When calling an API to **obtain a user token**, you must set **auth.scope** in the request body to **project**.

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****#",
          "domain": {
            "name": "domainname"
          }
        }
      }
    }
  },
  "scope": {
    "project": {
      "name": "xxxxxxxx"
    }
  }
}
```

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

```
POST https://apig.ap-southeast-1.myhuaweicloud.com/v2/{project_id}/apigw/instances/{instance_id}/api-groups
POST https://{apig_endpoint}/v2/{project_id}/v2/{project_id}/apigw/instances/{instance_id}/api-groups
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

## 3.3 Response

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

### Status Code

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

For example, if status code **201** is returned for calling the API used to **create an API group (dedicated gateways)**, the request is successful.

### Response Header

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

For example, when calling the API used to **create an API group (dedicated gateways)**, the response headers are shown below.

**Figure 3-1** Response headers for creating an API group

```
"X-Frame-Options": "SAMEORIGIN",  
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",  
"Server": "CloudWAF",  
"X-Request-Id": "6a838baac776594e4b0f1e258061ed95",  
"X-Content-Type-Options": "nosniff",  
"Connection": "keep-alive",  
"X-Download-Options": "noopen",  
"Set-Cookie": "WAFSESTIME=1716451295054; path=/",  
"X-XSS-Protection": "1; mode=block",  
"Content-Length": "580",  
"Date": "Thu, 23 May 2024 08:01:38 GMT",  
"Content-Type": "application/json; charset=utf-8"
```

## Response Body

The body of a response is often returned in structured format as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following is part of the response body for the API used to **create an API group (dedicated gateways)**.

```
{  
  "id": "41e08fbaca9f4d64bde467d0dd89ff51",  
  "name": "aaa",  
  "status": 1,  
  "sl_domain": "41e08fbaca9f4d64bde467d0dd89ff51.example.cloudapis.com",  
  "register_time": "2024-05-23T08:03:56.419897855Z",  
  "update_time": "2024-05-23T08:03:56.419897962Z",  
  "on_sell_status": 2,  
  "url_domains": [],  
  "sl_domain_access_enabled": true,  
  "sl_domains": [  
    "41e08fbaca9f4d64bde467d0dd89ff51.example.cloudapis.com"  
  ],  
  "remark": "",  
  "call_limits": 0,  
  "time_interval": 0,  
  "time_unit": "",  
  "is_default": 2,  
  "version": ""  
}
```

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 token is missing.",  
  "error_code": "APIG.1000"  
}
```

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

# 4 Dedicated Gateway APIs (V2)

---

## 4.1 API Group Management

### 4.1.1 Creating an API Group

#### Function

This API is used to create an API group. An API group is an API management unit and the entry to a service. A subdomain name is returned as the access entry when an API group is created. APIs in an API group should be correlated with each other.

#### Calling Method

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

#### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups

**Table 4-1** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-2** Request header parameters

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

**Table 4-3** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	API group name. The value can contain 3 to 255 characters, including letters, digits, and special characters (-_./():). It must start with a letter or digit. Minimum: <b>3</b> Maximum: <b>255</b>
remark	No	String	API group description. Maximum: <b>1000</b>
roma_app_id	No	String	ID of the integration application to which the API group belongs. This parameter is required when the group version is V2. Currently, this parameter is not supported.
version	No	String	Group version. <ul style="list-style-type: none"><li>• V1: global group</li><li>• V2: application-level group</li></ul> The default value is V1. V2 is not supported currently.

## Response Parameters

**Status code: 201**

**Table 4-4** Response body parameters

Parameter	Type	Description
id	String	ID.
name	String	API group name.
status	Integer	Status. <ul style="list-style-type: none"> <li>1: valid</li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.
update_time	String	Last modification time.
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. <ul style="list-style-type: none"> <li>1: listed</li> <li>2: not listed</li> <li>3: under review</li> </ul> Not supported currently.
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.
sl_domain_access_enabled	Boolean	Whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>
sl_domains	Array of strings	Automatically allocated subdomain names.
remark	String	Description.
call_limits	Integer	Total number of times all APIs in the API group can be accessed. Consider the payload capacity of the backend service when setting this parameter. By default, there is no limit on the number of API calls. Currently, this parameter is not supported.
time_interval	Integer	Period of time for limiting the number of API calls. Currently, this parameter is not supported.
time_unit	String	Time unit for limiting the number of API calls. Currently, this parameter is not supported.
is_default	Integer	Indicates whether the API group is the default group.

Parameter	Type	Description
version	String	Group version. <ul style="list-style-type: none"> <li>• V1: global group</li> <li>• V2: application-level group</li> </ul> The default value is V1. V2 is not supported currently.
roma_app_id	String	ID of the integration application to which the API group belongs. This parameter is required when the group version is V2. Currently, this parameter is not supported.
roma_app_name	String	Name of the integration application to which the API group belongs. Currently, this parameter is not supported.

**Table 4-5** UrlDomain

Parameter	Type	Description
id	String	Domain ID.
domain	String	Domain name.
cname_status	Integer	CNAME resolution status of the domain name. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>

Parameter	Type	Description
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>
ingress_https_port	Integer	Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>
ssl_infos	Array of <a href="#">SslInfo</a> objects	SSL certificate list.

**Table 4-6** SslInfo

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
algorithm_type	String	Certificate algorithm type: <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>
type	String	Certificate scope: <ul style="list-style-type: none"> <li>• instance</li> <li>• global</li> </ul> Default: <b>global</b>

**Status code: 400**

**Table 4-7** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-8** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-9** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.



**Status code: 500****Table 4-10** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

Creating an API group

```
{
  "name" : "api_group_001",
  "remark" : "API group 1"
}
```

**Example Responses****Status code: 201**

Created

```
{
  "update_time" : "2020-07-31T06:55:55.383169299Z",
  "name" : "api_group_001",
  "on_sell_status" : 2,
  "remark" : "API group 1",
  "sl_domains" : [ "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
  "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.cn" ],
  "sl_domain" : "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
  "id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "register_time" : "2020-07-31T06:55:55.383169068Z",
  "status" : 1,
  "is_default" : 2,
  "sl_domain_access_enabled" : true
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
}
```

```
"error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.1.2 Modifying an API Group

### Function

This API is used to modify the attributes of an API group. Only the name and remark attributes of an API group can be modified.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}

**Table 4-11** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.

## Request Parameters

**Table 4-12** Request header parameters

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

**Table 4-13** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	API group name. The value can contain 3 to 255 characters, including letters, digits, and special characters (-_./():). It must start with a letter or digit. Minimum: <b>3</b> Maximum: <b>255</b>
remark	No	String	API group description. Maximum: <b>1000</b>

## Response Parameters

**Status code: 200**

**Table 4-14** Response body parameters

Parameter	Type	Description
id	String	ID.

Parameter	Type	Description
name	String	API group name.
status	Integer	Status. <ul style="list-style-type: none"> <li>1: valid</li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.
update_time	String	Last modification time.
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. <ul style="list-style-type: none"> <li>1: listed</li> <li>2: not listed</li> <li>3: under review</li> </ul> Not supported currently.
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.
sl_domain_access_enabled	Boolean	Whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>
sl_domains	Array of strings	Automatically allocated subdomain names.
remark	String	Description.
call_limits	Integer	Total number of times all APIs in the API group can be accessed. Consider the payload capacity of the backend service when setting this parameter. By default, there is no limit on the number of API calls. Currently, this parameter is not supported.
time_interval	Integer	Period of time for limiting the number of API calls. Currently, this parameter is not supported.
time_unit	String	Time unit for limiting the number of API calls. Currently, this parameter is not supported.
is_default	Integer	Indicates whether the API group is the default group.

Parameter	Type	Description
version	String	Group version. <ul style="list-style-type: none"> <li>• V1: global group</li> <li>• V2: application-level group</li> </ul> The default value is V1. V2 is not supported currently.
roma_app_id	String	ID of the integration application to which the API group belongs. This parameter is required when the group version is V2. Currently, this parameter is not supported.
roma_app_name	String	Name of the integration application to which the API group belongs. Currently, this parameter is not supported.

**Table 4-15** UrlDomain

Parameter	Type	Description
id	String	Domain ID.
domain	String	Domain name.
cname_status	Integer	CNAME resolution status of the domain name. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>

Parameter	Type	Description
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>
ingress_https_port	Integer	Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>
ssl_infos	Array of <a href="#">SslInfo</a> objects	SSL certificate list.

**Table 4-16** SslInfo

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
algorithm_type	String	Certificate algorithm type: <ul style="list-style-type: none"><li>• RSA</li><li>• ECC</li><li>• SM2</li></ul>
type	String	Certificate scope: <ul style="list-style-type: none"><li>• instance</li><li>• global</li></ul> Default: <b>global</b>

**Status code: 400****Table 4-17** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-18** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-19** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-20** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-21** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

Modifying an API group

```
{
  "name" : "api_group_001",
  "remark" : "API group 1"
}
```

**Example Responses**

**Status code: 200**

OK

```
{
  "update_time" : "2020-07-31T06:55:55Z.866474185Z",
  "name" : "api_group_001",
  "on_sell_status" : 2,
  "remark" : "API group 1",
  "sl_domains" : [ "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
    "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.cn" ],
  "sl_domain" : "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
  "id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "register_time" : "2020-07-31T06:55:55Z",
  "status" : 1,
  "is_default" : 2,
  "sl_domain_access_enabled" : true
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```



**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.1.3 Deleting an API Group

### Function

This API is used to delete an API group.

If the group to delete contains APIs, take the APIs offline and delete them.

All resources (independent domain names and SSL certificates) directly or indirectly associated with the group will be deleted. The operation will also unbind the external domain names from the subdomain name based on the CNAME resolution mode.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}

**Table 4-22** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.

### Request Parameters

**Table 4-23** Request header parameters

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

### Response Parameters

**Status code: 401**

**Table 4-24** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-25** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-26** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 412****Table 4-27** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-28** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

### Status code: 412

PreconditionFailed

```
{
  "error_code" : "APIG.3415",
  "error_msg" : "The API group cannot be deleted because it contains
APIs,id:47eaed4659db4e99ba2e1b642d5d1323"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
412	PreconditionFailed
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.1.4 Querying API Group Details

### Function

This API is used to query the details of an API group.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}

**Table 4-29** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.

## Request Parameters

**Table 4-30** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-31** Response body parameters

Parameter	Type	Description
id	String	ID.
name	String	API group name.
status	Integer	Status. <ul style="list-style-type: none"> <li>1: valid</li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.
update_time	String	Last modification time.
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. <ul style="list-style-type: none"> <li>1: listed</li> <li>2: not listed</li> <li>3: under review</li> </ul> Not supported currently.
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.
sl_domain_access_enabled	Boolean	Whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>
sl_domains	Array of strings	Automatically allocated subdomain names.

Parameter	Type	Description
remark	String	Description.
call_limits	Integer	Total number of times all APIs in the API group can be accessed. Consider the payload capacity of the backend service when setting this parameter. By default, there is no limit on the number of API calls. Currently, this parameter is not supported.
time_interval	Integer	Period of time for limiting the number of API calls. Currently, this parameter is not supported.
time_unit	String	Time unit for limiting the number of API calls. Currently, this parameter is not supported.
is_default	Integer	Indicates whether the API group is the default group.
version	String	Group version. <ul style="list-style-type: none"> <li>• V1: global group</li> <li>• V2: application-level group</li> </ul> The default value is V1. V2 is not supported currently.
roma_app_id	String	ID of the integration application to which the API group belongs. This parameter is required when the group version is V2. Currently, this parameter is not supported.
roma_app_name	String	Name of the integration application to which the API group belongs. Currently, this parameter is not supported.

**Table 4-32** UrlDomain

Parameter	Type	Description
id	String	Domain ID.
domain	String	Domain name.

Parameter	Type	Description
cname_status	Integer	CNAME resolution status of the domain name. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>



Parameter	Type	Description
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ssl_infos	Array of <a href="#">SslInfo</a> objects	SSL certificate list.

**Table 4-33** SslInfo

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
algorithm_type	String	Certificate algorithm type: <ul style="list-style-type: none"><li>• RSA</li><li>• ECC</li><li>• SM2</li></ul>
type	String	Certificate scope: <ul style="list-style-type: none"><li>• instance</li><li>• global</li></ul> Default: <b>global</b>

**Status code: 400**

**Table 4-34** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-35** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-36** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-37** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-38** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "update_time" : "2020-07-31T06:55:55Z",
  "name" : "api_group_001",
  "on_sell_status" : 2,
  "remark" : "API group 1",
  "sl_domains" : [ "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
    "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.cn" ],
  "sl_domain" : "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
  "id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "register_time" : "2020-07-31T06:55:55Z",
  "status" : 1,
  "is_default" : 2,
  "sl_domain_access_enabled" : true
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
}
```

```
"error_msg": "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.1.5 Querying API Groups

### Function

This API is used to query the API group list.

You can query all API groups in your account as a tenant, or query API groups of all tenants using an administrator account.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups

**Table 4-39** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-40** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
id	No	String	API group ID.
name	No	String	API group name.
precise_search	No	String	Parameter name for exact matching. Only API group names are supported.

## Request Parameters

**Table 4-41** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-42** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
groups	Array of <a href="#">ApiGroupInfo</a> objects	API groups.

**Table 4-43** ApiGroupInfo

Parameter	Type	Description
id	String	ID.
name	String	API group name.
status	Integer	Status. <ul style="list-style-type: none"> <li>1: valid</li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.
update_time	String	Last modification time.
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. <ul style="list-style-type: none"> <li>1: listed</li> <li>2: not listed</li> <li>3: under review</li> </ul> Not supported currently.
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.
sl_domain_access_enabled	Boolean	Whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>
sl_domains	Array of strings	Automatically allocated subdomain names.
remark	String	Description.

Parameter	Type	Description
call_limits	Integer	Total number of times all APIs in the API group can be accessed. Consider the payload capacity of the backend service when setting this parameter. By default, there is no limit on the number of API calls. Currently, this parameter is not supported.
time_interval	Integer	Period of time for limiting the number of API calls. Currently, this parameter is not supported.
time_unit	String	Time unit for limiting the number of API calls. Currently, this parameter is not supported.
is_default	Integer	Indicates whether the API group is the default group.
version	String	Group version. <ul style="list-style-type: none"> <li>• V1: global group</li> <li>• V2: application-level group</li> </ul> The default value is V1. V2 is not supported currently.
roma_app_id	String	ID of the integration application to which the API group belongs. This parameter is required when the group version is V2. Currently, this parameter is not supported.
roma_app_name	String	Name of the integration application to which the API group belongs. Currently, this parameter is not supported.

**Table 4-44** UrlDomain

Parameter	Type	Description
id	String	Domain ID.
domain	String	Domain name.
cname_status	Integer	CNAME resolution status of the domain name. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>



Parameter	Type	Description
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ssl_infos	Array of <b>SslInfo</b> objects	SSL certificate list.

**Table 4-45 SslInfo**

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
algorithm_type	String	<p>Certificate algorithm type:</p> <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>
type	String	<p>Certificate scope:</p> <ul style="list-style-type: none"> <li>• instance</li> <li>• global</li> </ul> <p>Default: <b>global</b></p>

**Status code: 400**

**Table 4-46** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-47** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-48** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-49** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{  
  "total" : 2,
```

```
"size" : 2,
"groups" : [ {
  "update_time" : "2020-07-31T06:55:55Z",
  "name" : "api_group_001",
  "on_sell_status" : 2,
  "remark" : "API group 1",
  "sl_domains" : [ "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
    "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.cn" ],
  "sl_domain" : "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
  "id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "register_time" : "2020-07-31T06:55:55Z",
  "status" : 1,
  "is_default" : 2,
  "sl_domain_access_enabled" : true
}, {
  "update_time" : "2020-06-24T15:29:42.421926Z",
  "name" : "api_group_002",
  "on_sell_status" : 2,
  "remark" : "API group 2",
  "sl_domain" : "02a8ab3cb2784de5a096852829671ae7.apic.***.com",
  "sl_domains" : [ "02a8ab3cb2784de5a096852829671ae7.apic.***.com",
    "02a8ab3cb2784de5a096852829671ae7.apic.***.cn" ],
  "id" : "02a8ab3cb2784de5a096852829671ae7",
  "register_time" : "2020-06-24T15:29:42.421926Z",
  "status" : 1,
  "is_default" : 2,
  "sl_domain_access_enabled" : true
} ]
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

## Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

## Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.1.6 Verifying an API Group Name

#### Function

This API is used to check whether the API group name exists.

#### Calling Method

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

#### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/check

**Table 4-50** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-51** Request header parameters

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

**Table 4-52** Request body parameters

Parameter	Mandatory	Type	Description
group_name	Yes	String	Name of the API group to be verified.
roma_app_id	No	String	Integration application ID. This is not supported currently.

## Response Parameters

**Status code: 400**

**Table 4-53** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401**

**Table 4-54** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403**

**Table 4-55** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-56** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-57** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

```
{  
  "group_name" : "ApiGroup_demo"  
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{  
  "error_code" : "APIG.3201",  
  "error_msg" : "The API group name already exists"  
}
```

**Status code: 401**

Unauthorized

```
{  
  "error_code" : "APIG.1002",  
  "error_msg" : "Incorrect token or token resolution failed"  
}
```

**Status code: 403**

#### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

#### Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}
```

**Status code: 500**

#### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.2 Environment Management

### 4.2.1 Creating an Environment

#### Function

API providers can publish an API in different environments, such as the development, test, and production environments.

API information, such as the version, request address, and even request message, varies depending on the environment in which an API is published. For example,

v1.0 of an API is published in the production environment, v1.1 in the test environment, and v1.2 in the development environment.

APIG provides environment management, enabling you to access APIG in different scenarios at minimal costs.

## Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/envs

**Table 4-58** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-59** Request header parameters

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

**Table 4-60** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Environment name, which can contain letters, digits, and underscores (_) and must start with a letter. Minimum: <b>3</b> Maximum: <b>64</b>



Parameter	Mandatory	Type	Description
remark	No	String	Description. Maximum: 255

## Response Parameters

**Status code: 201**

**Table 4-61** Response body parameters

Parameter	Type	Description
create_time	String	Creation time.
name	String	Environment name.
remark	String	Description.
id	String	Environment ID.

**Status code: 400**

**Table 4-62** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-63** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-64** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-65** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating an environment

```
{
  "name" : "DEV",
  "remark" : "Development environment"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "create_time" : "2020-07-31T06:41:43.511347628Z",
  "name" : "DEV",
  "remark" : "Development environment",
  "id" : "7a1ad0c350844ee69479b47df9a881cb"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.2.2 Modifying an Environment

### Function

This API is used to modify the information about an environment. Only the name and remark attributes of an environment can be modified.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/envs/{env\_id}

**Table 4-66** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
env_id	Yes	String	Environment ID.

## Request Parameters

**Table 4-67** Request header parameters

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

**Table 4-68** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Environment name, which can contain letters, digits, and underscores (_) and must start with a letter. Minimum: <b>3</b> Maximum: <b>64</b>
remark	No	String	Description. Maximum: <b>255</b>

## Response Parameters

Status code: 200

**Table 4-69** Response body parameters

Parameter	Type	Description
create_time	String	Creation time.
name	String	Environment name.
remark	String	Description.
id	String	Environment ID.

**Status code: 400****Table 4-70** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-71** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-72** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-73** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-74** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Modifying an environment

```
{
  "name" : "DEV",
  "remark" : "Development environment"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "create_time" : "2020-07-31T06:41:43Z",
  "name" : "DEV",
  "remark" : "Development environment",
  "id" : "7a1ad0c350844ee69479b47df9a881cb"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

#### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

#### Not Found

```
{
  "error_code" : "APIG.3003",
  "error_msg" : "Environment 7a1ad0c350844ee69479b47df9a881cb does not exist"
}
```

**Status code: 500**

#### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.2.3 Deleting an Environment

### Function

This API is used to delete an environment.

This operation will cause the APIs published in the environment to become inaccessible to relevant apps and users. Ensure that you have notified users of the deletion, or confirm that the APIs can be removed from the deleted environment.

You cannot delete environments where APIs have been published.

## Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/envs/{env\_id}

**Table 4-75** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
env_id	Yes	String	Environment ID.

## Request Parameters

**Table 4-76** Request header parameters

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

## Response Parameters

**Status code: 401**

**Table 4-77** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**



**Table 4-78** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-79** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-80** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code": "APIG.3003",
  "error_msg": "Environment 7a1ad0c350844ee69479b47df9a881cb does not exist"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.2.4 Querying Environments

### Function

This API is used to query environments.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/envs

**Table 4-81** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-82** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
name	No	String	Environment name.

## Request Parameters

**Table 4-83** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-84** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
envs	Array of <a href="#">EnvInfo</a> objects	Environment list.

**Table 4-85** EnvInfo

Parameter	Type	Description
create_time	String	Creation time.
name	String	Environment name.
remark	String	Description.
id	String	Environment ID.

**Status code: 400**

**Table 4-86** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-87** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-88** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-89** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 2,
  "size" : 2,
  "envs" : [ {
    "create_time" : "2019-02-12T19:42:19.914989Z",
    "name" : "RELEASE",
    "remark" : "xxx",
    "id" : "DEFAULT_ENVIRONMENT_RELEASE_ID"
  }, {
    "create_time" : "2020-07-31T06:41:43Z",
    "name" : "DEV",
    "remark" : "Development environment",
    "id" : "7a1ad0c350844ee69479b47df9a881cb"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.3 Environment Variable Management

## 4.3.1 Creating a Variable

### Function

Publishing an API in different environments may involve various variables, such as API service deployment address and request version.

You can define environment variables when creating an API. When the API is called, the environment variables will be replaced with the variable values to distinguish environments.

Environment variables are defined for an API group and apply to all APIs in the group.

**NOTE**

1. Environment variable names must be unique for an API group in the same environment.
2. Environment variable names are case-sensitive. For example, ABC and abc are two different variables.
3. APIs that use environment variables cannot be debugged.
4. You must enclose an environment variable in number signs (#) so that it can be replaced with the actual value of the environment in which the API is published. For example, if the URL of an API is `https://#address#:8080` and the value of variable `address` is `192.168.1.5` in the RELEASE environment, the real URL of the API is `https://192.168.1.5:8080` after publishing.

## Calling Method

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

## URI

POST `/v2/{project_id}/apigw/instances/{instance_id}/env-variables`

**Table 4-90** Path Parameters

Parameter	Mandatory	Type	Description
<code>project_id</code>	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
<code>instance_id</code>	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-91** Request header parameters

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

**Table 4-92** Request body parameters

Parameter	Mandatory	Type	Description
variable_value	Yes	String	The variable value can contain 1 to 255 characters. Only letters, digits, and special characters (_-/:.) are allowed.
env_id	Yes	String	Environment ID. Minimum: <b>1</b> Maximum: <b>65</b>
group_id	Yes	String	API group ID. Minimum: <b>1</b> Maximum: <b>65</b>
variable_name	Yes	String	Variable name, which can contain 3 to 32 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed. The variable name is equivalent to "#Name#" in API definitions. Characters between the number signs are case-sensitive. The variable name will be replaced with the variable value after API publication.

## Response Parameters

Status code: 201

**Table 4-93** Response body parameters

Parameter	Type	Description
variable_value	String	The variable value can contain 1 to 255 characters. Only letters, digits, and special characters (_-/:.) are allowed.
env_id	String	Environment ID. Minimum: <b>1</b> Maximum: <b>65</b>
group_id	String	API group ID. Minimum: <b>1</b> Maximum: <b>65</b>



Parameter	Type	Description
variable_name	String	Variable name, which can contain 3 to 32 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed. The variable name is equivalent to "#Name#" in API definitions. Characters between the number signs are case-sensitive. The variable name will be replaced with the variable value after API publication.
id	String	Environment variable ID.

**Status code: 400****Table 4-94** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-95** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-96** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-97** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-98** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating an environment variable

```
{
  "variable_name": "address",
  "variable_value": "192.168.1.5",
  "env_id": "7a1ad0c350844ee69479b47df9a881cb",
  "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "variable_value": "192.168.1.5",
  "env_id": "7a1ad0c350844ee69479b47df9a881cb",
  "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
  "id": "25054838a624400bbf2267cf5b3a3f70",
  "variable_name": "address"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
}
```

```
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3003",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.3.2 Deleting a Variable

#### Function

This API is used to delete an environment variable.

#### Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/env-variables/{env\_variable\_id}

**Table 4-99** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
env_variable_id	Yes	String	Environment variable ID.

## Request Parameters

**Table 4-100** Request header parameters

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

## Response Parameters

**Status code: 401**

**Table 4-101** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-102** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-103** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-104** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3011",
  "error_msg" : "The environment variable does not exist, id: 25054838a624400bbf2267cf5b3a3f70"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.3.3 Querying Variable Details

#### Function

This API is used to query the details of an environment variable.

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/env-variables/{env\_variable\_id}

**Table 4-105** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
env_variable_id	Yes	String	Environment variable ID.

## Request Parameters

**Table 4-106** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-107** Response body parameters

Parameter	Type	Description
variable_value	String	The variable value can contain 1 to 255 characters. Only letters, digits, and special characters (_-/:) are allowed.
env_id	String	Environment ID. Minimum: <b>1</b> Maximum: <b>65</b>
group_id	String	API group ID. Minimum: <b>1</b> Maximum: <b>65</b>

Parameter	Type	Description
variable_name	String	Variable name, which can contain 3 to 32 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed. The variable name is equivalent to "#Name#" in API definitions. Characters between the number signs are case-sensitive. The variable name will be replaced with the variable value after API publication.
id	String	Environment variable ID.

**Status code: 401****Table 4-108** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-109** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-110** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**



**Table 4-111** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "variable_value" : "192.168.1.5",
  "env_id" : "7a1ad0c350844ee69479b47df9a881cb",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "id" : "25054838a624400bbf2267cf5b3a3f70",
  "variable_name" : "address"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3011",
  "error_msg" : "The environment variable does not exist, id: 25054838a624400bbf2267cf5b3a3f70"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.3.4 Querying Environment Variables

#### Function

This API is used to query all environment variables under an API group.

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/env-variables

**Table 4-112** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-113** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
group_id	Yes	String	API group ID.
env_id	No	String	Environment ID.
variable_name	No	String	Variable name.
precise_search	No	String	Parameter name (variable_name) for exact matching

## Request Parameters

**Table 4-114** Request header parameters

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

## Response Parameters

Status code: **200**

**Table 4-115** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
variables	Array of <a href="#">EnvVariableInfo</a> objects	Environment variable list.

**Table 4-116** EnvVariableInfo

Parameter	Type	Description
variable_value	String	The variable value can contain 1 to 255 characters. Only letters, digits, and special characters (_-/:) are allowed.
env_id	String	Environment ID. Minimum: <b>1</b> Maximum: <b>65</b>
group_id	String	API group ID. Minimum: <b>1</b> Maximum: <b>65</b>
variable_name	String	Variable name, which can contain 3 to 32 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed. The variable name is equivalent to "#Name#" in API definitions. Characters between the number signs are case-sensitive. The variable name will be replaced with the variable value after API publication.
id	String	Environment variable ID.

**Status code: 400**

**Table 4-117** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-118** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-119** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-120** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "variables" : [ {
    "variable_value" : "8080",
    "env_id" : "cca3616af3684b329064b2a631cb3eeb",
    "group_id" : "73c58022f20d495aa18885d718647f09",
    "id" : "09ab8135722440b9bf5d107f2a09d409",
    "variable_name" : "port"
  }, {
    "variable_value" : "192.168.1.5",
    "env_id" : "7a1ad0c350844ee69479b47df9a881cb",
    "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
    "id" : "25054838a624400bbf2267cf5b3a3f70",
    "variable_name" : "address"
  }
]
```

```

    }],
    "total" : 2,
    "size" : 2
  }

```

**Status code: 400**

Bad Request

```

{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}

```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.3.5 Modifying a Variable

### Function

This API is used to modify an environment variable. If an environment variable is referenced by the backend service address of an API, modifying the environment variable will publish all APIs that use the variable again.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/env-variables/{env\_variable\_id}

**Table 4-121** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
env_variable_id	Yes	String	Environment variable ID.

### Request Parameters

**Table 4-122** Request header parameters

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

**Table 4-123** Request body parameters

Parameter	Mandatory	Type	Description
variable_value	Yes	String	The variable value can contain 1 to 255 characters. Only letters, digits, and special characters (_-/:) are allowed.

## Response Parameters

**Status code: 200**

**Table 4-124** Response body parameters

Parameter	Type	Description
variable_value	String	The variable value can contain 1 to 255 characters. Only letters, digits, and special characters (_-/:) are allowed.
env_id	String	Environment ID. Minimum: <b>1</b> Maximum: <b>65</b>
group_id	String	API group ID. Minimum: <b>1</b> Maximum: <b>65</b>
variable_name	String	Variable name, which can contain 3 to 32 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed. The variable name is equivalent to "#Name#" in API definitions. Characters between the number signs are case-sensitive. The variable name will be replaced with the variable value after API publication.
id	String	Environment variable ID.

**Status code: 400**

**Table 4-125** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.



**Status code: 401****Table 4-126** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-127** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-128** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-129** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Example Requests**

```
{  
  "variable_value" : "192.168.1.5"  
}
```

**Example Responses****Status code: 200**

OK

```
{
  "variable_value" : "192.168.1.5",
  "env_id" : "7a1ad0c350844ee69479b47df9a881cb",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "id" : "25054838a624400bbf2267cf5b3a3f70",
  "variable_name" : "address"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:variable_name"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3003",
  "error_msg" : "Environment 7a1ad0c350844ee69479b47df9a881cb does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.4 Request Throttling Policy Management

## 4.4.1 Creating a Request Throttling Policy

### Function

After an API goes online, the system attaches a request throttling policy to it by default. The API provider can change the request throttling policy based on the service capabilities and load of the API.

A request throttling policy restricts the maximum number of times an API can be called within a specified period.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/throttles

**Table 4-130** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-131** Request header parameters

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

**Table 4-132** Request body parameters

Parameter	Mandatory	Type	Description
app_calls_limit	No	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter cannot exceed the user call limit. The maximum value is 2,147,483,647. Enter a positive integer.
name	Yes	String	Request throttling policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
time_unit	Yes	String	Time unit for limiting the number of API calls.
remark	No	String	Description of the request throttling policy, which can contain a maximum of 255 characters.
api_call_limits	Yes	Integer	Maximum number of times an API can be accessed within a specified period. The value of this parameter cannot exceed the default limit 200 TPS. You can change the default limit to meet service requirements. The maximum value is 2,147,483,647. Enter a positive integer.

Parameter	Mandatory	Type	Description
type	No	Integer	Type of the request throttling policy. <ul style="list-style-type: none"> <li>• 1: API-based, limiting the maximum number of times a single API bound to the policy can be called within the specified period.</li> <li>• 2: API-shared, limiting the maximum number of times all APIs bound to the policy can be called within the specified period.</li> </ul>
enable_adaptive_control	No	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> <p>Currently, this parameter is not supported.</p>
user_calls	No	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter cannot exceed the Max. API Requests. The maximum value is 2,147,483,647. Enter a positive integer.
time_interval	Yes	Integer	Period of time for limiting the number of API calls. This parameter applies with each API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
ip_call_limits	No	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter cannot exceed the API call limit. The maximum value is 2,147,483,647. Enter a positive integer.

## Response Parameters

Status code: 201

**Table 4-133** Response body parameters

Parameter	Type	Description
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter cannot exceed the user call limit. The maximum value is 2,147,483,647. Enter a positive integer.
name	String	Request throttling policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
time_unit	String	Time unit for limiting the number of API calls.
remark	String	Description of the request throttling policy, which can contain a maximum of 255 characters.
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period. The value of this parameter cannot exceed the default limit 200 TPS. You can change the default limit to meet service requirements. The maximum value is 2,147,483,647. Enter a positive integer.
type	Integer	Type of the request throttling policy. <ul style="list-style-type: none"> <li>• 1: API-based, limiting the maximum number of times a single API bound to the policy can be called within the specified period.</li> <li>• 2: API-shared, limiting the maximum number of times all APIs bound to the policy can be called within the specified period.</li> </ul>
enable_adaptive_control	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Currently, this parameter is not supported.
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter cannot exceed the Max. API Requests. The maximum value is 2,147,483,647. Enter a positive integer.
time_interval	Integer	Period of time for limiting the number of API calls. This parameter applies with each API call limit. The maximum value is 2,147,483,647. Enter a positive integer.

Parameter	Type	Description
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter cannot exceed the API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
id	String	Request throttling policy ID.
bind_num	Integer	Number of APIs to which the request throttling policy has been bound.
is_inclu_speci al_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>
create_time	String	Creation time.

**Status code: 400**

**Table 4-134** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-135** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-136** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 4-137** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating a request throttling policy (max. API requests: 800; max. user requests: 500; max. app requests: 300; max. IP address requests: 600; period: 1s)

```
{
  "api_call_limits" : 800,
  "app_call_limits" : 300,
  "enable_adaptive_control" : "FALSE",
  "ip_call_limits" : 600,
  "name" : "throttle_demo",
  "remark" : "Total: 800 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
  "time_interval" : 1,
  "time_unit" : "SECOND",
  "type" : 1,
  "user_call_limits" : 500
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "name" : "throttle_demo",
  "create_time" : "2020-07-31T08:44:02.205366118Z",
  "remark" : "Total: 800 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
  "type" : 1,
  "time_interval" : 1,
  "ip_call_limits" : 600,
  "app_call_limits" : 300,
  "time_unit" : "SECOND",
  "api_call_limits" : 800,
  "id" : "3437448ad06f4e0c91a224183116e965",
  "user_call_limits" : 500,
  "enable_adaptive_control" : "FALSE",
  "bind_num" : 0,
  "is_inclu_special_throttle" : 2
}
```

**Status code: 400**



### Bad Request

```
{
  "error_code": "APIG.2011",
  "error_msg": "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

### Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

### Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.4.2 Modifying a Request Throttling Policy

### Function

This API is used to modify the information about a request throttling policy.

## Calling Method

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

## URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/throttles/{throttle\_id}

**Table 4-138** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
throttle_id	Yes	String	Request throttling policy ID.

## Request Parameters

**Table 4-139** Request header parameters

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

**Table 4-140** Request body parameters

Parameter	Mandatory	Type	Description
app_calls_limit	No	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter cannot exceed the user call limit. The maximum value is 2,147,483,647. Enter a positive integer.

Parameter	Mandatory	Type	Description
name	Yes	String	Request throttling policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
time_unit	Yes	String	Time unit for limiting the number of API calls.
remark	No	String	Description of the request throttling policy, which can contain a maximum of 255 characters.
api_call_limits	Yes	Integer	Maximum number of times an API can be accessed within a specified period. The value of this parameter cannot exceed the default limit 200 TPS. You can change the default limit to meet service requirements. The maximum value is 2,147,483,647. Enter a positive integer.
type	No	Integer	Type of the request throttling policy. <ul style="list-style-type: none"> <li>• 1: API-based, limiting the maximum number of times a single API bound to the policy can be called within the specified period.</li> <li>• 2: API-shared, limiting the maximum number of times all APIs bound to the policy can be called within the specified period.</li> </ul>
enable_adaptive_control	No	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> <p>Currently, this parameter is not supported.</p>

Parameter	Mandatory	Type	Description
user_call_limits	No	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter cannot exceed the Max. API Requests. The maximum value is 2,147,483,647. Enter a positive integer.
time_interval	Yes	Integer	Period of time for limiting the number of API calls. This parameter applies with each API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
ip_call_limits	No	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter cannot exceed the API call limit. The maximum value is 2,147,483,647. Enter a positive integer.

## Response Parameters

Status code: 200

**Table 4-141** Response body parameters

Parameter	Type	Description
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter cannot exceed the user call limit. The maximum value is 2,147,483,647. Enter a positive integer.
name	String	Request throttling policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
time_unit	String	Time unit for limiting the number of API calls.
remark	String	Description of the request throttling policy, which can contain a maximum of 255 characters.

Parameter	Type	Description
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period. The value of this parameter cannot exceed the default limit 200 TPS. You can change the default limit to meet service requirements. The maximum value is 2,147,483,647. Enter a positive integer.
type	Integer	Type of the request throttling policy. <ul style="list-style-type: none"> <li>• 1: API-based, limiting the maximum number of times a single API bound to the policy can be called within the specified period.</li> <li>• 2: API-shared, limiting the maximum number of times all APIs bound to the policy can be called within the specified period.</li> </ul>
enable_adaptive_control	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Currently, this parameter is not supported.
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter cannot exceed the Max. API Requests. The maximum value is 2,147,483,647. Enter a positive integer.
time_interval	Integer	Period of time for limiting the number of API calls. This parameter applies with each API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter cannot exceed the API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
id	String	Request throttling policy ID.
bind_num	Integer	Number of APIs to which the request throttling policy has been bound.
is_included_special_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>
create_time	String	Creation time.

**Status code: 400****Table 4-142** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-143** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-144** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-145** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-146** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

Modifying a request throttling policy (max. API requests: 800; max. user requests: 500; max. app requests: 300; max. IP address requests: 600; period: 1s)

```
{
  "name" : "throttle_demo",
  "remark" : "Total: 800 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
  "type" : 1,
  "time_interval" : 1,
  "ip_call_limits" : 600,
  "app_call_limits" : 300,
  "time_unit" : "SECOND",
  "api_call_limits" : 800,
  "user_call_limits" : 500
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "name" : "throttle_demo",
  "create_time" : "2020-07-31T08:44:02.205366118Z",
  "remark" : "Total: 800 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
  "type" : 1,
  "time_interval" : 1,
  "ip_call_limits" : 600,
  "app_call_limits" : 300,
  "time_unit" : "SECOND",
  "api_call_limits" : 800,
  "id" : "3437448ad06f4e0c91a224183116e965",
  "user_call_limits" : 500,
  "enable_adaptive_control" : "FALSE",
  "bind_num" : 0,
  "is_inclu_special_throttle" : 2
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3005",
  "error_msg" : "Request throttling policy 3437448ad06f4e0c91a224183116e965 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.4.3 Deleting a Request Throttling Policy

#### Function

This API is used to delete a request throttling policy and all binding relationships between the policy and APIs.

#### Calling Method

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



## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/throttles/{throttle\_id}

**Table 4-147** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
throttle_id	Yes	String	Request throttling policy ID.

## Request Parameters

**Table 4-148** Request header parameters

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

## Response Parameters

**Status code: 401**

**Table 4-149** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-150** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-151** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-152** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3005",
  "error_msg" : "Request throttling policy 3437448ad06f4e0c91a224183116e965 does not exist"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.4.4 Querying Request Throttling Policies

### Function

This API is used to query all the request throttling policies.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/throttles

**Table 4-153** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-154** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
id	No	String	Request throttling policy ID.
name	No	String	Request throttling policy name.
precise_search	No	String	Parameter name (name) for exact matching.

## Request Parameters

**Table 4-155** Request header parameters

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

## Response Parameters

**Status code: 200****Table 4-156** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
throttles	Array of <a href="#">ThrottlesInfo</a> objects	Request throttling policy list.

**Table 4-157** ThrottlesInfo

Parameter	Type	Description
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter cannot exceed the user call limit. The maximum value is 2,147,483,647. Enter a positive integer.
name	String	Request throttling policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
time_unit	String	Time unit for limiting the number of API calls.
remark	String	Description of the request throttling policy, which can contain a maximum of 255 characters.

Parameter	Type	Description
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period. The value of this parameter cannot exceed the default limit 200 TPS. You can change the default limit to meet service requirements. The maximum value is 2,147,483,647. Enter a positive integer.
type	Integer	Type of the request throttling policy. <ul style="list-style-type: none"> <li>• 1: API-based, limiting the maximum number of times a single API bound to the policy can be called within the specified period.</li> <li>• 2: API-shared, limiting the maximum number of times all APIs bound to the policy can be called within the specified period.</li> </ul>
enable_adaptive_control	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Currently, this parameter is not supported.
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter cannot exceed the Max. API Requests. The maximum value is 2,147,483,647. Enter a positive integer.
time_interval	Integer	Period of time for limiting the number of API calls. This parameter applies with each API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter cannot exceed the API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
id	String	Request throttling policy ID.
bind_num	Integer	Number of APIs to which the request throttling policy has been bound.
is_included_special_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>
create_time	String	Creation time.

**Status code: 400****Table 4-158** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-159** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-160** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-161** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

**Example Responses****Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "throttles": [ {
    "name": "throttle_demo",
    "create_time": "2020-07-31T08:44:02.205366118Z",
    "remark": "Total: 800 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
    "type": 1,
    "time_interval": 1,
    "ip_call_limits": 600,
    "app_call_limits": 300,
    "time_unit": "SECOND",
    "api_call_limits": 800,
    "id": "3437448ad06f4e0c91a224183116e965",
    "user_call_limits": 500,
    "enable_adaptive_control": "FALSE",
    "bind_num": 0,
    "is_inclu_special_throttle": 2
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK



Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.4.5 Querying Details of a Request Throttling Policy

### Function

This API is used to query the details of a request throttling policy.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/throttles/{throttle\_id}

**Table 4-162** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
throttle_id	Yes	String	Request throttling policy ID.

## Request Parameters

**Table 4-163** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-164** Response body parameters

Parameter	Type	Description
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter cannot exceed the user call limit. The maximum value is 2,147,483,647. Enter a positive integer.
name	String	Request throttling policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
time_unit	String	Time unit for limiting the number of API calls.
remark	String	Description of the request throttling policy, which can contain a maximum of 255 characters.
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period. The value of this parameter cannot exceed the default limit 200 TPS. You can change the default limit to meet service requirements. The maximum value is 2,147,483,647. Enter a positive integer.
type	Integer	Type of the request throttling policy. <ul style="list-style-type: none"> <li>• 1: API-based, limiting the maximum number of times a single API bound to the policy can be called within the specified period.</li> <li>• 2: API-shared, limiting the maximum number of times all APIs bound to the policy can be called within the specified period.</li> </ul>

Parameter	Type	Description
enable_adaptive_control	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Currently, this parameter is not supported.
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter cannot exceed the Max. API Requests. The maximum value is 2,147,483,647. Enter a positive integer.
time_interval	Integer	Period of time for limiting the number of API calls. This parameter applies with each API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter cannot exceed the API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
id	String	Request throttling policy ID.
bind_num	Integer	Number of APIs to which the request throttling policy has been bound.
is_included_special_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>
create_time	String	Creation time.

**Status code: 401**

**Table 4-165** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-166** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-167** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-168** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "name" : "throttle_demo",
  "create_time" : "2020-07-31T08:44:02.205366118Z",
  "remark" : "Total: 800 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
  "type" : 1,
  "time_interval" : 1,
  "ip_call_limits" : 600,
  "app_call_limits" : 300,
  "time_unit" : "SECOND",
  "api_call_limits" : 800,
  "id" : "3437448ad06f4e0c91a224183116e965",
  "user_call_limits" : 500,
  "enable_adaptive_control" : "FALSE",
  "bind_num" : 0,
}
```

```
"is_inclu_special_throttle" : 2
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3005",
  "error_msg" : "Request throttling policy 3437448ad06f4e0c91a224183116e965 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.5 API Management

## 4.5.1 Creating an API

### Function

This API is used to create an API. An API is an interface that encapsulates a set of service capabilities.

The definition of an API defines how the API is called by users and how APIG accesses the actual backend service requested by users. APIG supports four backend types: HTTP/HTTPS, gRPC, FunctionGraph, and Mock.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/apis

**Table 4-169** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-170** Request header parameters

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

**Table 4-171** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	API name. It can contain 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()
type	Yes	Integer	API type. <ul style="list-style-type: none"> <li>1: public API</li> <li>2: private API</li> </ul>
version	No	String	API version. Maximum: <b>16</b>
req_protocol	Yes	String	API request protocol: <ul style="list-style-type: none"> <li>HTTP</li> <li>HTTPS</li> <li>BOTH: Both HTTP and HTTPS are supported.</li> <li>GRPCS</li> </ul> Default: <b>HTTPS</b>
req_method	Yes	String	API request method. If the request protocol is set to GRPC, the request method is fixed to POST.
req_uri	Yes	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications. <b>NOTE</b> The address must comply with the URI specifications.

Parameter	Mandatory	Type	Description
auth_type	Yes	String	API authentication mode. Options: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER: custom authentication. When auth_type is set to AUTHORIZER, the authorizer_id field is mandatory.</li> </ul>
auth_opt	No	<a href="#">AuthOpt</a> object	Security authentication parameter.
cors	No	Boolean	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• TRUE: supported</li> <li>• FALSE: not supported</li> </ul> Default: <b>false</b>
match_mode	No	String	API matching mode: <ul style="list-style-type: none"> <li>• SWA: Prefix match</li> <li>• NORMAL: Exact match</li> </ul> Default value: NORMAL
backend_type	Yes	String	Backend type. Options: <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend. When backend_type is set to FUNCTION, the func_info field is mandatory.</li> <li>• MOCK: mock backend. When backend_type is set to MOCK, the mock_info field is mandatory.</li> <li>• GRPC: gRPC backend.</li> </ul>
remark	No	String	API description. It cannot exceed 255 characters.
group_id	Yes	String	ID of the API group to which the API belongs.



Parameter	Mandatory	Type	Description
body_remark	No	String	API request body, which can be an example request body, media type, or parameters. Ensure that the request body does not exceed 20,480 characters.
result_normal_sample	No	String	Example response for a successful request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
result_failure_sample	No	String	Example response for a failed request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
authorizer_id	No	String	ID of the frontend custom authorizer
tags	No	Array of strings	Tag. Use letters, digits, and special characters (-*#%.:_) and start with a letter. By default, 10 tags are supported. To increase the quota, contact technical support to modify the API_TAG_NUM_LIMIT configuration. Minimum: <b>1</b> Maximum: <b>128</b>
response_id	No	String	Group response ID.
roma_app_id	No	String	Integration application ID. Currently, this parameter is not supported.
domain_name	No	String	Custom domain name bound to the API. Currently, this parameter is not supported.

Parameter	Mandatory	Type	Description
tag	No	String	Tag. This field will be deprecated. You can use the tags field instead.
content_type	No	String	Request content type: application/json application/xml multipart/form-data text/plain
is_send_fg_body_base64	No	Boolean	Specifies whether to perform Base64 encoding on the body for interaction with FunctionGraph. The body does not need to be encoded using Base64 only when content_type is set to application/json. Application scenario: <ul style="list-style-type: none"> <li>• Custom authentication</li> <li>• Bound circuit breaker plugin with FunctionGraph backend downgrade policy</li> <li>• APIs with FunctionGraph backend</li> </ul> Default: <b>true</b>
mock_info	No	<b>ApiMockCreate</b> object	Mock backend details.
func_info	No	<b>ApiFuncCreate</b> object	FunctionGraph backend details.
req_params	No	Array of <b>ReqParamBase</b> objects	Request parameters. This is unavailable if the request protocol is set to GRPC.
backend_params	No	Array of <b>BackendParamBase</b> objects	Backend parameters. This is unavailable if the request protocol is set to GRPC.
policy_mocks	No	Array of <b>ApiPolicyMockCreate</b> objects	Mock backend policies.

Parameter	Mandatory	Type	Description
policy_functions	No	Array of <a href="#">ApiPolicyFunctionCreate</a> objects	FunctionGraph backend policies.
backend_api	No	<a href="#">BackendApiCreate</a> object	Web backend details.
policy_https	No	Array of <a href="#">ApiPolicyHttpCreate</a> objects	Web backend policies.

**Table 4-172** AuthOpt

Parameter	Mandatory	Type	Description
app_code_auth_type	No	String	Indicates whether AppCode authentication is enabled. This parameter is valid only if auth_type is set to App. The default value is DISABLE. <ul style="list-style-type: none"> <li>DISABLE: AppCode authentication is disabled.</li> <li>HEADER: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul> Default: <b>DISABLE</b>

**Table 4-173** ApiMockCreate

Parameter	Mandatory	Type	Description
remark	No	String	Description. It cannot exceed 255 characters.
result_content	No	String	Response.
version	No	String	Function version. It cannot exceed 64 characters.
authorizer_id	No	String	Backend custom authorizer ID.

**Table 4-174** ApiFuncCreate

Parameter	Mandatory	Type	Description
function_urn	Yes	String	Function URN.
remark	No	String	Description. It cannot exceed 255 characters.
invocation_type	Yes	String	Invocation mode. <ul style="list-style-type: none"> <li>• async: asynchronous</li> <li>• sync: synchronous</li> </ul>
network_type	Yes	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul>
version	No	String	Function version. If both a function alias URN and version are passed, only the alias URN will be used. Maximum: <b>64</b>
alias_urn	No	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	Yes	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
authorizer_id	No	String	Backend custom authorizer ID.
req_protocol	No	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>

**Table 4-175** ReqParamBase

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name. The parameter name can contain 1 to 32 characters and must start with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
type	Yes	String	Parameter type.
location	Yes	String	Parameter location.
default_value	No	String	Default value.
sample_value	No	String	Example value.
required	No	Integer	Indicates whether the parameter is required. 1: yes 2: no The value of this parameter is 1 if Location is set to PATH, and 2 if Location is set to another value.
valid_enable	No	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"> <li>• 1: enabled</li> <li>• 2: disabled</li> </ul> Default: 2
remark	No	String	Description. It cannot exceed 255 characters.
enumerations	No	String	Enumerated value.
min_num	No	Integer	Minimum value. This parameter is valid when type is set to NUMBER.
max_num	No	Integer	Maximum value. This parameter is valid when type is set to NUMBER.
min_size	No	Integer	Minimum length. This parameter is valid when type is set to STRING.

Parameter	Mandatory	Type	Description
max_size	No	Integer	Maximum length. This parameter is valid when type is set to STRING.
regular	No	String	Regular expression validation rule. Currently, this parameter is not supported.
json_schema	No	String	JSON validation rule. Currently, this parameter is not supported.
pass_through	No	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no
orchestrations	No	Array of strings	Request parameter orchestration rules are prioritized in the same sequence as the list. The none_value rule in a rule list has the highest priority. A maximum of one none_value rule can be bound. The default rule in a rule list has the lowest priority. A maximum of one default rule can be bound. The preprocessing orchestration rule cannot be used as the last orchestration rule except the default rule. Only one parameter of each API can be bound with unique orchestration rules. The number of orchestration rules that can be bound is limited by quota. For details, see "Notes and Constraints" in APIG Service Overview.

**Table 4-176** ApiPolicyMockCreate

Parameter	Mandatory	Type	Description
result_content	No	String	Response.
effect_mode	Yes	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	Yes	String	Backend name. It must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	No	Array of <a href="#">BackendParamBase</a> objects	Backend parameters. This is unavailable for the GRPC backend.
conditions	Yes	Array of <a href="#">ApiConditionBase</a> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.

**Table 4-177** ApiPolicyFunctionCreate

Parameter	Mandatory	Type	Description
function_urn	Yes	String	Function URN.
invocation_type	Yes	String	Invocation mode. <ul style="list-style-type: none"> <li>• async: asynchronous</li> <li>• sync: synchronous</li> </ul>
network_type	Yes	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul>
version	No	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
alias_urn	No	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	No	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
req_protocol	No	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
effect_mode	Yes	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	Yes	String	Backend name. It must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	No	Array of <b>BackendParamBase</b> objects	Backend parameters. This is unavailable for the GRPC backend.
conditions	Yes	Array of <b>ApiConditionBase</b> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.



**Table 4-178** BackendApiCreate

Parameter	Mandatory	Type	Description
authorizer_id	No	String	Backend custom authorizer ID.
url_domain	No	String	Backend service address. Required when no VPC channel is used.  A backend service address consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Host name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used.  Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
req_protocol	Yes	String	Request protocol. You can select GRPC or GRPCS for the GRPC backend.
remark	No	String	Description. It cannot exceed 255 characters.
req_method	Yes	String	Request method. For the GRPC backend, the request method is fixed to POST.
version	No	String	Web backend version, which can contain a maximum of 16 characters.

Parameter	Mandatory	Type	Description
req_uri	Yes	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p><b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.</p>
timeout	Yes	Integer	<p>Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.</p> <p>Unit: ms. Minimum: 1</p>
enable_client_ssl	No	Boolean	Indicates whether to enable two-way authentication.
retry_count	No	String	<p>Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.</p> <p>-1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.</p> <p>Default: -1</p>

Parameter	Mandatory	Type	Description
enable_sm_channel	No	Boolean	Indicates whether to enable SM cryptographic algorithms. This feature is only available if the gateway supports the SM cryptographic algorithms.
vpc_channel_info	No	<a href="#">ApiBackendVpcReq</a> object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	No	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"> <li>1: A VPC channel is used.</li> <li>2: No VPC channel is used.</li> </ul>

**Table 4-179** ApiPolicyHttpCreate

Parameter	Mandatory	Type	Description
url_domain	No	String	Endpoint of the policy backend. Required when no VPC channel is used.  An endpoint consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Domain name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used.  Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
req_protocol	Yes	String	Request protocol. Options include HTTP, HTTPS, GRPC, or GRPCS. You can select GRPC or GRPCS for the GRPC backend.

Parameter	Mandatory	Type	Description
req_method	Yes	String	Request method. Options include GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, and ANY. This is fixed to POST for the GRPC backend.
req_uri	Yes	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.  Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.  <b>NOTE</b> The address must comply with the URI specifications.  For the GRPC backend, the request address is fixed to /.
timeout	No	Integer	Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.  Unit: ms.  Minimum: 1

Parameter	Mandatory	Type	Description
retry_count	No	String	Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10. -1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent. Default: <b>-1</b>
enable_sm_channel	No	Boolean	Indicates whether to enable SM cryptographic algorithms. This feature is only available if the gateway supports the SM cryptographic algorithms.
effect_mode	Yes	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	Yes	String	Backend name. It must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	No	Array of <b>BackendParamBase</b> objects	Backend parameters. This is unavailable for the GRPC backend.
conditions	Yes	Array of <b>ApiConditionBase</b> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.
vpc_channel_info	No	<b>ApiBackendVpcReq</b> object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	No	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"> <li>• 1: A VPC channel is used.</li> <li>• 2: No VPC channel is used.</li> </ul>

**Table 4-180** BackendParamBase

Parameter	Mandatory	Type	Description
origin	Yes	String	Parameter type. <ul style="list-style-type: none"><li>• REQUEST: backend parameter</li><li>• CONSTANT: constant parameter</li><li>• SYSTEM: system parameter</li></ul>
name	Yes	String	Parameter name. The parameter name must start with a letter and can only contain letters, digits, hyphens (-), underscores (_), and periods (.). Minimum: <b>1</b> Maximum: <b>32</b>
remark	No	String	Description, which can contain a maximum of 255 characters.
location	Yes	String	Parameter location. The value can be PATH, QUERY, or HEADER.

Parameter	Mandatory	Type	Description
value	Yes	String	<p>Parameter value, which can contain a maximum of 255 characters.</p> <p>If the origin type is REQUEST, the value of this parameter is the parameter name in req_params.</p> <p>If the origin type is CONSTANT, the value is a constant.</p> <p>If the origin type is SYSTEM, the value is a system parameter name. System parameters include gateway parameters, frontend authentication parameters, and backend authentication parameters. You can set the frontend or backend authentication parameters after enabling custom frontend or backend authentication.</p> <p>The gateway parameters are as follows:</p> <ul style="list-style-type: none"> <li>• \$context.sourcelp: source IP address of the API caller.</li> <li>• \$context.stage: deployment environment in which the API is called.</li> <li>• \$context.apild: API ID.</li> <li>• \$context.appld: ID of the app used by the API caller.</li> <li>• \$context.requestId: request ID generated when the API is called.</li> <li>• \$context.serverAddr: address of the gateway server.</li> <li>• \$context.serverName: name of the gateway server.</li> <li>• \$context.handleTime: time when the API request is processed.</li> <li>• \$context.providerAppId: ID of the app used by the API</li> </ul>

Parameter	Mandatory	Type	Description
			<p>owner. This parameter is currently not supported.</p> <p>Frontend authentication parameter: prefixed with "\$context.authorizer.frontend." . For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.frontend.aaa".</p> <p>Backend authentication parameter: prefixed with "\$context.authorizer.backend." . For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.backend.aaa".</p>

**Table 4-181** ApiConditionBase

Parameter	Mandatory	Type	Description
req_param_name	No	String	Input parameter name. This parameter is required if the policy type is param.
sys_param_name	No	String	<p>Name of a built-in gateway parameter. This parameter is required if the policy type is system. The following parameters are supported:</p> <ul style="list-style-type: none"> <li>req_path: request path. For example, /a/b.</li> <li>req_method: request method. For example, GET.</li> <li>reqPath: request path, which is discarded. For example, /a/b.</li> <li>reqMethod: request method, which is discarded. For example, GET.</li> </ul>



Parameter	Mandatory	Type	Description
cookie_param_name	No	String	COOKIE parameter name. This parameter is required if the policy type is cookie. Minimum: <b>0</b> Maximum: <b>255</b>
frontend_auth_orizer_param_name	No	String	System parameter: frontend authentication parameter name. This parameter is mandatory when the policy type is frontend_auth_orizer. The frontend authentication parameter name is prefixed with \$context.authorizer.frontend. For example, if the frontend authentication parameter name is user_name, the name with the prefix will be \$context.authorizer.frontend.user_name.
condition_type	No	String	Policy condition. <ul style="list-style-type: none"> <li>exact: Exact match</li> <li>enum: Enumeration</li> <li>pattern: Regular expression</li> </ul> This parameter is required when the policy type is param, system, cookie, or frontend_auth_orizer.
condition_origin	Yes	String	Policy type <ul style="list-style-type: none"> <li>param: parameter</li> <li>source: source IP address</li> <li>system: system parameter - gateway built-in parameter</li> <li>cookie: COOKIE parameter</li> <li>frontend_auth_orizer: system parameter - frontend authentication parameter</li> </ul>
condition_value	Yes	String	Policy value. Maximum: <b>1024</b>

Parameter	Mandatory	Type	Description
mapped_param_name	No	String	Name of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. The generated parameter name must exist in the orchestration rule bound to the API.
mapped_param_location	No	String	Location of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. This location must exist in the orchestration rule bound to the API.

**Table 4-182** ApiBackendVpcReq

Parameter	Mandatory	Type	Description
vpc_channel_proxy_host	No	String	Proxy host.
vpc_channel_id	Yes	String	VPC channel ID.

## Response Parameters

Status code: 201

**Table 4-183** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()
type	Integer	API type. <ul style="list-style-type: none"> <li>1: public API</li> <li>2: private API</li> </ul>
version	String	API version. Maximum: <b>16</b>

Parameter	Type	Description
req_protocol	String	API request protocol: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> <li>• BOTH: Both HTTP and HTTPS are supported.</li> <li>• GRPCS</li> </ul> Default: <b>HTTPS</b>
req_method	String	API request method. If the request protocol is set to GRPC, the request method is fixed to POST.
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications. <b>NOTE</b> The address must comply with the URI specifications.
auth_type	String	API authentication mode. Options: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER: custom authentication. When auth_type is set to AUTHORIZER, the authorizer_id field is mandatory.</li> </ul>
auth_opt	<b>AuthOpt</b> object	Security authentication parameter.
cors	Boolean	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• TRUE: supported</li> <li>• FALSE: not supported</li> </ul> Default: <b>false</b>
match_mode	String	API matching mode: <ul style="list-style-type: none"> <li>• SWA: Prefix match</li> <li>• NORMAL: Exact match</li> </ul> Default value: NORMAL

Parameter	Type	Description
backend_type	String	Backend type. Options: <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend. When backend_type is set to FUNCTION, the func_info field is mandatory.</li> <li>• MOCK: mock backend. When backend_type is set to MOCK, the mock_info field is mandatory.</li> <li>• GRPC: gRPC backend.</li> </ul>
remark	String	API description. It cannot exceed 255 characters.
group_id	String	ID of the API group to which the API belongs.
body_remark	String	API request body, which can be an example request body, media type, or parameters. Ensure that the request body does not exceed 20,480 characters.
result_normal_sample	String	Example response for a successful request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
result_failure_sample	String	Example response for a failed request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
authorizer_id	String	ID of the frontend custom authorizer
tags	Array of strings	Tag. Use letters, digits, and special characters (-*#%.:_) and start with a letter. By default, 10 tags are supported. To increase the quota, contact technical support to modify the API_TAG_NUM_LIMIT configuration. Minimum: <b>1</b> Maximum: <b>128</b>
response_id	String	Group response ID.
roma_app_id	String	Integration application ID. Currently, this parameter is not supported.
domain_name	String	Custom domain name bound to the API. Currently, this parameter is not supported.

Parameter	Type	Description
tag	String	Tag. This field will be deprecated. You can use the tags field instead.
content_type	String	Request content type: application/json application/xml multipart/form-data text/plain
is_send_fg_body_base64	Boolean	Specifies whether to perform Base64 encoding on the body for interaction with FunctionGraph. The body does not need to be encoded using Base64 only when content_type is set to application/json. Application scenario: <ul style="list-style-type: none"> <li>• Custom authentication</li> <li>• Bound circuit breaker plug-in with FunctionGraph backend downgrade policy</li> <li>• APIs with FunctionGraph backend</li> </ul> Default: <b>true</b>
id	String	API ID.
status	Integer	App status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
arrange_necessary	Integer	Indicates whether to enable orchestration.
register_time	String	Time when the API is registered.
update_time	String	Time when the API was last modified.
group_name	String	Name of the API group to which the API belongs.
group_version	String	Version of the API group to which the API belongs. The default value is V1. Other versions are not supported. Default: <b>V1</b>
run_env_id	String	ID of the environment in which the API has been published. Separate multiple environment IDs with vertical bars ( ).

Parameter	Type	Description
run_env_name	String	Name of the environment in which the API has been published. Separate multiple environment names with vertical bars ( ).
publish_id	String	Publication record ID. Separate multiple publication record IDs with vertical bars ( ).
publish_time	String	Publication time. Separate the time of multiple publication records with vertical bars ( ).
roma_app_name	String	Name of the integration application to which the API belongs. Currently, this parameter is not supported.
ld_api_id	String	ID of the corresponding custom backend API. Currently, this parameter is not supported.
backend_api	<b>BackendApi</b> object	Web backend details.
api_group_info	<b>ApiGroupCommonInfo</b> object	API group information.
func_info	<b>ApiFunc</b> object	FunctionGraph backend details.
mock_info	<b>ApiMock</b> object	Mock backend details.
req_params	Array of <b>ReqParam</b> objects	Request parameters.
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
policy_functions	Array of <b>ApiPolicyFunctionResp</b> objects	FunctionGraph backend policies.
policy_mocks	Array of <b>ApiPolicyMockResp</b> objects	Mock backend policies.
policy_https	Array of <b>ApiPolicyHttpResp</b> objects	Web backend policies.

**Table 4-184** AuthOpt

Parameter	Type	Description
app_code_auth_type	String	<p>Indicates whether AppCode authentication is enabled. This parameter is valid only if auth_type is set to App. The default value is DISABLE.</p> <ul style="list-style-type: none"> <li>DISABLE: AppCode authentication is disabled.</li> <li>HEADER: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul> <p>Default: <b>DISABLE</b></p>

**Table 4-185** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	<p>Backend service address.</p> <p>A backend service address consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Host name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p>
req_protocol	String	Request protocol. You can select GRPC or GRPCS for the GRPC backend.
remark	String	Description. It cannot exceed 255 characters.
req_method	String	Request method. For the GRPC backend, the request method is fixed to POST.
version	String	Web backend version, which can contain a maximum of 16 characters.

Parameter	Type	Description
req_uri	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p><b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.</p>
timeout	Integer	<p>Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.</p> <p>Unit: ms. Minimum: <b>1</b></p>
enable_client_ssl	Boolean	Indicates whether to enable two-way authentication.
retry_count	String	<p>Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.</p> <p>-1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.</p> <p>Default: <b>-1</b></p>
enable_sm_channel	Boolean	<p>Indicates whether to enable SM cryptographic algorithms.</p> <p>This feature is only available if the gateway supports the SM cryptographic algorithms.</p>
id	String	ID.
status	Integer	<p>Backend service status.</p> <ul style="list-style-type: none"> <li>1: valid</li> </ul>
register_time	String	Registration time.



Parameter	Type	Description
update_time	String	Update time.
vpc_channel_info	<b>VpcInfo</b> object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"> <li>• 1: A VPC channel is used.</li> <li>• 2: No VPC channel is used.</li> </ul>

**Table 4-186** ApiGroupCommonInfo

Parameter	Type	Description
id	String	ID.
name	String	API group name.
status	Integer	Status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.
update_time	String	Last modification time.
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. <ul style="list-style-type: none"> <li>• 1: listed</li> <li>• 2: not listed</li> <li>• 3: under review</li> </ul> Not supported currently.
url_domains	Array of <b>UrlDomain</b> objects	Independent domain names bound to the API group.
sl_domain_access_enabled	Boolean	Whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>

**Table 4-187** UrlDomain

Parameter	Type	Description
id	String	Domain ID.

Parameter	Type	Description
domain	String	Domain name.
cname_status	Integer	CNAME resolution status of the domain name. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged. Minimum: <b>-1</b> Maximum: <b>49151</b>

Parameter	Type	Description
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ssl_infos	Array of <b>SslInfo</b> objects	SSL certificate list.

**Table 4-188** SslInfo

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
algorithm_type	String	<p>Certificate algorithm type:</p> <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>
type	String	<p>Certificate scope:</p> <ul style="list-style-type: none"> <li>• instance</li> <li>• global</li> </ul> <p>Default: <b>global</b></p>

**Table 4-189** ApiFunc

Parameter	Type	Description
function_urn	String	Function URN.
remark	String	Description. It cannot exceed 255 characters.
invocation_type	String	Invocation mode. <ul style="list-style-type: none"> <li>• async: asynchronous</li> <li>• sync: synchronous</li> </ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul>
version	String	Function version. If both a function alias URN and version are passed, only the alias URN will be used. Maximum: <b>64</b>
alias_urn	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
authorizer_id	String	Backend custom authorizer ID.
req_protocol	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
id	String	ID.
register_time	String	Registration time.
status	Integer	Backend service status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
update_time	String	Update time.

**Table 4-190** ApiMock

Parameter	Type	Description
remark	String	Description. It cannot exceed 255 characters.
result_content	String	Response.
version	String	Function version. It cannot exceed 64 characters.
authorizer_id	String	Backend custom authorizer ID.
id	String	ID.
register_time	String	Registration time.
status	Integer	Backend service status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
update_time	String	Update time.

**Table 4-191** ReqParam

Parameter	Type	Description
name	String	Parameter name. The parameter name can contain 1 to 32 characters and must start with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
type	String	Parameter type.
location	String	Parameter location.
default_value	String	Default value.
sample_value	String	Example value.
required	Integer	Indicates whether the parameter is required. 1: yes 2: no The value of this parameter is 1 if Location is set to PATH, and 2 if Location is set to another value.
valid_enable	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"> <li>• 1: enabled</li> <li>• 2: disabled</li> </ul> Default: 2
remark	String	Description. It cannot exceed 255 characters.

Parameter	Type	Description
enumerations	String	Enumerated value.
min_num	Integer	Minimum value. This parameter is valid when type is set to NUMBER.
max_num	Integer	Maximum value. This parameter is valid when type is set to NUMBER.
min_size	Integer	Minimum length. This parameter is valid when type is set to STRING.
max_size	Integer	Maximum length. This parameter is valid when type is set to STRING.
regular	String	Regular expression validation rule. Currently, this parameter is not supported.
json_schema	String	JSON validation rule. Currently, this parameter is not supported.
pass_through	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no
orchestrations	Array of strings	Request parameter orchestration rules are prioritized in the same sequence as the list. The none_value rule in a rule list has the highest priority. A maximum of one none_value rule can be bound. The default rule in a rule list has the lowest priority. A maximum of one default rule can be bound. The preprocessing orchestration rule cannot be used as the last orchestration rule except the default rule. Only one parameter of each API can be bound with unique orchestration rules. The number of orchestration rules that can be bound is limited by quota. For details, see "Notes and Constraints" in APIG Service Overview.
id	String	Parameter ID.

**Table 4-192** ApiPolicyFunctionResp

Parameter	Type	Description
function_urn	String	Function URN.
invocation_type	String	Invocation mode. <ul style="list-style-type: none"><li>• async: asynchronous</li><li>• sync: synchronous</li></ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"><li>• V1: non-VPC</li><li>• V2: VPC</li></ul>
version	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
alias_urn	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
req_protocol	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"><li>• ALL: All conditions are met.</li><li>• ANY: Any condition is met.</li></ul>

Parameter	Type	Description
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>CoditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.

**Table 4-193** ApiPolicyMockResp

Parameter	Type	Description
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>CoditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.
result_content	String	Response.



**Table 4-194** ApiPolicyHttpResp

Parameter	Type	Description
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"><li>• ALL: All conditions are met.</li><li>• ANY: Any condition is met.</li></ul>
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>ConditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	Endpoint of the policy backend. An endpoint consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Domain name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used. Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
req_protocol	String	Request protocol. Options include HTTP, HTTPS, GRPC, or GRPCS. You can select GRPC or GRPCS for the GRPC backend.
req_method	String	Request method. Options include GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, and ANY. This is fixed to POST for the GRPC backend.

Parameter	Type	Description
req_uri	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p><b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.</p>
timeout	Integer	<p>Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.</p> <p>Unit: ms. Minimum: 1</p>
retry_count	String	<p>Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.</p> <p>-1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.</p> <p>Default: -1</p>
enable_sm_channel	Boolean	<p>Indicates whether to enable SM cryptographic algorithms.</p> <p>This feature is only available if the gateway supports the SM cryptographic algorithms.</p>
vpc_channel_info	VpcInfo object	<p>VPC channel details. This parameter is required if vpc_channel_status is set to 1.</p>
vpc_channel_status	Integer	<p>Indicates whether to use a VPC channel.</p> <ul style="list-style-type: none"> <li>1: A VPC channel is used.</li> <li>2: No VPC channel is used.</li> </ul>

**Table 4-195** BackendParam

Parameter	Type	Description
origin	String	Parameter type. <ul style="list-style-type: none"> <li>● REQUEST: backend parameter</li> <li>● CONSTANT: constant parameter</li> <li>● SYSTEM: system parameter</li> </ul>
name	String	Parameter name. The parameter name must start with a letter and can only contain letters, digits, hyphens (-), underscores (_), and periods (.). Minimum: <b>1</b> Maximum: <b>32</b>
remark	String	Description, which can contain a maximum of 255 characters.
location	String	Parameter location. The value can be PATH, QUERY, or HEADER.

Parameter	Type	Description
value	String	<p>Parameter value, which can contain a maximum of 255 characters.</p> <p>If the origin type is REQUEST, the value of this parameter is the parameter name in req_params.</p> <p>If the origin type is CONSTANT, the value is a constant.</p> <p>If the origin type is SYSTEM, the value is a system parameter name. System parameters include gateway parameters, frontend authentication parameters, and backend authentication parameters. You can set the frontend or backend authentication parameters after enabling custom frontend or backend authentication.</p> <p>The gateway parameters are as follows:</p> <ul style="list-style-type: none"> <li>● \$context.sourceIp: source IP address of the API caller.</li> <li>● \$context.stage: deployment environment in which the API is called.</li> <li>● \$context.apid: API ID.</li> <li>● \$context.appid: ID of the app used by the API caller.</li> <li>● \$context.requestId: request ID generated when the API is called.</li> <li>● \$context.serverAddr: address of the gateway server.</li> <li>● \$context.serverName: name of the gateway server.</li> <li>● \$context.handleTime: time when the API request is processed.</li> <li>● \$context.providerAppId: ID of the app used by the API owner. This parameter is currently not supported.</li> </ul> <p>Frontend authentication parameter: prefixed with "\$context.authorizer.frontend.". For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.frontend.aaa".</p> <p>Backend authentication parameter: prefixed with "\$context.authorizer.backend.". For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.backend.aaa".</p>
id	String	Parameter ID.

Parameter	Type	Description
req_param_id	String	Request parameter ID.

**Table 4-196** ConditionResp

Parameter	Type	Description
req_param_name	String	Input parameter name. This parameter is required if the policy type is param.
sys_param_name	String	Name of a built-in gateway parameter. This parameter is required if the policy type is system. The following parameters are supported: <ul style="list-style-type: none"> <li>req_path: request path. For example, /a/b.</li> <li>req_method: request method. For example, GET.</li> <li>reqPath: request path, which is discarded. For example, /a/b.</li> <li>reqMethod: request method, which is discarded. For example, GET.</li> </ul>
cookie_param_name	String	COOKIE parameter name. This parameter is required if the policy type is cookie. Minimum: <b>0</b> Maximum: <b>255</b>
frontend_auth_orizer_param_name	String	System parameter: frontend authentication parameter name. This parameter is mandatory when the policy type is frontend_auth_orizer. The frontend authentication parameter name is prefixed with \$context.authorizer.frontend. For example, if the frontend authentication parameter name is user_name, the name with the prefix will be \$context.authorizer.frontend.user_name.
condition_type	String	Policy condition. <ul style="list-style-type: none"> <li>exact: Exact match</li> <li>enum: Enumeration</li> <li>pattern: Regular expression</li> </ul> This parameter is required when the policy type is param, system, cookie, or frontend_auth_orizer.

Parameter	Type	Description
condition_origin	String	Policy type <ul style="list-style-type: none"> <li>• param: parameter</li> <li>• source: source IP address</li> <li>• system: system parameter - gateway built-in parameter</li> <li>• cookie: COOKIE parameter</li> <li>• frontend_authorizer: system parameter - frontend authentication parameter</li> </ul>
condition_value	String	Policy value. Maximum: <b>1024</b>
mapped_parameter_name	String	Name of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. The generated parameter name must exist in the orchestration rule bound to the API.
mapped_parameter_location	String	Location of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. This location must exist in the orchestration rule bound to the API.
id	String	ID.
req_param_id	String	Input parameter ID.
req_param_location	String	Input parameter location.

**Table 4-197** VpcInfo

Parameter	Type	Description
ecs_id	String	Cloud server ID.
ecs_name	String	Cloud server name.
cascade_flag	Boolean	Indicates whether to use the cascading mode. Currently, this parameter is not supported.
vpc_channel_proxy_host	String	Proxy host.
vpc_channel_id	String	VPC channel ID.
vpc_channel_port	Integer	VPC channel port.

**Status code: 400****Table 4-198** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-199** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-200** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-201** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-202** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

- Creating a web backend API

```
{
  "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
  "match_mode": "NORMAL",
  "name": "Api_http",
  "auth_type": "AUTHORIZER",
  "authorizer_id": "0d982c1ac3da493dae47627b6439fc5c",
  "backend_type": "HTTP",
  "backend_api": {
    "url_domain": "192.168.189.156:12346",
    "req_protocol": "HTTP",
    "req_method": "GET",
    "req_uri": "/test/benchmark",
    "timeout": 5000,
    "retry_count": "-1"
  },
  "req_protocol": "HTTPS",
  "req_uri": "/test/http",
  "remark": "Web backend API",
  "type": 1,
  "req_method": "GET",
  "result_normal_sample": "Example success response",
  "result_failure_sample": "Example failure response",
  "tags": [ "webApi" ],
  "req_params": [ {
    "name": "query_demo",
    "location": "QUERY",
    "type": "STRING",
    "required": 1
  }, {
    "name": "header-demo",
    "location": "HEADER",
    "type": "STRING",
    "required": 2
  } ],
  "backend_params": [ {
    "name": "backHeader",
    "value": "header-demo",
    "location": "HEADER",
    "origin": "REQUEST"
  }, {
    "name": "backQuery",
    "value": "query_demo",
    "location": "QUERY",
    "origin": "REQUEST"
  }, {
    "name": "X-CONSTANT-HEADER",
    "value": "demo",
    "location": "HEADER",
    "origin": "CONSTANT",
    "remark": "constant_demo"
  }, {
    "name": "app-id",
    "value": "$context.appId",
    "location": "HEADER",
    "origin": "SYSTEM",
    "remark": "App ID of the API caller"
  } ]
}
```



- Creating a gRPC backend API

```
{
  "group_id": "12345abc9215b40bd84f4c469d56daebe",
  "match_mode": "NORMAL",
  "name": "Api_grpc",
  "auth_type": "APP",
  "backend_type": "GRPC",
  "backend_api": {
    "req_protocol": "GRPCS",
    "req_method": "POST",
    "req_uri": "/",
    "timeout": 5000,
    "retry_count": "-1",
    "enable_client_ssl": false,
    "vpc_channel_status": 1,
    "vpc_channel_info": {
      "vpc_channel_id": "abcd1234512345678aab9a2614a197ef4"
    }
  },
  "req_protocol": "GRPCS",
  "req_uri": "/test/grpc",
  "remark": "GRPC backend API",
  "type": 1,
  "req_method": "POST",
  "tags": [ "grpcApi" ],
  "cors": false,
  "auth_opt": {
    "app_code_auth_type": "DISABLE"
  }
}
```

- Creating a FunctionGraph backend API

```
{
  "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
  "match_mode": "NORMAL",
  "name": "Api_function",
  "auth_type": "APP",
  "backend_type": "FUNCTION",
  "func_info": {
    "authorizer_id": "5b8cd3f06f004115aec69c58f57272c9",
    "function_urn": "urn:fss:xx-
xxx-7:73d69ae0cfcf460190522d06b60f05ad:function:default:auto_testfunc93749",
    "invocation_type": "sync",
    "network_type": "V1",
    "timeout": 5000,
    "version": "latest",
    "alias_urn":
"urn:fss:region01:73d69ae0cfcf460190522d06b60f05ad:function:default:auto_testfunc93749:!a1"
  },
  "req_protocol": "HTTPS",
  "req_uri": "/test/function",
  "remark": "FunctionGraph backend API",
  "type": 1,
  "req_method": "GET",
  "result_normal_sample": "Example success response",
  "result_failure_sample": "Example failure response",
  "tags": [ "functionApi" ]
}
```

- Creating a Mock backend API

```
{
  "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
  "match_mode": "SWA",
  "name": "Api_mock",
  "auth_type": "IAM",
  "backend_type": "MOCK",
  "mock_info": {
    "result_content": "mock success"
  },
  "policy_mocks": [ {
```

```
"name": "Mock policy backend",
"effect_mode": "ANY",
"result_content": "mock policy success",
"conditions": [ {
  "condition_origin": "source",
  "condition_value": "1.0.1.0"
} ]
},
"req_protocol": "HTTPS",
"req_uri": "/test/mock",
"remark": "Mock backend API",
"type": 1,
"req_method": "GET",
"result_normal_sample": "Example success response",
"result_failure_sample": "Example failure response",
"tags": [ "mockApi" ]
}
```

## Example Responses

### Status code: 201

#### Created

- Example 1

```
{
  "id": "5f918d104dc84480a75166ba99efff21",
  "tags": [ "webApi" ],
  "arrange_necessary": 2,
  "backend_type": "HTTP",
  "auth_type": "AUTHORIZER",
  "auth_opt": {
    "app_code_auth_type": "DISABLE"
  },
  "authorizer_id": "0d982c1ac3da493dae47627b6439fc5c",
  "backend_api": {
    "update_time": "2020-07-31T12:42:51.325312994Z",
    "vpc_channel_status": 2,
    "url_domain": "xxx.xxx.xxx.xxx:12346",
    "req_protocol": "HTTP",
    "id": "1ce8fda3586d4371bd83c955df37e102",
    "req_method": "GET",
    "register_time": "2020-07-31T12:42:51.325312721Z",
    "req_uri": "/benchmark",
    "timeout": 5000,
    "status": 1,
    "retry_count": "-1"
  },
  "cors": false,
  "status": 1,
  "group_name": "api_group_001",
  "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
  "group_version": "V1",
  "response_id": "981e6c8f847f47199a9faf4409b751a5",
  "match_mode": "NORMAL",
  "name": "Api_http",
  "req_protocol": "HTTPS",
  "req_method": "GET",
  "req_uri": "/test/http",
  "type": 1,
  "result_normal_sample": "Example success response",
  "result_failure_sample": "Example failure response",
  "version": "V0.0.1",
  "register_time": "2020-07-31T12:42:51.314357035Z",
  "update_time": "2020-07-31T12:42:51.314357324Z",
  "remark": "Web backend API",
  "req_params": [ {
    "name": "query_demo",
  } ]
}
```

```
"location" : "QUERY",
"type" : "STRING",
"valid_enable" : 2,
"required" : 1,
"id" : "57c8bf3c97ef40ee94eace95dff30014",
"pass_through" : 1
}, {
"name" : "header-demo",
"location" : "HEADER",
"type" : "STRING",
"valid_enable" : 2,
"required" : 2,
"id" : "8d993be96980415faa6b1fb2ebd647e0",
"pass_through" : 1
}],
"backend_params" : [ {
"name" : "backHeader",
"value" : "header-demo",
"location" : "HEADER",
"origin" : "REQUEST",
"id" : "709f0ea376b44aaf907aaaa37d8cce92",
"req_param_id" : "8d993be96980415faa6b1fb2ebd647e0"
}, {
"name" : "backQuery",
"value" : "query_demo",
"location" : "QUERY",
"origin" : "REQUEST",
"id" : "2f152d0fb54445039158d29c2a4f69ee",
"req_param_id" : "57c8bf3c97ef40ee94eace95dff30014"
}, {
"name" : "X-CONSTANT-HEADER",
"value" : "demo",
"location" : "HEADER",
"origin" : "CONSTANT",
"remark" : "constant_demo",
"id" : "20142102c6aa4f3c97d5fd6ef4010ac2"
}, {
"name" : "app-id",
"value" : "$context.appld",
"location" : "HEADER",
"origin" : "SYSTEM",
"remark" : "App ID of the API caller",
"id" : "a1349c61016e4d999ca783a50bfcee2b"
} ]
}
```

- Example 2

```
{
"id" : "8789c9367rd1439rf869c23cc0d1ef22",
"tags" : [ "grpcApi" ],
"arrange_necessary" : 2,
"backend_type" : "GRPC",
"auth_type" : "APP",
"auth_opt" : {
"app_code_auth_type" : "DISABLE"
},
"backend_api" : {
"update_time" : "2023-08-29T09:05:17.652404554Z",
"vpc_channel_status" : 1,
"vpc_channel_info" : {
"cascade_flag" : false,
"vpc_channel_id" : "abcd1234512345678aab9a2614a197ef4",
"vpc_channel_port" : 0
},
"url_domain" : "abcd1234512345678aab9a2614a197ef4",
"req_protocol" : "GRPCS",
"id" : "c0123456789d421cb83a396955bd48d0",
"req_method" : "POST",
"register_time" : "2023-08-29T09:05:17.652404454Z",
"req_uri" : "/"
}
```

```
"timeout" : 5000,
"enable_client_ssl" : false,
"retry_count" : "-1",
"status" : 1
},
"cors" : false,
"status" : 1,
"group_name" : "api_group_001",
"group_id" : "12345abc9215b40bd84f4c469d56daebe",
"group_version" : "V1",
"response_id" : "ef21ec8c7df94d72a44f9f1461c5f62",
"match_mode" : "NORMAL",
"name" : "Api_grpc",
"req_protocol" : "GRPCS",
"req_method" : "POST",
"req_uri" : "/test/grpc",
"type" : 1,
"version" : "V0.0.1",
"register_time" : "2023-08-29T09:05:17.647533939Z",
"update_time" : "2023-08-29T09:05:17.647534036Z",
"remark" : "GRPC backend API",
"api_group_info" : {
  "id" : "12345abc9215b40bd84f4c469d56daebe",
  "name" : "api_group_001",
  "status" : 1,
  "sl_domain" : "12345abc9215b40bd84f4c469d56daebe.apic.region-1.example.com",
  "register_time" : "2023-08-29T08:38:21Z",
  "update_time" : "2023-08-29T08:38:21Z",
  "on_sell_status" : 2,
  "sl_domain_access_enabled" : true
}
}
```

- Example 3

```
{
  "id" : "abd9c4b2ff974888b0ba79be7e6b2763",
  "arrange_necessary" : 2,
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "group_name" : "api_group_001",
  "group_version" : "V1",
  "match_mode" : "NORMAL",
  "name" : "Api_function",
  "auth_type" : "APP",
  "auth_opt" : {
    "auth_code_auth_type" : "DISABLE"
  },
  "backend_type" : "FUNCTION",
  "func_info" : {
    "id" : "c0740524cd4c40e3801a7afe5375f8b0",
    "authorizer_id" : "5b8cd3f06f004115aec69c58f57272c9",
    "function_urn" : "urn:fss:xxx-7:73d69ae0cfcf460190522d06b60f05ad:function:default:auto_testfunc93749",
    "invocation_type" : "sync",
    "network_type" : "V1",
    "timeout" : 5000,
    "version" : "latest",
    "alias_urn" :
"urn:fss:region01:73d69ae0cfcf460190522d06b60f05ad:function:default:auto_testfunc00000!a1",
    "register_time" : "2020-08-02T15:36:19.897262803Z",
    "update_time" : "2020-08-02T15:36:19.897262993Z",
    "status" : 1
  },
  "cors" : false,
  "req_protocol" : "HTTPS",
  "req_uri" : "/test/function",
  "remark" : "FunctionGraph backend API",
  "type" : 1,
  "version" : "V0.0.1",
  "status" : 1,
  "req_method" : "GET",
```

```
"result_normal_sample": "Example success response",
"result_failure_sample": "Example failure response",
"tags": [ "functionApi" ],
"register_time": "2020-08-02T15:36:19.892012381Z",
"update_time": "2020-08-02T15:36:19.892012627Z"
}
```

- Example 4

```
{
  "id": "3a955b791bd24b1c9cd94c745f8d1aad",
  "arrange_necessary": 2,
  "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
  "group_name": "api_group_001",
  "group_version": "V1",
  "match_mode": "SWA",
  "name": "Api_mock",
  "auth_type": "IAM",
  "auth_opt": {
    "auth_code_auth_type": "DISABLE"
  },
  "backend_type": "MOCK",
  "mock_info": {
    "id": "e74bbc75825c4c38ae84ccab6bdc6175",
    "result_content": "mock success",
    "update_time": "2020-08-02T15:56:52.301790686Z",
    "register_time": "2020-08-02T15:56:52.301790367Z"
  },
  "policy_mocks": [ {
    "name": "Mock policy backend",
    "id": "1cb05173a4c84b7d996e30145cce3c7d",
    "effect_mode": "ANY",
    "result_content": "mock policy success",
    "conditions": [ {
      "condition_origin": "source",
      "condition_value": "1.0.1.0",
      "id": "8650b3a94e7344df8251658d8aee1f6d"
    } ]
  } ],
  "cors": false,
  "req_protocol": "HTTPS",
  "req_uri": "/test/mock",
  "remark": "Mock backend API",
  "type": 1,
  "version": "V0.0.1",
  "req_method": "GET",
  "result_normal_sample": "Example success response",
  "result_failure_sample": "Example failure response",
  "tags": [ "mockApi" ],
  "register_time": "2020-08-02T15:56:52.286099413Z",
  "update_time": "2020-08-02T15:56:52.286099715Z",
  "status": 1
}
```

### Status code: 400

#### Bad Request

```
{
  "error_code": "APIG.2011",
  "error_msg": "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

### Status code: 401

#### Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3019",
  "error_msg" : "The function URN does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**

See [Error Codes](#).

**4.5.2 Modifying an API**

**Function**

This API is used to modify the information about an API, including its backend information.

**Calling Method**

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

## URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/apis/{api\_id}

**Table 4-203** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

## Request Parameters

**Table 4-204** Request header parameters

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

**Table 4-205** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	API name. It can contain 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()
type	Yes	Integer	API type. <ul style="list-style-type: none"> <li>1: public API</li> <li>2: private API</li> </ul>
version	No	String	API version. Maximum: <b>16</b>

Parameter	Mandatory	Type	Description
req_protocol	Yes	String	API request protocol: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> <li>• BOTH: Both HTTP and HTTPS are supported.</li> <li>• GRPCS</li> </ul> Default: <b>HTTPS</b>
req_method	Yes	String	API request method. If the request protocol is set to GRPC, the request method is fixed to POST.
req_uri	Yes	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications. <b>NOTE</b> The address must comply with the URI specifications.
auth_type	Yes	String	API authentication mode. Options: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER: custom authentication. When auth_type is set to AUTHORIZER, the authorizer_id field is mandatory.</li> </ul>
auth_opt	No	<b>AuthOpt</b> object	Security authentication parameter.



Parameter	Mandatory	Type	Description
cors	No	Boolean	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• TRUE: supported</li> <li>• FALSE: not supported</li> </ul> Default: <b>false</b>
match_mode	No	String	API matching mode: <ul style="list-style-type: none"> <li>• SWA: Prefix match</li> <li>• NORMAL: Exact match</li> </ul> Default value: NORMAL
backend_type	Yes	String	Backend type. Options: <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend. When backend_type is set to FUNCTION, the func_info field is mandatory.</li> <li>• MOCK: mock backend. When backend_type is set to MOCK, the mock_info field is mandatory.</li> <li>• GRPC: gRPC backend.</li> </ul>
remark	No	String	API description. It cannot exceed 255 characters.
group_id	Yes	String	ID of the API group to which the API belongs.
body_remark	No	String	API request body, which can be an example request body, media type, or parameters. Ensure that the request body does not exceed 20,480 characters.
result_normal_sample	No	String	Example response for a successful request. Ensure that the response does not exceed 20,480 characters.  This is unavailable if the request protocol is set to GRPC.

Parameter	Mandatory	Type	Description
result_failure_sample	No	String	Example response for a failed request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
authorizer_id	No	String	ID of the frontend custom authorizer
tags	No	Array of strings	Tag. Use letters, digits, and special characters (-*#%:_.) and start with a letter. By default, 10 tags are supported. To increase the quota, contact technical support to modify the API_TAG_NUM_LIMIT configuration. Minimum: <b>1</b> Maximum: <b>128</b>
response_id	No	String	Group response ID.
roma_app_id	No	String	Integration application ID. Currently, this parameter is not supported.
domain_name	No	String	Custom domain name bound to the API. Currently, this parameter is not supported.
tag	No	String	Tag. This field will be deprecated. You can use the tags field instead.
content_type	No	String	Request content type: application/json application/xml multipart/form-data text/plain

Parameter	Mandatory	Type	Description
is_send_fg_body_base64	No	Boolean	Specifies whether to perform Base64 encoding on the body for interaction with FunctionGraph. The body does not need to be encoded using Base64 only when content_type is set to application/json. Application scenario: <ul style="list-style-type: none"> <li>• Custom authentication</li> <li>• Bound circuit breaker plugin with FunctionGraph backend downgrade policy</li> <li>• APIs with FunctionGraph backend</li> </ul> Default: <b>true</b>
mock_info	No	<a href="#">ApiMockCreate</a> object	Mock backend details.
func_info	No	<a href="#">ApiFuncCreate</a> object	FunctionGraph backend details.
req_params	No	Array of <a href="#">ReqParamBase</a> objects	Request parameters. This is unavailable if the request protocol is set to GRPC.
backend_params	No	Array of <a href="#">BackendParamBase</a> objects	Backend parameters. This is unavailable if the request protocol is set to GRPC.
policy_mocks	No	Array of <a href="#">ApiPolicyMockCreate</a> objects	Mock backend policies.
policy_functions	No	Array of <a href="#">ApiPolicyFunctionCreate</a> objects	FunctionGraph backend policies.
backend_api	No	<a href="#">BackendApiCreate</a> object	Web backend details.
policy_https	No	Array of <a href="#">ApiPolicyHttpCreate</a> objects	Web backend policies.

**Table 4-206** AuthOpt

Parameter	Mandatory	Type	Description
app_code_auth_type	No	String	<p>Indicates whether AppCode authentication is enabled. This parameter is valid only if auth_type is set to App. The default value is DISABLE.</p> <ul style="list-style-type: none"> <li>DISABLE: AppCode authentication is disabled.</li> <li>HEADER: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul> <p>Default: <b>DISABLE</b></p>

**Table 4-207** ApiMockCreate

Parameter	Mandatory	Type	Description
remark	No	String	Description. It cannot exceed 255 characters.
result_content	No	String	Response.
version	No	String	Function version. It cannot exceed 64 characters.
authorizer_id	No	String	Backend custom authorizer ID.

**Table 4-208** ApiFuncCreate

Parameter	Mandatory	Type	Description
function_urn	Yes	String	Function URN.
remark	No	String	Description. It cannot exceed 255 characters.
invocation_type	Yes	String	<p>Invocation mode.</p> <ul style="list-style-type: none"> <li>async: asynchronous</li> <li>sync: synchronous</li> </ul>
network_type	Yes	String	<p>Function network architecture.</p> <ul style="list-style-type: none"> <li>V1: non-VPC</li> <li>V2: VPC</li> </ul>

Parameter	Mandatory	Type	Description
version	No	String	Function version. If both a function alias URN and version are passed, only the alias URN will be used. Maximum: <b>64</b>
alias_urn	No	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	Yes	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
authorizer_id	No	String	Backend custom authorizer ID.
req_protocol	No	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>

**Table 4-209** ReqParamBase

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name. The parameter name can contain 1 to 32 characters and must start with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
type	Yes	String	Parameter type.

Parameter	Mandatory	Type	Description
location	Yes	String	Parameter location.
default_value	No	String	Default value.
sample_value	No	String	Example value.
required	No	Integer	Indicates whether the parameter is required. 1: yes 2: no The value of this parameter is 1 if Location is set to PATH, and 2 if Location is set to another value.
valid_enable	No	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"> <li>1: enabled</li> <li>2: disabled</li> </ul> Default: 2
remark	No	String	Description. It cannot exceed 255 characters.
enumerations	No	String	Enumerated value.
min_num	No	Integer	Minimum value. This parameter is valid when type is set to NUMBER.
max_num	No	Integer	Maximum value. This parameter is valid when type is set to NUMBER.
min_size	No	Integer	Minimum length. This parameter is valid when type is set to STRING.
max_size	No	Integer	Maximum length. This parameter is valid when type is set to STRING.
regular	No	String	Regular expression validation rule. Currently, this parameter is not supported.
json_schema	No	String	JSON validation rule. Currently, this parameter is not supported.

Parameter	Mandatory	Type	Description
pass_through	No	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no
orchestrations	No	Array of strings	Request parameter orchestration rules are prioritized in the same sequence as the list. The none_value rule in a rule list has the highest priority. A maximum of one none_value rule can be bound. The default rule in a rule list has the lowest priority. A maximum of one default rule can be bound. The preprocessing orchestration rule cannot be used as the last orchestration rule except the default rule. Only one parameter of each API can be bound with unique orchestration rules. The number of orchestration rules that can be bound is limited by quota. For details, see "Notes and Constraints" in APIG Service Overview.

**Table 4-210** ApiPolicyMockCreate

Parameter	Mandatory	Type	Description
result_content	No	String	Response.
effect_mode	Yes	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>● ALL: All conditions are met.</li> <li>● ANY: Any condition is met.</li> </ul>

Parameter	Mandatory	Type	Description
name	Yes	String	Backend name. It must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	No	Array of <b>BackendParamBase</b> objects	Backend parameters. This is unavailable for the GRPC backend.
conditions	Yes	Array of <b>ApiConditionBase</b> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.

**Table 4-211** ApiPolicyFunctionCreate

Parameter	Mandatory	Type	Description
function_urn	Yes	String	Function URN.
invocation_type	Yes	String	Invocation mode. <ul style="list-style-type: none"> <li>• async: asynchronous</li> <li>• sync: synchronous</li> </ul>
network_type	Yes	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul>
version	No	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
alias_urn	No	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.



Parameter	Mandatory	Type	Description
timeout	No	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
req_protocol	No	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
effect_mode	Yes	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	Yes	String	Backend name. It must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	No	Array of <b>BackendParamBase</b> objects	Backend parameters. This is unavailable for the GRPC backend.
conditions	Yes	Array of <b>ApiConditionBase</b> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.

**Table 4-212** BackendApiCreate

Parameter	Mandatory	Type	Description
authorizer_id	No	String	Backend custom authorizer ID.

Parameter	Mandatory	Type	Description
url_domain	No	String	Backend service address. Required when no VPC channel is used.  A backend service address consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Host name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used.  Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
req_protocol	Yes	String	Request protocol. You can select GRPC or GRPCS for the GRPC backend.
remark	No	String	Description. It cannot exceed 255 characters.
req_method	Yes	String	Request method. For the GRPC backend, the request method is fixed to POST.
version	No	String	Web backend version, which can contain a maximum of 16 characters.

Parameter	Mandatory	Type	Description
req_uri	Yes	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p><b>NOTE</b> The address must comply with the URI specifications.</p> <p>For the GRPC backend, the request address is fixed to /.</p>
timeout	Yes	Integer	<p>Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.</p> <p>Unit: ms.</p> <p>Minimum: <b>1</b></p>
enable_client_ssl	No	Boolean	<p>Indicates whether to enable two-way authentication.</p>
retry_count	No	String	<p>Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.</p> <p>-1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.</p> <p>Default: <b>-1</b></p>

Parameter	Mandatory	Type	Description
enable_sm_channel	No	Boolean	Indicates whether to enable SM cryptographic algorithms. This feature is only available if the gateway supports the SM cryptographic algorithms.
vpc_channel_info	No	<a href="#">ApiBackendVpcReq</a> object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	No	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"> <li>1: A VPC channel is used.</li> <li>2: No VPC channel is used.</li> </ul>

**Table 4-213** ApiPolicyHttpCreate

Parameter	Mandatory	Type	Description
url_domain	No	String	Endpoint of the policy backend. Required when no VPC channel is used.  An endpoint consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Domain name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used.  Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
req_protocol	Yes	String	Request protocol. Options include HTTP, HTTPS, GRPC, or GRPCS. You can select GRPC or GRPCS for the GRPC backend.

Parameter	Mandatory	Type	Description
req_method	Yes	String	Request method. Options include GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, and ANY. This is fixed to POST for the GRPC backend.
req_uri	Yes	String	Request address, which can contain request parameters enclosed with braces {}. For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.  Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.  <b>NOTE</b> The address must comply with the URI specifications.  For the GRPC backend, the request address is fixed to /.
timeout	No	Integer	Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.  Unit: ms.  Minimum: 1

Parameter	Mandatory	Type	Description
retry_count	No	String	Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10. -1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent. Default: <b>-1</b>
enable_sm_channel	No	Boolean	Indicates whether to enable SM cryptographic algorithms. This feature is only available if the gateway supports the SM cryptographic algorithms.
effect_mode	Yes	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	Yes	String	Backend name. It must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	No	Array of <b>BackendParamBase</b> objects	Backend parameters. This is unavailable for the GRPC backend.
conditions	Yes	Array of <b>ApiConditionBase</b> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.
vpc_channel_info	No	<b>ApiBackendVpcReq</b> object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	No	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"> <li>• 1: A VPC channel is used.</li> <li>• 2: No VPC channel is used.</li> </ul>

**Table 4-214** BackendParamBase

Parameter	Mandatory	Type	Description
origin	Yes	String	Parameter type. <ul style="list-style-type: none"> <li>• REQUEST: backend parameter</li> <li>• CONSTANT: constant parameter</li> <li>• SYSTEM: system parameter</li> </ul>
name	Yes	String	Parameter name. The parameter name must start with a letter and can only contain letters, digits, hyphens (-), underscores (_), and periods (.). Minimum: <b>1</b> Maximum: <b>32</b>
remark	No	String	Description, which can contain a maximum of 255 characters.
location	Yes	String	Parameter location. The value can be PATH, QUERY, or HEADER.

Parameter	Mandatory	Type	Description
value	Yes	String	<p>Parameter value, which can contain a maximum of 255 characters.</p> <p>If the origin type is REQUEST, the value of this parameter is the parameter name in req_params.</p> <p>If the origin type is CONSTANT, the value is a constant.</p> <p>If the origin type is SYSTEM, the value is a system parameter name. System parameters include gateway parameters, frontend authentication parameters, and backend authentication parameters. You can set the frontend or backend authentication parameters after enabling custom frontend or backend authentication.</p> <p>The gateway parameters are as follows:</p> <ul style="list-style-type: none"> <li>• \$context.sourcelp: source IP address of the API caller.</li> <li>• \$context.stage: deployment environment in which the API is called.</li> <li>• \$context.apild: API ID.</li> <li>• \$context.appld: ID of the app used by the API caller.</li> <li>• \$context.requestId: request ID generated when the API is called.</li> <li>• \$context.serverAddr: address of the gateway server.</li> <li>• \$context.serverName: name of the gateway server.</li> <li>• \$context.handleTime: time when the API request is processed.</li> <li>• \$context.providerAppId: ID of the app used by the API</li> </ul>



Parameter	Mandatory	Type	Description
			<p>owner. This parameter is currently not supported.</p> <p>Frontend authentication parameter: prefixed with "\$context.authorizer.frontend." . For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.frontend.a aa".</p> <p>Backend authentication parameter: prefixed with "\$context.authorizer.backend." . For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.backend.a aa".</p>

**Table 4-215** ApiConditionBase

Parameter	Mandatory	Type	Description
req_param_name	No	String	Input parameter name. This parameter is required if the policy type is param.
sys_param_name	No	String	<p>Name of a built-in gateway parameter. This parameter is required if the policy type is system. The following parameters are supported:</p> <ul style="list-style-type: none"> <li>req_path: request path. For example, /a/b.</li> <li>req_method: request method. For example, GET.</li> <li>reqPath: request path, which is discarded. For example, /a/b.</li> <li>reqMethod: request method, which is discarded. For example, GET.</li> </ul>

Parameter	Mandatory	Type	Description
cookie_param_name	No	String	COOKIE parameter name. This parameter is required if the policy type is cookie. Minimum: <b>0</b> Maximum: <b>255</b>
frontend_auth_orizer_param_name	No	String	System parameter: frontend authentication parameter name. This parameter is mandatory when the policy type is frontend_auth_orizer. The frontend authentication parameter name is prefixed with \$context.authorizer.frontend. For example, if the frontend authentication parameter name is user_name, the name with the prefix will be \$context.authorizer.frontend.user_name.
condition_type	No	String	Policy condition. <ul style="list-style-type: none"><li>● exact: Exact match</li><li>● enum: Enumeration</li><li>● pattern: Regular expression</li></ul> This parameter is required when the policy type is param, system, cookie, or frontend_auth_orizer.
condition_origin	Yes	String	Policy type <ul style="list-style-type: none"><li>● param: parameter</li><li>● source: source IP address</li><li>● system: system parameter - gateway built-in parameter</li><li>● cookie: COOKIE parameter</li><li>● frontend_auth_orizer: system parameter - frontend authentication parameter</li></ul>
condition_value	Yes	String	Policy value. Maximum: <b>1024</b>

Parameter	Mandatory	Type	Description
mapped_param_name	No	String	Name of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. The generated parameter name must exist in the orchestration rule bound to the API.
mapped_param_location	No	String	Location of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. This location must exist in the orchestration rule bound to the API.

**Table 4-216** ApiBackendVpcReq

Parameter	Mandatory	Type	Description
vpc_channel_proxy_host	No	String	Proxy host.
vpc_channel_id	Yes	String	VPC channel ID.

## Response Parameters

Status code: 200

**Table 4-217** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()
type	Integer	API type. <ul style="list-style-type: none"> <li>1: public API</li> <li>2: private API</li> </ul>
version	String	API version. Maximum: <b>16</b>

Parameter	Type	Description
req_protocol	String	API request protocol: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> <li>• BOTH: Both HTTP and HTTPS are supported.</li> <li>• GRPCS</li> </ul> Default: <b>HTTPS</b>
req_method	String	API request method. If the request protocol is set to GRPC, the request method is fixed to POST.
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications. <b>NOTE</b> The address must comply with the URI specifications.
auth_type	String	API authentication mode. Options: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER: custom authentication. When auth_type is set to AUTHORIZER, the authorizer_id field is mandatory.</li> </ul>
auth_opt	<b>AuthOpt</b> object	Security authentication parameter.
cors	Boolean	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• TRUE: supported</li> <li>• FALSE: not supported</li> </ul> Default: <b>false</b>
match_mode	String	API matching mode: <ul style="list-style-type: none"> <li>• SWA: Prefix match</li> <li>• NORMAL: Exact match</li> </ul> Default value: NORMAL

Parameter	Type	Description
backend_type	String	Backend type. Options: <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend. When backend_type is set to FUNCTION, the func_info field is mandatory.</li> <li>• MOCK: mock backend. When backend_type is set to MOCK, the mock_info field is mandatory.</li> <li>• GRPC: gRPC backend.</li> </ul>
remark	String	API description. It cannot exceed 255 characters.
group_id	String	ID of the API group to which the API belongs.
body_remark	String	API request body, which can be an example request body, media type, or parameters. Ensure that the request body does not exceed 20,480 characters.
result_normal_sample	String	Example response for a successful request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
result_failure_sample	String	Example response for a failed request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
authorizer_id	String	ID of the frontend custom authorizer
tags	Array of strings	Tag. Use letters, digits, and special characters (-*#%.:_) and start with a letter. By default, 10 tags are supported. To increase the quota, contact technical support to modify the API_TAG_NUM_LIMIT configuration. Minimum: <b>1</b> Maximum: <b>128</b>
response_id	String	Group response ID.
roma_app_id	String	Integration application ID. Currently, this parameter is not supported.
domain_name	String	Custom domain name bound to the API. Currently, this parameter is not supported.

Parameter	Type	Description
tag	String	Tag. This field will be deprecated. You can use the tags field instead.
content_type	String	Request content type: application/json application/xml multipart/form-data text/plain
is_send_fg_body_base64	Boolean	Specifies whether to perform Base64 encoding on the body for interaction with FunctionGraph. The body does not need to be encoded using Base64 only when content_type is set to application/json. Application scenario: <ul style="list-style-type: none"> <li>• Custom authentication</li> <li>• Bound circuit breaker plug-in with FunctionGraph backend downgrade policy</li> <li>• APIs with FunctionGraph backend</li> </ul> Default: <b>true</b>
id	String	API ID.
status	Integer	App status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
arrange_necessary	Integer	Indicates whether to enable orchestration.
register_time	String	Time when the API is registered.
update_time	String	Time when the API was last modified.
group_name	String	Name of the API group to which the API belongs.
group_version	String	Version of the API group to which the API belongs. The default value is V1. Other versions are not supported. Default: <b>V1</b>
run_env_id	String	ID of the environment in which the API has been published. Separate multiple environment IDs with vertical bars ( ).

Parameter	Type	Description
run_env_name	String	Name of the environment in which the API has been published. Separate multiple environment names with vertical bars ( ).
publish_id	String	Publication record ID. Separate multiple publication record IDs with vertical bars ( ).
publish_time	String	Publication time. Separate the time of multiple publication records with vertical bars ( ).
roma_app_name	String	Name of the integration application to which the API belongs. Currently, this parameter is not supported.
ld_api_id	String	ID of the corresponding custom backend API. Currently, this parameter is not supported.
backend_api	<b>BackendApi</b> object	Web backend details.
api_group_info	<b>ApiGroupCommonInfo</b> object	API group information.
func_info	<b>ApiFunc</b> object	FunctionGraph backend details.
mock_info	<b>ApiMock</b> object	Mock backend details.
req_params	Array of <b>ReqParam</b> objects	Request parameters.
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
policy_functions	Array of <b>ApiPolicyFunctionResp</b> objects	FunctionGraph backend policies.
policy_mocks	Array of <b>ApiPolicyMockResp</b> objects	Mock backend policies.
policy_https	Array of <b>ApiPolicyHttpResp</b> objects	Web backend policies.

**Table 4-218** AuthOpt

Parameter	Type	Description
app_code_auth_type	String	<p>Indicates whether AppCode authentication is enabled. This parameter is valid only if auth_type is set to App. The default value is DISABLE.</p> <ul style="list-style-type: none"> <li>• DISABLE: AppCode authentication is disabled.</li> <li>• HEADER: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul> <p>Default: <b>DISABLE</b></p>

**Table 4-219** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	<p>Backend service address.</p> <p>A backend service address consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Host name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p>
req_protocol	String	Request protocol. You can select GRPC or GRPCS for the GRPC backend.
remark	String	Description. It cannot exceed 255 characters.
req_method	String	Request method. For the GRPC backend, the request method is fixed to POST.
version	String	Web backend version, which can contain a maximum of 16 characters.



Parameter	Type	Description
req_uri	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p><b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.</p>
timeout	Integer	<p>Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.</p> <p>Unit: ms. Minimum: <b>1</b></p>
enable_client_ssl	Boolean	Indicates whether to enable two-way authentication.
retry_count	String	<p>Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.</p> <p>-1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.</p> <p>Default: <b>-1</b></p>
enable_sm_channel	Boolean	<p>Indicates whether to enable SM cryptographic algorithms.</p> <p>This feature is only available if the gateway supports the SM cryptographic algorithms.</p>
id	String	ID.
status	Integer	<p>Backend service status.</p> <ul style="list-style-type: none"> <li>1: valid</li> </ul>
register_time	String	Registration time.

Parameter	Type	Description
update_time	String	Update time.
vpc_channel_info	<b>VpcInfo</b> object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"> <li>• 1: A VPC channel is used.</li> <li>• 2: No VPC channel is used.</li> </ul>

**Table 4-220** ApiGroupCommonInfo

Parameter	Type	Description
id	String	ID.
name	String	API group name.
status	Integer	Status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.
update_time	String	Last modification time.
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. <ul style="list-style-type: none"> <li>• 1: listed</li> <li>• 2: not listed</li> <li>• 3: under review</li> </ul> Not supported currently.
url_domains	Array of <b>UrlDomain</b> objects	Independent domain names bound to the API group.
sl_domain_access_enabled	Boolean	Whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>

**Table 4-221** UrlDomain

Parameter	Type	Description
id	String	Domain ID.

Parameter	Type	Description
domain	String	Domain name.
cname_status	Integer	CNAME resolution status of the domain name. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>

Parameter	Type	Description
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ssl_infos	Array of <b>SslInfo</b> objects	SSL certificate list.

**Table 4-222** SslInfo

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
algorithm_type	String	<p>Certificate algorithm type:</p> <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>
type	String	<p>Certificate scope:</p> <ul style="list-style-type: none"> <li>• instance</li> <li>• global</li> </ul> <p>Default: <b>global</b></p>

Table 4-223 ApiFunc

Parameter	Type	Description
function_urn	String	Function URN.
remark	String	Description. It cannot exceed 255 characters.
invocation_type	String	Invocation mode. <ul style="list-style-type: none"><li>• async: asynchronous</li><li>• sync: synchronous</li></ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"><li>• V1: non-VPC</li><li>• V2: VPC</li></ul>
version	String	Function version. If both a function alias URN and version are passed, only the alias URN will be used. Maximum: <b>64</b>
alias_urn	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
authorizer_id	String	Backend custom authorizer ID.
req_protocol	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
id	String	ID.
register_time	String	Registration time.
status	Integer	Backend service status. <ul style="list-style-type: none"><li>• 1: valid</li></ul>
update_time	String	Update time.

**Table 4-224** ApiMock

Parameter	Type	Description
remark	String	Description. It cannot exceed 255 characters.
result_content	String	Response.
version	String	Function version. It cannot exceed 64 characters.
authorizer_id	String	Backend custom authorizer ID.
id	String	ID.
register_time	String	Registration time.
status	Integer	Backend service status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
update_time	String	Update time.

**Table 4-225** ReqParam

Parameter	Type	Description
name	String	Parameter name. The parameter name can contain 1 to 32 characters and must start with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
type	String	Parameter type.
location	String	Parameter location.
default_value	String	Default value.
sample_value	String	Example value.
required	Integer	Indicates whether the parameter is required. 1: yes 2: no The value of this parameter is 1 if Location is set to PATH, and 2 if Location is set to another value.
valid_enable	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"> <li>• 1: enabled</li> <li>• 2: disabled</li> </ul> Default: 2
remark	String	Description. It cannot exceed 255 characters.

Parameter	Type	Description
enumerations	String	Enumerated value.
min_num	Integer	Minimum value. This parameter is valid when type is set to NUMBER.
max_num	Integer	Maximum value. This parameter is valid when type is set to NUMBER.
min_size	Integer	Minimum length. This parameter is valid when type is set to STRING.
max_size	Integer	Maximum length. This parameter is valid when type is set to STRING.
regular	String	Regular expression validation rule. Currently, this parameter is not supported.
json_schema	String	JSON validation rule. Currently, this parameter is not supported.
pass_through	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no
orchestrations	Array of strings	Request parameter orchestration rules are prioritized in the same sequence as the list. The none_value rule in a rule list has the highest priority. A maximum of one none_value rule can be bound. The default rule in a rule list has the lowest priority. A maximum of one default rule can be bound. The preprocessing orchestration rule cannot be used as the last orchestration rule except the default rule. Only one parameter of each API can be bound with unique orchestration rules. The number of orchestration rules that can be bound is limited by quota. For details, see "Notes and Constraints" in APIG Service Overview.
id	String	Parameter ID.

**Table 4-226** ApiPolicyFunctionResp

Parameter	Type	Description
function_urn	String	Function URN.
invocation_type	String	Invocation mode. <ul style="list-style-type: none"><li>• async: asynchronous</li><li>• sync: synchronous</li></ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"><li>• V1: non-VPC</li><li>• V2: VPC</li></ul>
version	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
alias_urn	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
req_protocol	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"><li>• ALL: All conditions are met.</li><li>• ANY: Any condition is met.</li></ul>



Parameter	Type	Description
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>CoditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.

**Table 4-227** ApiPolicyMockResp

Parameter	Type	Description
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>CoditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.
result_content	String	Response.

**Table 4-228** ApiPolicyHttpResp

Parameter	Type	Description
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>ConditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	Endpoint of the policy backend. An endpoint consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Domain name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used. Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
req_protocol	String	Request protocol. Options include HTTP, HTTPS, GRPC, or GRPCS. You can select GRPC or GRPCS for the GRPC backend.
req_method	String	Request method. Options include GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, and ANY. This is fixed to POST for the GRPC backend.

Parameter	Type	Description
req_uri	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p><b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.</p>
timeout	Integer	<p>Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.</p> <p>Unit: ms. Minimum: 1</p>
retry_count	String	<p>Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.</p> <p>-1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.</p> <p>Default: -1</p>
enable_sm_channel	Boolean	<p>Indicates whether to enable SM cryptographic algorithms.</p> <p>This feature is only available if the gateway supports the SM cryptographic algorithms.</p>
vpc_channel_info	VpcInfo object	<p>VPC channel details. This parameter is required if vpc_channel_status is set to 1.</p>
vpc_channel_status	Integer	<p>Indicates whether to use a VPC channel.</p> <ul style="list-style-type: none"> <li>1: A VPC channel is used.</li> <li>2: No VPC channel is used.</li> </ul>

**Table 4-229** BackendParam

Parameter	Type	Description
origin	String	Parameter type. <ul style="list-style-type: none"><li>● REQUEST: backend parameter</li><li>● CONSTANT: constant parameter</li><li>● SYSTEM: system parameter</li></ul>
name	String	Parameter name. The parameter name must start with a letter and can only contain letters, digits, hyphens (-), underscores (_), and periods (.). Minimum: <b>1</b> Maximum: <b>32</b>
remark	String	Description, which can contain a maximum of 255 characters.
location	String	Parameter location. The value can be PATH, QUERY, or HEADER.

Parameter	Type	Description
value	String	<p>Parameter value, which can contain a maximum of 255 characters.</p> <p>If the origin type is REQUEST, the value of this parameter is the parameter name in req_params.</p> <p>If the origin type is CONSTANT, the value is a constant.</p> <p>If the origin type is SYSTEM, the value is a system parameter name. System parameters include gateway parameters, frontend authentication parameters, and backend authentication parameters. You can set the frontend or backend authentication parameters after enabling custom frontend or backend authentication.</p> <p>The gateway parameters are as follows:</p> <ul style="list-style-type: none"> <li>• \$context.sourceIp: source IP address of the API caller.</li> <li>• \$context.stage: deployment environment in which the API is called.</li> <li>• \$context.apid: API ID.</li> <li>• \$context.appid: ID of the app used by the API caller.</li> <li>• \$context.requestId: request ID generated when the API is called.</li> <li>• \$context.serverAddr: address of the gateway server.</li> <li>• \$context.serverName: name of the gateway server.</li> <li>• \$context.handleTime: time when the API request is processed.</li> <li>• \$context.providerAppId: ID of the app used by the API owner. This parameter is currently not supported.</li> </ul> <p>Frontend authentication parameter: prefixed with "\$context.authorizer.frontend.". For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.frontend.aaa".</p> <p>Backend authentication parameter: prefixed with "\$context.authorizer.backend.". For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.backend.aaa".</p>
id	String	Parameter ID.

Parameter	Type	Description
req_param_id	String	Request parameter ID.

**Table 4-230** ConditionResp

Parameter	Type	Description
req_param_name	String	Input parameter name. This parameter is required if the policy type is param.
sys_param_name	String	Name of a built-in gateway parameter. This parameter is required if the policy type is system. The following parameters are supported: <ul style="list-style-type: none"> <li>req_path: request path. For example, /a/b.</li> <li>req_method: request method. For example, GET.</li> <li>reqPath: request path, which is discarded. For example, /a/b.</li> <li>reqMethod: request method, which is discarded. For example, GET.</li> </ul>
cookie_param_name	String	COOKIE parameter name. This parameter is required if the policy type is cookie. Minimum: <b>0</b> Maximum: <b>255</b>
frontend_auth_orizer_param_name	String	System parameter: frontend authentication parameter name. This parameter is mandatory when the policy type is frontend_auth_orizer. The frontend authentication parameter name is prefixed with \$context.authorizer.frontend. For example, if the frontend authentication parameter name is user_name, the name with the prefix will be \$context.authorizer.frontend.user_name.
condition_type	String	Policy condition. <ul style="list-style-type: none"> <li>exact: Exact match</li> <li>enum: Enumeration</li> <li>pattern: Regular expression</li> </ul> This parameter is required when the policy type is param, system, cookie, or frontend_auth_orizer.

Parameter	Type	Description
condition_origin	String	Policy type <ul style="list-style-type: none"> <li>• param: parameter</li> <li>• source: source IP address</li> <li>• system: system parameter - gateway built-in parameter</li> <li>• cookie: COOKIE parameter</li> <li>• frontend_authorizer: system parameter - frontend authentication parameter</li> </ul>
condition_value	String	Policy value. Maximum: <b>1024</b>
mapped_parameter_name	String	Name of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. The generated parameter name must exist in the orchestration rule bound to the API.
mapped_parameter_location	String	Location of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. This location must exist in the orchestration rule bound to the API.
id	String	ID.
req_param_id	String	Input parameter ID.
req_param_location	String	Input parameter location.

**Table 4-231** VpcInfo

Parameter	Type	Description
ecs_id	String	Cloud server ID.
ecs_name	String	Cloud server name.
cascade_flag	Boolean	Indicates whether to use the cascading mode. Currently, this parameter is not supported.
vpc_channel_proxy_host	String	Proxy host.
vpc_channel_id	String	VPC channel ID.
vpc_channel_port	Integer	VPC channel port.

**Status code: 400****Table 4-232** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-233** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-234** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-235** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-236** Response body parameters

Parameter	Type	Description
error_code	String	Error code.



Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

Modifying an API (authentication mode: app; backend: VPC channel)

```
{
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "match_mode" : "NORMAL",
  "name" : "Api_http",
  "auth_type" : "APP",
  "backend_type" : "HTTP",
  "backend_api" : {
    "vpc_channel_status" : 1,
    "vpc_channel_info" : {
      "vpc_channel_id" : "56a7d7358e1b42459c9d730d65b14e59",
      "vpc_channel_proxy_host" : "www.example.com"
    }
  },
  "req_protocol" : "HTTPS",
  "req_method" : "GET",
  "req_uri" : "/test/benchmark",
  "timeout" : 5000,
  "retry_count" : "-1"
},
{
  "cors" : false,
  "req_protocol" : "HTTPS",
  "req_uri" : "/test/http",
  "remark" : "Web backend API",
  "type" : 1,
  "req_method" : "GET",
  "result_normal_sample" : "Example success response",
  "result_failure_sample" : "Example failure response",
  "backend_params" : [ {
    "name" : "X-CONSTANT-HEADER",
    "value" : "demo",
    "location" : "HEADER",
    "origin" : "CONSTANT",
    "remark" : "constant_demo"
  } ], {
    "name" : "app-id",
    "value" : "$context.appId",
    "location" : "HEADER",
    "origin" : "SYSTEM",
    "remark" : "App ID of the API caller"
  } ],
  "tags" : [ "webApi" ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "id" : "5f918d104dc84480a75166ba99efff21",
  "tags" : [ "webApi" ],
  "arrange_necessary" : 2,
  "backend_type" : "HTTP",
  "auth_type" : "APP",
  "auth_opt" : {
    "app_code_auth_type" : "DISABLE"
  }
}
```

```
},
"backend_api" : {
  "update_time" : "2020-08-02T16:32:47.077028841Z",
  "vpc_channel_status" : 1,
  "vpc_channel_info" : {
    "vpc_channel_id" : "56a7d7358e1b42459c9d730d65b14e59",
    "vpc_channel_proxy_host" : "www.example.com"
  },
  "url_domain" : "56a7d7358e1b42459c9d730d65b14e59",
  "req_protocol" : "HTTPS",
  "id" : "1ce8fda3586d4371bd83c955df37e102",
  "req_method" : "GET",
  "register_time" : "2020-07-31T12:42:51Z",
  "req_uri" : "/test/benchmark",
  "timeout" : 5000,
  "status" : 1,
  "retry_count" : "-1"
},
"cors" : false,
"status" : 1,
"group_name" : "api_group_001",
"group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
"group_version" : "V1",
"match_mode" : "NORMAL",
"name" : "Api_http",
"req_protocol" : "HTTPS",
"req_method" : "GET",
"req_uri" : "/test/http",
"type" : 1,
"version" : "V0.0.1",
"result_normal_sample" : "Example success response",
"result_failure_sample" : "Example failure response",
"register_time" : "2020-07-31T12:42:51Z",
"update_time" : "2020-08-02T16:32:47.046288842Z",
"remark" : "Web backend API",
"backend_params" : [ {
  "name" : "X-CONSTANT-HEADER",
  "value" : "demo",
  "location" : "HEADER",
  "origin" : "CONSTANT",
  "remark" : "constant_demo",
  "id" : "8cb2eba19e7a4423a4e835647a8b8d76"
}, {
  "name" : "app-id",
  "value" : "$context.appld",
  "location" : "HEADER",
  "origin" : "SYSTEM",
  "remark" : "App ID of the API caller",
  "id" : "216ddd836e74d528f364ff589d9dd21"
} ]
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.5.3 Deleting an API

#### Function

This API is used to delete an API.

This operation will delete all related resources and binding relationships of the API, such as publication records, backend services, and app authorization information.

## Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/apis/{api\_id}

**Table 4-237** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

## Request Parameters

**Table 4-238** Request header parameters

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

## Response Parameters

**Status code: 401**

**Table 4-239** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-240** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-241** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 409****Table 4-242** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-243** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 401**

Unauthorized

```
{  
  "error_code" : "APIG.1002",
```

```
{
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3002",
  "error_msg": "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

**Status code: 409**

Conflict

```
{
  "error_code": "APIG.3416",
  "error_msg": "The API cannot be deleted because it has been published"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.5.4 Publishing an API or Taking an API Offline

### Function

This API is used to publish an API or take an API offline.

An API can be called only in an environment where the API has been published. APIs that have not been published cannot be called.

You can remove an API from an environment in which it has been published. After this operation, the API can no longer be called in the environment.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/apis/action

**Table 4-244** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-245** Request header parameters

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

**Table 4-246** Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Operation to perform. <ul style="list-style-type: none"> <li>• online: publish APIs</li> <li>• offline: take APIs offline</li> </ul>
env_id	Yes	String	ID of the environment in which the API will be published.
api_id	Yes	String	ID of the API to be published or taken offline.
remark	No	String	Description about the publishing. It cannot exceed 255 characters.

## Response Parameters

**Status code: 201**

**Table 4-247** Response body parameters

Parameter	Type	Description
publish_id	String	Publication record ID.
api_id	String	API ID.
api_name	String	API name.
env_id	String	ID of the environment in which the API has been published.
remark	String	Description about the publication.
publish_time	String	Publication time.
version_id	String	API version currently in use.

**Status code: 400**

**Table 4-248** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.



**Status code: 401****Table 4-249** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-250** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-251** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-252** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Publishing an API in an environment

```
{
  "action": "online",
  "api_id": "5f918d104dc84480a75166ba99efff21",
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID"
}
```

## Example Responses

### Status code: 201

Created

```
{
  "api_id" : "5f918d104dc84480a75166ba99efff21",
  "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "publish_id" : "9191cdb430724d4b8586ed7f1b962ca2",
  "publish_time" : "2020-08-03T01:36:00.592970615Z",
  "version_id" : "ee1a5a38d3d3493abf1dc4ed6cacfa0b"
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:action. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.5.5 Querying API Details

### Function

This API is used to query the details of an API.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apis/{api\_id}

**Table 4-253** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

## Request Parameters

**Table 4-254** Request header parameters

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

## Response Parameters

**Status code: 200****Table 4-255** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()
type	Integer	API type. <ul style="list-style-type: none"><li>1: public API</li><li>2: private API</li></ul>
version	String	API version. Maximum: <b>16</b>
req_protocol	String	API request protocol: <ul style="list-style-type: none"><li>HTTP</li><li>HTTPS</li><li>BOTH: Both HTTP and HTTPS are supported.</li><li>GRPCS</li></ul> Default: <b>HTTPS</b>
req_method	String	API request method. If the request protocol is set to GRPC, the request method is fixed to POST.

Parameter	Type	Description
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications. <b>NOTE</b> The address must comply with the URI specifications.
auth_type	String	API authentication mode. Options: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER: custom authentication. When auth_type is set to AUTHORIZER, the authorizer_id field is mandatory.</li> </ul>
auth_opt	<b>AuthOpt</b> object	Security authentication parameter.
cors	Boolean	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• TRUE: supported</li> <li>• FALSE: not supported</li> </ul> Default: <b>false</b>
match_mode	String	API matching mode: <ul style="list-style-type: none"> <li>• SWA: Prefix match</li> <li>• NORMAL: Exact match</li> </ul> Default value: NORMAL
backend_type	String	Backend type. Options: <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend. When backend_type is set to FUNCTION, the func_info field is mandatory.</li> <li>• MOCK: mock backend. When backend_type is set to MOCK, the mock_info field is mandatory.</li> <li>• GRPC: gRPC backend.</li> </ul>
remark	String	API description. It cannot exceed 255 characters.
group_id	String	ID of the API group to which the API belongs.

Parameter	Type	Description
body_remark	String	API request body, which can be an example request body, media type, or parameters. Ensure that the request body does not exceed 20,480 characters.
result_normal_sample	String	Example response for a successful request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
result_failure_sample	String	Example response for a failed request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
authorizer_id	String	ID of the frontend custom authorizer
tags	Array of strings	Tag. Use letters, digits, and special characters (-*#%:_.) and start with a letter. By default, 10 tags are supported. To increase the quota, contact technical support to modify the API_TAG_NUM_LIMIT configuration. Minimum: <b>1</b> Maximum: <b>128</b>
response_id	String	Group response ID.
roma_app_id	String	Integration application ID. Currently, this parameter is not supported.
domain_name	String	Custom domain name bound to the API. Currently, this parameter is not supported.
tag	String	Tag. This field will be deprecated. You can use the tags field instead.
content_type	String	Request content type: application/json application/xml multipart/form-data text/plain

Parameter	Type	Description
is_send_fg_body_base64	Boolean	Specifies whether to perform Base64 encoding on the body for interaction with FunctionGraph. The body does not need to be encoded using Base64 only when content_type is set to application/json. Application scenario: <ul style="list-style-type: none"> <li>• Custom authentication</li> <li>• Bound circuit breaker plug-in with FunctionGraph backend downgrade policy</li> <li>• APIs with FunctionGraph backend</li> </ul> Default: <b>true</b>
id	String	API ID.
status	Integer	App status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
arrange_necessary	Integer	Indicates whether to enable orchestration.
register_time	String	Time when the API is registered.
update_time	String	Time when the API was last modified.
group_name	String	Name of the API group to which the API belongs.
group_version	String	Version of the API group to which the API belongs. The default value is V1. Other versions are not supported. Default: <b>V1</b>
run_env_id	String	ID of the environment in which the API has been published. Separate multiple environment IDs with vertical bars ( ).
run_env_name	String	Name of the environment in which the API has been published. Separate multiple environment names with vertical bars ( ).
publish_id	String	Publication record ID. Separate multiple publication record IDs with vertical bars ( ).
publish_time	String	Publication time. Separate the time of multiple publication records with vertical bars ( ).

Parameter	Type	Description
roma_app_name	String	Name of the integration application to which the API belongs. Currently, this parameter is not supported.
ld_api_id	String	ID of the corresponding custom backend API. Currently, this parameter is not supported.
backend_api	<b>BackendApi</b> object	Web backend details.
api_group_info	<b>ApiGroupCommonInfo</b> object	API group information.
func_info	<b>ApiFunc</b> object	FunctionGraph backend details.
mock_info	<b>ApiMock</b> object	Mock backend details.
req_params	Array of <b>ReqParam</b> objects	Request parameters.
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
policy_functions	Array of <b>ApiPolicyFunctionResp</b> objects	FunctionGraph backend policies.
policy_mocks	Array of <b>ApiPolicyMockResp</b> objects	Mock backend policies.
policy_https	Array of <b>ApiPolicyHttpResp</b> objects	Web backend policies.



**Table 4-256** AuthOpt

Parameter	Type	Description
app_code_auth_type	String	<p>Indicates whether AppCode authentication is enabled. This parameter is valid only if auth_type is set to App. The default value is DISABLE.</p> <ul style="list-style-type: none"> <li>• DISABLE: AppCode authentication is disabled.</li> <li>• HEADER: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul> <p>Default: <b>DISABLE</b></p>

**Table 4-257** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	<p>Backend service address.</p> <p>A backend service address consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Host name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p>
req_protocol	String	Request protocol. You can select GRPC or GRPCS for the GRPC backend.
remark	String	Description. It cannot exceed 255 characters.
req_method	String	Request method. For the GRPC backend, the request method is fixed to POST.
version	String	Web backend version, which can contain a maximum of 16 characters.

Parameter	Type	Description
req_uri	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p><b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.</p>
timeout	Integer	<p>Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.</p> <p>Unit: ms. Minimum: <b>1</b></p>
enable_client_ssl	Boolean	Indicates whether to enable two-way authentication.
retry_count	String	<p>Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.</p> <p>-1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.</p> <p>Default: <b>-1</b></p>
enable_sm_channel	Boolean	<p>Indicates whether to enable SM cryptographic algorithms.</p> <p>This feature is only available if the gateway supports the SM cryptographic algorithms.</p>
id	String	ID.
status	Integer	<p>Backend service status.</p> <ul style="list-style-type: none"> <li>1: valid</li> </ul>
register_time	String	Registration time.

Parameter	Type	Description
update_time	String	Update time.
vpc_channel_info	<b>VpcInfo</b> object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"> <li>• 1: A VPC channel is used.</li> <li>• 2: No VPC channel is used.</li> </ul>

**Table 4-258** ApiGroupCommonInfo

Parameter	Type	Description
id	String	ID.
name	String	API group name.
status	Integer	Status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.
update_time	String	Last modification time.
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. <ul style="list-style-type: none"> <li>• 1: listed</li> <li>• 2: not listed</li> <li>• 3: under review</li> </ul> Not supported currently.
url_domains	Array of <b>UrlDomain</b> objects	Independent domain names bound to the API group.
sl_domain_access_enabled	Boolean	Whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>

**Table 4-259** UrlDomain

Parameter	Type	Description
id	String	Domain ID.

Parameter	Type	Description
domain	String	Domain name.
cname_status	Integer	CNAME resolution status of the domain name. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>

Parameter	Type	Description
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ssl_infos	Array of <b>SslInfo</b> objects	SSL certificate list.

**Table 4-260** SslInfo

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
algorithm_type	String	<p>Certificate algorithm type:</p> <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>
type	String	<p>Certificate scope:</p> <ul style="list-style-type: none"> <li>• instance</li> <li>• global</li> </ul> <p>Default: <b>global</b></p>

**Table 4-261** ApiFunc

Parameter	Type	Description
function_urn	String	Function URN.
remark	String	Description. It cannot exceed 255 characters.
invocation_type	String	Invocation mode. <ul style="list-style-type: none"> <li>• async: asynchronous</li> <li>• sync: synchronous</li> </ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul>
version	String	Function version. If both a function alias URN and version are passed, only the alias URN will be used. Maximum: <b>64</b>
alias_urn	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
authorizer_id	String	Backend custom authorizer ID.
req_protocol	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
id	String	ID.
register_time	String	Registration time.
status	Integer	Backend service status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
update_time	String	Update time.

**Table 4-262** ApiMock

Parameter	Type	Description
remark	String	Description. It cannot exceed 255 characters.
result_content	String	Response.
version	String	Function version. It cannot exceed 64 characters.
authorizer_id	String	Backend custom authorizer ID.
id	String	ID.
register_time	String	Registration time.
status	Integer	Backend service status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
update_time	String	Update time.

**Table 4-263** ReqParam

Parameter	Type	Description
name	String	Parameter name. The parameter name can contain 1 to 32 characters and must start with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
type	String	Parameter type.
location	String	Parameter location.
default_value	String	Default value.
sample_value	String	Example value.
required	Integer	Indicates whether the parameter is required. 1: yes 2: no The value of this parameter is 1 if Location is set to PATH, and 2 if Location is set to another value.
valid_enable	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"> <li>• 1: enabled</li> <li>• 2: disabled</li> </ul> Default: 2
remark	String	Description. It cannot exceed 255 characters.

Parameter	Type	Description
enumerations	String	Enumerated value.
min_num	Integer	Minimum value. This parameter is valid when type is set to NUMBER.
max_num	Integer	Maximum value. This parameter is valid when type is set to NUMBER.
min_size	Integer	Minimum length. This parameter is valid when type is set to STRING.
max_size	Integer	Maximum length. This parameter is valid when type is set to STRING.
regular	String	Regular expression validation rule. Currently, this parameter is not supported.
json_schema	String	JSON validation rule. Currently, this parameter is not supported.
pass_through	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no
orchestrations	Array of strings	Request parameter orchestration rules are prioritized in the same sequence as the list. The none_value rule in a rule list has the highest priority. A maximum of one none_value rule can be bound. The default rule in a rule list has the lowest priority. A maximum of one default rule can be bound. The preprocessing orchestration rule cannot be used as the last orchestration rule except the default rule. Only one parameter of each API can be bound with unique orchestration rules. The number of orchestration rules that can be bound is limited by quota. For details, see "Notes and Constraints" in APIG Service Overview.
id	String	Parameter ID.



**Table 4-264** ApiPolicyFunctionResp

Parameter	Type	Description
function_urn	String	Function URN.
invocation_type	String	Invocation mode. <ul style="list-style-type: none"><li>• async: asynchronous</li><li>• sync: synchronous</li></ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"><li>• V1: non-VPC</li><li>• V2: VPC</li></ul>
version	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
alias_urn	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
req_protocol	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"><li>• ALL: All conditions are met.</li><li>• ANY: Any condition is met.</li></ul>

Parameter	Type	Description
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>CoditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.

**Table 4-265** ApiPolicyMockResp

Parameter	Type	Description
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>CoditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.
result_content	String	Response.

**Table 4-266** ApiPolicyHttpResp

Parameter	Type	Description
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>ConditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	Endpoint of the policy backend. An endpoint consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Domain name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used. Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
req_protocol	String	Request protocol. Options include HTTP, HTTPS, GRPC, or GRPCS. You can select GRPC or GRPCS for the GRPC backend.
req_method	String	Request method. Options include GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, and ANY. This is fixed to POST for the GRPC backend.

Parameter	Type	Description
req_uri	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p><b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.</p>
timeout	Integer	<p>Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.</p> <p>Unit: ms. Minimum: 1</p>
retry_count	String	<p>Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.</p> <p>-1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.</p> <p>Default: -1</p>
enable_sm_channel	Boolean	<p>Indicates whether to enable SM cryptographic algorithms.</p> <p>This feature is only available if the gateway supports the SM cryptographic algorithms.</p>
vpc_channel_info	VpcInfo object	<p>VPC channel details. This parameter is required if vpc_channel_status is set to 1.</p>
vpc_channel_status	Integer	<p>Indicates whether to use a VPC channel.</p> <ul style="list-style-type: none"> <li>1: A VPC channel is used.</li> <li>2: No VPC channel is used.</li> </ul>

**Table 4-267** BackendParam

Parameter	Type	Description
origin	String	Parameter type. <ul style="list-style-type: none"><li>● REQUEST: backend parameter</li><li>● CONSTANT: constant parameter</li><li>● SYSTEM: system parameter</li></ul>
name	String	Parameter name. The parameter name must start with a letter and can only contain letters, digits, hyphens (-), underscores (_), and periods (.). Minimum: <b>1</b> Maximum: <b>32</b>
remark	String	Description, which can contain a maximum of 255 characters.
location	String	Parameter location. The value can be PATH, QUERY, or HEADER.

Parameter	Type	Description
value	String	<p>Parameter value, which can contain a maximum of 255 characters.</p> <p>If the origin type is REQUEST, the value of this parameter is the parameter name in req_params.</p> <p>If the origin type is CONSTANT, the value is a constant.</p> <p>If the origin type is SYSTEM, the value is a system parameter name. System parameters include gateway parameters, frontend authentication parameters, and backend authentication parameters. You can set the frontend or backend authentication parameters after enabling custom frontend or backend authentication.</p> <p>The gateway parameters are as follows:</p> <ul style="list-style-type: none"> <li>• \$context.sourceIp: source IP address of the API caller.</li> <li>• \$context.stage: deployment environment in which the API is called.</li> <li>• \$context.apid: API ID.</li> <li>• \$context.appid: ID of the app used by the API caller.</li> <li>• \$context.requestId: request ID generated when the API is called.</li> <li>• \$context.serverAddr: address of the gateway server.</li> <li>• \$context.serverName: name of the gateway server.</li> <li>• \$context.handleTime: time when the API request is processed.</li> <li>• \$context.providerAppId: ID of the app used by the API owner. This parameter is currently not supported.</li> </ul> <p>Frontend authentication parameter: prefixed with "\$context.authorizer.frontend.". For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.frontend.aaa".</p> <p>Backend authentication parameter: prefixed with "\$context.authorizer.backend.". For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.backend.aaa".</p>
id	String	Parameter ID.

Parameter	Type	Description
req_param_id	String	Request parameter ID.

**Table 4-268** ConditionResp

Parameter	Type	Description
req_param_name	String	Input parameter name. This parameter is required if the policy type is param.
sys_param_name	String	Name of a built-in gateway parameter. This parameter is required if the policy type is system. The following parameters are supported: <ul style="list-style-type: none"> <li>req_path: request path. For example, /a/b.</li> <li>req_method: request method. For example, GET.</li> <li>reqPath: request path, which is discarded. For example, /a/b.</li> <li>reqMethod: request method, which is discarded. For example, GET.</li> </ul>
cookie_param_name	String	COOKIE parameter name. This parameter is required if the policy type is cookie. Minimum: <b>0</b> Maximum: <b>255</b>
frontend_auth_orizer_param_name	String	System parameter: frontend authentication parameter name. This parameter is mandatory when the policy type is frontend_auth_orizer. The frontend authentication parameter name is prefixed with \$context.authorizer.frontend. For example, if the frontend authentication parameter name is user_name, the name with the prefix will be \$context.authorizer.frontend.user_name.
condition_type	String	Policy condition. <ul style="list-style-type: none"> <li>exact: Exact match</li> <li>enum: Enumeration</li> <li>pattern: Regular expression</li> </ul> This parameter is required when the policy type is param, system, cookie, or frontend_auth_orizer.

Parameter	Type	Description
condition_origin	String	Policy type <ul style="list-style-type: none"> <li>• param: parameter</li> <li>• source: source IP address</li> <li>• system: system parameter - gateway built-in parameter</li> <li>• cookie: COOKIE parameter</li> <li>• frontend_authorizer: system parameter - frontend authentication parameter</li> </ul>
condition_value	String	Policy value. Maximum: <b>1024</b>
mapped_parameter_name	String	Name of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. The generated parameter name must exist in the orchestration rule bound to the API.
mapped_parameter_location	String	Location of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. This location must exist in the orchestration rule bound to the API.
id	String	ID.
req_param_id	String	Input parameter ID.
req_param_location	String	Input parameter location.

**Table 4-269** VpcInfo

Parameter	Type	Description
ecs_id	String	Cloud server ID.
ecs_name	String	Cloud server name.
cascade_flag	Boolean	Indicates whether to use the cascading mode. Currently, this parameter is not supported.
vpc_channel_proxy_host	String	Proxy host.
vpc_channel_id	String	VPC channel ID.
vpc_channel_port	Integer	VPC channel port.



**Status code: 401****Table 4-270** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-271** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-272** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-273** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

**Example Responses****Status code: 200**

OK

```
{
  "id": "5f918d104dc84480a75166ba99efff21",
  "tags": [ "webApi" ],
  "arrange_necessary": 2,
  "backend_type": "HTTP",
  "auth_type": "AUTHORIZER",
  "auth_opt": {
    "app_code_auth_type": "DISABLE"
  },
  "authorizer_id": "8d0443832a194eaa84244e0c1c1912ac",
  "backend_api": {
    "update_time": "2020-08-02T16:32:47.077029Z",
    "vpc_channel_status": 1,
    "vpc_channel_info": {
      "vpc_channel_id": "56a7d7358e1b42459c9d730d65b14e59",
      "vpc_channel_proxy_host": "www.example.com"
    },
    "url_domain": "56a7d7358e1b42459c9d730d65b14e59",
    "req_protocol": "HTTPS",
    "id": "1ce8fda3586d4371bd83c955df37e102",
    "req_method": "GET",
    "register_time": "2020-07-31T12:42:51Z",
    "req_uri": "/test/benchmark",
    "timeout": 5000,
    "status": 1,
    "retry_count": "-1"
  },
  "cors": false,
  "status": 1,
  "group_name": "api_group_001",
  "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
  "group_version": "V1",
  "match_mode": "NORMAL",
  "name": "Api_http",
  "req_protocol": "HTTPS",
  "req_method": "GET",
  "req_uri": "/test/http",
  "type": 1,
  "version": "V0.0.1",
  "result_normal_sample": "Example success response",
  "result_failure_sample": "Example failure response",
  "register_time": "2020-07-31T12:42:51Z",
  "update_time": "2020-08-02T16:32:47.046289Z",
  "remark": "Web backend API",
  "backend_params": [ {
    "name": "X-CONSTANT-HEADER",
    "value": "demo",
    "location": "HEADER",
    "origin": "CONSTANT",
    "remark": "constant_demo",
    "id": "8cb2eba19e7a4423a4e835647a8b8d76"
  }, {
    "name": "app-id",
    "value": "$context.appld",
    "location": "HEADER",
    "origin": "SYSTEM",
    "remark": "App ID of the API caller",
    "id": "216ddda836e74d528f364ff589d9dd21"
  } ]
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
```

```
{
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3002",
  "error_msg": "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.5.6 Querying APIs

### Function

This API is used to query APIs to return their details and publication information. Backend and request parameter information of the APIs will not be returned.

### Calling Method

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

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apis

**Table 4-274** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-275** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
id	No	String	API ID.
name	No	String	API name.
group_id	No	String	API group ID.
req_protocol	No	String	Request protocol.
req_method	No	String	Request method.
req_uri	No	String	Request path.
auth_type	No	String	Security authentication mode.

Parameter	Mandatory	Type	Description
env_id	No	String	ID of the environment in which the API has been published.
type	No	Integer	API type.
precise_search	No	String	Parameter name (name or req_uri) for exact matching.
vpc_channel_name	No	String	Load balance channel name.
return_data_mode	No	String	<p>Additional information to be included in the returned API details. Separate multiple parameters with commas (.). "brief" does not take effect when used with any "include" parameters.</p> <p>Currently, only brief, include_group, and include_group_backend are supported.</p> <p>brief: default, indicating that no additional information will be included.</p> <p>include_group: The return result will include api_group_info.</p> <p>include_group_backend: The return result will include backend_api.</p> <p>Default: <b>brief</b></p>
tags	No	String	<p>API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered.</p> <p>Minimum: <b>0</b></p> <p>Maximum: <b>128</b></p>

## Request Parameters

**Table 4-276** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-277** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <a href="#">ApiInfoPerPage</a> objects	API list.

**Table 4-278** ApiInfoPerPage

Parameter	Type	Description
name	String	API name. It can contain 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()
type	Integer	API type. <ul style="list-style-type: none"> <li>1: public API</li> <li>2: private API</li> </ul>
version	String	API version. Maximum: <b>16</b>

Parameter	Type	Description
req_protocol	String	API request protocol: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> <li>• BOTH: Both HTTP and HTTPS are supported.</li> <li>• GRPCS</li> </ul> Default: <b>HTTPS</b>
req_method	String	API request method. If the request protocol is set to GRPC, the request method is fixed to POST.
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications. <b>NOTE</b> The address must comply with the URI specifications.
auth_type	String	API authentication mode. Options: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER: custom authentication. When auth_type is set to AUTHORIZER, the authorizer_id field is mandatory.</li> </ul>
auth_opt	<b>AuthOpt</b> object	Security authentication parameter.
cors	Boolean	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• TRUE: supported</li> <li>• FALSE: not supported</li> </ul> Default: <b>false</b>
match_mode	String	API matching mode: <ul style="list-style-type: none"> <li>• SWA: Prefix match</li> <li>• NORMAL: Exact match</li> </ul> Default value: NORMAL

Parameter	Type	Description
backend_type	String	Backend type. Options: <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend. When backend_type is set to FUNCTION, the func_info field is mandatory.</li> <li>• MOCK: mock backend. When backend_type is set to MOCK, the mock_info field is mandatory.</li> <li>• GRPC: gRPC backend.</li> </ul>
remark	String	API description. It cannot exceed 255 characters.
group_id	String	ID of the API group to which the API belongs.
body_remark	String	API request body, which can be an example request body, media type, or parameters. Ensure that the request body does not exceed 20,480 characters.
result_normal_sample	String	Example response for a successful request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
result_failure_sample	String	Example response for a failed request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
authorizer_id	String	ID of the frontend custom authorizer
tags	Array of strings	Tag. Use letters, digits, and special characters (-*#%.:_) and start with a letter. By default, 10 tags are supported. To increase the quota, contact technical support to modify the API_TAG_NUM_LIMIT configuration. Minimum: <b>1</b> Maximum: <b>128</b>
response_id	String	Group response ID.
roma_app_id	String	Integration application ID. Currently, this parameter is not supported.
domain_name	String	Custom domain name bound to the API. Currently, this parameter is not supported.



Parameter	Type	Description
tag	String	Tag. This field will be deprecated. You can use the tags field instead.
content_type	String	Request content type: application/json application/xml multipart/form-data text/plain
is_send_fg_body_base64	Boolean	Specifies whether to perform Base64 encoding on the body for interaction with FunctionGraph. The body does not need to be encoded using Base64 only when content_type is set to application/json. Application scenario: <ul style="list-style-type: none"> <li>• Custom authentication</li> <li>• Bound circuit breaker plug-in with FunctionGraph backend downgrade policy</li> <li>• APIs with FunctionGraph backend</li> </ul> Default: <b>true</b>
id	String	API ID.
status	Integer	App status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
arrange_necessary	Integer	Indicates whether to enable orchestration.
register_time	String	Time when the API is registered.
update_time	String	Time when the API was last modified.
group_name	String	Name of the API group to which the API belongs.
group_version	String	Version of the API group to which the API belongs. The default value is V1. Other versions are not supported. Default: <b>V1</b>
run_env_id	String	ID of the environment in which the API has been published. Separate multiple environment IDs with vertical bars ( ).

Parameter	Type	Description
run_env_name	String	Name of the environment in which the API has been published. Separate multiple environment names with vertical bars ( ).
publish_id	String	Publication record ID. Separate multiple publication record IDs with vertical bars ( ).
publish_time	String	Publication time. Separate the time of multiple publication records with vertical bars ( ).
roma_app_name	String	Name of the integration application to which the API belongs. Currently, this parameter is not supported.
ld_api_id	String	ID of the corresponding custom backend API. Currently, this parameter is not supported.
backend_api	<b>BackendApi</b> object	Backend information.
api_group_info	<b>ApiGroupCommonInfo</b> object	API group information.
req_params	Array of <b>ReqParam</b> objects	Request parameters.

**Table 4-279** AuthOpt

Parameter	Type	Description
app_code_auth_type	String	Indicates whether AppCode authentication is enabled. This parameter is valid only if auth_type is set to App. The default value is DISABLE. <ul style="list-style-type: none"><li>● DISABLE: AppCode authentication is disabled.</li><li>● HEADER: AppCode authentication is enabled and the AppCode is located in the header.</li></ul> Default: <b>DISABLE</b>

**Table 4-280** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	Backend service address. A backend service address consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Host name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used. Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
req_protocol	String	Request protocol. You can select GRPC or GRPCS for the GRPC backend.
remark	String	Description. It cannot exceed 255 characters.
req_method	String	Request method. For the GRPC backend, the request method is fixed to POST.
version	String	Web backend version, which can contain a maximum of 16 characters.
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications. Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. <b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.

Parameter	Type	Description
timeout	Integer	Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: 1
enable_client_ssl	Boolean	Indicates whether to enable two-way authentication.
retry_count	String	Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10. -1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent. Default: -1
enable_sm_channel	Boolean	Indicates whether to enable SM cryptographic algorithms. This feature is only available if the gateway supports the SM cryptographic algorithms.
id	String	ID.
status	Integer	Backend service status. <ul style="list-style-type: none"><li>1: valid</li></ul>
register_time	String	Registration time.
update_time	String	Update time.
vpc_channel_info	VpcInfo object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"><li>1: A VPC channel is used.</li><li>2: No VPC channel is used.</li></ul>

**Table 4-281** VpcInfo

Parameter	Type	Description
ecs_id	String	Cloud server ID.
ecs_name	String	Cloud server name.

Parameter	Type	Description
cascade_flag	Boolean	Indicates whether to use the cascading mode. Currently, this parameter is not supported.
vpc_channel_proxy_host	String	Proxy host.
vpc_channel_id	String	VPC channel ID.
vpc_channel_port	Integer	VPC channel port.

**Table 4-282** ApiGroupCommonInfo

Parameter	Type	Description
id	String	ID.
name	String	API group name.
status	Integer	Status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.
update_time	String	Last modification time.
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. <ul style="list-style-type: none"> <li>• 1: listed</li> <li>• 2: not listed</li> <li>• 3: under review</li> </ul> Not supported currently.
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.
sl_domain_access_enabled	Boolean	Whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>

**Table 4-283** UrlDomain

Parameter	Type	Description
id	String	Domain ID.
domain	String	Domain name.
cname_status	Integer	CNAME resolution status of the domain name. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>

Parameter	Type	Description
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ssl_infos	Array of <b>SslInfo</b> objects	SSL certificate list.

**Table 4-284** SslInfo

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
algorithm_type	String	<p>Certificate algorithm type:</p> <ul style="list-style-type: none"> <li>● RSA</li> <li>● ECC</li> <li>● SM2</li> </ul>
type	String	<p>Certificate scope:</p> <ul style="list-style-type: none"> <li>● instance</li> <li>● global</li> </ul> <p>Default: <b>global</b></p>

**Table 4-285** ReqParam

Parameter	Type	Description
name	String	Parameter name. The parameter name can contain 1 to 32 characters and must start with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
type	String	Parameter type.
location	String	Parameter location.
default_value	String	Default value.
sample_value	String	Example value.
required	Integer	Indicates whether the parameter is required. 1: yes 2: no The value of this parameter is 1 if Location is set to PATH, and 2 if Location is set to another value.
valid_enable	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"> <li>• 1: enabled</li> <li>• 2: disabled</li> </ul> Default: 2
remark	String	Description. It cannot exceed 255 characters.
enumerations	String	Enumerated value.
min_num	Integer	Minimum value. This parameter is valid when type is set to NUMBER.
max_num	Integer	Maximum value. This parameter is valid when type is set to NUMBER.
min_size	Integer	Minimum length. This parameter is valid when type is set to STRING.
max_size	Integer	Maximum length. This parameter is valid when type is set to STRING.
regular	String	Regular expression validation rule. Currently, this parameter is not supported.



Parameter	Type	Description
json_schema	String	JSON validation rule. Currently, this parameter is not supported.
pass_through	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no
orchestrations	Array of strings	Request parameter orchestration rules are prioritized in the same sequence as the list. The none_value rule in a rule list has the highest priority. A maximum of one none_value rule can be bound. The default rule in a rule list has the lowest priority. A maximum of one default rule can be bound. The preprocessing orchestration rule cannot be used as the last orchestration rule except the default rule. Only one parameter of each API can be bound with unique orchestration rules. The number of orchestration rules that can be bound is limited by quota. For details, see "Notes and Constraints" in APIG Service Overview.
id	String	Parameter ID.

**Status code: 400**

**Table 4-286** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-287** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-288** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-289** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

**Example Responses****Status code: 200**

OK

```
{
  "total" : 3,
  "size" : 3,
  "apis" : [ {
    "arrange_necessary" : 2,
    "id" : "5f918d104dc84480a75166ba99efff21",
    "tags" : [ "webApi" ],
    "backend_type" : "HTTP",
    "auth_type" : "AUTHORIZER",
    "auth_opt" : {
      "app_code_auth_type" : "DISABLE"
    },
  },
  "authorizer_id" : "8d0443832a194eaa84244e0c1c1912ac",
  "cors" : false,
  "status" : 1,
  "group_name" : "api_group_001",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "group_version" : "V1",
  "match_mode" : "NORMAL",
  "name" : "Api_http",
  "req_protocol" : "HTTPS",
  "req_method" : "GET",
  "req_uri" : "/test/http",
  "type" : 1,
  "version" : "V0.0.1",
  "register_time" : "2020-07-31T12:42:51Z",
  "update_time" : "2020-08-02T16:32:47.046289Z",
  "remark" : "Web backend API"
```

```
}, {
  "id" : "3a955b791bd24b1c9cd94c745f8d1aad",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "group_name" : "api_group_001",
  "group_version" : "V1",
  "match_mode" : "SWA",
  "name" : "Api_mock",
  "auth_type" : "IAM",
  "auth_opt" : {
    "auth_code_auth_type" : "DISABLE"
  },
  "backend_type" : "MOCK",
  "cors" : false,
  "req_protocol" : "HTTPS",
  "req_uri" : "/test/mock",
  "remark" : "Mock backend API",
  "type" : 1,
  "version" : "V0.0.1",
  "req_method" : "GET",
  "result_normal_sample" : "Example success response",
  "result_failure_sample" : "Example failure response",
  "tags" : [ "mockApi" ],
  "register_time" : "2020-08-02T15:56:52Z",
  "update_time" : "2020-08-02T15:56:52Z",
  "status" : 1
}, {
  "id" : "abd9c4b2ff974888b0ba79be7e6b2763",
  "arrange_necessary" : 2,
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "group_name" : "api_group_001",
  "group_version" : "V1",
  "match_mode" : "NORMAL",
  "name" : "Api_function",
  "auth_type" : "APP",
  "auth_opt" : {
    "auth_code_auth_type" : "DISABLE"
  },
  "backend_type" : "FUNCTION",
  "cors" : false,
  "req_protocol" : "HTTPS",
  "req_uri" : "/test/function",
  "remark" : "FunctionGraph backend API",
  "type" : 1,
  "version" : "V0.0.1",
  "status" : 1,
  "req_method" : "GET",
  "tags" : [ "functionApi" ],
  "register_time" : "2020-08-02T15:36:19Z",
  "update_time" : "2020-08-02T15:47:53.499266Z"
}]
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

**Error Codes**See [Error Codes](#).**4.5.7 Verifying the API Definition****Function**

This API is used to verify the API definition, that is, whether the API path or name already exists.

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

POST /v2/{project\_id}/apigw/instances/{instance\_id}/apis/check

**Table 4-290** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-291** Request header parameters

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

**Table 4-292** Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	API name. This parameter is mandatory when type is set to name.
req_method	No	String	Request method. This parameter is mandatory when type is set to path.
req_uri	No	String	Access address of the API. This parameter is mandatory when type is set to path.
match_mode	No	String	API matching mode: <ul style="list-style-type: none"> <li>SWA: Prefix match</li> <li>NORMAL: Exact match</li> </ul> This parameter is mandatory when type is set to path.

Parameter	Mandatory	Type	Description
group_id	No	String	Group ID. This parameter is mandatory for checking for duplicate API definitions in the group.
roma_app_id	No	String	Integration application ID. This is not supported currently.
api_id	No	String	ID of the API to be compared.
type	Yes	String	Verification type: <ul style="list-style-type: none"> <li>path: path type</li> <li>name: name type</li> </ul>

## Response Parameters

**Status code: 400**

**Table 4-293** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401**

**Table 4-294** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403**

**Table 4-295** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-296** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-297** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Example Requests**

```
{
  "type" : "name",
  "name" : "api_demo"
}
```

**Example Responses****Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.3202",
  "error_msg" : "The API name already exists, api_name:api_demo"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.5.8 Debugging an API

### Function

This API is used to debug an API in a specified environment. The API caller must have the permissions required for accessing this API.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/apis/debug/{api\_id}



**Table 4-298** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

## Request Parameters

**Table 4-299** Request header parameters

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

**Table 4-300** Request body parameters

Parameter	Mandatory	Type	Description
body	No	String	Message body, with a maximum of 2,097,152 bytes.

Parameter	Mandatory	Type	Description
header	No	Map<String,Array<String>>	<p>Header parameters, with each value being a character string array. Each parameter name must meet the following requirements:</p> <ul style="list-style-type: none"> <li>• Contains letters, digits, periods (.), or hyphens (-).</li> <li>• Starts with a letter, with a maximum of 32 bytes.</li> <li>• Case-insensitive and cannot start with X-Apig- or X-Sdk-.</li> <li>• Case-insensitive and cannot be X-Stage.</li> <li>• Case-insensitive and cannot be X-Auth-Token or Authorization when mode is set to MARKET or CONSUMER.</li> </ul> <p><b>NOTE</b> Each header name is normalized before use. For example, x-MY-hEaDer is normalized as X-My-Header.</p>
method	Yes	String	API request method.
mode	Yes	String	<p>Debugging mode:</p> <ul style="list-style-type: none"> <li>• <b>DEVELOPER:</b> Debug the definitions of an API that has not been published.</li> <li>• <b>CONSUMER:</b> Debug the definitions of an API that has been published in a specified environment.</li> </ul> <p><b>NOTE</b> In DEVELOPER mode, the API caller must be the API provider.</p> <p>In CONSUMER mode, the API caller must be the API provider or has been authorized to access the API in a specific environment.</p>

Parameter	Mandatory	Type	Description
path	Yes	String	Request path of the API, starting with a slash (/) and containing up to 1024 characters. <b>NOTE</b> The request path must meet the requirements so that it can be correctly decoded after percent-encoding.
query	No	Map<String,Array<String>>	Query strings, with each value being a character string array. Each parameter name must meet the following requirements: <ul style="list-style-type: none"> <li>• Contains letters, digits, periods (.), hyphens (-), or underscores (_).</li> <li>• Starts with a letter, with a maximum of 32 bytes.</li> <li>• Case-insensitive and cannot start with X-Apig- or X-Sdk-.</li> <li>• Case-insensitive and cannot be X-Stage.</li> </ul>
scheme	Yes	String	Request protocol. <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
app_key	No	String	AppKey used in the debugging request.
app_secret	No	String	AppSecret used in the debugging request.

Parameter	Mandatory	Type	Description
domain	No	String	<p>Access domain name of the API. For gateways with custom inbound ports, the port information must be contained and separated by colons (:), for example, test.com:8080.</p> <p>If no value is specified, one of the following default values will be used based on the mode:</p> <ul style="list-style-type: none"> <li>DEVELOPER: The subdomain name of the API group will be used.</li> <li>MARKET: This parameter is not used currently.</li> <li>CONSUMER: The subdomain name of the API group will be used.</li> </ul>
stage	No	String	<p>Running environment specified by the debugging request. This parameter is valid only when mode is set to CONSUMER. If this parameter is not specified, the following default value is used:</p> <ul style="list-style-type: none"> <li>CONSUMER RELEASE</li> </ul>

## Response Parameters

Status code: 200

Table 4-301 Response body parameters

Parameter	Type	Description
request	String	Body of the debugging request.
response	String	<p>Body of the debugging response, with a maximum of 2,097,152 bytes. Any content beyond this threshold will be truncated.</p> <p><b>NOTE</b> Any content beyond the length limit will be truncated, and text [TRUNCATED] will be added to the response body.</p>
latency	Integer	Debugging duration in milliseconds.

Parameter	Type	Description
log	String	Debugging logs.

**Status code: 400****Table 4-302** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-303** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-304** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-305** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-306** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Debugging an API

```
{
  "mode" : "DEVELOPER",
  "scheme" : "HTTPS",
  "method" : "GET",
  "path" : "/test/mock"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "request" : "GET /test/mock HTTP/1.1\nHost: c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com\nUser-Agent: APIGatewayDebugClient/1.0\nX-Apig-Mode: debug\n\n",
  "response" : "HTTP/1.1 200 OK\nTransfer-Encoding: chunked\nConnection: keep-alive\nContent-Type: application/json\nDate: Mon, 03 Aug 2020 02:51:22 GMT\nServer: api-gateway\nX-Apig-Latency: 0\nX-Apig-Ratelimit-Api: remain:99,limit:100,time:1 minute\nX-Apig-Ratelimit-Api-Allenv: remain:14999,limit:15000,time:1 second\nX-Request-Id: d4ec6e33148bdeffe8f55b43472d1251\n\nmock success",
  "latency" : 5,
  "log" : ""
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:mode. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 3a955b791bd24b1c9cd94c745f8d1aad does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).**4.5.9 Publishing APIs or Taking APIs Offline****Function**

This API is used to publish multiple APIs in an environment or to remove multiple APIs from the environment in which they have been published.

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

POST /v2/{project\_id}/apigw/instances/{instance\_id}/apis/publish

**Table 4-307** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-308** Query Parameters

Parameter	Mandatory	Type	Description
action	Yes	String	<ul style="list-style-type: none"><li>• online: publish APIs</li><li>• offline: take APIs offline</li></ul>

## Request Parameters

**Table 4-309** Request header parameters

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

**Table 4-310** Request body parameters

Parameter	Mandatory	Type	Description
apis	No	Array of strings	IDs of APIs to be published or taken offline. A maximum of 1000 APIs are allowed at a time. Either apis or group_id must be specified.
env_id	Yes	String	Environment ID.
group_id	No	String	API group ID. Either apis or group_id must be specified.



Parameter	Mandatory	Type	Description
remark	No	String	Description of the publication. It cannot exceed 255 characters.

## Response Parameters

Status code: 200

**Table 4-311** Response body parameters

Parameter	Type	Description
success	Array of <b>PublishResp</b> objects	Message for successful API publication or taking offline.
failure	Array of <b>BatchFailure</b> objects	Error message and APIs that fail to be published or taken offline.

**Table 4-312** PublishResp

Parameter	Type	Description
publish_id	String	Publication record ID.
api_id	String	API ID.
api_name	String	API name.
env_id	String	ID of the environment in which the API has been published.
remark	String	Description about the publication.
publish_time	String	Publication time.
version_id	String	API version currently in use.

**Table 4-313** BatchFailure

Parameter	Type	Description
api_id	String	ID of an API that fails to be published or taken offline.
api_name	String	Name of an API that fails to be published or taken offline.

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 400****Table 4-314** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-315** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-316** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-317** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

### Publishing APIs

```
{
  "apis" : [ "3a955b791bd24b1c9cd94c745f8d1aad", "abd9c4b2ff974888b0ba79be7e6b2762" ],
  "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "remark" : "Published to the production environment"
}
```

## Example Responses

### Status code: 200

OK

```
{
  "success" : [ {
    "publish_id" : "9f27d1dc4f4242a9abf88e563dbfc33d",
    "api_id" : "3a955b791bd24b1c9cd94c745f8d1aad",
    "api_name" : "Api_mock",
    "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "version_id" : "632b2c9e022941969af9a1d45735ae2c",
    "remark" : "Published to the production environment",
    "publish_time" : "2020-08-03T03:01:31.26522821Z"
  } ],
  "failure" : [ {
    "api_id" : "abd9c4b2ff974888b0ba79be7e6b2762",
    "error_code" : "APIG.3002",
    "error_msg" : "Api abd9c4b2ff974888b0ba79be7e6b2762 not found"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value: parameter action should be \\\"online\\\" or \\\"offline\\\""
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
}
```

```
"error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.5.10 Querying Historical Versions of an API

### Function

This API is used to query the historical versions of an API. APIG retains a maximum of 10 historical versions for each API in an environment.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apis/publish/{api\_id}

**Table 4-318** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

**Table 4-319** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
env_id	No	String	Environment ID.
env_name	No	String	Environment name.

## Request Parameters

**Table 4-320** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-321** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.

Parameter	Type	Description
api_versions	Array of <a href="#">ApiVersionResp</a> objects	Historical version list.

**Table 4-322** ApiVersionResp

Parameter	Type	Description
version_id	String	API version ID.
version_no	String	API version.
api_id	String	API ID.
env_id	String	ID of the environment in which the API has been published.
env_name	String	Name of the environment in which the API has been published.
remark	String	Description about the publication.
publish_time	String	Publication time.
status	Integer	Version status. <ul style="list-style-type: none"><li>• 1: effective</li><li>• 2: not effective</li></ul>

**Status code: 400****Table 4-323** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-324** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-325** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-326** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-327** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 1,
  "size" : 1,
  "api_versions" : [ {
    "version_id" : "ee1a5a38d3d3493abf1dc4ed6cacfa0b",
    "version_no" : "20200803093600",
    "api_id" : "5f918d104dc84480a75166ba99efff21",
    "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name" : "RELEASE",
    "publish_time" : "2020-08-03T01:36:00Z",
    "status" : 1
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:env_name. Please refer to the support
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error



## Error Codes

See [Error Codes](#).

## 4.5.11 Switching the Version of an API

### Function

This API is used to switch the version of an API. A version is generated based on the current definition of an API when the API is published. The version records the definition and status of the API when it is published.

You can switch between multiple versions of an API, but only one version of an API takes effect in the same environment.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/apis/publish/{api\_id}

**Table 4-328** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

### Request Parameters

**Table 4-329** Request header parameters

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

**Table 4-330** Request body parameters

Parameter	Mandatory	Type	Description
version_id	No	String	API version ID.

## Response Parameters

**Status code: 200**

**Table 4-331** Response body parameters

Parameter	Type	Description
publish_id	String	Publication record ID.
api_id	String	API ID.
api_name	String	API name.
env_id	String	ID of the environment in which the API has been published.
remark	String	Description about the publication.
publish_time	String	Publication time.
version_id	String	API version currently in use.

**Status code: 400**

**Table 4-332** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-333** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-334** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-335** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-336** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

Switching an API to a specified version

```
{
  "version_id": "ee1a5a38d3d3493abf1dc4ed6cacfa0b"
}
```

**Example Responses****Status code: 200**

OK

```
{
  "publish_id": "9191cdb430724d4b8586ed7f1b962ca2",
  "api_id": "5f918d104dc84480a75166ba99efff21",
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "version_id": "ee1a5a38d3d3493abf1dc4ed6cacfa0b",
  "publish_time": "2020-08-03T03:27:49.483295655Z"
}
```

**Status code: 400**

### Bad Request

```
{
  "error_code" : "APIG.2000",
  "error_msg" : "Parameter error: Serialization error: unexpected end of JSON input"
}
```

### Status code: 401

### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

### Not Found

```
{
  "error_code" : "APIG.3022",
  "error_msg" : "The API version does not exist,id:ee1a5a38d3d3493abf1dc4ed6cacfa0b"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.5.12 Querying the Runtime Definition of an API

### Function

This API is used to query the runtime definition of an API in a specified environment. The runtime definition of an API in the RELEASE environment is queried if no environment is specified.

The definition of an API is classified into the following types:

- Temporary definition: definition of an API used after the API was last edited.
- Runtime definition: snapshot of the temporary definition of an API captured when the API is published in an environment.

The runtime definition of an API is accessed when the API is called in an environment.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apis/runtime/{api\_id}

**Table 4-337** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

**Table 4-338** Query Parameters

Parameter	Mandatory	Type	Description
env_id	No	String	ID of the environment in which the API is published.

## Request Parameters

**Table 4-339** Request header parameters

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

## Response Parameters

**Status code: 200****Table 4-340** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()
type	Integer	API type. <ul style="list-style-type: none"><li>1: public API</li><li>2: private API</li></ul>
version	String	API version. Maximum: <b>16</b>
req_protocol	String	API request protocol: <ul style="list-style-type: none"><li>HTTP</li><li>HTTPS</li><li>BOTH: Both HTTP and HTTPS are supported.</li><li>GRPCS</li></ul> Default: <b>HTTPS</b>
req_method	String	API request method. If the request protocol is set to GRPC, the request method is fixed to POST.

Parameter	Type	Description
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.  <b>NOTE</b> The address must comply with the URI specifications.
auth_type	String	API authentication mode. Options: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER: custom authentication. When auth_type is set to AUTHORIZER, the authorizer_id field is mandatory.</li> </ul>
auth_opt	<b>AuthOpt</b> object	Security authentication parameter.
cors	Boolean	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• TRUE: supported</li> <li>• FALSE: not supported</li> </ul> Default: <b>false</b>
match_mode	String	API matching mode: <ul style="list-style-type: none"> <li>• SWA: Prefix match</li> <li>• NORMAL: Exact match</li> </ul> Default value: NORMAL
backend_type	String	Backend type. Options: <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend. When backend_type is set to FUNCTION, the func_info field is mandatory.</li> <li>• MOCK: mock backend. When backend_type is set to MOCK, the mock_info field is mandatory.</li> <li>• GRPC: gRPC backend.</li> </ul>
remark	String	API description. It cannot exceed 255 characters.
group_id	String	ID of the API group to which the API belongs.

Parameter	Type	Description
body_remark	String	API request body, which can be an example request body, media type, or parameters. Ensure that the request body does not exceed 20,480 characters.
result_normal_sample	String	Example response for a successful request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
result_failure_sample	String	Example response for a failed request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
authorizer_id	String	ID of the frontend custom authorizer
tags	Array of strings	Tag. Use letters, digits, and special characters (-*#%:_.) and start with a letter. By default, 10 tags are supported. To increase the quota, contact technical support to modify the API_TAG_NUM_LIMIT configuration. Minimum: <b>1</b> Maximum: <b>128</b>
response_id	String	Group response ID.
roma_app_id	String	Integration application ID. Currently, this parameter is not supported.
domain_name	String	Custom domain name bound to the API. Currently, this parameter is not supported.
tag	String	Tag. This field will be deprecated. You can use the tags field instead.
content_type	String	Request content type: application/json application/xml multipart/form-data text/plain



Parameter	Type	Description
is_send_fg_body_base64	Boolean	Specifies whether to perform Base64 encoding on the body for interaction with FunctionGraph. The body does not need to be encoded using Base64 only when content_type is set to application/json. Application scenario: <ul style="list-style-type: none"> <li>• Custom authentication</li> <li>• Bound circuit breaker plug-in with FunctionGraph backend downgrade policy</li> <li>• APIs with FunctionGraph backend</li> </ul> Default: <b>true</b>
id	String	API ID.
group_name	String	Name of the API group to which the API belongs.
run_env_name	String	Name of the environment in which the API has been published.
run_env_id	String	ID of the environment in which the API has been published.
publish_id	String	Publication record ID.
sl_domain	String	Subdomain name of the API group.
sl_domains	Array of strings	Subdomain names that APIG automatically allocates to the API group.
req_params	Array of <a href="#">ReqParam</a> objects	Request parameters.

**Table 4-341** AuthOpt

Parameter	Type	Description
app_code_auth_type	String	Indicates whether AppCode authentication is enabled. This parameter is valid only if auth_type is set to App. The default value is DISABLE. <ul style="list-style-type: none"> <li>• DISABLE: AppCode authentication is disabled.</li> <li>• HEADER: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul> Default: <b>DISABLE</b>

**Table 4-342** ReqParam

Parameter	Type	Description
name	String	Parameter name. The parameter name can contain 1 to 32 characters and must start with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
type	String	Parameter type.
location	String	Parameter location.
default_value	String	Default value.
sample_value	String	Example value.
required	Integer	Indicates whether the parameter is required. 1: yes 2: no The value of this parameter is 1 if Location is set to PATH, and 2 if Location is set to another value.
valid_enable	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"> <li>• 1: enabled</li> <li>• 2: disabled</li> </ul> Default: 2
remark	String	Description. It cannot exceed 255 characters.
enumerations	String	Enumerated value.
min_num	Integer	Minimum value. This parameter is valid when type is set to NUMBER.
max_num	Integer	Maximum value. This parameter is valid when type is set to NUMBER.
min_size	Integer	Minimum length. This parameter is valid when type is set to STRING.
max_size	Integer	Maximum length. This parameter is valid when type is set to STRING.
regular	String	Regular expression validation rule. Currently, this parameter is not supported.

Parameter	Type	Description
json_schema	String	JSON validation rule. Currently, this parameter is not supported.
pass_through	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no
orchestrations	Array of strings	Request parameter orchestration rules are prioritized in the same sequence as the list. The none_value rule in a rule list has the highest priority. A maximum of one none_value rule can be bound. The default rule in a rule list has the lowest priority. A maximum of one default rule can be bound. The preprocessing orchestration rule cannot be used as the last orchestration rule except the default rule. Only one parameter of each API can be bound with unique orchestration rules. The number of orchestration rules that can be bound is limited by quota. For details, see "Notes and Constraints" in APIG Service Overview.
id	String	Parameter ID.

**Status code: 401**

**Table 4-343** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-344** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-345** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-346** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "name" : "Api_http",
  "type" : 1,
  "version" : "V0.0.1",
  "req_protocol" : "HTTPS",
  "req_method" : "GET",
  "req_uri" : "/test/http",
  "auth_type" : "AUTHORIZER",
  "authorizer_id" : "8d0443832a194eaa84244e0c1c1912ac",
  "auth_opt" : {
    "app_code_auth_type" : "DISABLE"
  },
  "cors" : false,
  "match_mode" : "NORMAL",
  "backend_type" : "HTTP",
  "remark" : "Web backend API",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "result_normal_sample" : "Example success response",
  "result_failure_sample" : "Example failure response",
  "id" : "5f918d104dc84480a75166ba99efff21",
  "group_name" : "api_group_001",
  "run_env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "run_env_name" : "RELEASE",
  "publish_id" : "9191cdb430724d4b8586ed7f1b962ca2",
  "sl_domain" : "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
  "sl_domains" : [ "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
    "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.cn" ]
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**

See [Error Codes](#).

**4.5.13 Querying API Version Details**

**Function**

This API is used to query the details of a specified API version.

## Calling Method

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

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apis/versions/{version\_id}

**Table 4-347** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
version_id	Yes	String	API version.

## Request Parameters

**Table 4-348** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-349** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()

Parameter	Type	Description
type	Integer	API type. <ul style="list-style-type: none"> <li>• 1: public API</li> <li>• 2: private API</li> </ul>
version	String	API version. Maximum: <b>16</b>
req_protocol	String	API request protocol: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> <li>• BOTH: Both HTTP and HTTPS are supported.</li> <li>• GRPCS</li> </ul> Default: <b>HTTPS</b>
req_method	String	API request method. If the request protocol is set to GRPC, the request method is fixed to POST.
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications. <b>NOTE</b> The address must comply with the URI specifications.
auth_type	String	API authentication mode. Options: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER: custom authentication. When auth_type is set to AUTHORIZER, the authorizer_id field is mandatory.</li> </ul>
auth_opt	<b>AuthOpt</b> object	Security authentication parameter.
cors	Boolean	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• TRUE: supported</li> <li>• FALSE: not supported</li> </ul> Default: <b>false</b>

Parameter	Type	Description
match_mode	String	API matching mode: <ul style="list-style-type: none"> <li>• SWA: Prefix match</li> <li>• NORMAL: Exact match</li> </ul> Default value: NORMAL
backend_type	String	Backend type. Options: <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend. When backend_type is set to FUNCTION, the func_info field is mandatory.</li> <li>• MOCK: mock backend. When backend_type is set to MOCK, the mock_info field is mandatory.</li> <li>• GRPC: gRPC backend.</li> </ul>
remark	String	API description. It cannot exceed 255 characters.
group_id	String	ID of the API group to which the API belongs.
body_remark	String	API request body, which can be an example request body, media type, or parameters. Ensure that the request body does not exceed 20,480 characters.
result_normal_sample	String	Example response for a successful request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
result_failure_sample	String	Example response for a failed request. Ensure that the response does not exceed 20,480 characters. This is unavailable if the request protocol is set to GRPC.
authorizer_id	String	ID of the frontend custom authorizer
tags	Array of strings	Tag. Use letters, digits, and special characters (-*#%.:_) and start with a letter. By default, 10 tags are supported. To increase the quota, contact technical support to modify the API_TAG_NUM_LIMIT configuration. Minimum: <b>1</b> Maximum: <b>128</b>
response_id	String	Group response ID.



Parameter	Type	Description
roma_app_id	String	Integration application ID. Currently, this parameter is not supported.
domain_name	String	Custom domain name bound to the API. Currently, this parameter is not supported.
tag	String	Tag. This field will be deprecated. You can use the tags field instead.
content_type	String	Request content type: application/json application/xml multipart/form-data text/plain
is_send_fg_body_base64	Boolean	Specifies whether to perform Base64 encoding on the body for interaction with FunctionGraph. The body does not need to be encoded using Base64 only when content_type is set to application/json. Application scenario: <ul style="list-style-type: none"> <li>• Custom authentication</li> <li>• Bound circuit breaker plug-in with FunctionGraph backend downgrade policy</li> <li>• APIs with FunctionGraph backend</li> </ul> Default: <b>true</b>
id	String	API ID.
status	Integer	App status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
arrange_necessary	Integer	Indicates whether to enable orchestration.
register_time	String	Time when the API is registered.
update_time	String	Time when the API was last modified.
group_name	String	Name of the API group to which the API belongs.
group_version	String	Version of the API group to which the API belongs. The default value is V1. Other versions are not supported. Default: <b>V1</b>

Parameter	Type	Description
run_env_id	String	ID of the environment in which the API has been published. Separate multiple environment IDs with vertical bars ( ).
run_env_name	String	Name of the environment in which the API has been published. Separate multiple environment names with vertical bars ( ).
publish_id	String	Publication record ID. Separate multiple publication record IDs with vertical bars ( ).
publish_time	String	Time when the API version is published.
roma_app_name	String	Name of the integration application to which the API belongs. Currently, this parameter is not supported.
ld_api_id	String	ID of the corresponding custom backend API. Currently, this parameter is not supported.
backend_api	<b>BackendApi</b> object	Web backend details.
api_group_info	<b>ApiGroupCommonInfo</b> object	API group information.
func_info	<b>ApiFunc</b> object	FunctionGraph backend details.
mock_info	<b>ApiMock</b> object	Mock backend details.
req_params	Array of <b>ReqParam</b> objects	Request parameters.
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
policy_functions	Array of <b>ApiPolicyFunctionResp</b> objects	FunctionGraph backend policies.
policy_mocks	Array of <b>ApiPolicyMockResp</b> objects	Mock backend policies.

Parameter	Type	Description
policy_https	Array of <a href="#">ApiPolicyHttpResp</a> objects	Web backend policies.
sl_domain	String	Subdomain name that API Gateway automatically allocates to the API group.
sl_domains	Array of strings	Subdomain names that APIG automatically allocates to the API group.
version_id	String	API version ID.

**Table 4-350** AuthOpt

Parameter	Type	Description
app_code_auth_type	String	<p>Indicates whether AppCode authentication is enabled. This parameter is valid only if auth_type is set to App. The default value is DISABLE.</p> <ul style="list-style-type: none"> <li>DISABLE: AppCode authentication is disabled.</li> <li>HEADER: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul> <p>Default: <b>DISABLE</b></p>

**Table 4-351** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	<p>Backend service address.</p> <p>A backend service address consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Host name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p>

Parameter	Type	Description
req_protocol	String	Request protocol. You can select GRPC or GRPCS for the GRPC backend.
remark	String	Description. It cannot exceed 255 characters.
req_method	String	Request method. For the GRPC backend, the request method is fixed to POST.
version	String	Web backend version, which can contain a maximum of 16 characters.
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.  Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.  <b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.
timeout	Integer	Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.  Unit: ms. Minimum: <b>1</b>
enable_client_ssl	Boolean	Indicates whether to enable two-way authentication.
retry_count	String	Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.  -1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.  Default: <b>-1</b>

Parameter	Type	Description
enable_sm_channel	Boolean	Indicates whether to enable SM cryptographic algorithms. This feature is only available if the gateway supports the SM cryptographic algorithms.
id	String	ID.
status	Integer	Backend service status. <ul style="list-style-type: none"> <li>1: valid</li> </ul>
register_time	String	Registration time.
update_time	String	Update time.
vpc_channel_info	VpcInfo object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"> <li>1: A VPC channel is used.</li> <li>2: No VPC channel is used.</li> </ul>

**Table 4-352** ApiGroupCommonInfo

Parameter	Type	Description
id	String	ID.
name	String	API group name.
status	Integer	Status. <ul style="list-style-type: none"> <li>1: valid</li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.
update_time	String	Last modification time.
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. <ul style="list-style-type: none"> <li>1: listed</li> <li>2: not listed</li> <li>3: under review</li> </ul> Not supported currently.
url_domains	Array of UrlDomain objects	Independent domain names bound to the API group.

Parameter	Type	Description
sl_domain_access_enabled	Boolean	Whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>

**Table 4-353** UrlDomain

Parameter	Type	Description
id	String	Domain ID.
domain	String	Domain name.
cname_status	Integer	CNAME resolution status of the domain name. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>

Parameter	Type	Description
ingress_http_port	Integer	<p>Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ssl_infos	Array of <b>SslInfo</b> objects	SSL certificate list.

**Table 4-354** SslInfo

Parameter	Type	Description
ssl_id	String	SSL certificate ID.

Parameter	Type	Description
ssl_name	String	SSL certificate name.
algorithm_type	String	Certificate algorithm type: <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>
type	String	Certificate scope: <ul style="list-style-type: none"> <li>• instance</li> <li>• global</li> </ul> Default: <b>global</b>

**Table 4-355** ApiFunc

Parameter	Type	Description
function_urn	String	Function URN.
remark	String	Description. It cannot exceed 255 characters.
invocation_type	String	Invocation mode. <ul style="list-style-type: none"> <li>• async: asynchronous</li> <li>• sync: synchronous</li> </ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul>
version	String	Function version. If both a function alias URN and version are passed, only the alias URN will be used. Maximum: <b>64</b>
alias_urn	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
timeout	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>



Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.
req_protocol	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
id	String	ID.
register_time	String	Registration time.
status	Integer	Backend service status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
update_time	String	Update time.

**Table 4-356** ApiMock

Parameter	Type	Description
remark	String	Description. It cannot exceed 255 characters.
result_content	String	Response.
version	String	Function version. It cannot exceed 64 characters.
authorizer_id	String	Backend custom authorizer ID.
id	String	ID.
register_time	String	Registration time.
status	Integer	Backend service status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
update_time	String	Update time.

**Table 4-357** ReqParam

Parameter	Type	Description
name	String	Parameter name. The parameter name can contain 1 to 32 characters and must start with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
type	String	Parameter type.

Parameter	Type	Description
location	String	Parameter location.
default_value	String	Default value.
sample_value	String	Example value.
required	Integer	Indicates whether the parameter is required. 1: yes 2: no The value of this parameter is 1 if Location is set to PATH, and 2 if Location is set to another value.
valid_enable	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"> <li>1: enabled</li> <li>2: disabled</li> </ul> Default: 2
remark	String	Description. It cannot exceed 255 characters.
enumerations	String	Enumerated value.
min_num	Integer	Minimum value. This parameter is valid when type is set to NUMBER.
max_num	Integer	Maximum value. This parameter is valid when type is set to NUMBER.
min_size	Integer	Minimum length. This parameter is valid when type is set to STRING.
max_size	Integer	Maximum length. This parameter is valid when type is set to STRING.
regular	String	Regular expression validation rule. Currently, this parameter is not supported.
json_schema	String	JSON validation rule. Currently, this parameter is not supported.
pass_through	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no

Parameter	Type	Description
orchestrations	Array of strings	<p>Request parameter orchestration rules are prioritized in the same sequence as the list.</p> <p>The none_value rule in a rule list has the highest priority. A maximum of one none_value rule can be bound.</p> <p>The default rule in a rule list has the lowest priority. A maximum of one default rule can be bound.</p> <p>The preprocessing orchestration rule cannot be used as the last orchestration rule except the default rule.</p> <p>Only one parameter of each API can be bound with unique orchestration rules. The number of orchestration rules that can be bound is limited by quota. For details, see "Notes and Constraints" in APIG Service Overview.</p>
id	String	Parameter ID.

**Table 4-358** ApiPolicyFunctionResp

Parameter	Type	Description
function_urn	String	Function URN.
invocation_type	String	<p>Invocation mode.</p> <ul style="list-style-type: none"> <li>• async: asynchronous</li> <li>• sync: synchronous</li> </ul>
network_type	String	<p>Function network architecture.</p> <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul>
version	String	<p>Function version.</p> <p>If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.</p> <p>Maximum: <b>64</b></p>
alias_urn	String	<p>Function alias URN.</p> <p>If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.</p>

Parameter	Type	Description
timeout	Integer	Timeout allowed for APIG to request the backend service. If the function network architecture is set to V1, the maximum timeout is 60,000. If the network architecture is set to V2, the maximum timeout is 600,000 and can be modified by using the gateway parameter backend_timeout. Unit: ms. Minimum: <b>1</b>
req_protocol	String	Backend request protocol of a function. The value can be HTTPS (default) or GRPCS (available when the frontend request protocol is GRPCS). Default: <b>HTTPS</b>
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>● ALL: All conditions are met.</li> <li>● ANY: Any condition is met.</li> </ul>
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>ConditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.

**Table 4-359** ApiPolicyMockResp

Parameter	Type	Description
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>● ALL: All conditions are met.</li> <li>● ANY: Any condition is met.</li> </ul>

Parameter	Type	Description
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>ConditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.
result_content	String	Response.

**Table 4-360** ApiPolicyHttpResp

Parameter	Type	Description
id	String	ID.
effect_mode	String	Effective mode of the backend policy. <ul style="list-style-type: none"> <li>• ALL: All conditions are met.</li> <li>• ANY: Any condition is met.</li> </ul>
name	String	Backend name, which must start with a letter and can contain letters, digits, and underscores (_). Minimum: <b>3</b> Maximum: <b>64</b>
backend_params	Array of <b>BackendParam</b> objects	Backend parameters.
conditions	Array of <b>ConditionResp</b> objects	Policy conditions.
authorizer_id	String	Backend custom authorizer ID.

Parameter	Type	Description
url_domain	String	<p>Endpoint of the policy backend.</p> <p>An endpoint consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "Domain name:Port number", for example, apig.example.com:7443. If the port number is not specified, the default HTTPS port 443 or the default HTTP port 80 is used.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p>
req_protocol	String	<p>Request protocol. Options include HTTP, HTTPS, GRPC, or GRPCS. You can select GRPC or GRPCS for the GRPC backend.</p>
req_method	String	<p>Request method. Options include GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, and ANY. This is fixed to POST for the GRPC backend.</p>
req_uri	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p><b>NOTE</b> The address must comply with the URI specifications. For the GRPC backend, the request address is fixed to /.</p>
timeout	Integer	<p>Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000.</p> <p>Unit: ms.</p> <p>Minimum: 1</p>

Parameter	Type	Description
retry_count	String	Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10.  -1 indicates that idempotent APIs will retry once and non-idempotent APIs will not retry. POST and PATCH are non-idempotent. GET, HEAD, PUT, OPTIONS, and DELETE are idempotent.  Default: -1
enable_sm_channel	Boolean	Indicates whether to enable SM cryptographic algorithms.  This feature is only available if the gateway supports the SM cryptographic algorithms.
vpc_channel_info	VpcInfo object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.
vpc_channel_status	Integer	Indicates whether to use a VPC channel. <ul style="list-style-type: none"> <li>1: A VPC channel is used.</li> <li>2: No VPC channel is used.</li> </ul>

**Table 4-361** BackendParam

Parameter	Type	Description
origin	String	Parameter type. <ul style="list-style-type: none"> <li>REQUEST: backend parameter</li> <li>CONSTANT: constant parameter</li> <li>SYSTEM: system parameter</li> </ul>
name	String	Parameter name.  The parameter name must start with a letter and can only contain letters, digits, hyphens (-), underscores (_), and periods (.).  Minimum: <b>1</b> Maximum: <b>32</b>
remark	String	Description, which can contain a maximum of 255 characters.
location	String	Parameter location. The value can be PATH, QUERY, or HEADER.

Parameter	Type	Description
value	String	<p>Parameter value, which can contain a maximum of 255 characters.</p> <p>If the origin type is REQUEST, the value of this parameter is the parameter name in req_params.</p> <p>If the origin type is CONSTANT, the value is a constant.</p> <p>If the origin type is SYSTEM, the value is a system parameter name. System parameters include gateway parameters, frontend authentication parameters, and backend authentication parameters. You can set the frontend or backend authentication parameters after enabling custom frontend or backend authentication.</p> <p>The gateway parameters are as follows:</p> <ul style="list-style-type: none"> <li>● \$context.sourceIp: source IP address of the API caller.</li> <li>● \$context.stage: deployment environment in which the API is called.</li> <li>● \$context.apid: API ID.</li> <li>● \$context.appid: ID of the app used by the API caller.</li> <li>● \$context.requestId: request ID generated when the API is called.</li> <li>● \$context.serverAddr: address of the gateway server.</li> <li>● \$context.serverName: name of the gateway server.</li> <li>● \$context.handleTime: time when the API request is processed.</li> <li>● \$context.providerAppId: ID of the app used by the API owner. This parameter is currently not supported.</li> </ul> <p>Frontend authentication parameter: prefixed with "\$context.authorizer.frontend.". For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.frontend.aaa".</p> <p>Backend authentication parameter: prefixed with "\$context.authorizer.backend.". For example, to return "aaa" upon successful custom authentication, set this parameter to "\$context.authorizer.backend.aaa".</p>
id	String	Parameter ID.



Parameter	Type	Description
req_param_id	String	Request parameter ID.

**Table 4-362** ConditionResp

Parameter	Type	Description
req_param_name	String	Input parameter name. This parameter is required if the policy type is param.
sys_param_name	String	Name of a built-in gateway parameter. This parameter is required if the policy type is system. The following parameters are supported: <ul style="list-style-type: none"> <li>req_path: request path. For example, /a/b.</li> <li>req_method: request method. For example, GET.</li> <li>reqPath: request path, which is discarded. For example, /a/b.</li> <li>reqMethod: request method, which is discarded. For example, GET.</li> </ul>
cookie_param_name	String	COOKIE parameter name. This parameter is required if the policy type is cookie. Minimum: <b>0</b> Maximum: <b>255</b>
frontend_auth_orizer_param_name	String	System parameter: frontend authentication parameter name. This parameter is mandatory when the policy type is frontend_auth_orizer. The frontend authentication parameter name is prefixed with \$context.authorizer.frontend. For example, if the frontend authentication parameter name is user_name, the name with the prefix will be \$context.authorizer.frontend.user_name.
condition_type	String	Policy condition. <ul style="list-style-type: none"> <li>exact: Exact match</li> <li>enum: Enumeration</li> <li>pattern: Regular expression</li> </ul> This parameter is required when the policy type is param, system, cookie, or frontend_auth_orizer.

Parameter	Type	Description
condition_origin	String	Policy type <ul style="list-style-type: none"> <li>• param: parameter</li> <li>• source: source IP address</li> <li>• system: system parameter - gateway built-in parameter</li> <li>• cookie: COOKIE parameter</li> <li>• frontend_authorizer: system parameter - frontend authentication parameter</li> </ul>
condition_value	String	Policy value. Maximum: <b>1024</b>
mapped_parameter_name	String	Name of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. The generated parameter name must exist in the orchestration rule bound to the API.
mapped_parameter_location	String	Location of a parameter generated after orchestration. This parameter is mandatory when condition_origin is set to orchestration. This location must exist in the orchestration rule bound to the API.
id	String	ID.
req_param_id	String	Input parameter ID.
req_param_location	String	Input parameter location.

**Table 4-363** VpcInfo

Parameter	Type	Description
ecs_id	String	Cloud server ID.
ecs_name	String	Cloud server name.
cascade_flag	Boolean	Indicates whether to use the cascading mode. Currently, this parameter is not supported.
vpc_channel_proxy_host	String	Proxy host.
vpc_channel_id	String	VPC channel ID.
vpc_channel_port	Integer	VPC channel port.

**Status code: 401****Table 4-364** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-365** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-366** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-367** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

**Example Responses****Status code: 200**

OK

```
{
  "name" : "Api_http",
  "type" : 1,
  "version" : "V0.0.1",
  "req_protocol" : "HTTPS",
  "req_method" : "GET",
  "req_uri" : "/test/http",
  "auth_type" : "AUTHORIZER",
  "auth_opt" : [ {
    "app_code_auth_type" : "DISABLE"
  } ],
  "authorizer_id" : "8d0443832a194eaa84244e0c1c1912ac",
  "cors" : false,
  "match_mode" : "NORMAL",
  "backend_type" : "HTTP",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "result_normal_sample" : "Example success response",
  "result_failure_sample" : "Example failure response",
  "id" : "5f918d104dc84480a75166ba99efff21",
  "status" : 1,
  "arrange_necessary" : 2,
  "remark" : "Web backend API",
  "register_time" : "2020-07-31T12:42:51Z",
  "update_time" : "2020-08-02T16:32:47.046289Z",
  "group_name" : "api_group_001",
  "run_env_name" : "RELEASE",
  "run_env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "sl_domain" : "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
  "sl_domains" : [ "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.com",
  "c77f5e81d9cb4424bf704ef2b0ac7600.apic.***.cn" ],
  "version_id" : "ee1a5a38d3d3493abf1dc4ed6cacfa0b",
  "publish_time" : "2020-08-03T01:36:00Z",
  "backend_api" : {
    "url_domain" : "56a7d7358e1b42459c9d730d65b14e59",
    "req_protocol" : "HTTPS",
    "req_method" : "GET",
    "req_uri" : "/test/benchmark",
    "timeout" : 5000,
    "id" : "1ce8fda3586d4371bd83c955df37e102",
    "status" : 1,
    "register_time" : "2020-07-31T12:42:51Z",
    "update_time" : "2020-08-02T16:32:47.077029Z",
    "vpc_channel_status" : 1,
    "vpc_channel_info" : {
      "cascade_flag" : false,
      "vpc_channel_id" : "56a7d7358e1b42459c9d730d65b14e59",
      "vpc_channel_proxy_host" : "www.example.com",
      "vpc_channel_port" : 0
    },
    "retry_count" : "-1"
  },
  "backend_params" : [ {
    "name" : "X-CONSTANT-HEADER",
    "location" : "HEADER",
    "origin" : "CONSTANT",
    "value" : "demo",
    "remark" : "constant_demo",
    "id" : "8cb2eba19e7a4423a4e835647a8b8d76"
  }, {
    "name" : "app-id",
    "location" : "HEADER",
    "origin" : "SYSTEM",
    "value" : "$context.appld",
    "remark" : "App ID of the API caller",
    "id" : "216ddd836e74d528f364ff589d9dd21"
  } ]
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3022",
  "error_msg" : "The API version does not exist,id:ee1a5a38d3d3493abf1dc4ed6cacfa0b"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).**4.5.14 Taking an API Version Offline****Function**

This API is used to remove an effective version of an API. The removed API cannot be called in the environment in which it took effect.

## Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/apis/versions/{version\_id}

**Table 4-368** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
version_id	Yes	String	API version.

## Request Parameters

**Table 4-369** Request header parameters

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

## Response Parameters

**Status code: 401**

**Table 4-370** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-371** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-372** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-373** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3022",
  "error_msg" : "The API version does not exist,id:ee1a5a38d3d3493abf1dc4ed6cacfa0b"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.6 Signature Key Management

### 4.6.1 Creating a Signature Key

#### Function

It is a good practice to provide a protection mechanism for APIs to ensure access security. For example, authenticating API request sources and denying the access from unauthorized sources.

A signature key is a protection mechanism in case.

Create a signature key and bind it to an API. When requesting the API, APIG uses the signature key to encrypt request parameter data and generate a signature. The backend service of the API verifies requests by using the signature. Unauthorized requests will be denied to protect the API against attacks from unknown sources.



## Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/signs

**Table 4-374** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-375** Request header parameters

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

**Table 4-376** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Signature key name. It can contain letters, digits, and underscores(_) and must start with a letter. Minimum: <b>3</b> Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
sign_type	No	String	<p>Signature key type:</p> <ul style="list-style-type: none"> <li>• hmac               <ul style="list-style-type: none"> <li>-basic</li> <li>-public_key</li> <li>-aes</li> </ul> </li> </ul> <p>To use a basic signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p> <p>To use a public_key signature key, ensure that the public_key feature has been configured for your gateway. For details, see "Appendix" &gt; "Supported Features". If your gateway does not support this feature, contact technical support to enable it.</p> <p>To use an AES signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p>

Parameter	Mandatory	Type	Description
sign_key	No	String	<p>Signature key.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 8 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 4 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter. If not specified, a key is automatically generated.</li> <li>• public_key: The value contains 8 to 512 characters, including letters, digits, and special characters (_-+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters if the aes-128-cfb algorithm is used, or 32 characters if the aes-256-cfb algorithm is used. Letters, digits, and special characters (_-!@#\$%+/=) are allowed. It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>

Parameter	Mandatory	Type	Description
sign_secret	No	String	<p>Signature secret.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 16 to 64 characters. Letters, digits, and special characters (_-!@#%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 8 to 64 characters. Letters, digits, and special characters (_-!@#%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• public_key: The value can contain 16 to 2048 characters, including letters, digits, and special characters (_-!@#%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters, including letters, digits, and special characters (_-!@#%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>
sign_algorithm	No	String	Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used.

## Response Parameters

Status code: 201

**Table 4-377** Response body parameters

Parameter	Type	Description
name	String	Signature key name. It can contain letters, digits, and underscores(_) and must start with a letter. Minimum: <b>3</b> Maximum: <b>64</b>
sign_type	String	Signature key type: <ul style="list-style-type: none"> <li>• hmac <ul style="list-style-type: none"> <li>-basic</li> <li>-public_key</li> <li>-aes</li> </ul> </li> </ul> <p>To use a basic signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p> <p>To use a public_key signature key, ensure that the public_key feature has been configured for your gateway. For details, see "Appendix" &gt; "Supported Features". If your gateway does not support this feature, contact technical support to enable it.</p> <p>To use an AES signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p>

Parameter	Type	Description
sign_key	String	<p>Signature key.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 8 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 4 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter. If not specified, a key is automatically generated.</li> <li>• public_key: The value contains 8 to 512 characters, including letters, digits, and special characters (_-+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters if the aes-128-cfb algorithm is used, or 32 characters if the aes-256-cfb algorithm is used. Letters, digits, and special characters (_-!@#\$%+/=) are allowed. It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>
sign_secret	String	<p>Signature secret.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 16 to 64 characters. Letters, digits, and special characters (_-!@#\$%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 8 to 64 characters. Letters, digits, and special characters (_-!@#\$%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• public_key: The value can contain 16 to 2048 characters, including letters, digits, and special characters (_-!@#\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters, including letters, digits, and special characters (_-!@#\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>

Parameter	Type	Description
sign_algorithm	String	Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used.
update_time	String	Update time.
create_time	String	Creation time.
id	String	Signature key ID.

**Status code: 400****Table 4-378** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-379** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-380** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-381** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 412****Table 4-382** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-383** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Create a signature key with a custom key and secret.

```
{
  "name" : "signature_demo",
  "sign_key" : "signkeysignkey",
  "sign_secret" : "sig*****ret"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "sign_secret" : "sig*****ret",
  "update_time" : "2020-08-03T03:39:38.119032888Z",
  "create_time" : "2020-08-03T03:39:38.119032659Z",
  "name" : "signature_demo",
  "id" : "0b0e8f456b8742218af75f945307173c",
  "sign_key" : "signkeysignkey",
  "sign_type" : "hmac"
}
```



**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}
```

**Status code: 412**

PreconditionFailed

```
{
  "error_code" : "APIG.3548",
  "error_msg" : "sign_type=public_key not supported by instance 6a29d4e9-69a0-412a-aabe-9898ec0903b0"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
412	PreconditionFailed
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.6.2 Modifying a Signature Key

### Function

This API is used to modify the information about a signature key.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/signs/{sign\_id}

**Table 4-384** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
sign_id	Yes	String	Signature key ID.

## Request Parameters

**Table 4-385** Request header parameters

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

**Table 4-386** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Signature key name. It can contain letters, digits, and underscores(_) and must start with a letter. Minimum: <b>3</b> Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
sign_type	No	String	<p>Signature key type:</p> <ul style="list-style-type: none"> <li>• hmac               <ul style="list-style-type: none"> <li>-basic</li> <li>-public_key</li> <li>-aes</li> </ul> </li> </ul> <p>To use a basic signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p> <p>To use a public_key signature key, ensure that the public_key feature has been configured for your gateway. For details, see "Appendix" &gt; "Supported Features". If your gateway does not support this feature, contact technical support to enable it.</p> <p>To use an AES signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p>

Parameter	Mandatory	Type	Description
sign_key	No	String	<p>Signature key.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 8 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 4 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter. If not specified, a key is automatically generated.</li> <li>• public_key: The value contains 8 to 512 characters, including letters, digits, and special characters (_-+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters if the aes-128-cfb algorithm is used, or 32 characters if the aes-256-cfb algorithm is used. Letters, digits, and special characters (_-!@#%+/=) are allowed. It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>

Parameter	Mandatory	Type	Description
sign_secret	No	String	<p>Signature secret.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 16 to 64 characters. Letters, digits, and special characters (_-!@#\$%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 8 to 64 characters. Letters, digits, and special characters (_-!@#\$%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• public_key: The value can contain 16 to 2048 characters, including letters, digits, and special characters (_-!@#\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters, including letters, digits, and special characters (_-!@#\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>
sign_algorithm	No	String	Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used.

## Response Parameters

Status code: 200

**Table 4-387** Response body parameters

Parameter	Type	Description
name	String	Signature key name. It can contain letters, digits, and underscores(_) and must start with a letter. Minimum: <b>3</b> Maximum: <b>64</b>
sign_type	String	Signature key type: <ul style="list-style-type: none"> <li>• hmac <ul style="list-style-type: none"> <li>-basic</li> <li>-public_key</li> <li>-aes</li> </ul> </li> </ul> <p>To use a basic signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p> <p>To use a public_key signature key, ensure that the public_key feature has been configured for your gateway. For details, see "Appendix" &gt; "Supported Features". If your gateway does not support this feature, contact technical support to enable it.</p> <p>To use an AES signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p>

Parameter	Type	Description
sign_key	String	<p>Signature key.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 8 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 4 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter. If not specified, a key is automatically generated.</li> <li>• public_key: The value contains 8 to 512 characters, including letters, digits, and special characters (_-+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters if the aes-128-cfb algorithm is used, or 32 characters if the aes-256-cfb algorithm is used. Letters, digits, and special characters (_-!@#\$\$%+/=) are allowed. It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>
sign_secret	String	<p>Signature secret.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 16 to 64 characters. Letters, digits, and special characters (_-!@#\$\$%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 8 to 64 characters. Letters, digits, and special characters (_-!@#\$\$%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• public_key: The value can contain 16 to 2048 characters, including letters, digits, and special characters (_-!@#\$\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters, including letters, digits, and special characters (_-!@#\$\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>



Parameter	Type	Description
sign_algorithm	String	Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used.
update_time	String	Update time.
create_time	String	Creation time.
id	String	Signature key ID.

**Status code: 400****Table 4-388** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-389** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-390** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-391** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 412**

**Table 4-392** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500**

**Table 4-393** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Modify the name of a specified signature key.

```
{
  "name" : "signature_demo"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "sign_secret" : "dc0*****2b3",
  "update_time" : "2020-08-03T03:50:14.989785802Z",
  "create_time" : "2020-08-03T03:39:38Z",
  "name" : "signature_demo",
  "id" : "0b0e8f456b8742218af75f945307173c",
  "sign_key" : "a071a20d460a4f639a636c3d7e3d8163",
  "sign_type" : "hmac"
}
```

**Status code: 400**

### Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3017",
  "error_msg" : "Signature key 0b0e8f456b8742218af75f945307173c does not exist"
}
```

**Status code: 412**

### PreconditionFailed

```
{
  "error_code" : "APIG.3548",
  "error_msg" : "sign_type=public_key not supported by instance 6a29d4e9-69a0-412a-aabe-9898ec0903b0"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
412	PreconditionFailed
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.6.3 Deleting a Signature Key

### Function

This API is used to delete a signature key. This operation will invalidate the signature key and unbind it from the APIs to which it was bound.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/signs/{sign\_id}

**Table 4-394** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
sign_id	Yes	String	Signature key ID.

## Request Parameters

**Table 4-395** Request header parameters

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

## Response Parameters

### Status code: 401

**Table 4-396** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-397** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-398** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 500

**Table 4-399** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3017",
  "error_msg" : "Signature key 0b0e8f456b8742218af75f945307173c does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.6.4 Querying Signature Keys

### Function

This API is used to query all the signature keys.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/signs

**Table 4-400** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-401** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
id	No	String	Signature key ID.
name	No	String	Signature key name.
precise_search	No	String	Parameter name (name) for exact matching.

## Request Parameters

**Table 4-402** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-403** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
signs	Array of <b>SignatureWithBindNum</b> objects	Signature key list.



**Table 4-404** SignatureWithBindNum

Parameter	Type	Description
name	String	Signature key name. It can contain letters, digits, and underscores(_) and must start with a letter. Minimum: <b>3</b> Maximum: <b>64</b>
sign_type	String	Signature key type: <ul style="list-style-type: none"> <li>• hmac <ul style="list-style-type: none"> <li>-basic</li> <li>-public_key</li> <li>-aes</li> </ul> </li> </ul> <p>To use a basic signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p> <p>To use a public_key signature key, ensure that the public_key feature has been configured for your gateway. For details, see "Appendix" &gt; "Supported Features". If your gateway does not support this feature, contact technical support to enable it.</p> <p>To use an AES signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p>

Parameter	Type	Description
sign_key	String	<p>Signature key.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 8 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 4 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter. If not specified, a key is automatically generated.</li> <li>• public_key: The value contains 8 to 512 characters, including letters, digits, and special characters (_-+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters if the aes-128-cfb algorithm is used, or 32 characters if the aes-256-cfb algorithm is used. Letters, digits, and special characters (_-!@#\$\$%+/=) are allowed. It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>
sign_secret	String	<p>Signature secret.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 16 to 64 characters. Letters, digits, and special characters (_-!@#\$\$%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 8 to 64 characters. Letters, digits, and special characters (_-!@#\$\$%) are allowed. It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• public_key: The value can contain 16 to 2048 characters, including letters, digits, and special characters (_-!@#\$\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters, including letters, digits, and special characters (_-!@#\$\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>

Parameter	Type	Description
sign_algorithm	String	Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used.
update_time	String	Update time.
create_time	String	Creation time.
id	String	Signature key ID.
bind_num	Integer	Number of bound APIs.
ldapi_bind_num	Integer	Number of custom backends bound. Currently, this parameter is not supported.

**Status code: 400****Table 4-405** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-406** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-407** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-408** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "total" : 2,
  "size" : 2,
  "signs" : [ {
    "sign_secret" : "sig*****ret",
    "update_time" : "2018-02-07T02:00:27.964766Z",
    "create_time" : "2018-02-06T12:17:36Z",
    "name" : "signature_demo",
    "id" : "0b0e8f456b8742218af75f945307173c",
    "sign_key" : "signkeysignkey",
    "sign_type" : "hmac",
    "bind_num" : 0,
    "ldapi_bind_num" : 0
  }, {
    "sign_secret" : "9ce*****16a",
    "update_time" : "2020-07-30T03:56:58Z",
    "create_time" : "2020-07-30T03:56:58Z",
    "name" : "Signature_udlu",
    "id" : "9dc388382fba485aadd19f932303f4c9",
    "sign_key" : "ca50c5b670044c83b5b890a9a68a30d5",
    "sign_type" : "hmac",
    "bind_num" : 0,
    "ldapi_bind_num" : 0
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.7 Binding/Unbinding Signature Keys

### 4.7.1 Binding a Signature Key

#### Function

A signature key takes effect only after being bound to an API.

When requesting the backend service, APIG uses the signature key to cryptographically sign requests. The backend service verifies the signature to identify request sources.

This API is used to bind a signature key to one or more published APIs. You can bind different signature keys to an API in different environments, but can bind only one signature key to the API in each environment.

#### Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings

**Table 4-409** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-410** Request header parameters

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

**Table 4-411** Request body parameters

Parameter	Mandatory	Type	Description
sign_id	Yes	String	Signature key ID.
publish_ids	Yes	Array of strings	API publication record ID.

## Response Parameters

Status code: 201

**Table 4-412** Response body parameters

Parameter	Type	Description
bindings	Array of <a href="#">SignApiBindingInfo</a> objects	APIs bound to the signature key.

**Table 4-413** SignApiBindingInfo

Parameter	Type	Description
publish_id	String	API publication record ID.
api_id	String	API ID.
group_name	String	Name of the API group to which the API belongs.
binding_time	String	Binding time.
env_id	String	ID of the environment in which the API has been published.
env_name	String	Name of the environment in which the API has been published.
api_type	Integer	API type.
api_name	String	API name.
id	String	Binding record ID.
api_remark	String	API description.
sign_id	String	Signature key ID.
sign_name	String	Signature key name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores ( _ ) are allowed.
req_method	String	Request method.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>

Parameter	Type	Description
sign_key	String	<p>Signature key.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 8 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 4 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter. If not specified, a key is automatically generated.</li> <li>• public_key: The value contains 8 to 512 characters, including letters, digits, and special characters (_-+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters if the aes-128-cfb algorithm is used, or 32 characters if the aes-256-cfb algorithm is used. Letters, digits, and special characters (_-!@#\$\$%+/=) are allowed. It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>
sign_secret	String	<p>Signature secret.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 16 to 64 characters. Letters, digits, and special characters (_-!@#\$\$%) are allowed. It must start with a letter or digit. If not specified, a value is automatically generated.</li> <li>• basic: The value contains 8 to 64 characters. Letters, digits, and special characters (_-!@#\$\$%) are allowed. It must start with a letter or digit. If not specified, a value is automatically generated.</li> <li>• public_key: The value contains 15 to 2048 characters, including letters, digits, and special characters (_-!@#\$\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a value is automatically generated.</li> <li>• aes: The value contains 16 characters, including letters, digits, and special characters (_-!@#\$\$%+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a value is automatically generated.</li> </ul>



Parameter	Type	Description
sign_type	String	<p>Signature key type:</p> <ul style="list-style-type: none"> <li>• hmac <ul style="list-style-type: none"> <li>-basic</li> <li>-public_key</li> <li>-aes</li> </ul> </li> </ul> <p>To use a basic signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p> <p>To use a public_key signature key, ensure that the public_key feature has been configured for your gateway. For details, see "Appendix" &gt; "Supported Features". If your gateway does not support this feature, contact technical support to enable it.</p> <p>To use an AES signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p>

**Status code: 400**

**Table 4-414** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-415** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-416** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-417** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-418** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding a signature key to a published API

```
{
  "sign_id" : "0b0e8f456b8742218af75f945307173c",
  "publish_ids" : [ "40e7162dc6b94bbbbb1a60d2a24b1b0c" ]
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "bindings" : [ {
    "api_id" : "5f918d104dc84480a75166ba99efff21",
    "sign_secret" : "dc0*****2b3",
    "group_name" : "api_group_001",
    "sign_id" : "0b0e8f456b8742218af75f945307173c",
    "sign_key" : "a071a20d460a4f639a636c3d7e3d8163",
    "binding_time" : "2020-08-03T04:00:11.638167852Z",
    "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name" : "RELEASE",
    "sign_name" : "signature_demo",
  } ]
}
```

```

    "api_type" : 1,
    "api_name" : "Api_http",
    "id" : "25082bd52f74442bb1d273993d567938",
    "api_remark" : "Web backend API"
  } ]
}

```

**Status code: 400**

Bad Request

```

{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:sign_id. Please refer to the support documentation"
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
  "error_code" : "APIG.3017",
  "error_msg" : "Signature key 0b0e8f456b8742218af75f945307173c does not exist"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}

```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.7.2 Unbinding a Signature Key

### Function

This API is used to unbind a signature key from an API.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings/{sign\_bindings\_id}

**Table 4-419** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
sign_bindings_id	Yes	String	Signature key binding record ID.

## Request Parameters

**Table 4-420** Request header parameters

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

## Response Parameters

**Status code: 400**

**Table 4-421** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-422** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-423** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-424** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-425** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3018",
  "error_msg" : "The signature key binding record does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**

See [Error Codes](#).

**4.7.3 Querying Signature Keys Bound to an API**

**Function**

This API is used to query the signature keys that have been bound to a specified API. Only one signature key can be bound to an API in an environment.

**Calling Method**

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

**URI**

GET /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings/binded-signs

**Table 4-426** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-427** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
api_id	Yes	String	API ID.
sign_id	No	String	Signature key ID.
sign_name	No	String	Signature key name.
env_id	No	String	Environment ID.

## Request Parameters

**Table 4-428** Request header parameters

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



## Response Parameters

Status code: 200

**Table 4-429** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
bindings	Array of <a href="#">SignApiBindingInfo</a> objects	APIs bound to the signature key.

**Table 4-430** SignApiBindingInfo

Parameter	Type	Description
publish_id	String	API publication record ID.
api_id	String	API ID.
group_name	String	Name of the API group to which the API belongs.
binding_time	String	Binding time.
env_id	String	ID of the environment in which the API has been published.
env_name	String	Name of the environment in which the API has been published.
api_type	Integer	API type.
api_name	String	API name.
id	String	Binding record ID.
api_remark	String	API description.
sign_id	String	Signature key ID.
sign_name	String	Signature key name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores ( _ ) are allowed.
req_method	String	Request method.

Parameter	Type	Description
tags	Array of strings	<p>Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota.</p> <p>Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b></p>
sign_key	String	<p>Signature key.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 8 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter or digit. If not specified, a key is automatically generated.</li> <li>• basic: The value contains 4 to 32 characters, including letters, digits, underscores (_), and hyphens (-). It must start with a letter. If not specified, a key is automatically generated.</li> <li>• public_key: The value contains 8 to 512 characters, including letters, digits, and special characters (_-+/=). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> <li>• aes: The value contains 16 characters if the aes-128-cfb algorithm is used, or 32 characters if the aes-256-cfb algorithm is used. Letters, digits, and special characters (_-!@#\$%+/=) are allowed. It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a key is automatically generated.</li> </ul>

Parameter	Type	Description
sign_secret	String	<p>Signature secret.</p> <ul style="list-style-type: none"> <li>• hmac: The value contains 16 to 64 characters. Letters, digits, and special characters (<code>_!@#\$\$%</code>) are allowed. It must start with a letter or digit. If not specified, a value is automatically generated.</li> <li>• basic: The value contains 8 to 64 characters. Letters, digits, and special characters (<code>_!@#\$\$%</code>) are allowed. It must start with a letter or digit. If not specified, a value is automatically generated.</li> <li>• public_key: The value contains 15 to 2048 characters, including letters, digits, and special characters (<code>_!@#\$\$%+/=</code>). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a value is automatically generated.</li> <li>• aes: The value contains 16 characters, including letters, digits, and special characters (<code>_!@#\$\$%+/=</code>). It must start with a letter, digit, plus sign (+), or slash (/). If not specified, a value is automatically generated.</li> </ul>
sign_type	String	<p>Signature key type:</p> <ul style="list-style-type: none"> <li>• hmac <ul style="list-style-type: none"> <li>-basic</li> <li>-public_key</li> <li>-aes</li> </ul> </li> </ul> <p>To use a basic signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p> <p>To use a public_key signature key, ensure that the public_key feature has been configured for your gateway. For details, see "Appendix" &gt; "Supported Features". If your gateway does not support this feature, contact technical support to enable it.</p> <p>To use an AES signature key, ensure that your gateway version supports it. If your gateway does not support this type of signature key, contact technical support to upgrade your gateway.</p>

**Status code: 400****Table 4-431** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-432** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-433** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-434** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-435** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "bindings": [ {
    "api_id": "5f918d104dc84480a75166ba99efff21",
    "group_name": "api_group_001",
    "binding_time": "2020-08-03T04:00:11Z",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name": "RELEASE",
    "sign_id": "0b0e8f456b8742218af75f945307173c",
    "sign_name": "signature_demo",
    "sign_key": "a071a20d460a4f639a636c3d7e3d8163",
    "sign_secret": "dc0*****2b3",
    "api_type": 1,
    "api_name": "Api_http",
    "id": "25082bd52f74442bb1d273993d567938",
    "api_remark": "Web backend API"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:api_name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.7.4 Querying APIs Not Bound with a Signature Key

### Function

This API is used to query the APIs to which a signature key has not been bound. Only published APIs will be displayed.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings/unbinded-apis

**Table 4-436** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-437** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
sign_id	Yes	String	Signature key ID.
env_id	No	String	Environment ID.
api_id	No	String	API ID.
api_name	No	String	API name.
group_id	No	String	API group ID.

Parameter	Mandatory	Type	Description
tags	No	String	API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered. Minimum: <b>0</b> Maximum: <b>128</b>

## Request Parameters

**Table 4-438** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-439** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <a href="#">ApiForSign</a> objects	API list.

**Table 4-440** ApiForSign

Parameter	Type	Description
auth_type	String	API authentication mode.



Parameter	Type	Description
run_env_name	String	Name of the environment in which the API has been published.
group_name	String	Name of the API group to which the API belongs.
publish_id	String	Publication record ID.
group_id	String	ID of the API group to which the API belongs.
name	String	API name.
remark	String	API description.
run_env_id	String	ID of the environment in which the API has been published.
id	String	API ID.
req_uri	String	API request address.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>
type	Integer	API type.
signature_name	String	Name of the signature key bound to the API.
req_method	String	Request method.

**Status code: 400**

**Table 4-441** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-442** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-443** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-444** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-445** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{  
  "total": 1,
```

```
"size" : 1,
"apis" : [ {
  "run_env_name" : "RELEASE",
  "group_name" : "api_group_001",
  "remark" : "Mock backend API",
  "publish_id" : "9f27d1dc4f4242a9abf88e563dbfc33d",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "name" : "Api_mock",
  "run_env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "id" : "3a955b791bd24b1c9cd94c745f8d1aad",
  "type" : 1,
  "auth_type" : "IAM",
  "req_uri" : "/test/mock"
} ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:api_name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3017",
  "error_msg" : "Signature key 0b0e8f456b8742218af75f945307173c does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.7.5 Querying APIs Bound with a Signature Key

### Function

This API is used to query the APIs to which a signature key has been bound.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings/binded-apis

**Table 4-446** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-447** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
sign_id	Yes	String	Signature key ID.
env_id	No	String	Environment ID.
api_id	No	String	API ID.
api_name	No	String	API name.
group_id	No	String	API group ID.
tags	No	String	API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered. Minimum: <b>0</b> Maximum: <b>128</b>

## Request Parameters

**Table 4-448** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-449** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
bindings	Array of <a href="#">SignApiBindingBase</a> objects	List of signature key binding records.

**Table 4-450** SignApiBindingBase

Parameter	Type	Description
publish_id	String	API publication record ID.
api_id	String	API ID.
group_name	String	Name of the API group to which the API belongs.
binding_time	String	Binding time.
env_id	String	ID of the environment in which the API has been published.
env_name	String	Name of the environment in which the API has been published.
api_type	Integer	API type.
api_name	String	API name.

Parameter	Type	Description
id	String	Binding record ID.
api_remark	String	API description.
sign_id	String	Signature key ID.
sign_name	String	Signature key name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
req_method	String	Request method.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>

**Status code: 400****Table 4-451** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-452** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-453** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 4-454** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-455** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "bindings": [ {
    "api_id": "5f918d104dc84480a75166ba99efff21",
    "group_name": "api_group_001",
    "binding_time": "2020-08-03T04:00:11Z",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name": "RELEASE",
    "sign_name": "signature_demo",
    "api_type": 1,
    "api_name": "Api_http",
    "id": "25082bd52f74442bb1d273993d567938",
    "api_remark": "Web backend API",
    "publish_id": "40e7162dc6b94b94bbbbb1a60d2a24b1b0c"
  } ]
}
```

**Status code: 400**



### Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:api_name. Please refer to the support
documentation"
}
```

**Status code: 401**

### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3017",
  "error_msg" : "Signature key 0b0e8f456b8742218af75f945307173c does not exist"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.8 Binding/Unbinding Request Throttling Policies

## 4.8.1 Binding a Request Throttling Policy

### Function

The request throttling policy bound to an API will control access of all users to the API.

If the number of API calls within a specified period reaches the limit, subsequent access will be rejected, protecting the backend API from abnormal traffic and ensuring stable service running.

This API is used to bind a request throttling policy to an API that has been published in an environment. You can bind different request throttling policies to an API in different environments, but can bind only one request throttling policy to the API in each environment.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings

**Table 4-456** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-457** Request header parameters

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

**Table 4-458** Request body parameters

Parameter	Mandatory	Type	Description
strategy_id	Yes	String	Request throttling policy ID. Minimum: <b>1</b> Maximum: <b>65</b>
publish_ids	Yes	Array of strings	API publication record ID.

## Response Parameters

**Status code: 201**

**Table 4-459** Response body parameters

Parameter	Type	Description
throttle_applies	Array of <a href="#">ThrottleApiBinding</a> objects	Request throttling policy binding records.

**Table 4-460** ThrottleApiBinding

Parameter	Type	Description
publish_id	String	API publication record ID.
scope	Integer	Scope of the policy. <ul style="list-style-type: none"> <li>1: the API</li> <li>2: a user</li> <li>3: an app</li> </ul> Currently, only "1" is supported.

Parameter	Type	Description
strategy_id	String	Request throttling policy ID.
apply_time	String	Binding time.
id	String	Binding record ID.

**Status code: 401**

**Table 4-461** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-462** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-463** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-464** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding a request throttling policy to an API

```
{
  "publish_ids" : [ "40e7162dc6b94bbbb1a60d2a24b1b0c" ],
  "strategy_id" : "3437448ad06f4e0c91a224183116e965"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "throttle_applies" : [ {
    "publish_id" : "40e7162dc6b94bbbb1a60d2a24b1b0c",
    "scope" : 1,
    "strategy_id" : "3437448ad06f4e0c91a224183116e965",
    "apply_time" : "2020-08-03T12:25:52.257613934Z",
    "id" : "3e06ac135e18477e918060d3c59d6f6a"
  } ]
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3005",
  "error_msg" : "Request throttling policy 3437448ad06f4e0c91a224183116e965 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.8.2 Unbinding a Request Throttling Policy

### Function

This API is used to unbind a request throttling policy from an API.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings/{throttle\_binding\_id}

**Table 4-465** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
throttle_binding_id	Yes	String	ID of a request throttling policy binding record.

## Request Parameters

**Table 4-466** Request header parameters

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

## Response Parameters

### Status code: 400

**Table 4-467** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 401

**Table 4-468** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-469** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-470** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-471** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3012",
  "error_msg" : "The request throttling policy binding record does not exist"
}
```



**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).

### 4.8.3 Querying APIs Bound with a Request Throttling Policy

**Function**

This API is used to query the APIs to which a specified request throttling policy has been bound.

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

GET /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings/binded-apis

**Table 4-472** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-473** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
throttle_id	Yes	String	Request throttling policy ID.
env_id	No	String	Environment ID.
group_id	No	String	API group ID.
api_id	No	String	API ID.
api_name	No	String	API name.

## Request Parameters

**Table 4-474** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-475** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <a href="#">ApiForThrottle</a> objects	API list.

**Table 4-476** ApiForThrottle

Parameter	Type	Description
auth_type	String	API authentication mode.
group_name	String	Name of the API group to which the API belongs.
publish_id	String	API publication record ID.
throttle_apply_id	String	ID of a request throttling policy binding record.
apply_time	String	Binding time.
remark	String	API description.
run_env_id	String	ID of the environment in which the API has been published.
type	Integer	API type.
throttle_name	String	Name of the request throttling policy bound to the API.
req_uri	String	Access address of the API.
run_env_name	String	Name of the environment in which the API has been published.
group_id	String	ID of the API group to which the API belongs.
name	String	API name.
id	String	API ID.
req_method	String	Request method.

Parameter	Type	Description
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>

**Status code: 400****Table 4-477** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-478** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-479** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-480** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-481** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "apis": [ {
    "run_env_name": "RELEASE",
    "group_name": "api_group_001",
    "publish_id": "40e7162dc6b94bbbbb1a60d2a24b1b0c",
    "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
    "throttle_apply_id": "3e06ac135e18477e918060d3c59d6f6a",
    "name": "Api_http",
    "apply_time": "2020-08-03T12:25:52Z",
    "remark": "Web backend API",
    "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "id": "5f918d104dc84480a75166ba99efff21",
    "type": 1,
    "throttle_name": "throttle_demo",
    "auth_type": "APP",
    "req_uri": "/test/http"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:throttle_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3005",
  "error_msg" : "Request throttling policy 3437448ad06f4e0c91a224183116e965 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.8.4 Querying APIs Not Bound with a Request Throttling Policy

### Function

This API is used to query the self-developed APIs to which a request throttling policy has not been bound. Only published APIs will be displayed.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings/unbinded-apis

**Table 4-482** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-483** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
throttle_id	Yes	String	Request throttling policy ID.
env_id	No	String	Environment ID.
group_id	No	String	API group ID.
api_id	No	String	API ID.
api_name	No	String	API name.
tags	No	String	API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered. Minimum: <b>0</b> Maximum: <b>128</b>

## Request Parameters

**Table 4-484** Request header parameters

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

## Response Parameters

**Status code: 200**



**Table 4-485** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <b>ApiForThrottle</b> objects	API list.

**Table 4-486** ApiForThrottle

Parameter	Type	Description
auth_type	String	API authentication mode.
group_name	String	Name of the API group to which the API belongs.
publish_id	String	API publication record ID.
throttle_apply_id	String	ID of a request throttling policy binding record.
apply_time	String	Binding time.
remark	String	API description.
run_env_id	String	ID of the environment in which the API has been published.
type	Integer	API type.
throttle_name	String	Name of the request throttling policy bound to the API.
req_uri	String	Access address of the API.
run_env_name	String	Name of the environment in which the API has been published.
group_id	String	ID of the API group to which the API belongs.
name	String	API name.
id	String	API ID.
req_method	String	Request method.

Parameter	Type	Description
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>

**Status code: 400****Table 4-487** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-488** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-489** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-490** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-491** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 2,
  "size": 2,
  "apis": [ {
    "run_env_name": "RELEASE",
    "group_name": "api_group_001",
    "publish_id": "9f27d1dc4f4242a9abf88e563dbfc33d",
    "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
    "name": "Api_mock",
    "remark": "Mock backend API",
    "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "id": "3a955b791bd24b1c9cd94c745f8d1aad",
    "type": 1,
    "auth_type": "IAM",
    "req_uri": "/test/mock"
  }, {
    "run_env_name": "RELEASE",
    "group_name": "APIGroup_d00511069",
    "publish_id": "0c613568c8644a1b92172156f77a5759",
    "group_id": "d7d0b9a54469424f942e16a6b6026936",
    "name": "API_nevj",
    "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "id": "9e07bc00a1864ab4aafd4a23d19dd1c2",
    "type": 1,
    "auth_type": "APP",
    "req_uri": "/fdasf"
  } ]
}
```

**Status code: 400**

### Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:throttle_id. Please refer to the support documentation"
}
```

**Status code: 401**

### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3005",
  "error_msg" : "Request throttling policy 3437448ad06f4e0c91a224183116e965 does not exist"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.8.5 Querying Request Throttling Policies Bound to an API

### Function

This API is used to query the request throttling policies that have been bound to an API. Only one request throttling policy can be bound to an API in an environment.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings/binded-throttles

**Table 4-492** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-493** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
api_id	Yes	String	API ID.
throttle_id	No	String	Request throttling policy ID.
throttle_name	No	String	Request throttling policy name.
env_id	No	String	Environment ID.

## Request Parameters

**Table 4-494** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-495** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.

Parameter	Type	Description
throttles	Array of <a href="#">ThrottleForApi</a> objects	Request throttling policy list.

**Table 4-496** ThrottleForApi

Parameter	Type	Description
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter cannot exceed the user call limit. The maximum value is 2,147,483,647. Enter a positive integer.
name	String	Request throttling policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
time_unit	String	Time unit for limiting the number of API calls.
remark	String	Description of the request throttling policy, which can contain a maximum of 255 characters.
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period. The value of this parameter cannot exceed the default limit 200 TPS. You can change the default limit to meet service requirements. The maximum value is 2,147,483,647. Enter a positive integer.
type	Integer	Type of the request throttling policy. <ul style="list-style-type: none"> <li>• 1: API-based, limiting the maximum number of times a single API bound to the policy can be called within the specified period.</li> <li>• 2: API-shared, limiting the maximum number of times all APIs bound to the policy can be called within the specified period.</li> </ul>
enable_adaptive_control	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> Currently, this parameter is not supported.

Parameter	Type	Description
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter cannot exceed the Max. API Requests. The maximum value is 2,147,483,647. Enter a positive integer.
time_interval	Integer	Period of time for limiting the number of API calls. This parameter applies with each API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter cannot exceed the API call limit. The maximum value is 2,147,483,647. Enter a positive integer.
id	String	Request throttling policy ID.
bind_num	Integer	Number of APIs to which the request throttling policy has been bound.
is_included_special_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>
create_time	String	Creation time.
env_name	String	Environment in which the request throttling policy takes effect.
bind_id	String	Policy binding record ID.
bind_time	String	Time when the policy is bound to the API.

**Status code: 400**

**Table 4-497** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**



**Table 4-498** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-499** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-500** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-501** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{  
  "total": 1,
```

```
"size" : 1,
"throttles" : [ {
  "id" : "3437448ad06f4e0c91a224183116e965",
  "name" : "throttle_demo",
  "api_call_limits" : 800,
  "user_call_limits" : 500,
  "app_call_limits" : 300,
  "ip_call_limits" : 600,
  "time_interval" : 1,
  "time_unit" : "SECOND",
  "create_time" : "2020-07-31T08:44:02Z",
  "remark" : "Total: 800 calls/second; user: 500 calls/second; app: 300 calls/second",
  "is_inclu_special_throttle" : 2,
  "env_name" : "RELEASE",
  "type" : 1,
  "bind_id" : "3e06ac135e18477e918060d3c59d6f6a",
  "bind_time" : "2020-08-03T12:25:52Z",
  "bind_num" : 0,
  "enable_adaptive_control" : "FALSE"
} ]
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:throttle_name. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

## Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

## Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

**Status code: 500**

## Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.8.6 Unbinding Request Throttling Policies

### Function

This API is used to unbind request throttling policies from APIs.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings

**Table 4-502** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-503** Query Parameters

Parameter	Mandatory	Type	Description
action	Yes	String	The value must be delete.

## Request Parameters

**Table 4-504** Request header parameters

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

**Table 4-505** Request body parameters

Parameter	Mandatory	Type	Description
throttle_bindings	No	Array of strings	IDs of the request throttling policy binding records to be canceled.

## Response Parameters

Status code: 200

**Table 4-506** Response body parameters

Parameter	Type	Description
success_count	Integer	Number of request throttling policies that have been successfully unbound.
failure	Array of <a href="#">ThrottleBindingBatchFailure</a> objects	Error message and request throttling policies that fail to be unbound.

**Table 4-507** ThrottleBindingBatchFailure

Parameter	Type	Description
bind_id	String	ID of a request throttling policy binding record that fails to be canceled.
error_code	String	Error code.
error_msg	String	Error message.
api_id	String	ID of an API from which unbinding fails.
api_name	String	Name of the API from which unbinding fails.

**Status code: 400****Table 4-508** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-509** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-510** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-511** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Unbinding request throttling policies from APIs

```
{
  "throttle_bindings" : [ "6a6a75b425df416cbdc7821da30be8d", "b11e5970f732440d4bea647580647d57f" ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "failure" : [ {
    "bind_id" : "b11e5970f732440d4bea647580647d57f",
    "error_code" : "APIG.3012",
    "error_msg" : "The request throttling policy binding record does not exist"
  } ],
  "success_count" : 1
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "parameter action should be \\\"delete\\\""
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
}
```

```
"error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.9 Excluded Request Throttling Configuration

## 4.9.1 Creating an Excluded Request Throttling Configuration

### Function

A request throttling policy controls the maximum number of times an API can be accessed within a specified period and the maximum numbers of times the API can be accessed by a tenant or an app within the same period.

If necessary, you can create an excluded request throttling configuration to specify the threshold of API calls for a specific app. For example, if you set the API call threshold for all apps to 500 calls/minute, you can specify the API call threshold of app 1 as 800 calls/minute.

You can add excluded apps or tenants to a request throttling policy.

### Calling Method

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

### URI

```
POST /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}/  
throttle-specials
```

**Table 4-512** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
throttle_id	Yes	String	Request throttling policy ID.

## Request Parameters

**Table 4-513** Request header parameters

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

**Table 4-514** Request body parameters

Parameter	Mandatory	Type	Description
call_limits	Yes	Integer	Maximum number of times an excluded object can access an API within the throttling period.
object_id	Yes	String	Excluded app ID or account ID.
object_type	Yes	String	Excluded object type.

## Response Parameters

**Status code: 201**

**Table 4-515** Response body parameters

Parameter	Type	Description
id	String	Excluded configuration ID.



Parameter	Type	Description
call_limits	Integer	Maximum number of times an excluded object can access an API within the throttling period.
apply_time	String	Throttling period.
app_name	String	App name.
app_id	String	App ID.
object_id	String	ID of an object specified in the excluded configuration.
object_type	String	Excluded object type, which can be APP or USER.
object_name	String	Name of an app or a tenant to which the excluded configuration applies.
throttle_id	String	Request throttling policy ID.

**Status code: 400****Table 4-516** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-517** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-518** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 4-519** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-520** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Adding an excluded app to a request throttling policy with threshold 150

```
{
  "call_limits": 150,
  "object_id": "356de8eb7a8742168586e5daf5339965",
  "object_type": "APP"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "call_limits": 150,
  "app_name": "app_demo",
  "object_name": "app_demo",
  "object_id": "356de8eb7a8742168586e5daf5339965",
  "throttle_id": "3437448ad06f4e0c91a224183116e965",
  "apply_time": "2020-08-04T02:40:56.717710961Z",
  "id": "a3e9ff8db55544ed9db91d8b048770c0",
  "app_id": "356de8eb7a8742168586e5daf5339965",
  "object_type": "APP"
}
```

**Status code: 400**

### Bad Request

```
{
  "error_code" : "APIG.2003",
  "error_msg" : "The parameter value is too large,parameterName:call_limits. Please refer to the support documentation"
}
```

### Status code: 401

### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

### Not Found

```
{
  "error_code" : "APIG.3004",
  "error_msg" : "App 356de8eb7a8742168586e5daf5339965 does not exist"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.9.2 Modifying an Excluded Request Throttling Configuration

### Function

This API is used to modify an excluded configuration of a request throttling policy.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/throttles/{throttle\_id}/throttle-specials/{strategy\_id}

**Table 4-521** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
throttle_id	Yes	String	Request throttling policy ID.
strategy_id	Yes	String	Excluded configuration ID.

### Request Parameters

**Table 4-522** Request header parameters

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

**Table 4-523** Request body parameters

Parameter	Mandatory	Type	Description
call_limits	Yes	Long	Maximum number of times an excluded object can access an API within the throttling period.

## Response Parameters

**Status code: 200**

**Table 4-524** Response body parameters

Parameter	Type	Description
id	String	Excluded configuration ID.
call_limits	Integer	Maximum number of times an excluded object can access an API within the throttling period.
apply_time	String	Throttling period.
app_name	String	App name.
app_id	String	App ID.
object_id	String	ID of an object specified in the excluded configuration.
object_type	String	Excluded object type, which can be APP or USER.
object_name	String	Name of an app or a tenant to which the excluded configuration applies.
throttle_id	String	Request throttling policy ID.

**Status code: 400**

**Table 4-525** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-526** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-527** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-528** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-529** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Modifying an excluded configuration of a request throttling policy

```
{  
  "call_limits": 200  
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "call_limits": 200,
  "app_name": "app_demo",
  "object_name": "app_demo",
  "object_id": "356de8eb7a8742168586e5daf5339965",
  "throttle_id": "3437448ad06f4e0c91a224183116e965",
  "apply_time": "2020-08-04T02:40:56Z",
  "id": "a3e9ff8db55544ed9db91d8b048770c0",
  "app_id": "356de8eb7a8742168586e5daf5339965",
  "object_type": "APP"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2003",
  "error_msg": "The parameter value is too large,parameterName:call_limits. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3013",
  "error_msg": "Excluded request throttling configuration a3e9ff8db55544ed9db91d8b048770c0 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.9.3 Deleting an Excluded Request Throttling Configuration

#### Function

This API is used to delete an excluded configuration of a request throttling policy.

#### Calling Method

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

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/throttles/{throttle\_id}/throttle-specials/{strategy\_id}

**Table 4-530** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
throttle_id	Yes	String	Request throttling policy ID.
strategy_id	Yes	String	Excluded configuration ID.



## Request Parameters

**Table 4-531** Request header parameters

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

## Response Parameters

### Status code: 400

**Table 4-532** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 401

**Table 4-533** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-534** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-535** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-536** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3013",
  "error_msg" : "Excluded request throttling configuration a3e9ff8db55544ed9db91d8b048770c0 does not
```

```
exist"  
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code" : "APIG.9999",  
  "error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.9.4 Querying Excluded Request Throttling Configurations

#### Function

This API is used to query all excluded configurations of a request throttling policy.

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/throttles/{throttle\_id}/throttle-specials

**Table 4-537** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
throttle_id	Yes	String	Request throttling policy ID.

**Table 4-538** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
object_type	No	String	Object type, which can be APP or USER.
app_name	No	String	Name of an excluded app.
user	No	String	Name of an excluded user.

## Request Parameters

**Table 4-539** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-540** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
throttle_specials	Array of <a href="#">ThrottleSpecialInfo</a> objects	Excluded configuration list.

**Table 4-541** ThrottleSpecialInfo

Parameter	Type	Description
id	String	Excluded configuration ID.
call_limits	Integer	Maximum number of times an excluded object can access an API within the throttling period.
apply_time	String	Throttling period.
app_name	String	App name.
app_id	String	App ID.
object_id	String	ID of an object specified in the excluded configuration.
object_type	String	Excluded object type, which can be APP or USER.
object_name	String	Name of an app or a tenant to which the excluded configuration applies.

Parameter	Type	Description
throttle_id	String	Request throttling policy ID.

**Status code: 400**

**Table 4-542** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-543** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-544** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-545** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-546** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "total" : 1,
  "size" : 1,
  "throttle_specials" : [ {
    "call_limits" : 200,
    "app_name" : "app_demo",
    "object_name" : "app_demo",
    "object_id" : "356de8eb7a8742168586e5daf5339965",
    "throttle_id" : "3437448ad06f4e0c91a224183116e965",
    "apply_time" : "2020-08-04T02:40:56Z",
    "id" : "a3e9ff8db55544ed9db91d8b048770c0",
    "app_id" : "356de8eb7a8742168586e5daf5339965",
    "object_type" : "APP"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:app_name. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

### Not Found

```
{
  "error_code" : "APIG.3005",
  "error_msg" : "Request throttling policy 3437448ad06f4e0c91a224183116e965 does not exist"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.10 App Authorization Management

## 4.10.1 Authorizing Apps

### Function

An app cannot access any APIs after being created. To access an API in a specific environment, bind the app to the API in the environment.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths



**Table 4-547** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-548** Request header parameters

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

**Table 4-549** Request body parameters

Parameter	Mandatory	Type	Description
env_id	Yes	String	ID of the environment in which the apps will be authorized.
app_ids	Yes	Array of strings	App IDs.
api_ids	Yes	Array of strings	API list.

## Response Parameters

**Status code: 201**

**Table 4-550** Response body parameters

Parameter	Type	Description
auths	Array of <a href="#">ApiAuthRelations</a> objects	App authorization records.

**Table 4-551** ApiAuthRelations

Parameter	Type	Description
api_id	String	API ID.
auth_result	<a href="#">AuthResult</a> object	Authorization result.
auth_time	String	Authorization time.
id	String	Authorization record ID.
app_id	String	App ID.
auth_role	String	Authorizer. <ul style="list-style-type: none"><li>● PROVIDER: API provider</li><li>● CONSUMER: API user</li></ul>
auth_tunnel	String	Authorization channel type. <ul style="list-style-type: none"><li>● NORMAL: normal channel</li><li>● GREEN: green channel</li></ul> The default value is NORMAL. This parameter is not supported currently.
auth_whitelist	Array of strings	Whitelist for the green channel.
auth_blacklist	Array of strings	Blacklist for the green channel.
visit_params	String	Access parameters.

**Table 4-552** AuthResult

Parameter	Type	Description
status	String	Authorization result. <ul style="list-style-type: none"><li>● SUCCESS</li><li>● SKIPPED</li><li>● FAILED</li></ul>

Parameter	Type	Description
error_msg	String	Error message.
error_code	String	Error code.
api_name	String	Name of the API for which authorization fails.
app_name	String	Name of the app that fails to be authorized.

**Status code: 400****Table 4-553** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-554** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-555** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-556** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 4-557** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Authorizing an app to call an API

```
{
  "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "app_ids" : [ "356de8eb7a8742168586e5daf5339965" ],
  "api_ids" : [ "5f918d104dc84480a75166ba99eff21" ]
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "auths" : [ {
    "api_id" : "5f918d104dc84480a75166ba99eff21",
    "auth_result" : {
      "status" : "SUCCESS"
    },
    "auth_time" : "22020-08-04T04:02:22.482227344Z",
    "id" : "dd29b33ae4394e3b924b582c6b40880b",
    "app_id" : "356de8eb7a8742168586e5daf5339965",
    "auth_role" : "PROVIDER",
    "auth_tunnel" : "NORMAL"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:api_ids. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
}
```

```
{
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3004",
  "error_msg": "App 356de8eb7a8742168586e5daf5339965 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.10.2 Canceling Authorization

#### Function

This API is used to cancel the authorization of an app for accessing an API. After this operation, the app can no longer call the API.

## Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths/{app\_auth\_id}

**Table 4-558** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_auth_id	Yes	String	Authorization record ID.

## Request Parameters

**Table 4-559** Request header parameters

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

## Response Parameters

**Status code: 400**

**Table 4-560** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-561** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-562** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-563** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-564** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{  
  "error_code" : "APIG.2012",
```

```
{
  "error_msg": "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3009",
  "error_msg": "The app authorization record does not exist,id:dd29b33ae4394e3b924b582c6b40880b"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).



## 4.10.3 Querying APIs Bound with an App

### Function

This API is used to query the APIs to which a specified app has been bound.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths/binded-apis

**Table 4-565** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-566** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
app_id	Yes	String	App ID.

Parameter	Mandatory	Type	Description
api_id	No	String	API ID.
api_name	No	String	API name.
group_id	No	String	API group ID.
group_name	No	String	API group name.
env_id	No	String	ID of the environment in which the app has been authorized.
tags	No	String	API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered. Minimum: <b>0</b> Maximum: <b>128</b>

## Request Parameters

Table 4-567 Request header parameters

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

## Response Parameters

Status code: 200

Table 4-568 Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.

Parameter	Type	Description
auths	Array of <a href="#">ApiAuthInfo</a> objects	API list.

**Table 4-569** ApiAuthInfo

Parameter	Type	Description
id	String	Authorization record ID.
api_id	String	API ID.
api_name	String	API name.
group_name	String	Name of the API group to which the API belongs.
api_type	Integer	API type.
api_remark	String	API description.
env_id	String	ID of the environment in which an app has been authorized to call the API.
auth_role	String	Authorizer.
auth_time	String	Authorization time.
app_name	String	App name.
app_remark	String	App description.
app_type	String	App type. The default value is apig. Other types are not supported currently.
app_creator	String	Creator of the app. <ul style="list-style-type: none"> <li>• USER: The app is created by a tenant.</li> <li>• MARKET: The app is allocated by KooGallery. This value is not supported currently.</li> </ul>
publish_id	String	API publication record ID.
group_id	String	ID of the API group to which the API belongs.
auth_tunnel	String	Authorization channel type. <ul style="list-style-type: none"> <li>• NORMAL: normal channel</li> <li>• GREEN: green channel</li> </ul> The default value is NORMAL. This parameter is not supported currently.

Parameter	Type	Description
auth_whitelist	Array of strings	Whitelist for the green channel.
auth_blacklist	Array of strings	Blacklist for the green channel.
visit_param	String	Access parameters.
roma_app_type	String	ROMA application type. <ul style="list-style-type: none"> <li>subscription: subscription application</li> <li>integration: integration application</li> </ul> Currently, this parameter is not supported.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>
env_name	String	Name of the environment in which the app has been authorized to call the API.
app_id	String	App ID.

**Status code: 400**

**Table 4-570** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-571** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-572** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-573** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-574** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "auths": [ {
    "api_id": "5f918d104dc84480a75166ba99efff21",
    "app_name": "app_demo",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name": "RELEASE",
    "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
    "group_name": "api_group_001",
    "api_type": 1,
    "api_name": "Api_http",
    "app_id": "356de8eb7a8742168586e5daf5339965",
    "auth_time": "2020-08-04T04:02:22Z",
    "app_creator": "USER",
    "id": "dd29b33ae4394e3b924b582c6b40880b",
```

```
"api_remark" : "Web backend Api",
"auth_role" : "PROVIDER",
"app_type" : "apig",
"auth_tunnel" : "NORMAL",
"publish_id" : "40e7162dc6b94b94bbbbb1a60d2a24b1b0c"
}]]
}
```

**Status code: 400**

Bad Request

```
{
"error_code" : "APIG.2012",
"error_msg" : "Invalid parameter value,parameterName:api_name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
"error_code" : "APIG.1002",
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
"error_code" : "APIG.1005",
"error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
"error_code" : "APIG.3004",
"error_msg" : "App 356de8eb7a8742168586e5daf5339965 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
"error_code" : "APIG.9999",
"error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.10.4 Querying APIs Not Bound with an App

### Function

This API is used to query the self-developed APIs to which an app has not been bound in a specified environment.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths/unbinded-apis

**Table 4-575** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-576** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
app_id	Yes	String	App ID.
env_id	Yes	String	Environment ID.
group_id	No	String	API group ID.
api_id	No	String	API ID.
api_name	No	String	API name.
tags	No	String	API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered. Minimum: <b>0</b> Maximum: <b>128</b>

## Request Parameters

**Table 4-577** Request header parameters

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

## Response Parameters

**Status code: 200**



**Table 4-578** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <a href="#">ApiOutline</a> objects	API list.

**Table 4-579** ApiOutline

Parameter	Type	Description
auth_type	String	API authentication mode.
run_env_name	String	Name of the environment in which the API has been published.
group_name	String	Name of the API group to which the API belongs.
publish_id	String	Publication record ID.
group_id	String	ID of the API group to which the API belongs.
name	String	API name.
remark	String	API description.
run_env_id	String	ID of the environment in which the API has been published.
id	String	API ID.
req_uri	String	API request address.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>

**Status code: 400**

**Table 4-580** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-581** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-582** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-583** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-584** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 2,
  "size" : 2,
  "apis" : [ {
    "auth_type" : "APP",
    "run_env_name" : "",
    "group_name" : "api_group_001",
    "publish_id" : "",
    "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
    "name" : "Api_function",
    "remark" : "FunctionGraph backend API",
    "run_env_id" : "",
    "id" : "abd9c4b2ff974888b0ba79be7e6b2763",
    "req_uri" : "/test/function"
  }, {
    "auth_type" : "APP",
    "run_env_name" : "RELEASE",
    "group_name" : "APIGroup_d3da",
    "publish_id" : "ca2631e233a74a758744ae1e19cc5ad7",
    "group_id" : "6acd94abe58747ee8a73b10c70817bac",
    "name" : "API_test",
    "remark" : "FunctionGraph backend API",
    "run_env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "id" : "11cbec3a7a8345ca981b86d161bc436e",
    "req_uri" : "/appcode"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:api_name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3004",
  "error_msg" : "App 356de8eb7a8742168586e5daf5339965 does not exist"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.10.5 Querying Apps Bound to an API

### Function

This API is used to query the apps that have been bound to a specified API.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths/binded-apps

**Table 4-585** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-586** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
api_id	No	String	API ID.
app_name	No	String	App name.
app_id	No	String	App ID.
env_id	No	String	Environment ID.

## Request Parameters

**Table 4-587** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-588** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
auths	Array of <a href="#">ApiAuthInfo</a> objects	API list.

**Table 4-589** ApiAuthInfo

Parameter	Type	Description
id	String	Authorization record ID.
api_id	String	API ID.
api_name	String	API name.
group_name	String	Name of the API group to which the API belongs.
api_type	Integer	API type.
api_remark	String	API description.
env_id	String	ID of the environment in which an app has been authorized to call the API.
auth_role	String	Authorizer.
auth_time	String	Authorization time.

Parameter	Type	Description
app_name	String	App name.
app_remark	String	App description.
app_type	String	App type. The default value is apig. Other types are not supported currently.
app_creator	String	Creator of the app. <ul style="list-style-type: none"> <li>• USER: The app is created by a tenant.</li> <li>• MARKET: The app is allocated by KooGallery. This value is not supported currently.</li> </ul>
publish_id	String	API publication record ID.
group_id	String	ID of the API group to which the API belongs.
auth_tunnel	String	Authorization channel type. <ul style="list-style-type: none"> <li>• NORMAL: normal channel</li> <li>• GREEN: green channel</li> </ul> The default value is NORMAL. This parameter is not supported currently.
auth_whitelist	Array of strings	Whitelist for the green channel.
auth_blacklist	Array of strings	Blacklist for the green channel.
visit_param	String	Access parameters.
roma_app_type	String	ROMA application type. <ul style="list-style-type: none"> <li>• subscription: subscription application</li> <li>• integration: integration application</li> </ul> Currently, this parameter is not supported.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>
env_name	String	Name of the environment in which the app has been authorized to call the API.
app_id	String	App ID.

**Status code: 400**

**Table 4-590** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-591** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-592** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-593** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-594** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.



## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "auths": [ {
    "api_id": "5f918d104dc84480a75166ba99efff21",
    "app_name": "app_demo",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name": "RELEASE",
    "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
    "group_name": "api_group_001",
    "api_type": 1,
    "api_name": "Api_http",
    "app_id": "356de8eb7a8742168586e5daf5339965",
    "auth_time": "2020-08-04T04:02:22Z",
    "app_creator": "USER",
    "id": "dd29b33ae4394e3b924b582c6b40880b",
    "api_remark": "Web backend API",
    "auth_role": "PROVIDER",
    "app_type": "apig",
    "auth_tunnel": "NORMAL"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:app_name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3002",
}
```

```
{  
  "error_msg" : "API 5f918d104dc84480a75166ba99efff21 does not exist"  
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code" : "APIG.9999",  
  "error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.11 Resource Query

## 4.11.1 Querying API Quantities

### Function

This API is used to query the number of APIs that have been published in the RELEASE environment and the number of APIs that have not been published in this environment.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/resources/outline/apis

**Table 4-595** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-596** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-597** Response body parameters

Parameter	Type	Description
instance_num	Integer	Total number of APIs.
nums_on_release	Integer	Number of APIs that have been published in the RELEASE environment.
nums_off_release	Integer	Number of APIs that have not been published in the RELEASE environment.

**Status code: 400**

**Table 4-598** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 401**

**Table 4-599** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-600** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-601** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-602** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "instance_num" : 27,
  "nums_on_release" : 11,
  "nums_off_release" : 6
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Bad Request

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Bad Request
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.11.2 Querying API Group Quantities

### Function

This API is used to query the number of API groups that have been listed on KooGallery and the number of API groups that have not been listed.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/resources/outline/groups

**Table 4-603** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-604** Request header parameters

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

## Response Parameters

**Status code: 200****Table 4-605** Response body parameters

Parameter	Type	Description
offsell_nums	Integer	Number of API groups that have not been listed on KooGallery. Currently, this parameter is not supported.
onsell_nums	Integer	Number of API groups that have been listed on KooGallery.

**Status code: 400****Table 4-606** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-607** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-608** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-609** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-610** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "offsell_nums" : 0,
  "onsell_nums" : 23
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support
```



```
documentation"  
}
```

**Status code: 401**

Unauthorized

```
{  
  "error_code" : "APIG.1002",  
  "error_msg" : "Incorrect token or token resolution failed"  
}
```

**Status code: 403**

Forbidden

```
{  
  "error_code" : "APIG.1005",  
  "error_msg" : "No permissions to request this method"  
}
```

**Status code: 404**

Not Found

```
{  
  "error_code" : "APIG.3030",  
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"  
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code" : "APIG.9999",  
  "error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.11.3 Querying App Quantities

### Function

This API is used to query the number of apps that have been authorized to access APIs and the number of apps that have not been authorized to access any APIs.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/resources/outline/apps

**Table 4-611** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-612** Request header parameters

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

### Response Parameters

**Status code: 200**

**Table 4-613** Response body parameters

Parameter	Type	Description
authed_nums	Integer	Number of apps that have been authorized to access APIs.
unauthed_nums	Integer	Number of apps that have not been authorized to access APIs.

**Status code: 400****Table 4-614** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-615** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-616** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-617** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 4-618** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "authed_nums" : 7,
  "unauthed_nums" : 5
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Bad Request

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Bad Request
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.12 Domain Name Management

## 4.12.1 Binding a Domain Name

### Function

A user-defined domain name takes effect only after an A record set has been added. For details, see section "Adding an A Record Set" in the Domain Name Service User Guide.

An API group can be bound with a maximum of five domain names. After you bind a domain name to an API group, APIs in the group can be called using the domain name.

### Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/domains

**Table 4-619** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.

## Request Parameters

**Table 4-620** Request header parameters

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

**Table 4-621** Request body parameters

Parameter	Mandatory	Type	Description
min_ssl_version	No	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>
is_http_redirect_to_https	No	Boolean	Whether to enable HTTP redirection to HTTPS. The value false means disable and true means enable. The default value is false. Default: <b>false</b>

Parameter	Mandatory	Type	Description
ingress_http_port	No	Integer	<p>Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>

Parameter	Mandatory	Type	Description
ingress_https_port	No	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
url_domain	Yes	String	<p>Custom domain name. The value is a string of 0 to 255 characters and must comply with the domain name specifications (meeting the regular expression <code>^(a-zA-Z0-9?){1,7}[a-zA-Z]{2,64}?\$</code> or <code>^[*]{1,6}.[a-zA-Z]{2,64}?\$</code>).</p> <p>Minimum: <b>0</b> Maximum: <b>255</b></p>

## Response Parameters

Status code: 201

Table 4-622 Response body parameters

Parameter	Type	Description
url_domain	String	Custom domain name.
id	String	Domain ID.



Parameter	Type	Description
status	Integer	CNAME resolution status. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
min_ssl_version	String	Minimum SSL version supported.
is_http_redirect_to_https	Boolean	Whether to enable HTTP redirection to HTTPS. The value false means disable and true means enable. The default value is false. Default: <b>false</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>

Parameter	Type	Description
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>

**Status code: 400****Table 4-623** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-624** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-625** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-626** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-627** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding a domain name to an API group

```
{
  "url_domain": "www.company.com"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "url_domain": "www.company.com",
  "id": "c5e0d5ba62a34d26ad5c709ae22c1a17",
  "status": 3,
  "min_ssl_version": "TLSv1.1",
  "is_http_redirect_to_https": false,
  "verified_client_certificate_enabled": false
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2024",
  "error_msg" : "Invalid URL domain name"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.12.2 Adding a Certificate to a Domain Name

### Function

When you create an API to be accessed through HTTPS, you must add an SSL certificate to the independent domain name that has been bound to the group the API belongs to.

For gateways with custom inbound ports, the same domain name is bound to a certificate at the same time. Enabling or disabling client verification takes effect for different ports of the same domain name.

This API is used to add a certificate to a specific domain name.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/domains/{domain\_id}/certificate

**Table 4-628** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
domain_id	Yes	String	Domain ID.

### Request Parameters

**Table 4-629** Request header parameters

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

**Table 4-630** Request body parameters

Parameter	Mandatory	Type	Description
cert_content	Yes	String	Certificate content.
name	Yes	String	Certificate name. It can contain 4 to 50 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
private_key	Yes	String	Private key.

## Response Parameters

**Status code: 201**

**Table 4-631** Response body parameters

Parameter	Type	Description
url_domain	String	Custom domain name.
id	String	Domain ID.
status	Integer	CNAME resolution status. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
min_ssl_version	String	Minimum SSL version supported.
is_http_redirect_to_https	Boolean	Whether to enable HTTP redirection to HTTPS. The value false means disable and true means enable. The default value is false. Default: <b>false</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>

Parameter	Type	Description
ingress_http_port	Integer	<p>Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ssl_name	String	Certificate name.
ssl_id	String	Certificate ID.
ssl_infos	Array of <b>SslInfo</b> objects	SSL certificate list.

**Table 4-632** SslInfo

Parameter	Type	Description
ssl_id	String	SSL certificate ID.
ssl_name	String	SSL certificate name.
algorithm_type	String	Certificate algorithm type: <ul style="list-style-type: none"><li>• RSA</li><li>• ECC</li><li>• SM2</li></ul>
type	String	Certificate scope: <ul style="list-style-type: none"><li>• instance</li><li>• global</li></ul> Default: <b>global</b>

**Status code: 400****Table 4-633** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-634** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-635** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.



**Status code: 404**

**Table 4-636** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-637** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding a certificate to a domain name

```
{
  "name" : "cert_demo",
  "private_key" : ""-----BEGIN PRIVATE KEY-----THIS IS YOUR PRIVATE KEY-----END PRIVATE KEY-----\n",
  "cert_content" : ""-----BEGIN CERTIFICATE-----THIS IS YOUR CERT CONTENT-----END CERTIFICATE-----\n"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "ssl_name" : "cert_demo",
  "url_domain" : "www.example.com",
  "ssl_id" : "a27be832f2e9441c8127fe48e3b5ac67",
  "id" : " f6bb84ccf1c34035878aa51b7253b21c",
  "status" : 3
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
}
```

```
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3020",
  "error_msg" : "The URL domain does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.12.3 Modifying a Domain Name

#### Function

This API is used to modify the configuration of a domain name bound to an API group. For gateways with custom inbound ports, enabling or disabling client verification takes effect for different ports of the same domain name.

## Calling Method

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

## URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/domains/{domain\_id}

**Table 4-638** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
domain_id	Yes	String	Domain ID.

## Request Parameters

**Table 4-639** Request header parameters

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

**Table 4-640** Request body parameters

Parameter	Mandatory	Type	Description
min_ssl_version	Yes	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b>

Parameter	Mandatory	Type	Description
is_http_redirect_to_https	No	Boolean	Whether to enable HTTP redirection to HTTPS. The value false means disable and true means enable. The default value is false. Default: <b>false</b>
verified_client_certificate_enabled	No	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
ingress_http_port	No	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged. Minimum: <b>-1</b> Maximum: <b>49151</b>

Parameter	Mandatory	Type	Description
ingress_https_port	No	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: -1 Maximum: <b>49151</b></p>

## Response Parameters

Status code: 201

**Table 4-641** Response body parameters

Parameter	Type	Description
url_domain	String	Custom domain name.
id	String	Domain ID.
status	Integer	<p>CNAME resolution status.</p> <ul style="list-style-type: none"> <li>● 1: not resolved</li> <li>● 2: resolving</li> <li>● 3: resolved</li> <li>● 4: resolution failed</li> </ul>
min_ssl_version	String	Minimum SSL version supported.

Parameter	Type	Description
is_http_redirect_to_https	Boolean	Whether to enable HTTP redirection to HTTPS. The value false means disable and true means enable. The default value is false. Default: <b>false</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged.  Minimum: <b>-1</b> Maximum: <b>49151</b>

Parameter	Type	Description
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>

**Status code: 400****Table 4-642** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-643** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-644** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-645** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-646** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Modifying a domain name

```
{  
  "min_ssl_version" : "TLSv1.2"  
}
```

## Example Responses

**Status code: 201**

Created

```
{  
  "id" : "0a515af69f4e4dcca84fbf85f68c0e27",  
  "url_domain" : "www.example.com",  
  "status" : 3,  
  "min_ssl_version" : "TLSv1.2",  
  "is_http_redirect_to_https" : false,  
  "verified_client_certificate_enabled" : false  
}
```

**Status code: 400**

Bad Request



```
{
  "error_code" : "APIG.3474",
  "error_msg" : "The API group ID in the URL does not match the API group to which the URL domain has
  been bound"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3020",
  "error_msg" : "The URL domain does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.12.4 Unbinding a Domain Name

### Function

This API is used to unbind a custom domain name from an API group.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/domains/{domain\_id}

**Table 4-647** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
domain_id	Yes	String	Domain ID.

### Request Parameters

**Table 4-648** Request header parameters

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

### Response Parameters

**Status code: 400**

**Table 4-649** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-650** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-651** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-652** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-653** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.3474",
  "error_msg" : "The API group ID in the URL does not match the API group to which the URL domain has been bound"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3020",
  "error_msg" : "The URL domain does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.12.5 Setting Accessibility of a Debugging Domain Name

### Function

This API is used to disable or enable the debugging domain name bound to an API group.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/sl-domain-access-settings

**Table 4-654** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.

## Request Parameters

**Table 4-655** Request header parameters

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

**Table 4-656** Request body parameters

Parameter	Mandatory	Type	Description
sl_domain_access_enabled	Yes	Boolean	Specifies whether the debugging domain name is accessible. Options: true and false. Default: <b>true</b>

## Response Parameters

**Status code: 400**

**Table 4-657** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-658** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-659** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-660** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-661** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Setting accessibility of a debugging domain name

```
{  
  "sl_domain_access_enabled" : true  
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{  
  "error_code" : "APIG.2011",  
  "error_msg" : "Invalid parameter value,parameterName:sl_domain_access_enabled"  
}
```

**Status code: 401**

Unauthorized

```
{  
  "error_code" : "APIG.1002",
```

```
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3020",
  "error_msg" : "The URL domain does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.12.6 Deleting the Certificate Bound to a Domain Name

#### Function

This API is used to delete a certificate that is no longer needed or has expired. For gateways with custom inbound ports, the same domain name will be unbound from the certificate at the same time.



## Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/domains/{domain\_id}/certificate/{certificate\_id}

**Table 4-662** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
domain_id	Yes	String	Domain ID.
certificate_id	Yes	String	Certificate ID.

## Request Parameters

**Table 4-663** Request header parameters

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

## Response Parameters

**Status code: 400**

**Table 4-664** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-665** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-666** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-667** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-668** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

## Example Responses

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:domain_id. Please refer to the support
documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3020",
  "error_msg" : "The URL domain does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.12.7 Querying Details of the Certificate Bound to a Domain Name

### Function

This API is used to query the details of the certificate bound to a domain name.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/domains/{domain\_id}/certificate/{certificate\_id}

**Table 4-669** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
domain_id	Yes	String	Domain ID.
certificate_id	Yes	String	Certificate ID.

### Request Parameters

**Table 4-670** Request header parameters

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

## Response Parameters

Status code: 200

Table 4-671 Response body parameters

Parameter	Type	Description
id	String	Certificate ID.
name	String	Certificate name.
type	String	Certificate type. Options: <ul style="list-style-type: none"><li>• global: Global certificate.</li><li>• instance: Gateway certificate.</li></ul>
instance_id	String	Gateway ID. <ul style="list-style-type: none"><li>• If type is set to global, the default value is common.</li><li>• If type is set to instance, a gateway ID is displayed.</li></ul>
project_id	String	Project ID.
create_time	String	Creation time.
update_time	String	Update time.
common_name	String	Certificate domain name.
san	Array of strings	Subject alternative names.
version	Integer	Certificate version.
organization	Array of strings	Company or organization.
organizational_unit	Array of strings	Department.
locality	Array of strings	City.
state	Array of strings	State or province.
country	Array of strings	Country or region.
not_before	String	Start time of the certificate validity period.
not_after	String	End time of the certificate validity period.
serial_number	String	Serial No.

Parameter	Type	Description
issuer	Array of strings	Certificate issuer.
signature_algorithm	String	Signature algorithm.

**Status code: 400****Table 4-672** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-673** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-674** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-675** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 4-676** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "serial_number" : "219450666855693268010130472645821723203",
  "version" : 3,
  "san" : [ "www.company.com" ],
  "not_before" : "2019-06-01T00:00:00Z",
  "issuer" : [ "mkcert development CA" ],
  "not_after" : "2030-08-04T07:41:19Z",
  "organization" : [ "mkcert development certificate" ],
  "signature_algorithm" : "SHA256-RSA",
  "organizational_unit" : [ "XXX\\\DESKTOP-L2TFOFH" ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:domain_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3020",
  "error_msg" : "The URL domain does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**

See [Error Codes](#).

**4.13 Access Control Policy Management**

**4.13.1 Creating an Access Control Policy**

**Function**

This API is used to create an access control policy to allow or deny API access from certain IP addresses or tenants. The `acl_value` value of a domain is a tenant name rather than a domain name (such as `www.exampleDomain.com`).



## Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/acls

**Table 4-677** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-678** Request header parameters

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

**Table 4-679** Request body parameters

Parameter	Mandatory	Type	Description
acl_name	Yes	String	Access control policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
acl_type	Yes	String	Type. <ul style="list-style-type: none"> <li>PERMIT (whitelist)</li> <li>DENY (blacklist)</li> </ul>

Parameter	Mandatory	Type	Description
acl_value	Yes	String	One or more objects from which the access will be controlled. Separate multiple objects with commas. <ul style="list-style-type: none"><li>• If entity_type is set to IP, enter up to 100 IP addresses.</li><li>• If entity_type is set to DOMAIN, enter account names. Each account name can contain up to 64 ASCII characters except commas (,). Do not use only digits. The total length cannot exceed 1024 characters.</li><li>• If entity_type is set to DOMAIN_ID, enter account IDs. For details about how to obtain an account ID, see "Appendix" &gt; "Obtaining an Account Name and Account ID" in this document.</li></ul>
entity_type	Yes	String	Object type. <ul style="list-style-type: none"><li>• IP: IP address.</li><li>• DOMAIN: Account name.</li><li>• DOMAIN_ID: Account ID.</li></ul>

## Response Parameters

Status code: 201

Table 4-680 Response body parameters

Parameter	Type	Description
acl_name	String	Name.
acl_type	String	Type. <ul style="list-style-type: none"><li>• PERMIT (whitelist)</li><li>• DENY (blacklist)</li></ul>
acl_value	String	Access control objects.

Parameter	Type	Description
entity_type	String	Object type. <ul style="list-style-type: none"><li>• IP</li><li>• DOMAIN</li><li>• DOMAIN_ID</li></ul>
id	String	ID.
update_time	String	Update time.

**Status code: 400****Table 4-681** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-682** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-683** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-684** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-685** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating an access control policy to allow access from specified IP addresses

```
{
  "acl_name" : "acl_demo",
  "acl_type" : "PERMIT",
  "acl_value" : "192.168.1.5,192.168.10.1",
  "entity_type" : "IP"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "id" : "7eb619ecf2a24943b099833cd24a01ba",
  "acl_name" : "acl_demo",
  "entity_type" : "IP",
  "acl_type" : "PERMIT",
  "acl_value" : "192.168.1.5,192.168.10.1",
  "update_time" : "2020-08-04T08:42:43.461276217Z"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:acl_type. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
}
```

```
{
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3030",
  "error_msg": "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.13.2 Modifying an Access Control Policy

#### Function

This API is used to modify an access control policy. Only attributes `acl_name`, `acl_type`, and `acl_value` can be modified.

## Calling Method

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

## URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/acls/{acl\_id}

**Table 4-686** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
acl_id	Yes	String	Access control policy ID.

## Request Parameters

**Table 4-687** Request header parameters

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

**Table 4-688** Request body parameters

Parameter	Mandatory	Type	Description
acl_name	Yes	String	Access control policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
acl_type	Yes	String	Type. <ul style="list-style-type: none"><li>• PERMIT (whitelist)</li><li>• DENY (blacklist)</li></ul>

Parameter	Mandatory	Type	Description
acl_value	Yes	String	<p>One or more objects from which the access will be controlled. Separate multiple objects with commas.</p> <ul style="list-style-type: none"> <li>• If entity_type is set to IP, enter up to 100 IP addresses.</li> <li>• If entity_type is set to DOMAIN, enter account names. Each account name can contain up to 64 ASCII characters except commas (,). Do not use only digits. The total length cannot exceed 1024 characters.</li> <li>• If entity_type is set to DOMAIN_ID, enter account IDs. For details about how to obtain an account ID, see "Appendix" &gt; "Obtaining an Account Name and Account ID" in this document.</li> </ul>
entity_type	Yes	String	<p>Object type.</p> <ul style="list-style-type: none"> <li>• IP: IP address.</li> <li>• DOMAIN: Account name.</li> <li>• DOMAIN_ID: Account ID.</li> </ul>

## Response Parameters

Status code: 200

**Table 4-689** Response body parameters

Parameter	Type	Description
acl_name	String	Name.
acl_type	String	<p>Type.</p> <ul style="list-style-type: none"> <li>• PERMIT (whitelist)</li> <li>• DENY (blacklist)</li> </ul>
acl_value	String	Access control objects.

Parameter	Type	Description
entity_type	String	Object type. <ul style="list-style-type: none"><li>• IP</li><li>• DOMAIN</li><li>• DOMAIN_ID</li></ul>
id	String	ID.
update_time	String	Update time.

**Status code: 400****Table 4-690** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-691** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-692** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**



**Table 4-693** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-694** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Updating an access control policy to allow access from specified IP addresses

```
{
  "acl_name" : "acl_demo",
  "entity_type" : "IP",
  "acl_type" : "PERMIT",
  "acl_value" : "192.168.1.5,192.168.10.1"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "id" : "7eb619ecf2a24943b099833cd24a01ba",
  "acl_name" : "acl_demo",
  "entity_type" : "IP",
  "acl_type" : "PERMIT",
  "acl_value" : "192.168.1.5,192.168.10.1",
  "update_time" : "2020-08-04T08:54:55.975856802Z"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:acl_type. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
```

```
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3006",
  "error_msg" : "Access control policy 7eb619ecf2a24943b099833cd24a01ba does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.13.3 Deleting an Access Control Policy

#### Function

This API is used to delete an access control policy. Access control policies bound to APIs cannot be deleted.

## Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/acls/{acl\_id}

**Table 4-695** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
acl_id	Yes	String	Access control policy ID.

## Request Parameters

**Table 4-696** Request header parameters

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

## Response Parameters

**Status code: 400**

**Table 4-697** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-698** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-699** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-700** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-701** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{  
  "error_code" : "APIG.2011",
```

```
{
  "error_msg": "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3006",
  "error_msg": "Access control policy 7eb619ecf2a24943b099833cd24a01ba does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.13.4 Deleting Multiple Access Control Policies

### Function

This API is used to delete multiple access control policies.

Access control policies bound to APIs cannot be deleted.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/acls

**Table 4-702** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-703** Query Parameters

Parameter	Mandatory	Type	Description
action	Yes	String	The value must be delete.

### Request Parameters

**Table 4-704** Request header parameters

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

**Table 4-705** Request body parameters

Parameter	Mandatory	Type	Description
acls	No	Array of strings	IDs of the access control policies to be deleted.

## Response Parameters

**Status code: 200**

**Table 4-706** Response body parameters

Parameter	Type	Description
success_count	Integer	Number of access control policies that have been successfully deleted.
failure	Array of <a href="#">AclBatchResultFailureResp</a> objects	Error message and access control policies that fail to be deleted.

**Table 4-707** AclBatchResultFailureResp

Parameter	Type	Description
acl_id	String	ID of an access control policy that fails to be deleted.
acl_name	String	Name of the access control policy.
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 400**

**Table 4-708** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-709** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-710** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-711** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-712** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Deleting multiple access control policies

```
{  
  "acls" : [ "7eb619ecf2a24943b099833cd24a01ba", "3a68d39f115d4c128fccd6f624ea6109" ]  
}
```

## Example Responses

**Status code: 200**



OK

```
{
  "failure": [ {
    "acl_id": "7eb619ecf2a24943b099833cd24a01ba",
    "acl_name": "acl_demo",
    "error_code": "APIG.3447",
    "error_msg": "The access control policy has been bound to APIs"
  } ],
  "success_count": 1
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2011",
  "error_msg": "Invalid parameter value: parameter action should be \\\"delete\\\""
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3030",
  "error_msg": "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.13.5 Querying Details of an Access Control Policy

#### Function

This API is used to query the details of an access control policy.

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/acls/{acl\_id}

**Table 4-713** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
acl_id	Yes	String	Access control policy ID.

## Request Parameters

**Table 4-714** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-715** Response body parameters

Parameter	Type	Description
acl_name	String	Name.
acl_type	String	Type. <ul style="list-style-type: none"> <li>PERMIT (whitelist)</li> <li>DENY (blacklist)</li> </ul>
acl_value	String	Access control objects.
entity_type	String	Object type. <ul style="list-style-type: none"> <li>IP</li> <li>DOMAIN</li> <li>DOMAIN_ID</li> </ul>
id	String	ID.
update_time	String	Update time.

**Status code: 400**

**Table 4-716** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-717** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-718** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-719** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-720** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "id" : "7eb619ecf2a24943b099833cd24a01ba",
```

```
"acl_name" : "acl_demo",
"entity_type" : "IP",
"acl_type" : "PERMIT",
"acl_value" : "192.168.1.5,192.168.10.1",
"update_time" : "2020-08-04T08:42:43Z"
}
```

**Status code: 400**

Bad Request

```
{
"error_code" : "APIG.2011",
"error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
"error_code" : "APIG.1002",
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
"error_code" : "APIG.1005",
"error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
"error_code" : "APIG.3006",
"error_msg" : "Access control policy 7eb619ecf2a24943b099833cd24a01ba does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
"error_code" : "APIG.9999",
"error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.13.6 Querying Access Control Policies

### Function

This API is used to query all the access control policies.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/acls

**Table 4-721** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-722** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
id	No	String	Access control policy ID.
name	No	String	Access control policy name.
acl_type	No	String	Type. <ul style="list-style-type: none"> <li>PERMIT (whitelist)</li> <li>DENY (blacklist)</li> </ul>
entity_type	No	String	Object types. <ul style="list-style-type: none"> <li>IP</li> <li>DOMAIN</li> </ul>
precise_search	No	String	Parameter name (name) for exact matching.

## Request Parameters

Table 4-723 Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-724** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
acls	Array of <a href="#">ApiAclInfoWithBindNum</a> objects	Access control policy list.

**Table 4-725** ApiAclInfoWithBindNum

Parameter	Type	Description
acl_name	String	Access control policy name.
acl_type	String	Type. <ul style="list-style-type: none"> <li>• PERMIT (whitelist)</li> <li>• DENY (blacklist)</li> </ul>
acl_value	String	Access control objects.
bind_num	Integer	Number of APIs.
entity_type	String	Object type. <ul style="list-style-type: none"> <li>• IP</li> <li>• DOMAIN</li> <li>• DOMAIN_ID</li> </ul>
id	String	Access control policy ID.
update_time	String	Update time.

**Status code: 400**

**Table 4-726** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**



**Table 4-727** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-728** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-729** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-730** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{  
  "total" : 1,
```

```
"size" : 1,
"acls" : [ {
  "bind_num" : 0,
  "id" : "7eb619ecf2a24943b099833cd24a01ba",
  "acl_name" : "acl_demo",
  "entity_type" : "IP",
  "acl_type" : "PERMIT",
  "acl_value" : "192.168.1.5,192.168.10.1",
  "update_time" : "2020-08-04T08:42:43Z"
} ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.14 Binding/Unbinding Access Control Policies

## 4.14.1 Binding an Access Control Policy to an API

### Function

This API is used to bind an access control policy to a specified API.

You can bind different access control policies to an API in different environments, but you can bind only one access control policy to the API in each environment.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings

**Table 4-731** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-732** Request header parameters

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

**Table 4-733** Request body parameters

Parameter	Mandatory	Type	Description
acl_id	No	String	Access control policy ID.
publish_ids	No	Array of strings	API publication record ID.

## Response Parameters

**Status code: 201**

**Table 4-734** Response body parameters

Parameter	Type	Description
acl_bindings	Array of <a href="#">AclApiBindingInfo</a> objects	Access control policy binding records.

**Table 4-735** AclApiBindingInfo

Parameter	Type	Description
id	String	Binding record ID.
api_id	String	API ID.
env_id	String	Environment ID.
acl_id	String	Access control policy ID.
create_time	String	Binding time.

**Status code: 400**

**Table 4-736** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-737** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-738** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-739** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-740** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding an access control policy to an API

```
{
  "acl_id": "7eb619ecf2a24943b099833cd24a01ba",
  "publish_ids": [ "40e7162dc6b94bbbb1a60d2a24b1b0c" ]
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "acl_bindings": [ {
    "id": "332c5db1458a477b89b2ea741fec94a3",
    "api_id": "5f918d104dc84480a75166ba99efff21",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "acl_id": "7eb619ecf2a24943b099833cd24a01ba",
    "create_time": "2020-08-04T08:58:03.001228747Z"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2011",
  "error_msg": "Invalid parameter value,parameterName:acl_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3006",
  "error_msg": "Access control policy 7eb619ecf2a24943b099833cd24a01ba does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
}
```

```
"error_msg": "System error"  
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.14.2 Unbinding an Access Control Policy

### Function

This API is used to unbind an access control policy from an API.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings/  
{acl\_bindings\_id}

**Table 4-741** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

Parameter	Mandatory	Type	Description
acl_bindings_id	Yes	String	Binding record ID.

## Request Parameters

**Table 4-742** Request header parameters

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

## Response Parameters

**Status code: 400**

**Table 4-743** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-744** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**



**Table 4-745** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-746** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-747** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

#### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

#### Not Found

```
{
  "error_code" : "APIG.3010",
  "error_msg" : "The access control policy binding record does not exist"
}
```

**Status code: 500**

#### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.14.3 Unbinding Access Control Policies

#### Function

This API is used to unbind multiple access control policies from APIs.

#### Calling Method

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

## URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings

**Table 4-748** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-749** Query Parameters

Parameter	Mandatory	Type	Description
action	Yes	String	The value must be delete.

## Request Parameters

**Table 4-750** Request header parameters

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

**Table 4-751** Request body parameters

Parameter	Mandatory	Type	Description
acl_bindings	No	Array of strings	IDs of the access control policy binding records to be canceled.

## Response Parameters

**Status code: 200**

**Table 4-752** Response body parameters

Parameter	Type	Description
success_count	Integer	Number of access control policies that have been successfully unbound.
failure	Array of <a href="#">AclBindingBatchFailure</a> objects	Error message and access control policies that fail to be unbound.

**Table 4-753** AclBindingBatchFailure

Parameter	Type	Description
bind_id	String	ID of an access control policy binding record that fails to be canceled.
error_code	String	Error code.
error_msg	String	Error message.
api_id	String	ID of an API from which unbinding fails.
api_name	String	Name of the API from which unbinding fails.

**Status code: 400**

**Table 4-754** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-755** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-756** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-757** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-758** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Unbinding multiple access control policies from APIs

```
{
  "acl_bindings" : [ "332c5db1458a477b89b2ea741fec94a3" ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "failure" : [ {
    "bind_id" : "3a68d39f115d4c128fccd6f624ea6109",
    "error_code" : "APIG.3010",
    "error_msg" : "The access control policy binding record does not exist"
  } ],
  "success_count" : 1
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value: parameter action should be \\\\"delete\\\\"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.14.4 Querying APIs Bound with an Access Control Policy

### Function

This API is used to query the APIs to which an access control policy has been bound.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings/binded-apis

**Table 4-759** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-760** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
acl_id	Yes	String	Access control policy ID.

Parameter	Mandatory	Type	Description
api_id	No	String	API ID.
api_name	No	String	API name.
env_id	No	String	Environment ID.
group_id	No	String	API group ID.
tags	No	String	API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered. Minimum: <b>0</b> Maximum: <b>128</b>

## Request Parameters

**Table 4-761** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-762** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <a href="#">AclBindApiInfo</a> objects	API list.



**Table 4-763** AclBindApiInfo

Parameter	Type	Description
api_id	String	API ID.
api_name	String	API name.
api_type	Long	API type.
api_remark	String	API description.
env_id	String	ID of the environment in which the policy takes effect.
env_name	String	Name of the environment in which the policy takes effect.
bind_id	String	Binding record ID.
group_name	String	API group name.
bind_time	String	Binding time.
publish_id	String	API publication record ID.
req_method	String	Request method.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>

**Status code: 400**

**Table 4-764** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-765** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403**

**Table 4-766** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-767** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-768** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 1,
  "size" : 1,
  "apis" : [ {
```

```

"api_id" : "5f918d104dc84480a75166ba99efff21",
"api_name" : "Api_http",
"group_name" : "api_group_001",
"api_type" : 1,
"api_remark" : "Web backend API",
"env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
"env_name" : "RELEASE",
"bind_id" : "332c5db1458a477b89b2ea741fec94a3",
"bind_time" : "2020-08-04T08:58:03Z",
"publish_id" : "40e7162dc6b94bbbb1a60d2a24b1b0c"
}
}
}

```

**Status code: 400**

Bad Request

```

{
"error_code" : "APIG.2011",
"error_msg" : "Invalid parameter value,parameterName:api_name. Please refer to the support documentation"
}

```

**Status code: 401**

Unauthorized

```

{
"error_code" : "APIG.1002",
"error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
"error_code" : "APIG.1005",
"error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
"error_code" : "APIG.3006",
"error_msg" : "Access control policy 7eb619ecf2a24943b099833cd24a01ba does not exist"
}

```

**Status code: 500**

Internal Server Error

```

{
"error_code" : "APIG.9999",
"error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
200	OK

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.14.5 Querying APIs Not Bound with an Access Control Policy

### Function

This API is used to query the published APIs to which an access control policy has not been bound.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings/unbound-apis

**Table 4-769** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-770** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
acl_id	Yes	String	Access control policy ID.
api_id	No	String	API ID.
api_name	No	String	API name.
env_id	No	String	Environment ID.
group_id	No	String	API group ID.
tags	No	String	API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered. Minimum: <b>0</b> Maximum: <b>128</b>

## Request Parameters

**Table 4-771** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-772** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <a href="#">UnbindApiForAcl</a> objects	API list.

**Table 4-773** UnbindApiForAcl

Parameter	Type	Description
id	String	API ID.
name	String	API name.
group_id	String	ID of the API group to which the API belongs.
group_name	String	Name of the API group to which the API belongs.
type	Integer	API visibility.
remark	String	API description.
run_env_name	String	Name of the environment in which the API has been published.
run_env_id	String	ID of the environment in which the API has been published.

Parameter	Type	Description
publish_id	String	API publication record ID.
acl_name	String	Name of the same type of access control policy bound to the API.
req_uri	String	API request address.
auth_type	String	API authentication mode.
req_method	String	Request method.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>

**Status code: 400****Table 4-774** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-775** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-776** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 4-777** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-778** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "apis": [ {
    "name": "Api_mock",
    "type": 1,
    "remark": "Mock backend API",
    "group_id": "c77f5e81d9cb4424bf704ef2b0ac7600",
    "id": "3a955b791bd24b1c9cd94c745f8d1aad",
    "group_name": "api_group_001",
    "run_env_name": "RELEASE",
    "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "publish_id": "9f27d1dc4f4242a9abf88e563dbfc33d",
    "req_uri": "/test/mock",
    "auth_type": "IAM"
  } ]
}
```

**Status code: 400**



### Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:api_name. Please refer to the support
documentation"
}
```

#### Status code: 401

### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

#### Status code: 403

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

#### Status code: 404

### Not Found

```
{
  "error_code" : "APIG.3006",
  "error_msg" : "Access control policy 7eb619ecf2a24943b099833cd24a01ba does not exist"
}
```

#### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.14.6 Querying Access Control Policies Bound to an API

### Function

This API is used to query the access control policies that have been bound to a specified API.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings/binded-acls

**Table 4-779** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-780** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
api_id	Yes	String	API ID.
env_id	No	String	Environment ID.
env_name	No	String	Environment name.
acl_id	No	String	Access control policy ID.
acl_name	No	String	Access control policy name.

## Request Parameters

**Table 4-781** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-782** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.

Parameter	Type	Description
acls	Array of <a href="#">ApiBindAclInfo</a> objects	Access control policy list.

**Table 4-783** ApiBindAclInfo

Parameter	Type	Description
acl_id	String	Access control policy ID.
acl_name	String	Access control policy name.
entity_type	String	Object type.
acl_type	String	Access control type. <ul style="list-style-type: none"><li>• PERMIT: whitelist</li><li>• DENY: blacklist</li></ul>
acl_value	String	Access control objects.
env_id	String	Effective environment ID.
env_name	String	Effective environment name.
bind_id	String	Binding record ID.
bind_time	String	Binding time.

**Status code: 400****Table 4-784** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-785** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-786** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-787** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-788** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

**Example Responses****Status code: 200**

OK

```
{
  "total" : 1,
  "size" : 1,
  "acls" : [ {
    "acl_id" : "7eb619ecf2a24943b099833cd24a01ba",
    "acl_name" : "acl_demo",
    "entity_type" : "IP",
    "acl_type" : "PERMIT",
    "acl_value" : "192.168.1.5,192.168.10.1",
    "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name" : "RELEASE",
    "bind_id" : "332c5db1458a477b89b2ea741fec94a3",
    "bind_time" : "2020-08-04T08:58:03Z"
  }
]
```

```
}}
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:acI_name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.15 Custom Authorizer Management

## 4.15.1 Creating a Custom Authorizer

### Function

This API is used to create a custom authorizer.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/authorizers

**Table 4-789** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-790** Request header parameters

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

**Table 4-791** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Custom authorizer name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Yes	String	Custom authorizer type. <ul style="list-style-type: none"> <li>FRONTEND</li> <li>BACKEND</li> </ul> Modification is not allowed.
authorizer_type	Yes	String	Value: FUNC.
authorizer_uri	Yes	String	Function URN.
network_type	No	String	Function network architecture: <ul style="list-style-type: none"> <li>V1: non-VPC</li> <li>V2: VPC</li> </ul> Default: <b>V1</b>
authorizer_version	No	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
authorizer_alias_uri	No	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
identities	No	Array of <b>Identity</b> objects	Identity source.
ttl	No	Integer	Maximum cache age.
user_data	No	String	User data.
ld_api_id	No	String	Custom backend ID. Currently, this parameter is not supported.
need_body	No	Boolean	Indicates whether to send the body.



**Table 4-792** Identity

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name.
location	Yes	String	Parameter location.
validation	No	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

## Response Parameters

Status code: 201

**Table 4-793** Response body parameters

Parameter	Type	Description
name	String	Custom authorizer name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	String	Custom authorizer type. <ul style="list-style-type: none"> <li>FRONTEND</li> <li>BACKEND</li> </ul> Modification is not allowed.
authorizer_type	String	Value: FUNC.
authorizer_uri	String	Function URN.
network_type	String	Function network architecture: <ul style="list-style-type: none"> <li>V1: non-VPC</li> <li>V2: VPC</li> </ul> Default: <b>V1</b>
authorizer_version	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
authorizer_alias_uri	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.

Parameter	Type	Description
identities	Array of <b>Identity</b> objects	Identity source.
ttn	Integer	Maximum cache age.
user_data	String	User data.
ld_api_id	String	Custom backend ID. Currently, this parameter is not supported.
need_body	Boolean	Indicates whether to send the body.
id	String	Custom authorizer ID.
create_time	String	Creation time.
roma_app_id	String	ID of the application to which the custom authorizer belongs. Currently, this parameter is not supported.
roma_app_name	String	Name of the application to which the custom authorizer belongs. Currently, this parameter is not supported.

**Table 4-794** Identity

Parameter	Type	Description
name	String	Parameter name.
location	String	Parameter location.
validation	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

**Status code: 400****Table 4-795** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-796** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-797** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-798** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-799** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating a frontend custom authorizer

```
{
  "name" : "Authorizer_demo",
  "type" : "FRONTEND",
  "authorizer_type" : "FUNC",
  "authorizer_uri" : "urn:fss:xx-
xxx:106506b9a92342df9a5025fc12351cfc:function:default:apigDemo_1592617458814",
  "network_type" : "V1",
  "authorizer_version" : "v1",
```

```
"authorizer_alias_uri" : "urn:fss:xx-xxx-4:106506b9a92342df9a5025fc12351cfc:function:default:apigDemo_1592617458814:lv1",
"identities" : [ {
  "name" : "header",
  "location" : "HEADER"
} ],
"user_data" : "authorizer_test"
}
```

## Example Responses

### Status code: 201

#### Created

```
{
  "name" : "Authorizer_demo",
  "type" : "FRONTEND",
  "authorizer_type" : "FUNC",
  "authorizer_uri" : "urn:fss:xx-xxx-4:106506b9a92342df9a5025fc12351cfc:function:default:apigDemo_1592617458814",
  "network_type" : "V1",
  "authorizer_version" : "v1",
  "authorizer_alias_uri" : "urn:fss:xx-xxx-4:106506b9a92342df9a5025fc12351cfc:function:default:apigDemo_1592617458814:lv1",
  "identities" : [ {
    "name" : "header",
    "location" : "HEADER"
  } ],
  "ttl" : 0,
  "user_data" : "authorizer_test",
  "id" : "0d982c1ac3da493dae47627b6439fc5c",
  "create_time" : "2020-07-31T11:55:43Z"
}
```

### Status code: 400

#### Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:type. Please refer to the support documentation"
}
```

### Status code: 401

#### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

#### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

#### Not Found

```
{
  "error_code" : "APIG.3019",
}
```

```
{
  "error_msg": "The function URN does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.15.2 Modifying a Custom Authorizer

### Function

This API is used to modify a custom authorizer.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/authorizers/{authorizer\_id}

**Table 4-800** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
authorizer_id	Yes	String	Custom authorizer ID.

## Request Parameters

**Table 4-801** Request header parameters

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

**Table 4-802** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Custom authorizer name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Yes	String	Custom authorizer type. <ul style="list-style-type: none"> <li>• FRONTEND</li> <li>• BACKEND</li> </ul> Modification is not allowed.
authorizer_type	Yes	String	Value: FUNC.
authorizer_uri	Yes	String	Function URN.
network_type	No	String	Function network architecture: <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul> Default: <b>V1</b>

Parameter	Mandatory	Type	Description
authorizer_version	No	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
authorizer_alias_uri	No	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
identities	No	Array of <b>Identity</b> objects	Identity source.
ttn	No	Integer	Maximum cache age.
user_data	No	String	User data.
ld_api_id	No	String	Custom backend ID. Currently, this parameter is not supported.
need_body	No	Boolean	Indicates whether to send the body.

**Table 4-803** Identity

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name.
location	Yes	String	Parameter location.
validation	No	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

## Response Parameters

**Status code: 200**

**Table 4-804** Response body parameters

Parameter	Type	Description
name	String	Custom authorizer name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	String	Custom authorizer type. <ul style="list-style-type: none"><li>• FRONTEND</li><li>• BACKEND</li></ul> Modification is not allowed.
authorizer_type	String	Value: FUNC.
authorizer_uri	String	Function URN.
network_type	String	Function network architecture: <ul style="list-style-type: none"><li>• V1: non-VPC</li><li>• V2: VPC</li></ul> Default: <b>V1</b>
authorizer_version	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
authorizer_alias_uri	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
identities	Array of <b>Identity</b> objects	Identity source.
ttl	Integer	Maximum cache age.
user_data	String	User data.
ld_api_id	String	Custom backend ID. Currently, this parameter is not supported.
need_body	Boolean	Indicates whether to send the body.
id	String	Custom authorizer ID.
create_time	String	Creation time.



Parameter	Type	Description
roma_app_id	String	ID of the application to which the custom authorizer belongs. Currently, this parameter is not supported.
roma_app_name	String	Name of the application to which the custom authorizer belongs. Currently, this parameter is not supported.

**Table 4-805** Identity

Parameter	Type	Description
name	String	Parameter name.
location	String	Parameter location.
validation	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

**Status code: 401****Table 4-806** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-807** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-808** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-809** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Updating a frontend custom authorizer

```
{
  "name" : "Authorizer_demo",
  "type" : "FRONTEND",
  "authorizer_type" : "FUNC",
  "authorizer_uri" : "urn:fss:xx-
xxx:106506b9a92342df9a5025fc12351cfc:function:defau:apigDemo_1592617458814",
  "network_type" : "V1",
  "authorizer_version" : "v1",
  "authorizer_alias_uri" : "urn:fss:xx-
xxx-4:106506b9a92342df9a5025fc12351cfc:function:defau:apigDemo_1592617458814:v1",
  "user_data" : "authorizer_test",
  "identities" : [ {
    "name" : "header",
    "location" : "HEADER"
  } ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "name" : "Authorizer_demo",
  "type" : "FRONTEND",
  "authorizer_type" : "FUNC",
  "authorizer_uri" : "urn:fss:xx-
xxx-4:106506b9a92342df9a5025fc12351cfc:function:defau:apigDemo_1592617458814",
  "network_type" : "V1",
  "authorizer_version" : "v1",
  "authorizer_alias_uri" : "urn:fss:xx-
xxx-4:106506b9a92342df9a5025fc12351cfc:function:defau:apigDemo_1592617458814:v1",
  "identities" : [ {
    "name" : "header",
    "location" : "HEADER"
  } ],
}
```

```
"ttl" : 5,
"user_data" : "authorizer_test",
"id" : "0d982c1ac3da493dae47627b6439fc5c",
"create_time" : "2020-07-08T03:27:52.000+0000"
}
```

**Status code: 401**

Unauthorized

```
{
"error_code" : "APIG.1002",
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
"error_code" : "APIG.1005",
"error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
"error_code" : "APIG.3081",
"error_msg" : "authorizer with id: 0d982c1ac3da493dae47627b6439fc5c not found"
}
```

**Status code: 500**

Internal Server Error

```
{
"error_code" : "APIG.9999",
"error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.15.3 Deleting a Custom Authorizer

### Function

This API is used to delete a custom authorizer.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/authorizers/{authorizer\_id}

**Table 4-810** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
authorizer_id	Yes	String	Custom authorizer ID.

### Request Parameters

**Table 4-811** Request header parameters

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

### Response Parameters

Status code: 400

**Table 4-812** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-813** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-814** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-815** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-816** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3081",
  "error_msg" : "authorizer with id: 0d982c1ac3da493dae47627b6439fc5c not found"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.15.4 Querying Custom Authorizer Details

### Function

This API is used to query the details of a custom authorizer.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/authorizers/{authorizer\_id}

**Table 4-817** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
authorizer_id	Yes	String	Custom authorizer ID.

## Request Parameters

**Table 4-818** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-819** Response body parameters

Parameter	Type	Description
name	String	Custom authorizer name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	String	Custom authorizer type. <ul style="list-style-type: none"> <li>FRONTEND</li> <li>BACKEND</li> </ul> Modification is not allowed.
authorizer_type	String	Value: FUNC.
authorizer_uri	String	Function URN.
network_type	String	Function network architecture: <ul style="list-style-type: none"> <li>V1: non-VPC</li> <li>V2: VPC</li> </ul> Default: <b>V1</b>
authorizer_version	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
authorizer_alias_uri	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.



Parameter	Type	Description
identities	Array of <b>Identity</b> objects	Identity source.
ttn	Integer	Maximum cache age.
user_data	String	User data.
ld_api_id	String	Custom backend ID. Currently, this parameter is not supported.
need_body	Boolean	Indicates whether to send the body.
id	String	Custom authorizer ID.
create_time	String	Creation time.
roma_app_id	String	ID of the application to which the custom authorizer belongs. Currently, this parameter is not supported.
roma_app_name	String	Name of the application to which the custom authorizer belongs. Currently, this parameter is not supported.

**Table 4-820** Identity

Parameter	Type	Description
name	String	Parameter name.
location	String	Parameter location.
validation	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

**Status code: 400**

**Table 4-821** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-822** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-823** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-824** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-825** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "name" : "Authorizer_demo",
```

```
"type" : "FRONTEND",
"authorizer_type" : "FUNC",
"authorizer_uri" : "urn:fss:xx-
xxx-4:106506b9a92342df9a5025fc12351cfc:function:default:apigDemo_1592617458814",
"network_type" : "V1",
"authorizer_version" : "v1",
"authorizer_alias_uri" : "urn:fss:xx-
xxx-4:106506b9a92342df9a5025fc12351cfc:function:default:apigDemo_1592617458814:v1",
"identities" : [ {
  "name" : "header",
  "location" : "HEADER"
} ],
"ttl" : 0,
"user_data" : "authorizer_test",
"id" : "0d982c1ac3da493dae47627b6439fc5c",
"create_time" : "2020-07-31T11:55:43Z"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:type. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3081",
  "error_msg" : "authorizer with id: 0d982c1ac3da493dae47627b6439fc5c not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.15.5 Querying Custom Authorizers

### Function

This API is used to query all the custom authorizers under a gateway.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/authorizers

**Table 4-826** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-827** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
id	No	String	ID.
name	No	String	Name.
type	No	String	Type.

## Request Parameters

**Table 4-828** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-829** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.

Parameter	Type	Description
total	Long	Number of resources that match the query conditions.
authorizer_list	Array of <a href="#">AuthorizerResp</a> objects	Custom authorizers.

**Table 4-830** AuthorizerResp

Parameter	Type	Description
name	String	Custom authorizer name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	String	Custom authorizer type. <ul style="list-style-type: none"> <li>FRONTEND</li> <li>BACKEND</li> </ul> Modification is not allowed.
authorizer_type	String	Value: FUNC.
authorizer_uri	String	Function URN.
network_type	String	Function network architecture: <ul style="list-style-type: none"> <li>V1: non-VPC</li> <li>V2: VPC</li> </ul> Default: <b>V1</b>
authorizer_version	String	Function version. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored. Maximum: <b>64</b>
authorizer_alias_uri	String	Function alias URN. If both a function alias URN and version are passed, the alias URN will be used and the version will be ignored.
identities	Array of <a href="#">Identity</a> objects	Identity source.
ttl	Integer	Maximum cache age.
user_data	String	User data.

Parameter	Type	Description
ld_api_id	String	Custom backend ID. Currently, this parameter is not supported.
need_body	Boolean	Indicates whether to send the body.
id	String	Custom authorizer ID.
create_time	String	Creation time.
roma_app_id	String	ID of the application to which the custom authorizer belongs. Currently, this parameter is not supported.
roma_app_name	String	Name of the application to which the custom authorizer belongs. Currently, this parameter is not supported.

**Table 4-831** Identity

Parameter	Type	Description
name	String	Parameter name.
location	String	Parameter location.
validation	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

**Status code: 400****Table 4-832** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-833** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403**

**Table 4-834** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-835** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-836** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 1,
  "size" : 1,
  "authorizer_list" : [ {
```



```
"name" : "Authorizer_demo",
"type" : "FRONTEND",
"authorizer_type" : "FUNC",
"authorizer_uri" : "urn:fss:xx-
xxx-4:106506b9a92342df9a5025fc12351cfc:function:default:apigDemo_1592617458814",
"network_type" : "V1",
"authorizer_version" : "v1",
"authorizer_alias_uri" : "urn:fss:xx-
xxx-4:106506b9a92342df9a5025fc12351cfc:function:default:apigDemo_1592617458814:v1",
"identities" : [ {
  "name" : "header",
  "location" : "HEADER"
} ],
"ttl" : 0,
"user_data" : "authorizer_test",
"id" : "0d982c1ac3da493dae47627b6439fc5c",
"create_time" : "2020-07-31T11:55:43Z"
} ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.16 API Import and Export

## 4.16.1 Exporting APIs

### Function

This API is used to export APIs in a specified API group. The content of the exported file complies with the Swagger standard. For details about the custom extended fields of APIG, see section "Importing and Exporting APIs" > "Extended Definition" in the API Gateway User Guide.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/openapi/export

**Table 4-837** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-838** Query Parameters

Parameter	Mandatory	Type	Description
oas_version	No	String	Open API version. Default: <b>2.0</b>

## Request Parameters

**Table 4-839** Request header parameters

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

**Table 4-840** Request body parameters

Parameter	Mandatory	Type	Description
env_id	Yes	String	ID of the environment in which APIs of a group have been published.
group_id	Yes	String	API group ID.

Parameter	Mandatory	Type	Description
define	No	String	Definition scope of the APIs to be exported: <ul style="list-style-type: none"><li>• spec: basic definitions, including only the frontend definitions.</li><li>• proxy: full definitions, including the frontend and backend definitions.</li><li>• all: extended definitions, including the frontend and backend definitions as well as request throttling policies, access control policies, and custom authorizers.</li><li>• dev: development definitions, including the frontend and backend definitions of APIs that have not been published.</li></ul> Default: <b>spec</b>
type	No	String	Format for exporting API definitions. Default: <b>json</b>
version	No	String	Version number of the APIs after exporting. The default value is the current date and time.
apis	No	Array of strings	IDs of the APIs to be exported.

## Response Parameters

Status code: 200

Table 4-841 Response body parameters

Parameter	Type	Description
-	File	

Status code: 400

**Table 4-842** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-843** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-844** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-845** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-846** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

### Exporting APIs

```
{
  "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "define" : "all"
}
```

## Example Responses

### Status code: 400

#### Bad Request

```
{
  "error_code" : "APIG.2001",
  "error_msg" : "The request parameters must be specified,parameterName:env_id. Please refer to the support documentation"
}
```

### Status code: 401

#### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

#### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

#### Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

### Status code: 500

#### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.16.2 Importing APIs

### Function

This API is used to import APIs. The content of the imported file must comply with the Swagger standard. For details about the custom extended fields of APIG, see section "Importing and Exporting APIs" > "Extended Definition" in the API Gateway User Guide.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/openapi/import

**Table 4-847** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-848** Request header parameters

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

**Table 4-849** FormData parameters

Parameter	Mandatory	Type	Description
is_create_group	No	Boolean	Specifies whether to create an API group. Default: <b>true</b>
group_id	No	String	API group ID. This parameter is required if is_create_group is set to false.
extend_mode	No	String	Import mode of extended information. <ul style="list-style-type: none"> <li>merge: Retain the original extended information if a conflict occurs.</li> <li>override: Override the original extended information if a conflict occurs.</li> </ul> Default: <b>merge</b>
simple_mode	No	Boolean	Specifies whether to enable fast import. Default: <b>false</b>
mock_mode	No	Boolean	Specifies whether to enable the Mock backend. Default: <b>false</b>



Parameter	Mandatory	Type	Description
api_mode	No	String	Import mode. <ul style="list-style-type: none"> <li>merge: Retain the original API information if a conflict occurs.</li> <li>override: Override the original API information if a conflict occurs.</li> </ul> Default: <b>merge</b>
file_name	Yes	File	Request body in JSON or YAML format for importing APIs.

## Response Parameters

Status code: 200

**Table 4-850** Response body parameters

Parameter	Type	Description
success	Array of <b>Success</b> objects	Import success information.
failure	Array of <b>Failure</b> objects	Import failure information.
swagger	<b>Swagger</b> object	Swagger file import result. Currently, this parameter is not supported.
group_id	String	API group ID.
ignore	Array of <b>Ignore</b> objects	APIs that are not imported.

**Table 4-851** Success

Parameter	Type	Description
path	String	API request path.
method	String	API request method.

Parameter	Type	Description
action	String	Import type. Options: <ul style="list-style-type: none"> <li>• update: Update the APIs to an existing API group.</li> <li>• create: Create APIs for a new API group.</li> </ul>
id	String	ID of a successfully imported API.

**Table 4-852** Failure

Parameter	Type	Description
path	String	API request path.
error_msg	String	Error message displayed for an import failure.
method	String	API request method.
error_code	String	Error code displayed for an import failure.

**Table 4-853** Swagger

Parameter	Type	Description
id	String	Swagger file No.
result	String	Import result description.

**Table 4-854** Ignore

Parameter	Type	Description
method	String	API request method.
path	String	API request path.

**Status code: 400**

**Table 4-855** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-856** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-857** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-858** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-859** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Importing APIs

```
{
  "is_create_group" : false,
  "group_id" : "d9ce8c9eede54b3f841ec324fe0bfdc2",
  "file_name" : "APIGroup_test.json"
}
```

## Example Responses

### Status code: 200

OK

```
{
  "group_id" : "d9ce8c9eede54b3f841ec324fe0bfdc2",
  "failure" : [ {
    "path" : "/test/demo",
    "error_msg" : "The API already exists, An API with the same combination of the method, path, and x-
apigateway-match-mode fields already exists. API name: API_demo",
    "method" : "GET",
    "error_code" : "APIG.3301"
  } ],
  "success" : [ {
    "path" : "/test",
    "method" : "GET",
    "action" : "create",
    "id" : "8ae6bcfab6f49d78242bff26ad8a4f0"
  } ],
  "swagger" : {
    "id" : "e2ea8a7c1cfc49b3830437cb79d7fd59",
    "result" : "Success"
  }
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.3201",
  "error_msg" : "The API group name already exists"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group not found"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
}
```

```
"error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.17 VPC Channel Management

## 4.17.1 Creating a VPC Channel

### Function

This API is used to create a VPC channel from APIG to your private VPC resources. Afterwards, when creating an API, you can configure your backend service to use this VPC channel so that APIG can directly access your private VPC resources.

#### NOTE

You can create a maximum of 30 VPC channels.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels

**Table 4-860** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-861** Request header parameters

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

**Table 4-862** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	VPC channel name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
port	Yes	Integer	Host port of the VPC channel. Range: 1–65535.
balance_strategy	Yes	Integer	Distribution algorithm. <ul style="list-style-type: none"> <li>• 1: Weighted round robin (WRR).</li> <li>• 2: Weighted least connections (WLC).</li> <li>• 3: Source hashing.</li> <li>• 4: URI hashing.</li> </ul> Default: <b>1</b>

Parameter	Mandatory	Type	Description
member_type	Yes	String	Member type of the VPC channel. <ul style="list-style-type: none"> <li>ip</li> <li>ecs</li> </ul> Default: <b>ecs</b>
type	No	Integer	VPC channel type. The default type is server. <ul style="list-style-type: none"> <li>2: Server type</li> <li>3: Microservice type</li> </ul> If vpc_channel_type is empty, the load balance channel type is determined by the type field. <p>If the value of type is not 3 or the value of microservice_info is empty, the load balance channel type is server by default.</p> <p>If the value of type is 3 and the value of microservice_info is not empty, the load balance channel type is microservice.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p> <p>This field is to be discarded. Use the vpc_channel_type field to specify the load balance channel type.</p> Default: <b>2</b>

Parameter	Mandatory	Type	Description
vpc_channel_type	No	String	<p>VPC channel type.</p> <ul style="list-style-type: none"> <li>• builtin: server type</li> <li>• microservice: microservice type</li> <li>• reference: reference load balance channel</li> </ul> <p>If vpc_channel_type is empty, the load balance channel type depends on the value of the type field.</p> <p>If vpc_channel_type is non-empty and type is non-empty or non-zero, an error occurs when they are specified.</p> <p>If vpc_channel_type is non-empty and type is empty or 0, the value of vpc_channel_type is used to specify the load balance channel type.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p>
dict_code	No	String	<p>Dictionary code of the VPC channel.</p> <p>The value can contain letters, digits, hyphens (-), underscores (_), and periods (.).</p> <p>This parameter is currently not supported.</p> <p>Minimum: <b>3</b></p> <p>Maximum: <b>64</b></p>
member_groups	No	Array of <b>MemberGroupCreate</b> objects	<p>Backend server groups of the VPC channel. If <b>service_type</b> in <b>microservice_info</b> is set to <b>NACOS</b>, the weight of the server group cannot be manually set.</p>
members	No	Array of <b>MemberInfo</b> objects	<p>Backend instances of the VPC channel.</p> <p>This field will not be used to add or update backend instances for a reference load balance channel.</p>



Parameter	Mandatory	Type	Description
vpc_health_config	No	<a href="#">VpcHealthConfig</a> object	Health check details.
microservice_info	No	<a href="#">MicroServiceCreate</a> object	Microservice details.

**Table 4-863** MemberGroupCreate

Parameter	Mandatory	Type	Description
member_group_name	Yes	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	No	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	No	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	No	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
microservice_version	No	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>
microservice_port	No	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	No	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	No	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>

**Table 4-864** MicroserviceLabel

Parameter	Mandatory	Type	Description
label_name	Yes	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

Parameter	Mandatory	Type	Description
label_value	Yes	String	<p>Tag value.</p> <p>Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.)</p> <p>Minimum: <b>1</b></p> <p>Maximum: <b>63</b></p>

**Table 4-865** MemberInfo

Parameter	Mandatory	Type	Description
host	No	String	<p>Backend server address.</p> <p>This parameter is required when the member type is IP address.</p> <p>Maximum: <b>255</b></p>
weight	No	Integer	<p>Weight.</p> <p>The higher the weight is, the more requests a backend service will receive.</p> <p>Minimum: <b>0</b></p> <p>Maximum: <b>10000</b></p>
is_backup	No	Boolean	<p>Indicates whether the backend service is a standby node.</p> <p>After you enable this option, the corresponding backend service serves as the standby node and works only when all non-standby nodes are faulty.</p> <p>This function is supported only when your gateway has been upgraded to the corresponding version. If your gateway does not support this function, contact technical support.</p> <p>Default: <b>false</b></p>
member_group_name	No	String	<p>Backend server group name.</p> <p>The server group facilitates backend service address modification.</p>

Parameter	Mandatory	Type	Description
status	No	Integer	Backend server status. <ul style="list-style-type: none"> <li>1: available</li> <li>2: unavailable</li> </ul>
port	No	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>
ecs_id	No	String	Backend server ID. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), and underscores (_). Maximum: <b>255</b>
ecs_name	No	String	Backend server name. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), underscores (_), and periods (.). Maximum: <b>64</b>

**Table 4-866** VpcHealthConfig

Parameter	Mandatory	Type	Description
protocol	Yes	String	Protocol for performing health checks on backend servers in the VPC channel. <ul style="list-style-type: none"> <li>TCP</li> <li>HTTP</li> <li>HTTPS</li> </ul>
path	No	String	Destination path for health checks. This parameter is required if protocol is set to http or https.
method	No	String	Request method for health checks. Default: <b>GET</b>

Parameter	Mandatory	Type	Description
port	No	Integer	<p>Destination port for health checks. If this parameter is not specified or set to 0, the host port of the VPC channel is used.</p> <p>If this parameter is set to a non-zero value, the corresponding port is used for health checks.</p> <p>Minimum: <b>0</b> Maximum: <b>65535</b></p>
threshold_normal	Yes	Integer	<p>Healthy threshold. It refers to the number of consecutive successful checks required for a backend server to be considered healthy.</p> <p>Minimum: <b>1</b> Maximum: <b>10</b></p>
threshold_abnormal	Yes	Integer	<p>Unhealthy threshold, which refers to the number of consecutive failed checks required for a backend server to be considered unhealthy.</p> <p>Minimum: <b>1</b> Maximum: <b>10</b></p>
time_interval	Yes	Integer	<p>Interval between consecutive checks. Unit: s. The value must be greater than the value of timeout.</p> <p>Minimum: <b>1</b> Maximum: <b>300</b></p>

Parameter	Mandatory	Type	Description
http_code	No	String	Response codes for determining a successful HTTP response. The value can be any integer within 100–599 in one of the following formats: <ul style="list-style-type: none"><li>• Multiple values, for example, 200,201,202</li><li>• Range, for example, 200-299</li><li>• Multiple values and ranges, for example, 201,202,210-299.</li></ul> This parameter is required if protocol is set to http.
enable_client_ssl	No	Boolean	Indicates whether to enable two-way authentication. If this function is enabled, the certificate specified in the backend_client_certificate configuration item of the instance is used. Default: <b>false</b>
status	No	Integer	Health check result. <ul style="list-style-type: none"><li>• 1: available</li><li>• 2: unavailable</li></ul>
timeout	Yes	Integer	Timeout for determining whether a health check fails. Unit: s. The value must be less than the value of time_interval. Minimum: <b>1</b> Maximum: <b>30</b>

**Table 4-867** MicroServiceCreate

Parameter	Mandatory	Type	Description
service_type	No	String	Microservice center type. Options: <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: CCE workload - CCE_SERVICE: CCE Service</li> <li>• NACOS: Nacos registration center. <b>nacos_info</b> is mandatory.</li> </ul>
cse_info	No	<b>MicroServiceInfoCSEBase</b> object	CSE microservice details. This parameter is required if service_type is set to CSE.
cce_info	No	<b>MicroServiceInfoCCEBase</b> object	CCE workload details. This parameter is required if service_type is set to CCE. Either app_name or any of label_key and label_value must be set. If only app_name is set, label_key='app' and label_value=app_name.
cce_service_info	No	<b>MicroServiceInfoCCEServiceBase</b> object	CCE Service details.
nacos_info	No	<b>MicroServiceInfoNacosBase</b> object	Nacos basic information.

**Table 4-868** MicroServiceInfoCSEBase

Parameter	Mandatory	Type	Description
engine_id	Yes	String	Microservice engine ID. Maximum: <b>64</b>
service_id	Yes	String	Microservice ID. Maximum: <b>64</b>

**Table 4-869** MicroServiceInfoCCEBase

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	CCE cluster ID. Maximum: <b>64</b>
namespace	Yes	String	Namespace. Maximum: <b>64</b>
workload_type	Yes	String	Workload type. <ul style="list-style-type: none"> <li>• deployment</li> <li>• statefulset</li> <li>• daemonset</li> </ul>
app_name	No	String	App name. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_key	No	String	Service label key. Start with a letter or digit, and use only letters, digits, and these special characters: -_/:(). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_value	No	String	Service label value. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-870** MicroServiceInfoCCEServiceBase

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	CCE cluster ID. Maximum: <b>64</b>



Parameter	Mandatory	Type	Description
namespace	Yes	String	Namespace. 1 to 63 characters. Use lowercase letters, digits, and hyphens (-). Start with a letter and end with a letter or digit. Minimum: <b>1</b> Maximum: <b>63</b>
service_name	Yes	String	Service name. Start with a letter, and use only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-871** MicroServiceInfoNacosBase

Parameter	Mandatory	Type	Description
namespace	No	String	Namespace ID. If the default namespace <b>public</b> is used, leave this parameter empty. Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
cluster_name	No	String	Cluster name. The default value is <b>DEFAULT</b> . Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
group_name	No	String	Group name. The default value is <b>DEFAULT_GROUP</b> . Only letters, numbers, hyphens (-), underscores (_), periods (.), and colons (:) are allowed. Max.: 128 characters Minimum: <b>0</b> Maximum: <b>128</b>

Parameter	Mandatory	Type	Description
service_name	Yes	String	Microservice name. The value cannot start with @ or contain @@. Max.: 512 characters Minimum: 1 Maximum: 512
server_config	Yes	Array of <a href="#">NacosServerConfig</a> objects	Nacos server configurations. Array Length: 1 - 9
user_info	Yes	<a href="#">NacosUserInfo</a> object	Nacos user information.

**Table 4-872** NacosServerConfig

Parameter	Mandatory	Type	Description
ip_address	Yes	String	IP address of the Nacos server. Do not enter Chinese characters. Minimum: 7 Maximum: 128
port	Yes	Integer	Port number of the Nacos server. Range: 1-65535. Minimum: 1 Maximum: 65535
grpc_port	No	Integer	gRPC port number of the Nacos server. Default: port number + 1000 Range: 1-65535. Minimum: 1 Maximum: 65535

**Table 4-873** NacosUserInfo

Parameter	Mandatory	Type	Description
user_name	Yes	String	Nacos username. Minimum: 1 Maximum: 64

Parameter	Mandatory	Type	Description
password	Yes	String	Nacos password. Minimum: <b>1</b> Maximum: <b>64</b>

## Response Parameters

Status code: 201

Table 4-874 Response body parameters

Parameter	Type	Description
name	String	VPC channel name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
port	Integer	Host port of the VPC channel. Range: 1–65535.
balance_strategy	Integer	Distribution algorithm. <ul style="list-style-type: none"><li>• 1: Weighted round robin (WRR).</li><li>• 2: Weighted least connections (WLC).</li><li>• 3: Source hashing.</li><li>• 4: URI hashing.</li></ul> Default: <b>1</b>
member_type	String	Member type of the VPC channel. <ul style="list-style-type: none"><li>• ip</li><li>• ecs</li></ul> Default: <b>ecs</b>

Parameter	Type	Description
type	Integer	<p>VPC channel type. The default type is server.</p> <ul style="list-style-type: none"> <li>• 2: Server type</li> <li>• 3: Microservice type</li> </ul> <p>If vpc_channel_type is empty, the load balance channel type is determined by the type field.</p> <p>If the value of type is not 3 or the value of microservice_info is empty, the load balance channel type is server by default.</p> <p>If the value of type is 3 and the value of microservice_info is not empty, the load balance channel type is microservice.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p> <p>This field is to be discarded. Use the vpc_channel_type field to specify the load balance channel type.</p> <p>Default: <b>2</b></p>
vpc_channel_type	String	<p>VPC channel type.</p> <ul style="list-style-type: none"> <li>• builtin: server type</li> <li>• microservice: microservice type</li> <li>• reference: reference load balance channel</li> </ul> <p>If vpc_channel_type is empty, the load balance channel type depends on the value of the type field.</p> <p>If vpc_channel_type is non-empty and type is non-empty or non-zero, an error occurs when they are specified.</p> <p>If vpc_channel_type is non-empty and type is empty or 0, the value of vpc_channel_type is used to specify the load balance channel type.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p>
dict_code	String	<p>Dictionary code of the VPC channel.</p> <p>The value can contain letters, digits, hyphens (-), underscores (_), and periods (.).</p> <p>This parameter is currently not supported.</p> <p>Minimum: <b>3</b></p> <p>Maximum: <b>64</b></p>
create_time	String	Time when the VPC channel is created.
id	String	VPC channel ID.

Parameter	Type	Description
status	Integer	VPC channel status. <ul style="list-style-type: none"> <li>1: normal</li> <li>2: abnormal</li> </ul>
member_groups	Array of <b>MemberGroupInfo</b> objects	Backend server groups.
microservice_info	<b>MicroServiceInfo</b> object	Microservice information.

**Table 4-875** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>
microservice_version	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>

Parameter	Type	Description
microservice_port	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>
member_group_id	String	ID of the backend server group of the VPC channel.
create_time	String	Time when the backend server group is created.
update_time	String	Time when the backend server group is updated.

**Table 4-876** MicroserviceLabel

Parameter	Type	Description
label_name	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>
label_value	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Table 4-877** MicroServiceInfo

Parameter	Type	Description
id	String	Microservice ID.
instance_id	String	Gateway ID.
service_type	String	Microservice center type. Options: <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: CCE workload - CCE_SERVICE: CCE Service</li> <li>• NACOS: Nacos engine. <b>nacos_info</b> is mandatory.</li> </ul>
cse_info	<b>MicroServiceInfoCSE</b> object	CSE microservice details.
cce_info	<b>MicroServiceInfoCCE</b> object	CCE microservice workload details.
cce_service_info	<b>MicroServiceInfoCCEService</b> object	CCE microservice Service details.
nacos_info	<b>MicroServiceInfoNacosBasic</b> object	Nacos basic information.
update_time	String	Microservice update time.
create_time	String	Microservice creation time.

**Table 4-878** MicroServiceInfoCSE

Parameter	Type	Description
engine_id	String	Microservice engine ID. Maximum: <b>64</b>
service_id	String	Microservice ID. Maximum: <b>64</b>
engine_name	String	Microservice engine name.
service_name	String	Microservice name.
register_addresses	String	Registration center address.
cse_app_id	String	App to which the microservice belongs.

Parameter	Type	Description
version	String	Microservice version, which has been discarded and is reflected in the version of the backend server group. Maximum: <b>64</b>

**Table 4-879** MicroServiceInfoCCE

Parameter	Type	Description
cluster_id	String	CCE cluster ID. Maximum: <b>64</b>
namespace	String	Namespace. Maximum: <b>64</b>
workload_type	String	Workload type. <ul style="list-style-type: none"> <li>• deployment</li> <li>• statefulset</li> <li>• daemonset</li> </ul>
app_name	String	App name. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_key	String	Service label key. Start with a letter or digit, and use only letters, digits, and these special characters: -_/:(). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_value	String	Service label value. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
cluster_name	String	CCE cluster name.



**Table 4-880** MicroServiceInfoCCEService

Parameter	Type	Description
cluster_id	String	CCE cluster ID. Maximum: <b>64</b>
namespace	String	Namespace. 1 to 63 characters. Use lowercase letters, digits, and hyphens (-). Start with a letter and end with a letter or digit. Minimum: <b>1</b> Maximum: <b>63</b>
service_name	String	Service name. Start with a letter, and use only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Table 4-881** MicroServiceInfoNacosBase

Parameter	Type	Description
namespace	String	Namespace ID. If the default namespace <b>public</b> is used, leave this parameter empty. Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
cluster_name	String	Cluster name. The default value is <b>DEFAULT</b> . Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
group_name	String	Group name. The default value is <b>DEFAULT_GROUP</b> . Only letters, numbers, hyphens (-), underscores (_), periods (.), and colons (:) are allowed. Max.: 128 characters Minimum: <b>0</b> Maximum: <b>128</b>
service_name	String	Microservice name. The value cannot start with @ or contain @@. Max.: 512 characters Minimum: <b>1</b> Maximum: <b>512</b>

Parameter	Type	Description
server_config	Array of <a href="#">NacosServerConfig</a> objects	Nacos server configurations. Array Length: <b>1 - 9</b>
user_info	<a href="#">NacosUserInfo</a> object	Nacos user information.

**Table 4-882** NacosServerConfig

Parameter	Type	Description
ip_address	String	IP address of the Nacos server. Do not enter Chinese characters. Minimum: <b>7</b> Maximum: <b>128</b>
port	Integer	Port number of the Nacos server. Range: 1-65535. Minimum: <b>1</b> Maximum: <b>65535</b>
grpc_port	Integer	gRPC port number of the Nacos server. Default: port number + 1000 Range: 1-65535. Minimum: <b>1</b> Maximum: <b>65535</b>

**Table 4-883** NacosUserInfo

Parameter	Type	Description
user_name	String	Nacos username. Minimum: <b>1</b> Maximum: <b>64</b>
password	String	Nacos password. Minimum: <b>1</b> Maximum: <b>64</b>

**Status code: 400**

**Table 4-884** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-885** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-886** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-887** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-888** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Creating a VPC channel of the server type

```
{
  "balance_strategy" : 1,
  "member_type" : "ip",
  "name" : "VPC_demo",
  "port" : 22,
  "type" : 2,
  "vpc_health_config" : {
    "http_code" : "200",
    "path" : "/vpc/demo",
    "port" : 22,
    "protocol" : "http",
    "threshold_abnormal" : 5,
    "threshold_normal" : 2,
    "time_interval" : 10,
    "timeout" : 5,
    "enable_client_ssl" : false
  },
  "member_groups" : [ {
    "member_group_name" : "test",
    "member_group_weight" : 1,
    "member_group_remark" : "remark"
  }, {
    "member_group_name" : "default",
    "member_group_weight" : 2,
    "member_group_remark" : "remark"
  } ],
  "members" : [ {
    "host" : "192.168.0.5",
    "weight" : 1,
    "member_group_name" : "test"
  }, {
    "host" : "192.168.1.124",
    "weight" : 2,
    "member_group_name" : "default"
  } ]
}
```

- Creating a VPC channel of the microservice type

```
{
  "balance_strategy" : 1,
  "member_type" : "ip",
  "name" : "VPC_demo",
  "port" : 22,
  "type" : 3,
  "vpc_health_config" : {
    "http_code" : "200",
    "path" : "/vpc/demo",
    "port" : 22,
    "protocol" : "http",
    "threshold_abnormal" : 5,
    "threshold_normal" : 2,
    "time_interval" : 10,
    "timeout" : 5,
    "enable_client_ssl" : false
  },
  "member_groups" : [ {
    "member_group_name" : "test",
    "member_group_weight" : 1,
    "member_group_remark" : "remark",
    "microservice_version" : "v1",
    "microservice_port" : 80
  }, {
    "member_group_name" : "default",
    "member_group_weight" : 2,
    "member_group_remark" : "remark",
    "microservice_version" : "v2",
  } ]
}
```

```
"microservice_port" : 80,
"microservice_labels" : [ {
  "label_name" : "cluster_id",
  "label_value" : "c429700c-5dc4-482a-9c0e-99f6c0635113"
} ],
},
"members" : [ {
  "host" : "192.168.0.5",
  "weight" : 1,
  "member_group_name" : "test"
}, {
  "host" : "192.168.1.124",
  "weight" : 2,
  "member_group_name" : "default"
} ],
"microservice_info" : {
  "service_type" : "CCE",
  "cce_info" : {
    "cluster_id" : "ab1485b4f91b45abbc560be591f7309",
    "namespace" : "default",
    "workload_type" : "deployment",
    "app_name" : "testapp"
  }
}
}
```

## Example Responses

**Status code: 201**

Created

- Example 1

```
{
  "name" : "VPC_demo",
  "id" : "105c6902457144a4820dff8b1ad63331",
  "balance_strategy" : 1,
  "dict_code" : "",
  "create_time" : "2020-07-23T07:11:57.244829604Z",
  "member_type" : "ip",
  "port" : 22,
  "status" : 1,
  "member_groups" : [ {
    "member_group_id" : "c1ce135c705c4066853a0460b318fe16",
    "member_group_name" : "test",
    "member_group_weight" : 1,
    "member_group_remark" : "remark",
    "create_time" : "2020-07-23T07:11:57.244829604Z",
    "update_time" : "2020-07-23T07:11:57.244829604Z",
    "microservice_version" : "",
    "microservice_port" : 0
  }, {
    "member_group_id" : "c1ce135c705c4066853a0460b318fe17",
    "member_group_name" : "default",
    "member_group_weight" : 2,
    "member_group_remark" : "remark",
    "create_time" : "2020-07-23T07:11:57.244829604Z",
    "update_time" : "2020-07-23T07:11:57.244829604Z",
    "microservice_version" : "",
    "microservice_port" : 0
  } ],
  "type" : 2,
  "microservice_info" : {
    "id" : "",
    "instance_id" : "",
    "service_type" : "",
    "cse_info" : {
      "cse_app_id" : ""
    }
  }
}
```

```
"engine_id" : "",
"engine_name" : "",
"register_address" : "",
"service_id" : "",
"service_name" : ""
},
"cce_info" : {
"cluster_id" : "",
"cluster_name" : "",
"namespace" : "",
"workload_type" : "",
"app_name" : ""
},
"create_time" : "",
"update_time" : ""
}
}
```

- Example 2

```
{
"name" : "VPC_demo",
"id" : "105c6902457144a4820dff8b1ad63331",
"balance_strategy" : 1,
"dict_code" : "",
"create_time" : "2020-07-23T07:11:57.244829604Z",
"member_type" : "ip",
"port" : 22,
"status" : 1,
"member_groups" : [ {
"member_group_id" : "c1ce135c705c4066853a0460b318fe16",
"member_group_name" : "test",
"member_group_weight" : 1,
"member_group_remark" : "remark",
"create_time" : "2020-07-23T07:11:57.244829604Z",
"update_time" : "2020-07-23T07:11:57.244829604Z",
"microservice_version" : "v1",
"microservice_port" : 80
}, {
"member_group_id" : "c1ce135c705c4066853a0460b318fe17",
"member_group_name" : "default",
"member_group_weight" : 2,
"member_group_remark" : "remark",
"create_time" : "2020-07-23T07:11:57.244829604Z",
"update_time" : "2020-07-23T07:11:57.244829604Z",
"microservice_version" : "v2",
"microservice_port" : 80,
"microservice_labels" : [ {
"label_name" : "cluster_id",
"label_value" : "c429700c-5dc4-482a-9c0e-99f6c0635113"
} ]
} ],
"type" : 3,
"microservice_info" : {
"id" : "9483afa235be45158a70c19ab817ac65",
"instance_id" : "eddc4d25480b4cd6b512f270a1b8b341",
"service_type" : "CCE",
"cse_info" : {
"cse_app_id" : "",
"engine_id" : "",
"engine_name" : "",
"register_address" : "",
"service_id" : "",
"service_name" : ""
},
"cce_info" : {
"cluster_id" : "ab1485b4f91b45abbcd560be591f7309",
"cluster_name" : "cce-test",
"namespace" : "default",
"workload_type" : "deployment",
"app_name" : "testapp"
}
}
}
```

```

    },
    "create_time" : "2020-07-23T07:11:57.244829604Z",
    "update_time" : "2020-07-23T07:11:57.244829604Z"
  }
}

```

**Status code: 400**

Bad Request

```

{
  "error_code" : "APIG.2001",
  "error_msg" : "The request parameters must be specified, parameter name:members"
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.17.2 Updating a VPC Channel

### Function

This API is used to update parameters of a specified VPC channel.

If the VPC channel is overwritten with an empty backend instance list, all the existing backend instances will be deleted.

If the VPC channel is overwritten with an empty backend server group list, all the existing backend server groups will be deleted.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}

**Table 4-889** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.



## Request Parameters

**Table 4-890** Request header parameters

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

**Table 4-891** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	VPC channel name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
port	Yes	Integer	Host port of the VPC channel. Range: 1–65535.
balance_strategy	Yes	Integer	Distribution algorithm. <ul style="list-style-type: none"><li>• 1: Weighted round robin (WRR).</li><li>• 2: Weighted least connections (WLC).</li><li>• 3: Source hashing.</li><li>• 4: URI hashing.</li></ul> Default: <b>1</b>
member_type	Yes	String	Member type of the VPC channel. <ul style="list-style-type: none"><li>• ip</li><li>• ecs</li></ul> Default: <b>ecs</b>

Parameter	Mandatory	Type	Description
type	No	Integer	<p>VPC channel type. The default type is server.</p> <ul style="list-style-type: none"> <li>• 2: Server type</li> <li>• 3: Microservice type</li> </ul> <p>If vpc_channel_type is empty, the load balance channel type is determined by the type field.</p> <p>If the value of type is not 3 or the value of microservice_info is empty, the load balance channel type is server by default.</p> <p>If the value of type is 3 and the value of microservice_info is not empty, the load balance channel type is microservice.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p> <p>This field is to be discarded. Use the vpc_channel_type field to specify the load balance channel type.</p> <p>Default: <b>2</b></p>

Parameter	Mandatory	Type	Description
vpc_channel_type	No	String	<p>VPC channel type.</p> <ul style="list-style-type: none"> <li>• builtin: server type</li> <li>• microservice: microservice type</li> <li>• reference: reference load balance channel</li> </ul> <p>If vpc_channel_type is empty, the load balance channel type depends on the value of the type field.</p> <p>If vpc_channel_type is non-empty and type is non-empty or non-zero, an error occurs when they are specified.</p> <p>If vpc_channel_type is non-empty and type is empty or 0, the value of vpc_channel_type is used to specify the load balance channel type.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p>
dict_code	No	String	<p>Dictionary code of the VPC channel.</p> <p>The value can contain letters, digits, hyphens (-), underscores (_), and periods (.).</p> <p>This parameter is currently not supported.</p> <p>Minimum: <b>3</b></p> <p>Maximum: <b>64</b></p>
member_groups	No	Array of <b>MemberGroupCreate</b> objects	<p>Backend server groups of the VPC channel. If <b>service_type</b> in <b>microservice_info</b> is set to <b>NACOS</b>, the weight of the server group cannot be manually set.</p>
members	No	Array of <b>MemberInfo</b> objects	<p>Backend instances of the VPC channel.</p> <p>This field will not be used to add or update backend instances for a reference load balance channel.</p>

Parameter	Mandatory	Type	Description
vpc_health_config	No	VpcHealthConfig object	Health check details.
microservice_info	No	MicroServiceCreate object	Microservice details.

**Table 4-892** MemberGroupCreate

Parameter	Mandatory	Type	Description
member_group_name	Yes	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	No	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	No	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	No	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
microservice_version	No	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>
microservice_port	No	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	No	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	No	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>

**Table 4-893** MicroserviceLabel

Parameter	Mandatory	Type	Description
label_name	Yes	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

Parameter	Mandatory	Type	Description
label_value	Yes	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Table 4-894** MemberInfo

Parameter	Mandatory	Type	Description
host	No	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>255</b>
weight	No	Integer	Weight. The higher the weight is, the more requests a backend service will receive. Minimum: <b>0</b> Maximum: <b>10000</b>
is_backup	No	Boolean	Indicates whether the backend service is a standby node. After you enable this option, the corresponding backend service serves as the standby node and works only when all non-standby nodes are faulty. This function is supported only when your gateway has been upgraded to the corresponding version. If your gateway does not support this function, contact technical support. Default: <b>false</b>
member_group_name	No	String	Backend server group name. The server group facilitates backend service address modification.

Parameter	Mandatory	Type	Description
status	No	Integer	Backend server status. <ul style="list-style-type: none"> <li>1: available</li> <li>2: unavailable</li> </ul>
port	No	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>
ecs_id	No	String	Backend server ID. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), and underscores (_). Maximum: <b>255</b>
ecs_name	No	String	Backend server name. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), underscores (_), and periods (.). Maximum: <b>64</b>

**Table 4-895** VpcHealthConfig

Parameter	Mandatory	Type	Description
protocol	Yes	String	Protocol for performing health checks on backend servers in the VPC channel. <ul style="list-style-type: none"> <li>TCP</li> <li>HTTP</li> <li>HTTPS</li> </ul>
path	No	String	Destination path for health checks. This parameter is required if protocol is set to http or https.
method	No	String	Request method for health checks. Default: <b>GET</b>

Parameter	Mandatory	Type	Description
port	No	Integer	<p>Destination port for health checks. If this parameter is not specified or set to 0, the host port of the VPC channel is used.</p> <p>If this parameter is set to a non-zero value, the corresponding port is used for health checks.</p> <p>Minimum: <b>0</b> Maximum: <b>65535</b></p>
threshold_normal	Yes	Integer	<p>Healthy threshold. It refers to the number of consecutive successful checks required for a backend server to be considered healthy.</p> <p>Minimum: <b>1</b> Maximum: <b>10</b></p>
threshold_abnormal	Yes	Integer	<p>Unhealthy threshold, which refers to the number of consecutive failed checks required for a backend server to be considered unhealthy.</p> <p>Minimum: <b>1</b> Maximum: <b>10</b></p>
time_interval	Yes	Integer	<p>Interval between consecutive checks. Unit: s. The value must be greater than the value of timeout.</p> <p>Minimum: <b>1</b> Maximum: <b>300</b></p>



Parameter	Mandatory	Type	Description
http_code	No	String	<p>Response codes for determining a successful HTTP response. The value can be any integer within 100–599 in one of the following formats:</p> <ul style="list-style-type: none"> <li>• Multiple values, for example, 200,201,202</li> <li>• Range, for example, 200-299</li> <li>• Multiple values and ranges, for example, 201,202,210-299.</li> </ul> <p>This parameter is required if protocol is set to http.</p>
enable_client_ssl	No	Boolean	<p>Indicates whether to enable two-way authentication. If this function is enabled, the certificate specified in the backend_client_certificate configuration item of the instance is used.</p> <p>Default: <b>false</b></p>
status	No	Integer	<p>Health check result.</p> <ul style="list-style-type: none"> <li>• 1: available</li> <li>• 2: unavailable</li> </ul>
timeout	Yes	Integer	<p>Timeout for determining whether a health check fails. Unit: s. The value must be less than the value of time_interval.</p> <p>Minimum: <b>1</b> Maximum: <b>30</b></p>

**Table 4-896** MicroServiceCreate

Parameter	Mandatory	Type	Description
service_type	No	String	Microservice center type. Options: <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: CCE workload - CCE_SERVICE: CCE Service</li> <li>• NACOS: Nacos registration center. <b>nacos_info</b> is mandatory.</li> </ul>
cse_info	No	<b>MicroServiceInfoCSEBase</b> object	CSE microservice details. This parameter is required if service_type is set to CSE.
cce_info	No	<b>MicroServiceInfoCCEBase</b> object	CCE workload details. This parameter is required if service_type is set to CCE. Either app_name or any of label_key and label_value must be set. If only app_name is set, label_key='app' and label_value=app_name.
cce_service_info	No	<b>MicroServiceInfoCCEServiceBase</b> object	CCE Service details.
nacos_info	No	<b>MicroServiceInfoNacosBase</b> object	Nacos basic information.

**Table 4-897** MicroServiceInfoCSEBase

Parameter	Mandatory	Type	Description
engine_id	Yes	String	Microservice engine ID. Maximum: <b>64</b>
service_id	Yes	String	Microservice ID. Maximum: <b>64</b>

**Table 4-898** MicroServiceInfoCCEBase

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	CCE cluster ID. Maximum: <b>64</b>
namespace	Yes	String	Namespace. Maximum: <b>64</b>
workload_type	Yes	String	Workload type. <ul style="list-style-type: none"> <li>• deployment</li> <li>• statefulset</li> <li>• daemonset</li> </ul>
app_name	No	String	App name. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_key	No	String	Service label key. Start with a letter or digit, and use only letters, digits, and these special characters: -_/:(). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_value	No	String	Service label value. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-899** MicroServiceInfoCCEServiceBase

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	CCE cluster ID. Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
namespace	Yes	String	Namespace. 1 to 63 characters. Use lowercase letters, digits, and hyphens (-). Start with a letter and end with a letter or digit. Minimum: <b>1</b> Maximum: <b>63</b>
service_name	Yes	String	Service name. Start with a letter, and use only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-900** MicroServiceInfoNacosBase

Parameter	Mandatory	Type	Description
namespace	No	String	Namespace ID. If the default namespace <b>public</b> is used, leave this parameter empty. Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
cluster_name	No	String	Cluster name. The default value is <b>DEFAULT</b> . Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
group_name	No	String	Group name. The default value is <b>DEFAULT_GROUP</b> . Only letters, numbers, hyphens (-), underscores (_), periods (.), and colons (:) are allowed. Max.: 128 characters Minimum: <b>0</b> Maximum: <b>128</b>

Parameter	Mandatory	Type	Description
service_name	Yes	String	Microservice name. The value cannot start with @ or contain @@. Max.: 512 characters Minimum: 1 Maximum: 512
server_config	Yes	Array of <a href="#">NacosServerConfig</a> objects	Nacos server configurations. Array Length: 1 - 9
user_info	Yes	<a href="#">NacosUserInfo</a> object	Nacos user information.

**Table 4-901** NacosServerConfig

Parameter	Mandatory	Type	Description
ip_address	Yes	String	IP address of the Nacos server. Do not enter Chinese characters. Minimum: 7 Maximum: 128
port	Yes	Integer	Port number of the Nacos server. Range: 1-65535. Minimum: 1 Maximum: 65535
grpc_port	No	Integer	gRPC port number of the Nacos server. Default: port number + 1000 Range: 1-65535. Minimum: 1 Maximum: 65535

**Table 4-902** NacosUserInfo

Parameter	Mandatory	Type	Description
user_name	Yes	String	Nacos username. Minimum: 1 Maximum: 64

Parameter	Mandatory	Type	Description
password	Yes	String	Nacos password. Minimum: <b>1</b> Maximum: <b>64</b>

## Response Parameters

Status code: 200

Table 4-903 Response body parameters

Parameter	Type	Description
name	String	VPC channel name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
port	Integer	Host port of the VPC channel. Range: 1-65535.
balance_strategy	Integer	Distribution algorithm. <ul style="list-style-type: none"><li>• 1: Weighted round robin (WRR).</li><li>• 2: Weighted least connections (WLC).</li><li>• 3: Source hashing.</li><li>• 4: URI hashing.</li></ul> Default: <b>1</b>
member_type	String	Member type of the VPC channel. <ul style="list-style-type: none"><li>• ip</li><li>• ecs</li></ul> Default: <b>ecs</b>

Parameter	Type	Description
type	Integer	<p>VPC channel type. The default type is server.</p> <ul style="list-style-type: none"> <li>• 2: Server type</li> <li>• 3: Microservice type</li> </ul> <p>If vpc_channel_type is empty, the load balance channel type is determined by the type field.</p> <p>If the value of type is not 3 or the value of microservice_info is empty, the load balance channel type is server by default.</p> <p>If the value of type is 3 and the value of microservice_info is not empty, the load balance channel type is microservice.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p> <p>This field is to be discarded. Use the vpc_channel_type field to specify the load balance channel type.</p> <p>Default: <b>2</b></p>
vpc_channel_type	String	<p>VPC channel type.</p> <ul style="list-style-type: none"> <li>• builtin: server type</li> <li>• microservice: microservice type</li> <li>• reference: reference load balance channel</li> </ul> <p>If vpc_channel_type is empty, the load balance channel type depends on the value of the type field.</p> <p>If vpc_channel_type is non-empty and type is non-empty or non-zero, an error occurs when they are specified.</p> <p>If vpc_channel_type is non-empty and type is empty or 0, the value of vpc_channel_type is used to specify the load balance channel type.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p>
dict_code	String	<p>Dictionary code of the VPC channel.</p> <p>The value can contain letters, digits, hyphens (-), underscores (_), and periods (.).</p> <p>This parameter is currently not supported.</p> <p>Minimum: <b>3</b></p> <p>Maximum: <b>64</b></p>
create_time	String	Time when the VPC channel is created.
id	String	VPC channel ID.

Parameter	Type	Description
status	Integer	VPC channel status. <ul style="list-style-type: none"> <li>1: normal</li> <li>2: abnormal</li> </ul>
member_groups	Array of <b>MemberGroupInfo</b> objects	Backend server groups.
microservice_info	<b>MicroServiceInfo</b> object	Microservice information.

**Table 4-904** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>
microservice_version	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>



Parameter	Type	Description
microservice_port	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>
member_group_id	String	ID of the backend server group of the VPC channel.
create_time	String	Time when the backend server group is created.
update_time	String	Time when the backend server group is updated.

**Table 4-905** MicroserviceLabel

Parameter	Type	Description
label_name	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>
label_value	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Table 4-906** MicroServiceInfo

Parameter	Type	Description
id	String	Microservice ID.
instance_id	String	Gateway ID.
service_type	String	Microservice center type. Options: <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: CCE workload - CCE_SERVICE: CCE Service</li> <li>• NACOS: Nacos engine. <b>nacos_info</b> is mandatory.</li> </ul>
cse_info	<b>MicroServiceInfoCSE</b> object	CSE microservice details.
cce_info	<b>MicroServiceInfoCCE</b> object	CCE microservice workload details.
cce_service_info	<b>MicroServiceInfoCCEService</b> object	CCE microservice Service details.
nacos_info	<b>MicroServiceInfoNacosBasic</b> object	Nacos basic information.
update_time	String	Microservice update time.
create_time	String	Microservice creation time.

**Table 4-907** MicroServiceInfoCSE

Parameter	Type	Description
engine_id	String	Microservice engine ID. Maximum: <b>64</b>
service_id	String	Microservice ID. Maximum: <b>64</b>
engine_name	String	Microservice engine name.
service_name	String	Microservice name.
register_addresses	String	Registration center address.
cse_app_id	String	App to which the microservice belongs.

Parameter	Type	Description
version	String	Microservice version, which has been discarded and is reflected in the version of the backend server group. Maximum: <b>64</b>

**Table 4-908** MicroServiceInfoCCE

Parameter	Type	Description
cluster_id	String	CCE cluster ID. Maximum: <b>64</b>
namespace	String	Namespace. Maximum: <b>64</b>
workload_type	String	Workload type. <ul style="list-style-type: none"> <li>• deployment</li> <li>• statefulset</li> <li>• daemonset</li> </ul>
app_name	String	App name. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_key	String	Service label key. Start with a letter or digit, and use only letters, digits, and these special characters: -_/:(). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_value	String	Service label value. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Table 4-909** MicroServiceInfoCCEService

Parameter	Type	Description
cluster_id	String	CCE cluster ID. Maximum: <b>64</b>
namespace	String	Namespace. 1 to 63 characters. Use lowercase letters, digits, and hyphens (-). Start with a letter and end with a letter or digit. Minimum: <b>1</b> Maximum: <b>63</b>
service_name	String	Service name. Start with a letter, and use only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Table 4-910** MicroServiceInfoNacosBase

Parameter	Type	Description
namespace	String	Namespace ID. If the default namespace <b>public</b> is used, leave this parameter empty. Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
cluster_name	String	Cluster name. The default value is <b>DEFAULT</b> . Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
group_name	String	Group name. The default value is <b>DEFAULT_GROUP</b> . Only letters, numbers, hyphens (-), underscores (_), periods (.), and colons (:) are allowed. Max.: 128 characters Minimum: <b>0</b> Maximum: <b>128</b>
service_name	String	Microservice name. The value cannot start with @ or contain @@. Max.: 512 characters Minimum: <b>1</b> Maximum: <b>512</b>

Parameter	Type	Description
server_config	Array of <a href="#">NacosServerConfig</a> objects	Nacos server configurations. Array Length: <b>1 - 9</b>
user_info	<a href="#">NacosUserInfo</a> object	Nacos user information.

**Table 4-911** NacosServerConfig

Parameter	Type	Description
ip_address	String	IP address of the Nacos server. Do not enter Chinese characters. Minimum: <b>7</b> Maximum: <b>128</b>
port	Integer	Port number of the Nacos server. Range: 1-65535. Minimum: <b>1</b> Maximum: <b>65535</b>
grpc_port	Integer	gRPC port number of the Nacos server. Default: port number + 1000 Range: 1-65535. Minimum: <b>1</b> Maximum: <b>65535</b>

**Table 4-912** NacosUserInfo

Parameter	Type	Description
user_name	String	Nacos username. Minimum: <b>1</b> Maximum: <b>64</b>
password	String	Nacos password. Minimum: <b>1</b> Maximum: <b>64</b>

**Status code: 400**

**Table 4-913** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-914** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-915** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-916** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-917** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Updating a VPC channel of the server type

```
{
  "balance_strategy" : 2,
  "member_type" : "ip",
  "name" : "VPC_demo",
  "port" : 22,
  "type" : 2,
  "vpc_health_config" : {
    "http_code" : "200",
    "path" : "/vpc/demo",
    "port" : 22,
    "protocol" : "http",
    "threshold_abnormal" : 5,
    "threshold_normal" : 2,
    "time_interval" : 10,
    "timeout" : 5,
    "enable_client_ssl" : false
  },
  "member_groups" : [ {
    "member_group_name" : "test",
    "member_group_weight" : 1,
    "member_group_remark" : "remark"
  }, {
    "member_group_name" : "default",
    "member_group_weight" : 2,
    "member_group_remark" : "remark"
  } ],
  "members" : [ {
    "host" : "192.168.0.5",
    "weight" : 1,
    "member_group_name" : "test"
  }, {
    "host" : "192.168.1.124",
    "weight" : 2,
    "member_group_name" : "default"
  } ]
}
```

- Updating a VPC channel of the microservice type

```
{
  "balance_strategy" : 1,
  "member_type" : "ip",
  "name" : "VPC_demo",
  "port" : 22,
  "type" : 3,
  "vpc_health_config" : {
    "http_code" : "200",
    "path" : "/vpc/demo",
    "port" : 22,
    "protocol" : "http",
    "threshold_abnormal" : 5,
    "threshold_normal" : 2,
    "time_interval" : 10,
    "timeout" : 5,
    "enable_client_ssl" : false
  },
  "member_groups" : [ {
    "member_group_name" : "test",
    "member_group_weight" : 1,
    "member_group_remark" : "remark",
    "microservice_version" : "v1",
    "microservice_port" : 80
  }, {
    "member_group_name" : "default",
    "member_group_weight" : 2,
    "member_group_remark" : "remark",
    "microservice_version" : "v2",
  } ]
}
```

```
"microservice_port" : 80,
"microservice_labels" : [ {
  "label_name" : "cluster_id",
  "label_value" : "c429700c-5dc4-482a-9c0e-99f6c0635113"
} ],
}, {
"members" : [ {
  "host" : "192.168.0.5",
  "weight" : 1,
  "member_group_name" : "test"
}, {
  "host" : "192.168.1.124",
  "weight" : 2,
  "member_group_name" : "default"
} ],
"microservice_info" : {
  "service_type" : "CCE",
  "cce_info" : {
    "cluster_id" : "ab1485b4f91b45abbcd560be591f7309",
    "namespace" : "default",
    "workload_type" : "deployment",
    "app_name" : "testapp"
  }
}
}
```

## Example Responses

**Status code: 200**

OK

- Example 1

```
{
  "name" : "VPC_demo",
  "port" : 22,
  "balance_strategy" : 2,
  "member_type" : "ip",
  "dict_code" : "",
  "create_time" : "2020-07-23T07:11:57Z",
  "id" : "18174f5f4f1a4dc29f33aeadd9788e5f",
  "status" : 1,
  "member_groups" : [ {
    "member_group_id" : "c1ce135c705c4066853a0460b318fe16",
    "member_group_name" : "test",
    "member_group_weight" : 1,
    "member_group_remark" : "remark",
    "create_time" : "2020-07-23T07:11:57.244829604Z",
    "update_time" : "2020-07-23T07:11:57.244829604Z"
  }, {
    "member_group_id" : "c1ce135c705c4066853a0460b318fe17",
    "member_group_name" : "default",
    "member_group_weight" : 2,
    "member_group_remark" : "remark",
    "create_time" : "2020-07-23T07:11:57.244829604Z",
    "update_time" : "2020-07-23T07:11:57.244829604Z"
  } ],
  "type" : 2,
  "microservice_info" : {
    "id" : "",
    "instance_id" : "",
    "service_type" : "",
    "cse_info" : {
      "cse_app_id" : "",
      "engine_id" : "",
      "engine_name" : "",
      "register_address" : "",
      "service_id" : ""
    }
  }
}
```



```
"service_name" : ""
},
"cce_info" : {
  "cluster_id" : "",
  "cluster_name" : "",
  "namespace" : "",
  "workload_type" : "",
  "app_name" : ""
},
"create_time" : "",
"update_time" : ""
}
}
```

- Example 2

```
{
  "name" : "VPC_demo",
  "id" : "105c6902457144a4820dff8b1ad63331",
  "balance_strategy" : 1,
  "dict_code" : "",
  "create_time" : "2020-07-23T07:11:57.244829604Z",
  "member_type" : "ip",
  "port" : 22,
  "status" : 1,
  "member_groups" : [ {
    "member_group_id" : "c1ce135c705c4066853a0460b318fe16",
    "member_group_name" : "test",
    "member_group_weight" : 1,
    "member_group_remark" : "remark",
    "create_time" : "2020-07-23T07:11:57.244829604Z",
    "update_time" : "2020-07-23T07:11:57.244829604Z",
    "microservice_version" : "v1",
    "microservice_port" : 80
  }, {
    "member_group_id" : "c1ce135c705c4066853a0460b318fe17",
    "member_group_name" : "default",
    "member_group_weight" : 2,
    "member_group_remark" : "remark",
    "create_time" : "2020-07-23T07:11:57.244829604Z",
    "update_time" : "2020-07-23T07:11:57.244829604Z",
    "microservice_version" : "v2",
    "microservice_port" : 80,
    "microservice_labels" : [ {
      "label_name" : "cluster_id",
      "label_value" : "c429700c-5dc4-482a-9c0e-99f6c0635113"
    }
  ]
} ],
"type" : 3,
"microservice_info" : {
  "id" : "9483afa235be45158a70c19ab817ac65",
  "instance_id" : "eddc4d25480b4cd6b512f270a1b8b341",
  "service_type" : "CCE",
  "cse_info" : {
    "cse_app_id" : "",
    "engine_id" : "",
    "engine_name" : "",
    "register_address" : "",
    "service_id" : "",
    "service_name" : ""
  },
  "cce_info" : {
    "cluster_id" : "ab1485b4f91b45abbcd560be591f7309",
    "cluster_name" : "cce-test",
    "namespace" : "default",
    "workload_type" : "deployment",
    "app_name" : "testapp"
  },
  "create_time" : "2020-07-23T07:11:57.244829604Z",
  "update_time" : "2020-07-23T07:11:57.244829604Z"
}
```

```
}  
}
```

**Status code: 400**

Bad Request

```
{  
  "error_code" : "APIG.2001",  
  "error_msg" : "The request parameters must be specified, parameter name:members"  
}
```

**Status code: 401**

Unauthorized

```
{  
  "error_code" : "APIG.1002",  
  "error_msg" : "Incorrect token or token resolution failed"  
}
```

**Status code: 403**

Forbidden

```
{  
  "error_code" : "APIG.1005",  
  "error_msg" : "No permissions to request this method"  
}
```

**Status code: 404**

Not Found

```
{  
  "error_code" : "APIG.3023",  
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"  
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code" : "APIG.9999",  
  "error_msg" : "System error"  
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.17.3 Deleting a VPC Channel

#### Function

This API is used to delete a VPC channel.

#### Calling Method

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

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/  
{vpc\_channel\_id}

**Table 4-918** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.

#### Request Parameters

**Table 4-919** Request header parameters

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

#### Response Parameters

**Status code: 400**

**Table 4-920** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-921** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-922** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-923** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-924** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3023",
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.17.4 Querying VPC Channel Details

### Function

This API is used to query the details of a VPC channel.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}

**Table 4-925** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.

## Request Parameters

**Table 4-926** Request header parameters

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

## Response Parameters

**Status code: 200****Table 4-927** Response body parameters

Parameter	Type	Description
name	String	VPC channel name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
port	Integer	Host port of the VPC channel. Range: 1–65535.
balance_strategy	Integer	Distribution algorithm. <ul style="list-style-type: none"><li>• 1: Weighted round robin (WRR).</li><li>• 2: Weighted least connections (WLC).</li><li>• 3: Source hashing.</li><li>• 4: URI hashing.</li></ul> Default: <b>1</b>
member_type	String	Member type of the VPC channel. <ul style="list-style-type: none"><li>• ip</li><li>• ecs</li></ul> Default: <b>ecs</b>

Parameter	Type	Description
type	Integer	<p>VPC channel type. The default type is server.</p> <ul style="list-style-type: none"> <li>• 2: Server type</li> <li>• 3: Microservice type</li> </ul> <p>If vpc_channel_type is empty, the load balance channel type is determined by the type field.</p> <p>If the value of type is not 3 or the value of microservice_info is empty, the load balance channel type is server by default.</p> <p>If the value of type is 3 and the value of microservice_info is not empty, the load balance channel type is microservice.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p> <p>This field is to be discarded. Use the vpc_channel_type field to specify the load balance channel type.</p> <p>Default: <b>2</b></p>
vpc_channel_type	String	<p>VPC channel type.</p> <ul style="list-style-type: none"> <li>• builtin: server type</li> <li>• microservice: microservice type</li> <li>• reference: reference load balance channel</li> </ul> <p>If vpc_channel_type is empty, the load balance channel type depends on the value of the type field.</p> <p>If vpc_channel_type is non-empty and type is non-empty or non-zero, an error occurs when they are specified.</p> <p>If vpc_channel_type is non-empty and type is empty or 0, the value of vpc_channel_type is used to specify the load balance channel type.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p>
dict_code	String	<p>Dictionary code of the VPC channel.</p> <p>The value can contain letters, digits, hyphens (-), underscores (_), and periods (.).</p> <p>This parameter is currently not supported.</p> <p>Minimum: <b>3</b></p> <p>Maximum: <b>64</b></p>
create_time	String	Time when the VPC channel is created.
id	String	VPC channel ID.



Parameter	Type	Description
status	Integer	VPC channel status. <ul style="list-style-type: none"> <li>1: normal</li> <li>2: abnormal</li> </ul>
member_groups	Array of <b>MemberGroupInfo</b> objects	Backend server groups.
microservice_info	<b>MicroServiceInfo</b> object	Microservice information.
members	Array of <b>VpcMemberInfo</b> objects	Backend instances.
vpc_health_config	<b>VpcHealthConfigInfo</b> object	Health check details.

**Table 4-928** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>

Parameter	Type	Description
microservice_version	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>
microservice_port	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>
member_group_id	String	ID of the backend server group of the VPC channel.
create_time	String	Time when the backend server group is created.
update_time	String	Time when the backend server group is updated.

**Table 4-929** MicroserviceLabel

Parameter	Type	Description
label_name	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

Parameter	Type	Description
label_value	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Table 4-930** MicroServiceInfo

Parameter	Type	Description
id	String	Microservice ID.
instance_id	String	Gateway ID.
service_type	String	Microservice center type. Options: <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: CCE workload - CCE_SERVICE: CCE Service</li> <li>• NACOS: Nacos engine. <b>nacos_info</b> is mandatory.</li> </ul>
cse_info	<b>MicroServiceInfoCSE</b> object	CSE microservice details.
cce_info	<b>MicroServiceInfoCCE</b> object	CCE microservice workload details.
cce_service_info	<b>MicroServiceInfoCCEService</b> object	CCE microservice Service details.
nacos_info	<b>MicroServiceInfoNacosBasic</b> object	Nacos basic information.
update_time	String	Microservice update time.
create_time	String	Microservice creation time.

**Table 4-931** MicroServiceInfoCSE

Parameter	Type	Description
engine_id	String	Microservice engine ID. Maximum: <b>64</b>

Parameter	Type	Description
service_id	String	Microservice ID. Maximum: <b>64</b>
engine_name	String	Microservice engine name.
service_name	String	Microservice name.
register_address	String	Registration center address.
cse_app_id	String	App to which the microservice belongs.
version	String	Microservice version, which has been discarded and is reflected in the version of the backend server group. Maximum: <b>64</b>

**Table 4-932** MicroServiceInfoCCE

Parameter	Type	Description
cluster_id	String	CCE cluster ID. Maximum: <b>64</b>
namespace	String	Namespace. Maximum: <b>64</b>
workload_type	String	Workload type. <ul style="list-style-type: none"> <li>• deployment</li> <li>• statefulset</li> <li>• daemonset</li> </ul>
app_name	String	App name. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_key	String	Service label key. Start with a letter or digit, and use only letters, digits, and these special characters: -_/:(). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>

Parameter	Type	Description
label_value	String	Service label value. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Table 4-933** MicroServiceInfoCCEService

Parameter	Type	Description
cluster_id	String	CCE cluster ID. Maximum: <b>64</b>
namespace	String	Namespace. 1 to 63 characters. Use lowercase letters, digits, and hyphens (-). Start with a letter and end with a letter or digit. Minimum: <b>1</b> Maximum: <b>63</b>
service_name	String	Service name. Start with a letter, and use only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Table 4-934** MicroServiceInfoNacosBase

Parameter	Type	Description
namespace	String	Namespace ID. If the default namespace <b>public</b> is used, leave this parameter empty. Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
cluster_name	String	Cluster name. The default value is <b>DEFAULT</b> . Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>

Parameter	Type	Description
group_name	String	Group name. The default value is <b>DEFAULT_GROUP</b> . Only letters, numbers, hyphens (-), underscores (_), periods (.), and colons (:) are allowed. Max.: 128 characters Minimum: <b>0</b> Maximum: <b>128</b>
service_name	String	Microservice name. The value cannot start with @ or contain @. Max.: 512 characters Minimum: <b>1</b> Maximum: <b>512</b>
server_config	Array of <b>NacosServerConfig</b> objects	Nacos server configurations. Array Length: <b>1 - 9</b>
user_info	<b>NacosUserInfo</b> object	Nacos user information.

**Table 4-935** NacosServerConfig

Parameter	Type	Description
ip_address	String	IP address of the Nacos server. Do not enter Chinese characters. Minimum: <b>7</b> Maximum: <b>128</b>
port	Integer	Port number of the Nacos server. Range: 1-65535. Minimum: <b>1</b> Maximum: <b>65535</b>
grpc_port	Integer	gRPC port number of the Nacos server. Default: port number + 1000 Range: 1-65535. Minimum: <b>1</b> Maximum: <b>65535</b>

**Table 4-936** NacosUserInfo

Parameter	Type	Description
user_name	String	Nacos username. Minimum: <b>1</b> Maximum: <b>64</b>

Parameter	Type	Description
password	String	Nacos password. Minimum: <b>1</b> Maximum: <b>64</b>

**Table 4-937** VpcMemberInfo

Parameter	Type	Description
host	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>255</b>
weight	Integer	Weight. The higher the weight is, the more requests a backend service will receive. Minimum: <b>0</b> Maximum: <b>10000</b>
is_backup	Boolean	Indicates whether the backend service is a standby node. After you enable this option, the corresponding backend service serves as the standby node and works only when all non-standby nodes are faulty. This function is supported only when your gateway has been upgraded to the corresponding version. If your gateway does not support this function, contact technical support. Default: <b>false</b>
member_group_name	String	Backend server group name. The server group facilitates backend service address modification.
status	Integer	Backend server status. <ul style="list-style-type: none"><li>● 1: available</li><li>● 2: unavailable</li></ul>
port	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>

Parameter	Type	Description
ecs_id	String	Backend server ID. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), and underscores (_). Maximum: <b>255</b>
ecs_name	String	Backend server name. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), underscores (_), and periods (.). Maximum: <b>64</b>
id	String	Backend instance ID.
vpc_channel_id	String	VPC channel ID.
create_time	String	Time when the backend server is added to the VPC channel.
member_group_id	String	Backend server group ID.
health_status	String	Health status of the backend instance of the load balance channel. The value can be unknown, healthy, or unhealthy, indicating that no health check is performed, healthy, or unhealthy, respectively.

**Table 4-938** VpcHealthConfigInfo

Parameter	Type	Description
protocol	String	Protocol for performing health checks on backend servers in the VPC channel. <ul style="list-style-type: none"> <li>• TCP</li> <li>• HTTP</li> <li>• HTTPS</li> </ul>
path	String	Destination path for health checks. This parameter is required if protocol is set to http or https.
method	String	Request method for health checks. Default: <b>GET</b>



Parameter	Type	Description
port	Integer	<p>Destination port for health checks. If this parameter is not specified or set to 0, the host port of the VPC channel is used.</p> <p>If this parameter is set to a non-zero value, the corresponding port is used for health checks.</p> <p>Minimum: <b>0</b></p> <p>Maximum: <b>65535</b></p>
threshold_normal	Integer	<p>Healthy threshold. It refers to the number of consecutive successful checks required for a backend server to be considered healthy.</p> <p>Minimum: <b>1</b></p> <p>Maximum: <b>10</b></p>
threshold_abnormal	Integer	<p>Unhealthy threshold, which refers to the number of consecutive failed checks required for a backend server to be considered unhealthy.</p> <p>Minimum: <b>1</b></p> <p>Maximum: <b>10</b></p>
time_interval	Integer	<p>Interval between consecutive checks. Unit: s. The value must be greater than the value of timeout.</p> <p>Minimum: <b>1</b></p> <p>Maximum: <b>300</b></p>
http_code	String	<p>Response codes for determining a successful HTTP response. The value can be any integer within 100–599 in one of the following formats:</p> <ul style="list-style-type: none"> <li>• Multiple values, for example, 200,201,202</li> <li>• Range, for example, 200-299</li> <li>• Multiple values and ranges, for example, 201,202,210-299.</li> </ul> <p>This parameter is required if protocol is set to http.</p>
enable_client_ssl	Boolean	<p>Indicates whether to enable two-way authentication. If this function is enabled, the certificate specified in the backend_client_certificate configuration item of the instance is used.</p> <p>Default: <b>false</b></p>

Parameter	Type	Description
status	Integer	Health check result. <ul style="list-style-type: none"> <li>• 1: available</li> <li>• 2: unavailable</li> </ul>
timeout	Integer	Timeout for determining whether a health check fails. Unit: s. The value must be less than the value of time_interval. Minimum: <b>1</b> Maximum: <b>30</b>
vpc_channel_id	String	VPC channel ID.
id	String	Health check ID.
create_time	String	Creation time.

**Status code: 400**

**Table 4-939** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-940** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-941** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-942** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-943** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

- Example 1

```
{
  "name": "VPC_demo",
  "port": 22,
  "balance_strategy": 1,
  "member_type": "ip",
  "dict_code": "",
  "create_time": "2020-07-23T07:11:57.244829604Z",
  "id": "56a7d7358e1b42459c9d730d65b14e59",
  "status": 1,
  "member_groups": [],
  "type": 2,
  "members": [ {
    "host": "192.168.0.5",
    "weight": 1,
    "is_backup": false,
    "member_group_name": "",
    "status": 1,
    "port": 22,
    "ecs_id": "192.168.0.5",
    "ecs_name": "192.168.0.5",
    "id": "be63c6260a1043888187f84af39c9f0e",
    "vpc_channel_id": "56a7d7358e1b42459c9d730d65b14e59",
    "create_time": "2020-07-23T07:11:57Z",
```

```
"member_group_id" : "",
"health_status" : "healthy"
}, {
"host" : "192.168.1.124",
"weight" : 2,
"is_backup" : false,
"member_group_name" : "",
"status" : 1,
"port" : 22,
"ecs_id" : "192.168.1.124",
"ecs_name" : "192.168.1.124",
"id" : "a57b13f1b89b417ca8acd76909e6df67",
"vpc_channel_id" : "56a7d7358e1b42459c9d730d65b14e59",
"create_time" : "2020-07-23T07:11:57Z",
"member_group_id" : "",
"health_status" : "unhealthy"
}],
"vpc_health_config" : {
"protocol" : "http",
"path" : "/vpc/demo",
"method" : "GET",
"port" : 22,
"threshold_normal" : 2,
"threshold_abnormal" : 5,
"time_interval" : 10,
"http_code" : "200",
"enable_client_ssl" : false,
"status" : 1,
"timeout" : 5,
"vpc_channel_id" : "56a7d7358e1b42459c9d730d65b14e59",
"id" : "3b3d02026c5f402d85e8645ea95b0816",
"create_time" : "2020-07-23T07:11:57Z"
},
"microservice_info" : {
"id" : "",
"instance_id" : "",
"service_type" : "",
"cse_info" : {
"cse_app_id" : "",
"engine_id" : "",
"engine_name" : "",
"register_address" : "",
"service_id" : "",
"service_name" : ""
},
"cce_info" : {
"cluster_id" : "",
"cluster_name" : "",
"namespace" : "",
"workload_type" : "",
"app_name" : ""
},
"create_time" : "",
"update_time" : ""
}
}
```

- Example 2

```
{
"name" : "VPC_demo",
"id" : "105c6902457144a4820dff8b1ad63331",
"balance_strategy" : 1,
"dict_code" : "",
"create_time" : "2020-07-23T07:11:57.244829604Z",
"member_type" : "ip",
"port" : 22,
"status" : 1,
"member_groups" : [ {
"member_group_id" : "c1ce135c705c4066853a0460b318fe16",
"member_group_name" : "test",
```

```
"member_group_weight" : 1,
"member_group_remark" : "remark",
"create_time" : "2020-07-23T07:11:57.244829604Z",
"update_time" : "2020-07-23T07:11:57.244829604Z",
"microservice_version" : "v1",
"microservice_port" : 80
}, {
"member_group_id" : "c1ce135c705c4066853a0460b318fe17",
"member_group_name" : "default",
"member_group_weight" : 2,
"member_group_remark" : "remark",
"create_time" : "2020-07-23T07:11:57.244829604Z",
"update_time" : "2020-07-23T07:11:57.244829604Z",
"microservice_version" : "v2",
"microservice_port" : 80
}],
"type" : 3,
"vpc_health_config" : {
"protocol" : "http",
"path" : "/vpc/demo",
"method" : "GET",
"port" : 22,
"threshold_normal" : 2,
"threshold_abnormal" : 5,
"time_interval" : 10,
"http_code" : "200",
"enable_client_ssl" : false,
"status" : 1,
"timeout" : 5,
"vpc_channel_id" : "56a7d7358e1b42459c9d730d65b14e59",
"id" : "3b3d02026c5f402d85e8645ea95b0816",
"create_time" : "2020-07-23T07:11:57Z"
},
"microservice_info" : {
"id" : "9483afa235be45158a70c19ab817ac65",
"instance_id" : "eddc4d25480b4cd6b512f270a1b8b341",
"service_type" : "CCE",
"cse_info" : {
"cse_app_id" : "",
"engine_id" : "",
"engine_name" : "",
"register_address" : "",
"service_id" : "",
"service_name" : ""
},
},
"cce_info" : {
"cluster_id" : "ab1485b4f91b45abbcd560be591f7309",
"cluster_name" : "cce-test",
"namespace" : "default",
"workload_type" : "deployment",
"app_name" : "testapp"
},
"create_time" : "2020-07-23T07:11:57.244829604Z",
"update_time" : "2020-07-23T07:11:57.244829604Z"
}
}
```

**Status code: 400**

## Bad Request

```
{
"error_code" : "APIG.2012",
"error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3023",
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.17.5 Querying VPC Channels

#### Function

This API is used to query the VPC channels under a gateway.

## Calling Method

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

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels

**Table 4-944** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-945** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
id	No	String	VPC channel ID.
name	No	String	VPC channel name.

Parameter	Mandatory	Type	Description
dict_code	No	String	Dictionary code of the VPC channel. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). This parameter is currently not supported. Minimum: <b>3</b> Maximum: <b>64</b>
precise_search	No	String	Parameter name for exact matching. Separate multiple parameter names with commas (.). Currently, name and member_group_name are supported.
member_host	No	String	Backend service address. By default, exact match is used. Fuzzy match is not supported.
member_port	No	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>
member_group_name	No	String	Backend server group name.
member_group_id	No	String	Backend server group ID.
vpc_channel_type	No	String	VPC channel type. <ul style="list-style-type: none"> <li>• builtin: server type</li> <li>• microservice: microservice type</li> <li>• reference: reference load balance channel</li> </ul>



## Request Parameters

**Table 4-946** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-947** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
vpc_channels	Array of <a href="#">VpcChannelInfo</a> objects	VPC channel list.

**Table 4-948** VpcChannelInfo

Parameter	Type	Description
name	String	VPC channel name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, hyphens (-), underscores (_), and periods (.) are allowed.
port	Integer	Host port of the VPC channel. Range: 1–65535.
balance_strategy	Integer	Distribution algorithm. <ul style="list-style-type: none"> <li>1: Weighted round robin (WRR).</li> <li>2: Weighted least connections (WLC).</li> <li>3: Source hashing.</li> <li>4: URI hashing.</li> </ul> Default: 1

Parameter	Type	Description
member_type	String	Member type of the VPC channel. <ul style="list-style-type: none"> <li>ip</li> <li>ecs</li> </ul> Default: <b>ecs</b>
type	Integer	VPC channel type. The default type is server. <ul style="list-style-type: none"> <li>2: Server type</li> <li>3: Microservice type</li> </ul> If vpc_channel_type is empty, the load balance channel type is determined by the type field. <p>If the value of type is not 3 or the value of microservice_info is empty, the load balance channel type is server by default.</p> <p>If the value of type is 3 and the value of microservice_info is not empty, the load balance channel type is microservice.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p> <p>This field is to be discarded. Use the vpc_channel_type field to specify the load balance channel type.</p> Default: <b>2</b>
vpc_channel_type	String	VPC channel type. <ul style="list-style-type: none"> <li>builtin: server type</li> <li>microservice: microservice type</li> <li>reference: reference load balance channel</li> </ul> If vpc_channel_type is empty, the load balance channel type depends on the value of the type field. <p>If vpc_channel_type is non-empty and type is non-empty or non-zero, an error occurs when they are specified.</p> <p>If vpc_channel_type is non-empty and type is empty or 0, the value of vpc_channel_type is used to specify the load balance channel type.</p> <p>When you modify a load balance channel, the channel type will remain unchanged.</p>

Parameter	Type	Description
dict_code	String	Dictionary code of the VPC channel. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). This parameter is currently not supported. Minimum: <b>3</b> Maximum: <b>64</b>
create_time	String	Time when the VPC channel is created.
id	String	VPC channel ID.
status	Integer	VPC channel status. <ul style="list-style-type: none"> <li>• 1: normal</li> <li>• 2: abnormal</li> </ul>
member_groups	Array of <b>MemberGroupInfo</b> objects	Backend server groups.
microservice_info	<b>MicroServiceInfo</b> object	Microservice information.

**Table 4-949** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>

Parameter	Type	Description
dict_code	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>
microservice_version	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>
microservice_port	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	Array of <a href="#">MicroserviceLabel</a> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>
member_group_id	String	ID of the backend server group of the VPC channel.
create_time	String	Time when the backend server group is created.
update_time	String	Time when the backend server group is updated.

**Table 4-950** MicroserviceLabel

Parameter	Type	Description
label_name	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>
label_value	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Table 4-951** MicroServiceInfo

Parameter	Type	Description
id	String	Microservice ID.
instance_id	String	Gateway ID.
service_type	String	Microservice center type. Options: <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: CCE workload - CCE_SERVICE: CCE Service</li> <li>• NACOS: Nacos engine. <b>nacos_info</b> is mandatory.</li> </ul>
cse_info	<b>MicroServiceInfoCSE</b> object	CSE microservice details.
cce_info	<b>MicroServiceInfoCCE</b> object	CCE microservice workload details.
cce_service_info	<b>MicroServiceInfoCCEService</b> object	CCE microservice Service details.
nacos_info	<b>MicroServiceInfoNacosBasic</b> object	Nacos basic information.
update_time	String	Microservice update time.
create_time	String	Microservice creation time.

**Table 4-952** MicroServiceInfoCSE

Parameter	Type	Description
engine_id	String	Microservice engine ID. Maximum: <b>64</b>
service_id	String	Microservice ID. Maximum: <b>64</b>
engine_name	String	Microservice engine name.
service_name	String	Microservice name.
register_address	String	Registration center address.
cse_app_id	String	App to which the microservice belongs.
version	String	Microservice version, which has been discarded and is reflected in the version of the backend server group. Maximum: <b>64</b>

**Table 4-953** MicroServiceInfoCCE

Parameter	Type	Description
cluster_id	String	CCE cluster ID. Maximum: <b>64</b>
namespace	String	Namespace. Maximum: <b>64</b>
workload_type	String	Workload type. <ul style="list-style-type: none"> <li>• deployment</li> <li>• statefulset</li> <li>• daemonset</li> </ul>
app_name	String	App name. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_key	String	Service label key. Start with a letter or digit, and use only letters, digits, and these special characters: -_/:(). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>

Parameter	Type	Description
label_value	String	Service label value. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Table 4-954** MicroServiceInfoCCEService

Parameter	Type	Description
cluster_id	String	CCE cluster ID. Maximum: <b>64</b>
namespace	String	Namespace. 1 to 63 characters. Use lowercase letters, digits, and hyphens (-). Start with a letter and end with a letter or digit. Minimum: <b>1</b> Maximum: <b>63</b>
service_name	String	Service name. Start with a letter, and use only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Table 4-955** MicroServiceInfoNacosBase

Parameter	Type	Description
namespace	String	Namespace ID. If the default namespace <b>public</b> is used, leave this parameter empty. Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
cluster_name	String	Cluster name. The default value is <b>DEFAULT</b> . Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>

Parameter	Type	Description
group_name	String	Group name. The default value is <b>DEFAULT_GROUP</b> . Only letters, numbers, hyphens (-), underscores (_), periods (.), and colons (:) are allowed. Max.: 128 characters Minimum: <b>0</b> Maximum: <b>128</b>
service_name	String	Microservice name. The value cannot start with @ or contain @. Max.: 512 characters Minimum: <b>1</b> Maximum: <b>512</b>
server_config	Array of <b>NacosServerConfig</b> objects	Nacos server configurations. Array Length: <b>1 - 9</b>
user_info	<b>NacosUserInfo</b> object	Nacos user information.

**Table 4-956** NacosServerConfig

Parameter	Type	Description
ip_address	String	IP address of the Nacos server. Do not enter Chinese characters. Minimum: <b>7</b> Maximum: <b>128</b>
port	Integer	Port number of the Nacos server. Range: 1-65535. Minimum: <b>1</b> Maximum: <b>65535</b>
grpc_port	Integer	gRPC port number of the Nacos server. Default: port number + 1000 Range: 1-65535. Minimum: <b>1</b> Maximum: <b>65535</b>

**Table 4-957** NacosUserInfo

Parameter	Type	Description
user_name	String	Nacos username. Minimum: <b>1</b> Maximum: <b>64</b>



Parameter	Type	Description
password	String	Nacos password. Minimum: <b>1</b> Maximum: <b>64</b>

**Status code: 400**

**Table 4-958** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-959** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-960** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-961** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-962** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

**Example Responses**

**Status code: 200**

OK

```
{
  "total": 2,
  "size": 2,
  "vpc_channels": [ {
    "name": "channel 1",
    "port": 8080,
    "balance_strategy": 1,
    "member_type": "ip",
    "dict_code": "",
    "create_time": "2020-07-23T07:24:33Z",
    "id": "105c6902457144a4820dff8b1ad63331",
    "status": 1,
    "member_groups": [ ],
    "type": 2,
    "microservice_info": {
      "id": "",
      "instance_id": "",
      "service_type": "",
      "cse_info": {
        "cse_app_id": "",
        "engine_id": "",
        "engine_name": "",
        "register_address": "",
        "service_id": "",
        "service_name": ""
      },
      "cce_info": {
        "cluster_id": "",
        "cluster_name": "",
        "namespace": "",
        "workload_type": "",
        "app_name": ""
      },
      "create_time": "",
      "update_time": ""
    }
  }, {
    "name": "channel 2",
    "port": 8088,
    "balance_strategy": 2,
    "member_type": "ip",
    "dict_code": "",
    "create_time": "2020-07-23T07:11:57Z",
```

```
"id" : "56a7d7358e1b42459c9d730d65b14e59",
"status" : 1,
"member_groups" : [ ],
"type" : 3,
"microservice_info" : {
  "id" : "9483afa235be45158a70c19ab817ac65",
  "instance_id" : "eddc4d25480b4cd6b512f270a1b8b341",
  "service_type" : "CCE",
  "cse_info" : {
    "cse_app_id" : "",
    "engine_id" : "",
    "engine_name" : "",
    "register_address" : "",
    "service_id" : "",
    "service_name" : ""
  },
  "cce_info" : {
    "cluster_id" : "ab1485b4f91b45abbc560be591f7309",
    "cluster_name" : "cce-test",
    "namespace" : "default",
    "workload_type" : "deployment",
    "app_name" : "testapp"
  },
  "create_time" : "2020-07-23T07:11:57.244829604Z",
  "update_time" : "2020-07-23T07:11:57.244829604Z"
}
}]
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "The request parameters must be specified,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

## Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

## Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

**Status code: 500**

## Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.17.6 Adding or Updating Backend Instances

### Function

This API is used to add backend instances to a VPC channel.

If a backend instance with the specified address already exists, the instance information is updated. If the request body contains multiple backend instance definitions with the same address, the first definition is used.

Backend instances cannot be added or updated for a reference load balance channel.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/  
{vpc\_channel\_id}/members

**Table 4-963** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.

## Request Parameters

**Table 4-964** Request header parameters

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

**Table 4-965** Request body parameters

Parameter	Mandatory	Type	Description
members	Yes	Array of <a href="#">MemberInfo</a> objects	Backend instances.

**Table 4-966** MemberInfo

Parameter	Mandatory	Type	Description
host	No	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>255</b>

Parameter	Mandatory	Type	Description
weight	No	Integer	Weight. The higher the weight is, the more requests a backend service will receive. Minimum: <b>0</b> Maximum: <b>10000</b>
is_backup	No	Boolean	Indicates whether the backend service is a standby node. After you enable this option, the corresponding backend service serves as the standby node and works only when all non-standby nodes are faulty. This function is supported only when your gateway has been upgraded to the corresponding version. If your gateway does not support this function, contact technical support. Default: <b>false</b>
member_group_name	No	String	Backend server group name. The server group facilitates backend service address modification.
status	No	Integer	Backend server status. <ul style="list-style-type: none"><li>• 1: available</li><li>• 2: unavailable</li></ul>
port	No	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>
ecs_id	No	String	Backend server ID. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), and underscores (_). Maximum: <b>255</b>

Parameter	Mandatory	Type	Description
ecs_name	No	String	Backend server name. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), underscores (_), and periods (.). Maximum: <b>64</b>

## Response Parameters

Status code: 201

**Table 4-967** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
members	Array of <b>VpcMemberInfo</b> objects	Cloud server list.

**Table 4-968** VpcMemberInfo

Parameter	Type	Description
host	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>255</b>
weight	Integer	Weight. The higher the weight is, the more requests a backend service will receive. Minimum: <b>0</b> Maximum: <b>10000</b>

Parameter	Type	Description
is_backup	Boolean	Indicates whether the backend service is a standby node. After you enable this option, the corresponding backend service serves as the standby node and works only when all non-standby nodes are faulty. This function is supported only when your gateway has been upgraded to the corresponding version. If your gateway does not support this function, contact technical support. Default: <b>false</b>
member_group_name	String	Backend server group name. The server group facilitates backend service address modification.
status	Integer	Backend server status. <ul style="list-style-type: none"><li>• 1: available</li><li>• 2: unavailable</li></ul>
port	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>
ecs_id	String	Backend server ID. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), and underscores (_). Maximum: <b>255</b>
ecs_name	String	Backend server name. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), underscores (_), and periods (.). Maximum: <b>64</b>
id	String	Backend instance ID.
vpc_channel_id	String	VPC channel ID.
create_time	String	Time when the backend server is added to the VPC channel.
member_group_id	String	Backend server group ID.



Parameter	Type	Description
health_status	String	Health status of the backend instance of the load balance channel. The value can be unknown, healthy, or unhealthy, indicating that no health check is performed, healthy, or unhealthy, respectively.

**Status code: 400****Table 4-969** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-970** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-971** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-972** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 4-973** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Adding a cloud server IP address to a VPC channel

```
{
  "members": [ {
    "host": "192.168.2.25",
    "weight": 1,
    "member_group_name": "test"
  } ]
}
```

- Adding a cloud server name to a VPC channel

```
{
  "members": [ {
    "ecs_id": "1082720c-3c15-409c-9ae3-4983ddfb6a9d",
    "ecs_name": "APIGtest02",
    "weight": 2
  } ]
}
```

## Example Responses

**Status code: 201**

Created

- Example 1

```
{
  "total": 1,
  "size": 1,
  "members": [ {
    "host": "192.168.2.25",
    "weight": 1,
    "is_backup": false,
    "member_group_name": "test",
    "status": 1,
    "port": 22,
    "ecs_id": "3082720c-3c15-409c-9ae3-4983ddfb6a9d",
    "ecs_name": "APIGtest",
    "id": "683b6807cad54122a6777ad047a6178e",
    "vpc_channel_id": "105c6902457144a4820dff8b1ad63331",
    "create_time": "2020-07-23T09:13:24Z",
    "member_group_id": "cf868f0224084710a1e188b7d3057c52"
  } ]
}
```

```
    }  
  }  
}
```

- Example 2

```
{  
  "total" : 2,  
  "size" : 2,  
  "members" : [ {  
    "host" : "192.168.0.17",  
    "weight" : 2,  
    "is_backup" : false,  
    "member_group_name" : "test02",  
    "status" : 1,  
    "port" : 22,  
    "ecs_id" : "1082720c-3c15-409c-9ae3-4983ddfb6a9d",  
    "ecs_name" : "APIGtest02",  
    "id" : "5c868f0224084710a1e188b7d3057c52",  
    "vpc_channel_id" : "105c6902457144a4820dff8b1ad63331",  
    "create_time" : "2020-07-23T09:03:53Z",  
    "member_group_id" : "df868f0224084710a1e188b7d3057c52",  
    "health_status" : "unhealthy"  
  }, {  
    "host" : "192.168.0.39",  
    "weight" : 1,  
    "is_backup" : false,  
    "member_group_name" : "test01",  
    "status" : 1,  
    "port" : 22,  
    "ecs_id" : "ebe1104f-1254-4ac6-8ed7-366bec84f36e",  
    "ecs_name" : "APIGtest01",  
    "id" : "33ac0e39d005492eb1f4683e66d1a0d1",  
    "vpc_channel_id" : "105c6902457144a4820dff8b1ad63331",  
    "create_time" : "2020-07-23T07:24:34Z",  
    "member_group_id" : "ef868f0224084710a1e188b7d3057c42",  
    "health_status" : "unhealthy"  
  }  
]  
}
```

**Status code: 400**

## Bad Request

```
{  
  "error_code" : "APIG.2004",  
  "error_msg" : "The parameter value is outside the allowable range,parameterName:weight. Please refer to the support documentation"  
}
```

**Status code: 401**

## Unauthorized

```
{  
  "error_code" : "APIG.1002",  
  "error_msg" : "Incorrect token or token resolution failed"  
}
```

**Status code: 403**

## Forbidden

```
{  
  "error_code" : "APIG.1005",  
  "error_msg" : "No permissions to request this method"  
}
```

**Status code: 404**

## Not Found

```
{
  "error_code" : "APIG.3023",
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.17.7 Querying Backend Servers of a VPC Channel

### Function

This API is used to query the backend instances of a specified VPC channel.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/members

**Table 4-974** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.

**Table 4-975** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
name	No	String	Cloud server name.
member_group_name	No	String	Backend server group name.
member_group_id	No	String	Backend server group ID.
precise_search	No	String	Parameter name for exact matching. Separate multiple parameter names with commas (,). Currently, name and member_group_name are supported.

## Request Parameters

**Table 4-976** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-977** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
members	Array of <b>VpcMemberInfo</b> objects	Cloud server list.

**Table 4-978** VpcMemberInfo

Parameter	Type	Description
host	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>255</b>
weight	Integer	Weight. The higher the weight is, the more requests a backend service will receive. Minimum: <b>0</b> Maximum: <b>10000</b>

Parameter	Type	Description
is_backup	Boolean	Indicates whether the backend service is a standby node. After you enable this option, the corresponding backend service serves as the standby node and works only when all non-standby nodes are faulty. This function is supported only when your gateway has been upgraded to the corresponding version. If your gateway does not support this function, contact technical support. Default: <b>false</b>
member_group_name	String	Backend server group name. The server group facilitates backend service address modification.
status	Integer	Backend server status. <ul style="list-style-type: none"> <li>• 1: available</li> <li>• 2: unavailable</li> </ul>
port	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>
ecs_id	String	Backend server ID. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), and underscores (_). Maximum: <b>255</b>
ecs_name	String	Backend server name. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), underscores (_), and periods (.). Maximum: <b>64</b>
id	String	Backend instance ID.
vpc_channel_id	String	VPC channel ID.
create_time	String	Time when the backend server is added to the VPC channel.
member_group_id	String	Backend server group ID.

Parameter	Type	Description
health_status	String	Health status of the backend instance of the load balance channel. The value can be unknown, healthy, or unhealthy, indicating that no health check is performed, healthy, or unhealthy, respectively.

**Status code: 400****Table 4-979** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-980** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-981** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-982** Response body parameters

Parameter	Type	Description
error_code	String	Error code.



Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 4-983** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 2,
  "size": 2,
  "members": [ {
    "host": "192.168.0.5",
    "weight": 1,
    "is_backup": false,
    "member_group_name": "",
    "status": 1,
    "port": 22,
    "ecs_id": "192.168.0.5",
    "ecs_name": "192.168.0.5",
    "id": "be63c6260a1043888187f84af39c9f0e",
    "vpc_channel_id": "56a7d7358e1b42459c9d730d65b14e59",
    "create_time": "2020-07-23T07:11:57Z",
    "member_group_id": "",
    "health_status": "unhealthy"
  }, {
    "host": "192.168.1.124",
    "weight": 2,
    "is_backup": false,
    "member_group_name": "",
    "status": 1,
    "port": 22,
    "ecs_id": "192.168.1.124",
    "ecs_name": "192.168.1.124",
    "id": "a57b13f1b89b417ca8acd76909e6df67",
    "vpc_channel_id": "56a7d7358e1b42459c9d730d65b14e59",
    "create_time": "2020-07-23T07:11:57Z",
    "member_group_id": "",
    "health_status": "unhealthy"
  } ]
}
```

**Status code: 400**

### Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

### Status code: 401

### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

### Not Found

```
{
  "error_code" : "APIG.3023",
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.17.8 Updating Backend Instances

### Function

This API is used to update the backend instances of a specified VPC channel. During the update, the request parameters overwrite the backend instances of the corresponding cloud server group. If no cloud server group is specified, all cloud server groups are overwritten.

Backend instances cannot be updated for a reference load balance channel.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/members

**Table 4-984** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.

### Request Parameters

**Table 4-985** Request header parameters

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

**Table 4-986** Request body parameters

Parameter	Mandatory	Type	Description
members	No	Array of <b>MemberInfo</b> objects	Backend instances.
member_group_name	No	String	Backend server group to be modified. If this parameter is not specified, all backends defined by members for the VPC channel are modified. If this parameter is specified, only the backend instances in the backend server group defined by members are modified. Input parameters of other backend server groups are ignored. For example, if member_group_name=primary is passed, only backend instances of backend server group 105c6902457144a4820dff8b1ad63331 in members are modified.

**Table 4-987** MemberInfo

Parameter	Mandatory	Type	Description
host	No	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>255</b>
weight	No	Integer	Weight. The higher the weight is, the more requests a backend service will receive. Minimum: <b>0</b> Maximum: <b>10000</b>

Parameter	Mandatory	Type	Description
is_backup	No	Boolean	Indicates whether the backend service is a standby node. After you enable this option, the corresponding backend service serves as the standby node and works only when all non-standby nodes are faulty. This function is supported only when your gateway has been upgraded to the corresponding version. If your gateway does not support this function, contact technical support. Default: <b>false</b>
member_group_name	No	String	Backend server group name. The server group facilitates backend service address modification.
status	No	Integer	Backend server status. <ul style="list-style-type: none"> <li>• 1: available</li> <li>• 2: unavailable</li> </ul>
port	No	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>
ecs_id	No	String	Backend server ID. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), and underscores (_). Maximum: <b>255</b>
ecs_name	No	String	Backend server name. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), underscores (_), and periods (.). Maximum: <b>64</b>

## Response Parameters

Status code: 200

**Table 4-988** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
members	Array of <a href="#">VpcMemberInfo</a> objects	Cloud server list.

**Table 4-989** VpcMemberInfo

Parameter	Type	Description
host	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>255</b>
weight	Integer	Weight. The higher the weight is, the more requests a backend service will receive. Minimum: <b>0</b> Maximum: <b>10000</b>
is_backup	Boolean	Indicates whether the backend service is a standby node. After you enable this option, the corresponding backend service serves as the standby node and works only when all non-standby nodes are faulty. This function is supported only when your gateway has been upgraded to the corresponding version. If your gateway does not support this function, contact technical support. Default: <b>false</b>
member_group_name	String	Backend server group name. The server group facilitates backend service address modification.

Parameter	Type	Description
status	Integer	Backend server status. <ul style="list-style-type: none"> <li>• 1: available</li> <li>• 2: unavailable</li> </ul>
port	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>
ecs_id	String	Backend server ID. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), and underscores (_). Maximum: <b>255</b>
ecs_name	String	Backend server name. This parameter is required if the backend instance type is ecs. The value can contain 1 to 64 characters, including letters, digits, hyphens (-), underscores (_), and periods (.). Maximum: <b>64</b>
id	String	Backend instance ID.
vpc_channel_id	String	VPC channel ID.
create_time	String	Time when the backend server is added to the VPC channel.
member_group_id	String	Backend server group ID.
health_status	String	Health status of the backend instance of the load balance channel. The value can be unknown, healthy, or unhealthy, indicating that no health check is performed, healthy, or unhealthy, respectively.

**Status code: 400**

**Table 4-990** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-991** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-992** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-993** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-994** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

- Updating non-standby backend instances of a VPC channel

```
{
  "member_group_name": "primary",
  "members": [ {
    "host": "192.168.2.25",
    "weight": 1,
    "is_backup": false,
```



```
"member_group_name" : "primary"
}]
}
```

- Updating all backend instances of a VPC channel

```
{
  "members" : [ {
    "ecs_id" : "1082720c-3c15-409c-9ae3-4983ddfb6a9d",
    "ecs_name" : "APIGtest02",
    "weight" : 2
  } ]
}
```

## Example Responses

### Status code: 200

OK

- Example 1

```
{
  "total" : 1,
  "size" : 1,
  "members" : [ {
    "host" : "192.168.2.25",
    "weight" : 1,
    "is_backup" : false,
    "member_group_name" : "primary",
    "port" : 22,
    "status" : 1,
    "ecs_id" : "192.168.2.25",
    "ecs_name" : "192.168.2.25",
    "id" : "683b6807cad54122a6777ad047a6178e",
    "vpc_channel_id" : "56a7d7358e1b42459c9d730d65b14e59",
    "create_time" : "2020-07-23T09:13:24Z",
    "member_group_id" : "631b551cddda40478ef720163a9412ed"
  } ]
}
```

- Example 2

```
{
  "total" : 1,
  "size" : 1,
  "members" : [ {
    "host" : "192.168.0.17",
    "weight" : 2,
    "is_backup" : false,
    "member_group_name" : "primary",
    "port" : 22,
    "status" : 1,
    "ecs_id" : "1082720c-3c15-409c-9ae3-4983ddfb6a9d",
    "ecs_name" : "APIGtest02",
    "id" : "5c868f0224084710a1e188b7d3057c52",
    "vpc_channel_id" : "105c6902457144a4820dff8b1ad63331",
    "create_time" : "2020-07-23T09:03:53Z",
    "member_group_id" : "631b551cddda40478ef720163a9412ed"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2001",
  "error_msg" : "The request parameters must be specified, parameter name:members"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3023",
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**

See [Error Codes](#).

## 4.17.9 Removing a Backend Server

### Function

This API is used to delete a backend instance from a specified VPC channel.  
Backend instances cannot be deleted for a reference load balance channel.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/  
{vpc\_channel\_id}/members/{member\_id}

**Table 4-995** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.
member_id	Yes	String	Backend instance ID.

### Request Parameters

**Table 4-996** Request header parameters

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

### Response Parameters

**Status code: 400**

**Table 4-997** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-998** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-999** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1000** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1001** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3024",
  "error_msg" : "The VPC instance does not exist,id:be63c6260a1043888187f84af39c9f0e"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.17.10 Enabling Backend Servers

### Function

This API is used to enable backend servers of a VPC channel.

The statuses of backend servers cannot be modified for a reference load balance channel.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/members/batch-enable

**Table 4-1002** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.

## Request Parameters

**Table 4-1003** Request header parameters

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

**Table 4-1004** Request body parameters

Parameter	Mandatory	Type	Description
member_ids	No	Array of strings	Backend server IDs.

## Response Parameters

**Status code: 400**

**Table 4-1005** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1006** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1007** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1008** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1009** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Enabling backend servers of a VPC channel

```
{
  "member_ids" : [ "b20a5be94ded40cc8f2872ea3005cfb7", "5f918d104dc84480a75166ba99efff21" ]
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
}
```



```
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3023",
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.17.11 Disabling Backend Servers

#### Function

This API is used to disable backend servers of a VPC channel.

The statuses of backend servers cannot be modified for a reference load balance channel.

## Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/members/batch-disable

**Table 4-1010** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.

## Request Parameters

**Table 4-1011** Request header parameters

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

**Table 4-1012** Request body parameters

Parameter	Mandatory	Type	Description
member_ids	No	Array of strings	Backend server IDs.

## Response Parameters

**Status code: 400**

**Table 4-1013** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1014** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1015** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1016** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1017** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Disabling backend servers of a VPC channel

```
{
  "member_ids" : [ "b20a5be94ded40cc8f2872ea3005cfb7", "5f918d104dc84480a75166ba99efff21" ]
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3023",
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.17.12 Modifying VPC Channel Health Check

#### Function

This API is used to modify the health check configuration of a VPC channel.

#### Calling Method

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

#### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/health-config

**Table 4-1018** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.

## Request Parameters

**Table 4-1019** Request header parameters

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

**Table 4-1020** Request body parameters

Parameter	Mandatory	Type	Description
protocol	Yes	String	Protocol for performing health checks on backend servers in the VPC channel. <ul style="list-style-type: none"> <li>• TCP</li> <li>• HTTP</li> <li>• HTTPS</li> </ul>
path	No	String	Destination path for health checks. This parameter is required if protocol is set to http or https.
method	No	String	Request method for health checks. Default: <b>GET</b>
port	No	Integer	Destination port for health checks. If this parameter is not specified or set to 0, the host port of the VPC channel is used.  If this parameter is set to a non-zero value, the corresponding port is used for health checks.  Minimum: <b>0</b> Maximum: <b>65535</b>

Parameter	Mandatory	Type	Description
threshold_normal	Yes	Integer	Healthy threshold. It refers to the number of consecutive successful checks required for a backend server to be considered healthy. Minimum: <b>1</b> Maximum: <b>10</b>
threshold_abnormal	Yes	Integer	Unhealthy threshold, which refers to the number of consecutive failed checks required for a backend server to be considered unhealthy. Minimum: <b>1</b> Maximum: <b>10</b>
time_interval	Yes	Integer	Interval between consecutive checks. Unit: s. The value must be greater than the value of timeout. Minimum: <b>1</b> Maximum: <b>300</b>
http_code	No	String	Response codes for determining a successful HTTP response. The value can be any integer within 100–599 in one of the following formats: <ul style="list-style-type: none"> <li>• Multiple values, for example, 200,201,202</li> <li>• Range, for example, 200-299</li> <li>• Multiple values and ranges, for example, 201,202,210-299.</li> </ul> This parameter is required if protocol is set to http.
enable_client_ssl	No	Boolean	Indicates whether to enable two-way authentication. If this function is enabled, the certificate specified in the backend_client_certificate configuration item of the instance is used. Default: <b>false</b>

Parameter	Mandatory	Type	Description
status	No	Integer	Health check result. <ul style="list-style-type: none"> <li>• 1: available</li> <li>• 2: unavailable</li> </ul>
timeout	Yes	Integer	Timeout for determining whether a health check fails. Unit: s. The value must be less than the value of time_interval. Minimum: <b>1</b> Maximum: <b>30</b>

## Response Parameters

Status code: 200

**Table 4-1021** Response body parameters

Parameter	Type	Description
protocol	String	Protocol for performing health checks on backend servers in the VPC channel. <ul style="list-style-type: none"> <li>• TCP</li> <li>• HTTP</li> <li>• HTTPS</li> </ul>
path	String	Destination path for health checks. This parameter is required if protocol is set to http or https.
method	String	Request method for health checks. Default: <b>GET</b>
port	Integer	Destination port for health checks. If this parameter is not specified or set to 0, the host port of the VPC channel is used. If this parameter is set to a non-zero value, the corresponding port is used for health checks. Minimum: <b>0</b> Maximum: <b>65535</b>
threshold_normal	Integer	Healthy threshold. It refers to the number of consecutive successful checks required for a backend server to be considered healthy. Minimum: <b>1</b> Maximum: <b>10</b>



Parameter	Type	Description
threshold_abnormal	Integer	Unhealthy threshold, which refers to the number of consecutive failed checks required for a backend server to be considered unhealthy. Minimum: <b>1</b> Maximum: <b>10</b>
time_interval	Integer	Interval between consecutive checks. Unit: s. The value must be greater than the value of timeout. Minimum: <b>1</b> Maximum: <b>300</b>
http_code	String	Response codes for determining a successful HTTP response. The value can be any integer within 100–599 in one of the following formats: <ul style="list-style-type: none"><li>• Multiple values, for example, 200,201,202</li><li>• Range, for example, 200-299</li><li>• Multiple values and ranges, for example, 201,202,210-299.</li></ul> This parameter is required if protocol is set to http.
enable_client_ssl	Boolean	Indicates whether to enable two-way authentication. If this function is enabled, the certificate specified in the backend_client_certificate configuration item of the instance is used. Default: <b>false</b>
status	Integer	Health check result. <ul style="list-style-type: none"><li>• 1: available</li><li>• 2: unavailable</li></ul>
timeout	Integer	Timeout for determining whether a health check fails. Unit: s. The value must be less than the value of time_interval. Minimum: <b>1</b> Maximum: <b>30</b>
vpc_channel_id	String	VPC channel ID.
id	String	Health check ID.
create_time	String	Creation time.

**Status code: 400****Table 4-1022** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1023** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1024** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1025** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1026** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

Modifying health check configurations of a VPC channel

```
{
  "http_code": "200",
  "path": "/vpc/demo",
  "port": 22,
  "protocol": "http",
  "threshold_abnormal": 5,
  "threshold_normal": 2,
  "time_interval": 10,
  "timeout": 5,
  "enable_client_ssl": false
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "protocol": "http",
  "path": "/vpc/demo",
  "method": "GET",
  "port": 22,
  "threshold_abnormal": 5,
  "threshold_normal": 2,
  "time_interval": 10,
  "http_code": "200",
  "enable_client_ssl": false,
  "status": 1,
  "timeout": 5,
  "id": "3b3d02026c5f402d85e8645ea95b0816",
  "vpc_channel_id": "d38c55c926ca44c2bfb37886d93b9a0d",
  "create_time": "2020-07-23T07:11:57Z"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2001",
  "error_msg": "The request parameters must be specified, parameter name:members"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3023",
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.17.13 Adding or Updating a Backend Server Group of a VPC Channel

#### Function

When creating a backend server group for a VPC channel, you can determine whether to associate backend instances with the group to facilitate backend server node management.

If a backend server group with the specified name already exists, the backend server group information is updated. If the request body contains multiple backend server definitions with the same address, the first definition is used.

## Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/  
{vpc\_channel\_id}/member-groups

**Table 4-1027** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.

## Request Parameters

**Table 4-1028** Request header parameters

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

**Table 4-1029** Request body parameters

Parameter	Mandatory	Type	Description
member_groups	No	Array of <a href="#">MemberGroupCreate</a> objects	Backend server groups.

**Table 4-1030** MemberGroupCreate

Parameter	Mandatory	Type	Description
member_group_name	Yes	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	No	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	No	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	No	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>
microservice_version	No	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
microservice_port	No	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	No	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	No	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>

**Table 4-1031** MicroserviceLabel

Parameter	Mandatory	Type	Description
label_name	Yes	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>
label_value	Yes	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

## Response Parameters

Status code: 201

**Table 4-1032** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
member_groups	Array of <b>MemberGroupInfo</b> objects	Backend server groups of the VPC channel.

**Table 4-1033** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>



Parameter	Type	Description
microservice_version	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>
microservice_port	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>
member_group_id	String	ID of the backend server group of the VPC channel.
create_time	String	Time when the backend server group is created.
update_time	String	Time when the backend server group is updated.

**Table 4-1034** MicroserviceLabel

Parameter	Type	Description
label_name	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

Parameter	Type	Description
label_value	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Status code: 400**

**Table 4-1035** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1036** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1037** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1038** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1039** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Creating a backend server group for a VPC channel of the server type

```
{
  "member_groups": [ {
    "member_group_name": "vpc_member_group",
    "member_group_weight": 10
  } ]
}
```

- Creating a backend server group for a VPC channel of the microservice type

```
{
  "member_groups": [ {
    "member_group_name": "vpc_member_group",
    "member_group_weight": 10,
    "microservice_version": "v1",
    "microservice_port": 80,
    "microservice_labels": [ {
      "label_name": "cluster_id",
      "label_value": "c429700c-5dc4-482a-9c0e-99f6c0635113"
    } ]
  } ]
}
```

## Example Responses

**Status code: 201**

Created

- Example 1

```
{
  "total": 1,
  "size": 1,
  "member_groups": [ {
    "member_group_name": "vpc_member_group",
    "member_group_id": "105c6902457144a4820dff8b1ad63331",
    "member_group_remark": "",
    "member_group_weight": 10,
    "create_time": "2020-07-23T07:24:33Z",
  } ]
}
```

```
"update_time" : "2020-07-23T07:24:33Z",  
"microservice_version" : "",  
"microservice_port" : 0,  
"microservice_labels" : [ ]  
}]  
}
```

- Example 2

```
{  
  "total" : 1,  
  "size" : 1,  
  "member_groups" : [ {  
    "member_group_name" : "vpc_member_group",  
    "member_group_id" : "105c6902457144a4820dff8b1ad63331",  
    "member_group_remark" : "",  
    "member_group_weight" : 10,  
    "create_time" : "2020-07-23T07:24:33Z",  
    "update_time" : "2020-07-23T07:24:33Z",  
    "microservice_version" : "v1",  
    "microservice_port" : 80,  
    "microservice_labels" : [ {  
      "label_name" : "cluster_id",  
      "label_value" : "c429700c-5dc4-482a-9c0e-99f6c0635113"  
    } ]  
  } ]  
}
```

**Status code: 400**

Bad Request

```
{  
  "error_code" : "APIG.2001",  
  "error_msg" : "The request parameters must be specified, parameter name:name"  
}
```

**Status code: 401**

Unauthorized

```
{  
  "error_code" : "APIG.1002",  
  "error_msg" : "Incorrect token or token resolution failed"  
}
```

**Status code: 403**

Forbidden

```
{  
  "error_code" : "APIG.1005",  
  "error_msg" : "No permissions to request this method"  
}
```

**Status code: 404**

Not Found

```
{  
  "error_code" : "APIG.3023",  
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"  
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code" : "APIG.9999",  
}
```

```
"error_msg": "System error"  
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.17.14 Querying Backend Server Groups of a VPC Channel

#### Function

This API is used to query backend server groups of a VPC channel.

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/member-groups

**Table 4-1040** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

Parameter	Mandatory	Type	Description
vpc_channel_id	Yes	String	VPC channel ID.

**Table 4-1041** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
dict_code	No	String	Dictionary code. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). This parameter is currently not supported. Minimum: <b>3</b> Maximum: <b>64</b>
member_group_name	No	String	Backend server group name of the VPC channel.
precise_search	No	String	Parameter name for exact matching. Separate multiple parameter names with commas (,). Currently, member_group_name is supported.

## Request Parameters

**Table 4-1042** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1043** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
member_group_s	Array of <a href="#">MemberGroupInfo</a> objects	Backend server groups of the VPC channel.

**Table 4-1044** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	String	Description of the backend server group. Maximum: 255
member_group_weight	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: 0 Maximum: 100

Parameter	Type	Description
dict_code	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>
microservice_version	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>
microservice_port	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	Array of <a href="#">MicroserviceLabel</a> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>
member_group_id	String	ID of the backend server group of the VPC channel.
create_time	String	Time when the backend server group is created.
update_time	String	Time when the backend server group is updated.



**Table 4-1045** MicroserviceLabel

Parameter	Type	Description
label_name	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>
label_value	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Status code: 400****Table 4-1046** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1047** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1048** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1049** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1050** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

**Example Responses**

**Status code: 200**

OK

```
{
  "total" : 1,
  "size" : 1,
  "member_groups" : [ {
    "member_group_name" : "vpc_member_group",
    "member_group_remark" : "remark",
    "member_group_weight" : 1,
    "dict_code" : "",
    "member_group_id" : "105c6902457144a4820dff8b1ad63331",
    "create_time" : "2020-07-23T07:24:33Z",
    "update_time" : "2020-07-23T07:24:33Z",
    "microservice_version" : "",
    "microservice_port" : 0,
    "microservice_labels" : [ ]
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2001",
```

```
{
  "error_msg": "The request parameters must be specified, parameter name:members"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3030",
  "error_msg": "The instance does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.17.15 Querying a Backend Server Group of a VPC Channel

### Function

This API is used to query a backend server group of a specified VPC channel.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/member-groups/{member\_group\_id}

**Table 4-1051** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.
member_group_id	Yes	String	Backend server group ID of the VPC channel.

### Request Parameters

**Table 4-1052** Request header parameters

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

### Response Parameters

**Status code: 200**

**Table 4-1053** Response body parameters

Parameter	Type	Description
member_group_name	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>
microservice_version	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>
microservice_port	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.

Parameter	Type	Description
reference_vpc_channel_id	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>
member_group_id	String	ID of the backend server group of the VPC channel.
create_time	String	Time when the backend server group is created.
update_time	String	Time when the backend server group is updated.

**Table 4-1054** MicroserviceLabel

Parameter	Type	Description
label_name	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>
label_value	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Status code: 400**

**Table 4-1055** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1056** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1057** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1058** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1059** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{  
  "member_group_name" : "vpc_member_group",
```

```
"member_group_id" : "105c6902457144a4820dff8b1ad63331",
"dict_code" : "",
"member_group_remark" : "",
"create_time" : "2020-07-23T07:24:33Z",
"update_time" : "2020-07-23T07:24:33Z",
"microservice_version" : "",
"microservice_port" : 0,
"microservice_labels" : [ ]
}
```

**Status code: 400**

Bad Request

```
{
"error_code" : "APIG.2001",
"error_msg" : "The request parameters must be specified, parameter name:members"
}
```

**Status code: 401**

Unauthorized

```
{
"error_code" : "APIG.1002",
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
"error_code" : "APIG.1005",
"error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
"error_code" : "APIG.3023",
"error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

Internal Server Error

```
{
"error_code" : "APIG.9999",
"error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized



Status Code	Description
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.17.16 Deleting a Backend Server Group of a VPC Channel

#### Function

This API is used to delete a backend server group of a specified VPC channel.

#### Calling Method

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

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/member-groups/{member\_group\_id}

**Table 4-1060** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.
member_group_id	Yes	String	Backend server group ID of the VPC channel.

## Request Parameters

**Table 4-1061** Request header parameters

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

## Response Parameters

### Status code: 400

**Table 4-1062** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 401

**Table 4-1063** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-1064** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-1065** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1066** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2001",
  "error_msg" : "The request parameters must be specified, parameter name:members"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3023",
  "error_msg" : "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).

## 4.17.17 Updating a Backend Server Group of a VPC Channel

**Function**

This API is used to update a backend server group of a VPC channel. If the load balance channel is the Nacos microservice, the server group weight cannot be modified.

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

```
PUT /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/
member-groups/{member_group_id}
```

**Table 4-1067** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
vpc_channel_id	Yes	String	VPC channel ID.
member_group_id	Yes	String	Backend server group ID of the VPC channel.

## Request Parameters

**Table 4-1068** Request header parameters

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

**Table 4-1069** Request body parameters

Parameter	Mandatory	Type	Description
member_group_name	Yes	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
member_group_remark	No	String	Description of the backend server group. Maximum: <b>255</b>

Parameter	Mandatory	Type	Description
member_group_weight	No	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	No	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>
microservice_version	No	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>
microservice_port	No	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	No	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.

Parameter	Mandatory	Type	Description
reference_vpc_channel_id	No	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>

**Table 4-1070** MicroserviceLabel

Parameter	Mandatory	Type	Description
label_name	Yes	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>
label_value	Yes	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

## Response Parameters

Status code: 200

**Table 4-1071** Response body parameters

Parameter	Type	Description
member_group_name	String	Name of the VPC channel's backend server group. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.

Parameter	Type	Description
member_group_remark	String	Description of the backend server group. Maximum: <b>255</b>
member_group_weight	Integer	Weight of the backend server group. If the server group contains servers and a weight has been set for it, the weight is automatically used to assign weights to servers in this group. Minimum: <b>0</b> Maximum: <b>100</b>
dict_code	String	Dictionary code of the backend server group. The value can contain letters, digits, hyphens (-), underscores (_), and periods (.). Currently, this parameter is not supported. Minimum: <b>3</b> Maximum: <b>64</b>
microservice_version	String	Version of the backend server group. This parameter is supported only when the VPC channel type is microservice. Maximum: <b>64</b>
microservice_port	Integer	Port of the backend server group. This parameter is supported only when the VPC channel type is microservice. If the port number is 0, all addresses in the backend server group use the original load balancing port to inherit logic. Minimum: <b>0</b> Maximum: <b>65535</b>
microservice_labels	Array of <b>MicroserviceLabel</b> objects	Tags of the backend server group. This parameter is supported only when the VPC channel type is microservice.
reference_vpc_channel_id	String	ID of the reference load balance channel. This parameter is supported only when the VPC channel type is reference (vpc_channel_type=reference). Minimum: <b>0</b> Maximum: <b>64</b>
member_group_id	String	ID of the backend server group of the VPC channel.
create_time	String	Time when the backend server group is created.



Parameter	Type	Description
update_time	String	Time when the backend server group is updated.

**Table 4-1072** MicroserviceLabel

Parameter	Type	Description
label_name	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>
label_value	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Status code: 400**

**Table 4-1073** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1074** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1075** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1076** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1077** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Updating a backend server group for a VPC channel of the server type

```
{
  "member_group_name": "vpc_member_group",
  "member_group_weight": 10
}
```

- Updating a backend server group for a VPC channel of the microservice type

```
{
  "member_group_name": "vpc_member_group",
  "member_group_weight": 10,
  "microservice_version": "v1",
  "microservice_port": 80,
  "microservice_labels": [ {
    "label_name": "cluster_id",
    "label_value": "c429700c-5dc4-482a-9c0e-99f6c0635113"
  } ]
}
```

## Example Responses

**Status code: 200**

OK

- Example 1

```
{
  "member_group_name": "vpc_member_group",
  "member_group_id": "105c6902457144a4820dff8b1ad63331",
  "member_group_remark": "",
  "member_group_weight": 10,
  "create_time": "2020-07-23T07:24:33Z",
  "update_time": "2020-07-23T07:24:33Z",
  "microservice_version": "",
  "microservice_port": 0,
  "microservice_labels": []
}
```

- Example 2

```
{
  "member_group_name": "vpc_member_group",
  "member_group_id": "105c6902457144a4820dff8b1ad63331",
  "member_group_remark": "",
  "member_group_weight": 10,
  "create_time": "2020-07-23T07:24:33Z",
  "update_time": "2020-07-23T07:24:33Z",
  "microservice_version": "v1",
  "microservice_port": 80,
  "microservice_labels": [ {
    "label_name": "cluster_id",
    "label_value": "c429700c-5dc4-482a-9c0e-99f6c0635113"
  } ]
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code": "APIG.2001",
  "error_msg": "The request parameters must be specified, parameter name:members"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

## Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

## Not Found

```
{
  "error_code": "APIG.3023",
  "error_msg": "The VPC channel does not exist,id:56a7d7358e1b42459c9d730d65b14e59"
}
```

**Status code: 500**

## Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.18 Monitoring Information Query

## 4.18.1 Querying API Calls Within a Period

### Function

This API is used to query the number of times APIs in an API group are called within a period. The query is based on 1 minute. If the time range is within one hour, the server returns the number of API calls made every minute.

#### NOTE

For security purposes, clear your operation records, including but not limited to records in the `~/.bash_history` and `/var/log/messages` directories (if any), after running the curl command on the server to query information.

### Calling Method

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

### URI

GET `/v2/{project_id}/apigw/instances/{instance_id}/statistics/api/latest`

**Table 4-1078** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1079** Query Parameters

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID.
duration	Yes	String	Time range (unit: h or m). For example, 1h refers to the latest 1 hour and 1m refers to the latest 1 minute.

## Request Parameters

**Table 4-1080** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1081** Response body parameters

Parameter	Type	Description
code	String	Response code.
msg	String	Response message.
start_time	Long	Timestamp (UTC) of the start time.

Parameter	Type	Description
end_time	Long	Timestamp (UTC) of the end time.
list	Array of <a href="#">StatisticsAPI</a> objects	Statistic data.

**Table 4-1082** StatisticsAPI

Parameter	Type	Description
max_latency	Integer	Maximum latency. Unit: ms
avg_latency	Float	Average latency. Unit: ms
req_count	Integer	Total number of requests.
req_count2xx	Integer	Total number of 2xx response codes.
req_count4xx	Integer	Total number of 4xx response codes.
req_count5xx	Integer	Total number of 5xx response codes.
req_count_error	Integer	Errors.
max_inner_latency	Integer	Maximum gateway latency. Unit: ms
avg_inner_latency	Float	Average gateway latency. Unit: ms
max_backend_latency	Integer	Maximum backend latency.
avg_backend_latency	Float	Average backend latency.
output_throughput	Long	Downstream throughput (bytes).
input_throughput	Long	Upstream throughput (bytes).
current_minute	Long	Timestamp (UTC) of API access.
cycle	String	Statistical period.
api_id	String	API ID.
group_id	String	API group ID.

Parameter	Type	Description
provider	String	API provider.
req_time	String	Request time.
register_time	String	Recording time.
status	Integer	Status.

**Status code: 400****Table 4-1083** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1084** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1085** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1086** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 4-1087** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "code": "APIG.0000",
  "start_time": 1595573280,
  "end_time": 1595576820,
  "list": [ {
    "api_id": "39bce6d25a3f470e8cf7b2c97174f7d9",
    "avg_backend_latency": 2.71,
    "avg_inner_latency": 1.57,
    "avg_latency": 4.14,
    "current_minute": 1595576640,
    "cycle": "MINUTE",
    "group_id": "d0fc4e40b7d1492cba802f667c7c7226",
    "input_throughput": 1071,
    "max_backend_latency": 6,
    "max_inner_latency": 8,
    "max_latency": 14,
    "output_throughput": 3790,
    "provider": "73d69ae0cfcf460190522d06b60f05ad",
    "register_time": "2020-07-24 15:44:56",
    "req_count": 7,
    "req_count2xx": 0,
    "req_count4xx": 6,
    "req_count5xx": 1,
    "req_count_error": 7,
    "req_time": "2020-07-24 15:44:00",
    "status": 1
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
```



```
"error_msg" : "Invalid parameter value,parameterName:api_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 39bce6d25a3f470e8cf7b2c97174f7d9 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.18.2 Querying Monitoring Data

### Function

This API is used to query the monitoring metric data at a specified granularity in a specified period of time.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/metric-data

**Table 4-1088** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1089** Query Parameters

Parameter	Mandatory	Type	Description
dim	Yes	String	Metric dimension. <ul style="list-style-type: none"><li>inbound_eip: Inbound public network bandwidth, which is supported only by gateways that support load balancing.</li><li>outbound_eip: Outbound public network bandwidth.</li></ul>

Parameter	Mandatory	Type	Description
metric_name	Yes	String	<p>Metric name.</p> <ul style="list-style-type: none"> <li>• upstream_bandwidth: Outbound bandwidth.</li> <li>• downstream_bandwidth: Inbound bandwidth.</li> <li>• upstream_bandwidth_usage : Outbound bandwidth usage.</li> <li>• downstream_bandwidth_usage: Inbound bandwidth usage.</li> <li>• up_stream: Outbound traffic.</li> <li>• down_stream: Inbound traffic.</li> </ul>
from	Yes	String	Start time of the query. The time is a UNIX timestamp and the unit is ms.
to	Yes	String	End time of the query. The time is a UNIX timestamp and the unit is ms. The value of parameter from must be earlier than that of parameter to.
period	Yes	Integer	<p>Monitoring data granularity.</p> <ul style="list-style-type: none"> <li>• 1: Real-time data.</li> <li>• 300: 5 minutes.</li> <li>• 1200: 20 minutes.</li> <li>• 3600: 1 hour.</li> <li>• 14400: 4 hours.</li> <li>• 86400: 1 day.</li> </ul>

Parameter	Mandatory	Type	Description
filter	Yes	String	Data rollup mode. <ul style="list-style-type: none"> <li>• average: Average value of the metric data in the rollup period.</li> <li>• max: Maximum value of the metric data in the rollup period.</li> <li>• min: Minimum value of the metric data in the rollup period.</li> <li>• sum: Sum of the metric data in the rollup period.</li> <li>• variance: Variance value of the metric data in the rollup period.</li> </ul>

## Request Parameters

**Table 4-1090** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1091** Response body parameters

Parameter	Type	Description
datapoints	Array of <a href="#">MetricData</a> objects	Metric data.

**Table 4-1092** MetricData

Parameter	Type	Description
average	Integer	Average value of metric data within a rollup period. This parameter is supported only when the value of filter in the request is average.
max	Integer	Maximum value of metric data within a rollup period. This parameter is supported only when the value of filter in the request is max.
min	Integer	Minimum value of metric data within a rollup period. This parameter is supported only when the value of filter in the request is min.
sum	Integer	Sum of metric data within a rollup period. This parameter is supported only when the value of filter in the request is sum.
variance	Integer	Variance value of metric data within a rollup period. This parameter is supported only when the value of filter in the request is variance.
timestamp	Long	Time when the metric is collected. It is a UNIX timestamp in milliseconds.
unit	String	Metric unit.

**Status code: 400**

**Table 4-1093** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1094** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1095** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1096** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1097** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "datapoints" : [ {
    "average" : 5,
    "timestamp" : 1665304920000,
    "unit" : "Byte"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:api_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 39bce6d25a3f470e8cf7b2c97174f7d9 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.18.3 Querying API Calls Under an API Group in the Last One Hour

### Function

This API is used to query the total number of times all APIs in an API group are called based on the API group ID. The query is based on 1 minute. If the time range is within one hour, the server returns the number of API calls made every minute.

#### NOTE

For security purposes, clear your operation records, including but not limited to records in the `~/bash_history` and `/var/log/messages` directories (if any), after running the curl command on the server to query information.

### Calling Method

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

### URI

GET `/v2/{project_id}/apigw/instances/{instance_id}/statistics/group/latest`

**Table 4-1098** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1099** Query Parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	API group ID.



## Request Parameters

**Table 4-1100** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1101** Response body parameters

Parameter	Type	Description
code	String	Response code.
msg	String	Response message.
start_time	Long	Timestamp (UTC) of the start time.
end_time	Long	Timestamp (UTC) of the end time.
list	Array of <a href="#">StatisticsGroup</a> objects	Statistic data.

**Table 4-1102** StatisticsGroup

Parameter	Type	Description
max_latency	Integer	Maximum latency. Unit: ms
avg_latency	Float	Average latency. Unit: ms
req_count	Integer	Total number of requests.
req_count2xx	Integer	Total number of 2xx response codes.
req_count4xx	Integer	Total number of 4xx response codes.
req_count5xx	Integer	Total number of 5xx response codes.
req_count_error	Integer	Errors.

Parameter	Type	Description
output_throughput	Long	Downstream throughput (bytes).
input_throughput	Long	Upstream throughput (bytes).
current_minute	Long	Timestamp (UTC) of API access.
group_id	String	API group ID.
provider	String	API provider.
req_time	String	Request time.
register_time	String	Recording time.

**Status code: 400****Table 4-1103** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1104** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1105** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1106** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1107** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

**Example Responses****Status code: 200**

OK

```
{
  "code": "APIG.0000",
  "start_time": 1595574540,
  "end_time": 1595578080,
  "list": [ {
    "avg_latency": 4.14,
    "current_minute": 1595576640,
    "group_id": "d0fc4e40b7d1492cba802f667c7c7226",
    "input_throughput": 1071,
    "max_latency": 14,
    "output_throughput": 3790,
    "provider": "73d69ae0cfcf460190522d06b60f05ad",
    "register_time": "2020-07-24 15:44:56",
    "req_count": 7,
    "req_count2xx": 0,
    "req_count4xx": 6,
    "req_count5xx": 1,
    "req_count_error": 7,
    "req_time": "2020-07-24 15:44:00"
  }, {
    "avg_latency": 3.67,
    "current_minute": 1595577900,
    "group_id": "d0fc4e40b7d1492cba802f667c7c7226",
    "input_throughput": 915,
    "max_latency": 6,
    "output_throughput": 2763,
    "provider": "73d69ae0cfcf460190522d06b60f05ad",
    "register_time": "2020-07-24 16:05:12",
```

```

    "req_count" : 6,
    "req_count2xx" : 3,
    "req_count4xx" : 0,
    "req_count5xx" : 3,
    "req_count_error" : 3,
    "req_time" : "2020-07-24 16:05:00"
  } ]
}

```

**Status code: 400**

Bad Request

```

{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:group_id. Please refer to the support documentation"
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
  "error_code" : "APIG.3001",
  "error_msg" : "API group d0fc4e40b7d1492cba802f667c7c7226 does not exist"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.19 Group Response Management

## 4.19.1 Creating a Group Response

### Function

This API is used to create a response for an API group.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/gateway-responses

**Table 4-1108** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.

## Request Parameters

**Table 4-1109** Request header parameters

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

**Table 4-1110** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Response name. Enter 1 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
responses	No	Map<String,ResponseInfo>	<p>Response type definition. key indicates the error type. Options of key:</p> <ul style="list-style-type: none"> <li>• AUTH_FAILURE: Authentication failed.</li> <li>• AUTH_HEADER_MISSING: The identity source is missing.</li> <li>• AUTHORIZER_FAILURE: Custom authentication failed.</li> <li>• AUTHORIZER_CONF_FAILURE: Custom authorizer error.</li> <li>• AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>• BACKEND_UNAVAILABLE: The backend is unavailable.</li> <li>• BACKEND_TIMEOUT: Backend timed out.</li> <li>• THROTTLED: The request was rejected due to request throttling.</li> <li>• UNAUTHORIZED: The app you are using has not been authorized to call the API.</li> <li>• ACCESS_DENIED: Access denied.</li> <li>• NOT_FOUND: No API is found.</li> <li>• REQUEST_PARAMETERS_FAILURE: Invalid request parameter.</li> <li>• DEFAULT_4XX: Default 4XX error occurred.</li> <li>• DEFAULT_5XX: Default 5XX error occurred.</li> <li>• THIRD_AUTH_FAILURE: Third-party authentication failed.</li> <li>• THIRD_AUTH_IDENTITY_FAILURE: Identity source of the third-party authorizer is invalid.</li> </ul>

Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> <li>• THIRD_AUTH_CONF_FAILURE: Third-party authorizer configuration error.</li> <li>• ORCHESTRATION_PARAMETER_NOT_FOUND: No parameters are input to match the parameter orchestration rule, causing orchestration failure.</li> <li>• ORCHESTRATION_FAILURE: Input parameters cannot match orchestration rules, causing orchestration failure.</li> </ul> <p>Each error type is in JSON format.</p>

**Table 4-1111** ResponseInfo

Parameter	Mandatory	Type	Description
status	No	Integer	HTTP status code of the response. The value ranges from 200 to 599, but cannot be 444.
body	No	String	Response body template.
headers	No	Array of <a href="#">ResponseInfo Header</a> objects	Custom response header. Array Length: <b>0 - 10</b>

**Table 4-1112** ResponseInfoHeader

Parameter	Mandatory	Type	Description
key	No	String	Key of the custom group response header, which can contain 1 to 128 characters of letters, digits, and hyphens (-).
value	No	String	Value of the custom group response header, which is a string of 1 to 1,024 characters. Minimum: <b>1</b> Maximum: <b>1024</b>



## Response Parameters

Status code: 201

Table 4-1113 Response body parameters

Parameter	Type	Description
name	String	Response name.

Parameter	Type	Description
responses	Map<String,ResponseInfo>	<p>Response type definition. key indicates the error type. Options of key:</p> <ul style="list-style-type: none"> <li>● AUTH_FAILURE: Authentication failed.</li> <li>● AUTH_HEADER_MISSING: The identity source is missing.</li> <li>● AUTHORIZER_FAILURE: Custom authentication failed.</li> <li>● AUTHORIZER_CONF_FAILURE: Custom authorizer error.</li> <li>● AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>● BACKEND_UNAVAILABLE: The backend is unavailable.</li> <li>● BACKEND_TIMEOUT: Backend timed out.</li> <li>● THROTTLED: The request was rejected due to request throttling.</li> <li>● UNAUTHORIZED: The app you are using has not been authorized to call the API.</li> <li>● ACCESS_DENIED: Access denied.</li> <li>● NOT_FOUND: No API is found.</li> <li>● REQUEST_PARAMETERS_FAILURE: Invalid request parameter.</li> <li>● DEFAULT_4XX: Default 4XX error occurred.</li> <li>● DEFAULT_5XX: Default 5XX error occurred.</li> <li>● THIRD_AUTH_FAILURE: Third-party authentication failed.</li> <li>● THIRD_AUTH_IDENTITY_FAILURE: Identity source of the third-party authorizer is invalid.</li> <li>● THIRD_AUTH_CONF_FAILURE: Third-party authorizer configuration error.</li> <li>● ORCHESTRATION_PARAMETER_NOT_FOUND: No parameters are input to match the parameter orchestration rule, causing orchestration failure.</li> <li>● ORCHESTRATION_FAILURE: Input parameters cannot match orchestration rules, causing orchestration failure.</li> </ul> <p>Each error type is in JSON format.</p>
id	String	Response ID.
default	Boolean	Indicates whether the group response is the default response.

Parameter	Type	Description
create_time	String	Creation time.
update_time	String	Update time.

**Table 4-1114** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response. The value ranges from 200 to 599, but cannot be 444.
body	String	Response body template.
headers	Array of <a href="#">ResponseInfoHeader</a> objects	Custom response header. Array Length: <b>0 - 10</b>
default	Boolean	Indicates whether the response is the default response.

**Table 4-1115** ResponseInfoHeader

Parameter	Type	Description
key	String	Key of the custom group response header, which can contain 1 to 128 characters of letters, digits, and hyphens (-).
value	String	Value of the custom group response header, which is a string of 1 to 1,024 characters. Minimum: <b>1</b> Maximum: <b>1024</b>

**Status code: 400****Table 4-1116** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1117** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1118** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1119** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1120** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating a response for an API group

```
{
  "name" : "response_demo"
}
```

## Example Responses

**Status code: 201**

## Created

```
{
  "create_time": "2020-08-12T14:52:02.829753306+08:00",
  "update_time": "2020-08-12T14:52:02.829753306+08:00",
  "default": false,
  "id": "e839b367e10f4ab19d1c5008e476b83a",
  "name": "response_demo",
  "responses": {
    "ACCESS_DENIED": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 403
    },
    "AUTHORIZER_CONF_FAILURE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 500
    },
    "AUTHORIZER_FAILURE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 500
    },
    "AUTHORIZER_IDENTITY_FAILURE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 401
    },
    "AUTH_FAILURE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 401
    },
    "AUTH_HEADER_MISSING": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 401
    },
    "BACKEND_TIMEOUT": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 504
    },
    "BACKEND_UNAVAILABLE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 502
    },
    "DEFAULT_4XX": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true
    },
    "DEFAULT_5XX": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true
    },
    "NOT_FOUND": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",

```

```
"default" : true,
"status" : 404
},
"REQUEST_PARAMETERS_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 400
},
"THROTTLED" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 429
},
"UNAUTHORIZED" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 401
},
"THIRD_AUTH_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 401
},
"THIRD_AUTH_IDENTITIES_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 401
},
"THIRD_AUTH_CONF_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 500
}
}
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

## Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.19.2 Querying Group Response Details

### Function

This API is used to query the details of a response defined for an API group.

### Calling Method

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

### URI

```
GET /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/
gateway-responses/{response_id}
```

**Table 4-1121** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
response_id	Yes	String	Response ID.

## Request Parameters

**Table 4-1122** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1123** Response body parameters

Parameter	Type	Description
name	String	Response name.



Parameter	Type	Description
responses	Map<String,ResponseInfoResp>	<p>Response type definition. key indicates the error type. Options of key:</p> <ul style="list-style-type: none"> <li>● AUTH_FAILURE: Authentication failed.</li> <li>● AUTH_HEADER_MISSING: The identity source is missing.</li> <li>● AUTHORIZER_FAILURE: Custom authentication failed.</li> <li>● AUTHORIZER_CONF_FAILURE: Custom authorizer error.</li> <li>● AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>● BACKEND_UNAVAILABLE: The backend is unavailable.</li> <li>● BACKEND_TIMEOUT: Backend timed out.</li> <li>● THROTTLED: The request was rejected due to request throttling.</li> <li>● UNAUTHORIZED: The app you are using has not been authorized to call the API.</li> <li>● ACCESS_DENIED: Access denied.</li> <li>● NOT_FOUND: No API is found.</li> <li>● REQUEST_PARAMETERS_FAILURE: Invalid request parameter.</li> <li>● DEFAULT_4XX: Default 4XX error occurred.</li> <li>● DEFAULT_5XX: Default 5XX error occurred.</li> <li>● THIRD_AUTH_FAILURE: Third-party authentication failed.</li> <li>● THIRD_AUTH_IDENTITY_FAILURE: Identity source of the third-party authorizer is invalid.</li> <li>● THIRD_AUTH_CONF_FAILURE: Third-party authorizer configuration error.</li> <li>● ORCHESTRATION_PARAMETER_NOT_FOUND: No parameters are input to match the parameter orchestration rule, causing orchestration failure.</li> <li>● ORCHESTRATION_FAILURE: Input parameters cannot match orchestration rules, causing orchestration failure.</li> </ul> <p>Each error type is in JSON format.</p>
id	String	Response ID.
default	Boolean	Indicates whether the group response is the default response.

Parameter	Type	Description
create_time	String	Creation time.
update_time	String	Update time.

**Table 4-1124** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response. The value ranges from 200 to 599, but cannot be 444.
body	String	Response body template.
headers	Array of <a href="#">ResponseInfoHeader</a> objects	Custom response header. Array Length: <b>0 - 10</b>
default	Boolean	Indicates whether the response is the default response.

**Table 4-1125** ResponseInfoHeader

Parameter	Type	Description
key	String	Key of the custom group response header, which can contain 1 to 128 characters of letters, digits, and hyphens (-).
value	String	Value of the custom group response header, which is a string of 1 to 1,024 characters. Minimum: <b>1</b> Maximum: <b>1024</b>

**Status code: 400****Table 4-1126** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1127** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1128** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1129** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1130** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

Created

```
{  
  "create_time": "2020-08-12T06:52:02Z",
```

```
"update_time" : "2020-08-12T06:52:02Z",
"default" : false,
"id" : "e839b367e10f4ab19d1c5008e476b83a",
"name" : "response_demo",
"responses" : {
  "ACCESS_DENIED" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 403
  },
  "AUTHORIZER_CONF_FAILURE" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 500
  },
  "AUTHORIZER_FAILURE" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 500
  },
  "AUTHORIZER_IDENTITY_FAILURE" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 401
  },
  "AUTH_FAILURE" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 401
  },
  "AUTH_HEADER_MISSING" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 401
  },
  "BACKEND_TIMEOUT" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 504
  },
  "BACKEND_UNAVAILABLE" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 502
  },
  "DEFAULT_4XX" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true
  },
  "DEFAULT_5XX" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true
  },
  "NOT_FOUND" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 404
  }
}
```

```
"REQUEST_PARAMETERS_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\":\":$context.requestId\"}",
  "default" : true,
  "status" : 400
},
"THROTTLED" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\":\":$context.requestId\"}",
  "default" : true,
  "status" : 429
},
"UNAUTHORIZED" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\":\":$context.requestId\"}",
  "default" : true,
  "status" : 401
},
"THIRD_AUTH_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\":\":$context.requestId\"}",
  "default" : true,
  "status" : 401
},
"THIRD_AUTH_IDENTITY_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\":\":$context.requestId\"}",
  "default" : true,
  "status" : 401
},
"THIRD_AUTH_CONF_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\":\":$context.requestId\"}",
  "default" : true,
  "status" : 500
}
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:group_id. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

## Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

## Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.19.3 Modifying a Group Response

### Function

This API is used to modify a response of an API group.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/gateway-responses/{response\_id}

**Table 4-1131** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
response_id	Yes	String	Response ID.

## Request Parameters

**Table 4-1132** Request header parameters

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

**Table 4-1133** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Response name. Enter 1 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
responses	No	Map<String, <a href="#">ResponseInfo</a> >	<p>Response type definition. key indicates the error type. Options of key:</p> <ul style="list-style-type: none"> <li>● AUTH_FAILURE: Authentication failed.</li> <li>● AUTH_HEADER_MISSING: The identity source is missing.</li> <li>● AUTHORIZER_FAILURE: Custom authentication failed.</li> <li>● AUTHORIZER_CONF_FAILURE: Custom authorizer error.</li> <li>● AUTHORIZER_IDENTITIES_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>● BACKEND_UNAVAILABLE: The backend is unavailable.</li> <li>● BACKEND_TIMEOUT: Backend timed out.</li> <li>● THROTTLED: The request was rejected due to request throttling.</li> <li>● UNAUTHORIZED: The app you are using has not been authorized to call the API.</li> <li>● ACCESS_DENIED: Access denied.</li> <li>● NOT_FOUND: No API is found.</li> <li>● REQUEST_PARAMETERS_FAILURE: Invalid request parameter.</li> <li>● DEFAULT_4XX: Default 4XX error occurred.</li> <li>● DEFAULT_5XX: Default 5XX error occurred.</li> <li>● THIRD_AUTH_FAILURE: Third-party authentication failed.</li> <li>● THIRD_AUTH_IDENTITIES_FAILURE: Identity source of the third-party authorizer is invalid.</li> </ul>



Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> <li>• THIRD_AUTH_CONF_FAILURE: Third-party authorizer configuration error.</li> <li>• ORCHESTRATION_PARAMETER_NOT_FOUND: No parameters are input to match the parameter orchestration rule, causing orchestration failure.</li> <li>• ORCHESTRATION_FAILURE: Input parameters cannot match orchestration rules, causing orchestration failure.</li> </ul> <p>Each error type is in JSON format.</p>

**Table 4-1134** ResponseInfo

Parameter	Mandatory	Type	Description
status	No	Integer	HTTP status code of the response. The value ranges from 200 to 599, but cannot be 444.
body	No	String	Response body template.
headers	No	Array of <a href="#">ResponseInfo Header</a> objects	Custom response header. Array Length: <b>0 - 10</b>

**Table 4-1135** ResponseInfoHeader

Parameter	Mandatory	Type	Description
key	No	String	Key of the custom group response header, which can contain 1 to 128 characters of letters, digits, and hyphens (-).
value	No	String	Value of the custom group response header, which is a string of 1 to 1,024 characters. Minimum: <b>1</b> Maximum: <b>1024</b>

## Response Parameters

Status code: 200

Table 4-1136 Response body parameters

Parameter	Type	Description
name	String	Response name.

Parameter	Type	Description
responses	Map<String,ResponseInfo>	<p>Response type definition. key indicates the error type. Options of key:</p> <ul style="list-style-type: none"> <li>● AUTH_FAILURE: Authentication failed.</li> <li>● AUTH_HEADER_MISSING: The identity source is missing.</li> <li>● AUTHORIZER_FAILURE: Custom authentication failed.</li> <li>● AUTHORIZER_CONF_FAILURE: Custom authorizer error.</li> <li>● AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>● BACKEND_UNAVAILABLE: The backend is unavailable.</li> <li>● BACKEND_TIMEOUT: Backend timed out.</li> <li>● THROTTLED: The request was rejected due to request throttling.</li> <li>● UNAUTHORIZED: The app you are using has not been authorized to call the API.</li> <li>● ACCESS_DENIED: Access denied.</li> <li>● NOT_FOUND: No API is found.</li> <li>● REQUEST_PARAMETERS_FAILURE: Invalid request parameter.</li> <li>● DEFAULT_4XX: Default 4XX error occurred.</li> <li>● DEFAULT_5XX: Default 5XX error occurred.</li> <li>● THIRD_AUTH_FAILURE: Third-party authentication failed.</li> <li>● THIRD_AUTH_IDENTITY_FAILURE: Identity source of the third-party authorizer is invalid.</li> <li>● THIRD_AUTH_CONF_FAILURE: Third-party authorizer configuration error.</li> <li>● ORCHESTRATION_PARAMETER_NOT_FOUND: No parameters are input to match the parameter orchestration rule, causing orchestration failure.</li> <li>● ORCHESTRATION_FAILURE: Input parameters cannot match orchestration rules, causing orchestration failure.</li> </ul> <p>Each error type is in JSON format.</p>
id	String	Response ID.
default	Boolean	Indicates whether the group response is the default response.

Parameter	Type	Description
create_time	String	Creation time.
update_time	String	Update time.

**Table 4-1137** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response. The value ranges from 200 to 599, but cannot be 444.
body	String	Response body template.
headers	Array of <a href="#">ResponseInfoHeader</a> objects	Custom response header. Array Length: <b>0 - 10</b>
default	Boolean	Indicates whether the response is the default response.

**Table 4-1138** ResponseInfoHeader

Parameter	Type	Description
key	String	Key of the custom group response header, which can contain 1 to 128 characters of letters, digits, and hyphens (-).
value	String	Value of the custom group response header, which is a string of 1 to 1,024 characters. Minimum: <b>1</b> Maximum: <b>1024</b>

**Status code: 400****Table 4-1139** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1140** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1141** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1142** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1143** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Modifying a response of an API group

```
{  
  "name" : "response_demo"  
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "create_time": "2020-08-12T06:52:02Z",
  "update_time": "2020-08-12T15:22:21.929863859+08:00",
  "default": false,
  "id": "e839b367e10f4ab19d1c5008e476b83a",
  "name": "response_demo",
  "responses": {
    "ACCESS_DENIED": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 403
    },
    "AUTHORIZER_CONF_FAILURE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 500
    },
    "AUTHORIZER_FAILURE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 500
    },
    "AUTHORIZER_IDENTITY_FAILURE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 401
    },
    "AUTH_FAILURE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 401
    },
    "AUTH_HEADER_MISSING": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 401
    },
    "BACKEND_TIMEOUT": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 504
    },
    "BACKEND_UNAVAILABLE": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true,
      "status": 502
    },
    "DEFAULT_4XX": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true
    },
    "DEFAULT_5XX": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
      "default": true
    },
    "NOT_FOUND": {
      "body": "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",

```

```
"default" : true,
"status" : 404
},
"REQUEST_PARAMETERS_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 400
},
"THROTTLED" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 429
},
"UNAUTHORIZED" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 401
},
"THIRD_AUTH_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 401
},
"THIRD_AUTH_IDENTITY_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 401
},
"THIRD_AUTH_CONF_FAILURE" : {
  "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\": \"$context.requestId\"}",
  "default" : true,
  "status" : 500
}
}
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

## Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.19.4 Deleting a Group Response

### Function

This API is used to delete a group response of an API group.

### Calling Method

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

### URI

```
DELETE /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/
gateway-responses/{response_id}
```



**Table 4-1144** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
response_id	Yes	String	Response ID.

## Request Parameters

**Table 4-1145** Request header parameters

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

## Response Parameters

**Status code: 400**

**Table 4-1146** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1147** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403****Table 4-1148** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1149** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1150** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:group_id. Please refer to the support
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.19.5 Querying the Response of an Error Type

### Function

This API is used to query the response of an error type defined for an API group.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/gateway-responses/{response\_id}/{response\_type}

**Table 4-1151** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
response_id	Yes	String	Response ID.

Parameter	Mandatory	Type	Description
response_type	Yes	String	<p>Error type. Options:</p> <ul style="list-style-type: none"> <li>• AUTH_FAILURE: IAM or app authentication failed.</li> <li>• AUTH_HEADER_MISSING: The identity source is missing.</li> <li>• AUTHORIZER_FAILURE: Custom authentication failed.</li> <li>• AUTHORIZER_CONF_FAILURE: A custom authorizer error has occurred. For example, communication failed or an error response was returned.</li> <li>• AUTHORIZER_IDENTITIES_FAILURE: The identity source of the frontend custom authorizer is missing or invalid.</li> <li>• BACKEND_UNAVAILABLE: The backend is unavailable due to communication error.</li> <li>• BACKEND_TIMEOUT: Communication with the backend timed out.</li> <li>• THROTTLED: The request was rejected due to throttling.</li> <li>• UNAUTHORIZED: The credential you use is not authorized to call the API.</li> <li>• ACCESS_DENIED: Access denied. For example, the access control policy is triggered or an attack is detected.</li> <li>• NOT_FOUND: No API is matched.</li> <li>• REQUEST_PARAMETERS_FAILURE: Invalid request parameter or unsupported HTTP method.</li> <li>• DEFAULT_4XX: Another 4XX error occurred.</li> </ul>

Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> <li>• <b>DEFAULT_5XX:</b> Another 5XX error occurred.</li> <li>• <b>THIRD_AUTH_FAILURE:</b> Third-party authentication failed.</li> <li>• <b>THIRD_AUTH_IDENTITIES_FAILURE:</b> The identity source of the third-party authorizer is missing or invalid.</li> <li>• <b>THIRD_AUTH_CONF_FAILURE:</b> A third-party authorizer error has occurred. For example, communication failed or an error response was returned.</li> <li>• <b>ORCHESTRATION_PARAMETER_NOT_FOUND:</b> Parameter orchestration failed. No input parameter is found in the request.</li> <li>• <b>ORCHESTRATION_FAILURE:</b> Parameter orchestration failed. No orchestration rule to match.</li> </ul>

## Request Parameters

**Table 4-1152** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1153** Response body parameters

Parameter	Type	Description
status	Integer	HTTP status code of the response. The value ranges from 200 to 599, but cannot be 444.
body	String	Response body template.
headers	Array of <a href="#">ResponseInfo Header</a> objects	Custom response header. Array Length: <b>0 - 10</b>
default	Boolean	Indicates whether the response is the default response.

**Table 4-1154** ResponseInfoHeader

Parameter	Type	Description
key	String	Key of the custom group response header, which can contain 1 to 128 characters of letters, digits, and hyphens (-).
value	String	Value of the custom group response header, which is a string of 1 to 1,024 characters. Minimum: <b>1</b> Maximum: <b>1024</b>

**Status code: 400**

**Table 4-1155** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1156** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1157** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1158** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1159** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "ACCESS_DENIED" : {
    "body" : "{\"error_code\":\"$context.error.code\",\"error_msg\":\"$context.error.message\",\"request_id\":\"$context.requestId\"}",
    "default" : true,
    "status" : 403
  }
}
```

**Status code: 400**

Bad Request



```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:group_id. Please refer to the support
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.19.6 Modifying the Response of an Error Type

### Function

This API is used to modify the response of an error type defined for an API group.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/gateway-responses/{response\_id}/{response\_type}

**Table 4-1160** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
response_id	Yes	String	Response ID.

Parameter	Mandatory	Type	Description
response_type	Yes	String	<p>Error type. Options:</p> <ul style="list-style-type: none"> <li>• AUTH_FAILURE: IAM or app authentication failed.</li> <li>• AUTH_HEADER_MISSING: The identity source is missing.</li> <li>• AUTHORIZER_FAILURE: Custom authentication failed.</li> <li>• AUTHORIZER_CONF_FAILURE: A custom authorizer error has occurred. For example, communication failed or an error response was returned.</li> <li>• AUTHORIZER_IDENTITIES_FAILURE: The identity source of the frontend custom authorizer is missing or invalid.</li> <li>• BACKEND_UNAVAILABLE: The backend is unavailable due to communication error.</li> <li>• BACKEND_TIMEOUT: Communication with the backend timed out.</li> <li>• THROTTLED: The request was rejected due to throttling.</li> <li>• UNAUTHORIZED: The credential you use is not authorized to call the API.</li> <li>• ACCESS_DENIED: Access denied. For example, the access control policy is triggered or an attack is detected.</li> <li>• NOT_FOUND: No API is matched.</li> <li>• REQUEST_PARAMETERS_FAILURE: Invalid request parameter or unsupported HTTP method.</li> <li>• DEFAULT_4XX: Another 4XX error occurred.</li> </ul>

Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> <li>• <b>DEFAULT_5XX:</b> Another 5XX error occurred.</li> <li>• <b>THIRD_AUTH_FAILURE:</b> Third-party authentication failed.</li> <li>• <b>THIRD_AUTH_IDENTITIES_FAILURE:</b> The identity source of the third-party authorizer is missing or invalid.</li> <li>• <b>THIRD_AUTH_CONF_FAILURE:</b> A third-party authorizer error has occurred. For example, communication failed or an error response was returned.</li> <li>• <b>ORCHESTRATION_PARAMETER_NOT_FOUND:</b> Parameter orchestration failed. No input parameter is found in the request.</li> <li>• <b>ORCHESTRATION_FAILURE:</b> Parameter orchestration failed. No orchestration rule to match.</li> </ul>

## Request Parameters

**Table 4-1161** Request header parameters

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

**Table 4-1162** Request body parameters

Parameter	Mandatory	Type	Description
status	No	Integer	HTTP status code of the response. The value ranges from 200 to 599, but cannot be 444.
body	No	String	Response body template.
headers	No	Array of <b>ResponseInfo Header</b> objects	Custom response header. Array Length: <b>0 - 10</b>

**Table 4-1163** ResponseInfoHeader

Parameter	Mandatory	Type	Description
key	No	String	Key of the custom group response header, which can contain 1 to 128 characters of letters, digits, and hyphens (-).
value	No	String	Value of the custom group response header, which is a string of 1 to 1,024 characters. Minimum: <b>1</b> Maximum: <b>1024</b>

## Response Parameters

Status code: 200

**Table 4-1164** Response body parameters

Parameter	Type	Description
status	Integer	HTTP status code of the response. The value ranges from 200 to 599, but cannot be 444.
body	String	Response body template.
headers	Array of <b>ResponseInfo Header</b> objects	Custom response header. Array Length: <b>0 - 10</b>
default	Boolean	Indicates whether the response is the default response.

**Table 4-1165** ResponseInfoHeader

Parameter	Type	Description
key	String	Key of the custom group response header, which can contain 1 to 128 characters of letters, digits, and hyphens (-).
value	String	Value of the custom group response header, which is a string of 1 to 1,024 characters. Minimum: <b>1</b> Maximum: <b>1024</b>

**Status code: 400****Table 4-1166** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1167** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1168** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1169** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1170** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Modifying the response of an error type defined for an API group

```
{
  "body" : "body: {\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}\\""},
  "status" : 403
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "ACCESS_DENIED" : {
    "body" : "{\\"error_code\\":\\"$context.error.code\\",\\"error_msg\\":\\"$context.error.message\\",\\"request_id\\":\\"$context.requestId\\"}",
    "default" : true,
    "status" : 403
  }
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:group_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
```

```
{
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3001",
  "error_msg": "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.19.7 Deleting the Response of an Error Type

#### Function

This API is used to delete the response of an error type defined for an API group. After the response is deleted, the default response of the error type is used.



## Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/gateway-responses/{response\_id}/{response\_type}

**Table 4-1171** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
response_id	Yes	String	Response ID.

Parameter	Mandatory	Type	Description
response_type	Yes	String	<p>Error type. Options:</p> <ul style="list-style-type: none"> <li>• AUTH_FAILURE: IAM or app authentication failed.</li> <li>• AUTH_HEADER_MISSING: The identity source is missing.</li> <li>• AUTHORIZER_FAILURE: Custom authentication failed.</li> <li>• AUTHORIZER_CONF_FAILURE: A custom authorizer error has occurred. For example, communication failed or an error response was returned.</li> <li>• AUTHORIZER_IDENTITIES_FAILURE: The identity source of the frontend custom authorizer is missing or invalid.</li> <li>• BACKEND_UNAVAILABLE: The backend is unavailable due to communication error.</li> <li>• BACKEND_TIMEOUT: Communication with the backend timed out.</li> <li>• THROTTLED: The request was rejected due to throttling.</li> <li>• UNAUTHORIZED: The credential you use is not authorized to call the API.</li> <li>• ACCESS_DENIED: Access denied. For example, the access control policy is triggered or an attack is detected.</li> <li>• NOT_FOUND: No API is matched.</li> <li>• REQUEST_PARAMETERS_FAILURE: Invalid request parameter or unsupported HTTP method.</li> <li>• DEFAULT_4XX: Another 4XX error occurred.</li> </ul>

Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> <li>• <b>DEFAULT_5XX:</b> Another 5XX error occurred.</li> <li>• <b>THIRD_AUTH_FAILURE:</b> Third-party authentication failed.</li> <li>• <b>THIRD_AUTH_IDENTITIES_FAILURE:</b> The identity source of the third-party authorizer is missing or invalid.</li> <li>• <b>THIRD_AUTH_CONF_FAILURE:</b> A third-party authorizer error has occurred. For example, communication failed or an error response was returned.</li> <li>• <b>ORCHESTRATION_PARAMETER_NOT_FOUND:</b> Parameter orchestration failed. No input parameter is found in the request.</li> <li>• <b>ORCHESTRATION_FAILURE:</b> Parameter orchestration failed. No orchestration rule to match.</li> </ul>

## Request Parameters

Table 4-1172 Request header parameters

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

## Response Parameters

Status code: 400

**Table 4-1173** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1174** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1175** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1176** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1177** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:group_id. Please refer to the support
documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.19.8 Querying Group Responses

### Function

This API is used to query the responses of an API group.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/gateway-responses

**Table 4-1178** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.

**Table 4-1179** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>

## Request Parameters

**Table 4-1180** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1181** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
responses	Array of <b>ResponsesInfo</b> objects	Response list.

**Table 4-1182** ResponsesInfo

Parameter	Type	Description
name	String	Response name.
responses	Map<String,ResponseInfo>	<p>Response type definition. key indicates the error type. Options of key:</p> <ul style="list-style-type: none"> <li>● AUTH_FAILURE: Authentication failed.</li> <li>● AUTH_HEADER_MISSING: The identity source is missing.</li> <li>● AUTHORIZER_FAILURE: Custom authentication failed.</li> <li>● AUTHORIZER_CONF_FAILURE: Custom authorizer error.</li> <li>● AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>● BACKEND_UNAVAILABLE: The backend is unavailable.</li> <li>● BACKEND_TIMEOUT: Backend timed out.</li> <li>● THROTTLED: The request was rejected due to request throttling.</li> <li>● UNAUTHORIZED: The app you are using has not been authorized to call the API.</li> <li>● ACCESS_DENIED: Access denied.</li> <li>● NOT_FOUND: No API is found.</li> <li>● REQUEST_PARAMETERS_FAILURE: Invalid request parameter.</li> <li>● DEFAULT_4XX: Default 4XX error occurred.</li> <li>● DEFAULT_5XX: Default 5XX error occurred.</li> <li>● THIRD_AUTH_FAILURE: Third-party authentication failed.</li> <li>● THIRD_AUTH_IDENTITY_FAILURE: Identity source of the third-party authorizer is invalid.</li> <li>● THIRD_AUTH_CONF_FAILURE: Third-party authorizer configuration error.</li> <li>● ORCHESTRATION_PARAMETER_NOT_FOUND: No parameters are input to match the parameter orchestration rule, causing orchestration failure.</li> <li>● ORCHESTRATION_FAILURE: Input parameters cannot match orchestration rules, causing orchestration failure.</li> </ul> <p>Each error type is in JSON format.</p>



Parameter	Type	Description
id	String	Response ID.
default	Boolean	Indicates whether the group response is the default response.
create_time	String	Creation time.
update_time	String	Update time.

**Table 4-1183** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response. The value ranges from 200 to 599, but cannot be 444.
body	String	Response body template.
headers	Array of <a href="#">ResponseInfo Header</a> objects	Custom response header. Array Length: <b>0 - 10</b>
default	Boolean	Indicates whether the response is the default response.

**Table 4-1184** ResponseInfoHeader

Parameter	Type	Description
key	String	Key of the custom group response header, which can contain 1 to 128 characters of letters, digits, and hyphens (-).
value	String	Value of the custom group response header, which is a string of 1 to 1,024 characters. Minimum: <b>1</b> Maximum: <b>1024</b>

**Status code: 400****Table 4-1185** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 401**

**Table 4-1186** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1187** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1188** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1189** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "total" : 2,
  "size" : 2,
  "responses" : [ {
    "create_time" : "2020-08-12T06:52:02Z",
    "default" : false,
    "id" : "e839b367e10f4ab19d1c5008e476b83a",
    "name" : "response_demo",
    "update_time" : "2020-08-12T06:52:02Z"
  }, {
    "create_time" : "2020-07-31T11:39:23Z",
    "default" : true,
    "id" : "ed8e8c52ab0e4a1c9c809268e5002e64",
    "name" : "default",
    "update_time" : "2020-07-31T11:39:23Z"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:group_id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3001",
  "error_msg" : "API group c77f5e81d9cb4424bf704ef2b0ac7600 does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.20 Tag Management

## 4.20.1 Querying Tags

### Function

This API is used to query tags of a gateway.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/tags

**Table 4-1190** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1191** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>

## Request Parameters

**Table 4-1192** Request header parameters

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

## Response Parameters

Status code: **200**

**Table 4-1193** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
tags	Array of strings	Tag list.

**Status code: 400****Table 4-1194** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1195** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1196** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1197** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1198** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 2,
  "size" : 2,
  "tags" : [ "webApi", "functionApi" ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
```

```
{  
  "error_msg": "No permissions to request this method"  
}
```

**Status code: 404**

Not Found

```
{  
  "error_code": "APIG.3030",  
  "error_msg": "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"  
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code": "APIG.9999",  
  "error_msg": "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.21 Gateway Feature Management

## 4.21.1 Configuring a Feature for a Gateway

### Function

This API is used to configure a feature for a gateway.

For details about the supported features and configuration examples, see "Appendix" > "Supported Features" in this document.

### Calling Method

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



## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/features

**Table 4-1199** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1200** Request header parameters

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

**Table 4-1201** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Feature name. Minimum: <b>1</b> Maximum: <b>64</b>
enable	Yes	Boolean	Indicates whether to enable the feature.
config	No	String	Parameter configuration.

## Response Parameters

**Status code: 201**

**Table 4-1202** Response body parameters

Parameter	Type	Description
id	String	Feature ID.
name	String	Feature name. Minimum: <b>1</b> Maximum: <b>64</b>
enable	Boolean	Indicates whether to enable the feature.
config	String	Parameter configuration.
instance_id	String	Gateway ID.
update_time	String	Feature update time.

**Status code: 400****Table 4-1203** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1204** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1205** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1206** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1207** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Enabling the app\_api\_key switch

```
{
  "name": "app_api_key",
  "config": "on",
  "enable": true
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "config": "on",
  "enable": true,
  "id": "db9a9260cd3e4a16a9b5747a65d3ffaa",
  "instance_id": "eddc4d25480b4cd6b512f270a1b8b341",
  "name": "app_api_key",
  "update_time": "2020-08-24T01:17:31.041984021Z"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2000",
  "error_msg": "unrecognized feature app-api-key"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.21.2 Querying Gateway Features

#### Function

This API is used to query the features of a gateway. If a gateway does not support the features listed in the following table, contact technical support to upgrade the gateway.

For details about the supported features and configuration examples, see "Appendix" > "Supported Features" in this document.

## Calling Method

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

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/features

**Table 4-1208** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1209** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>

## Request Parameters

**Table 4-1210** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1211** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
features	Array of <b>FeatureInfo</b> objects	Feature list.

**Table 4-1212** FeatureInfo

Parameter	Type	Description
id	String	Feature ID.
name	String	Feature name. Minimum: <b>1</b> Maximum: <b>64</b>
enable	Boolean	Indicates whether to enable the feature.
config	String	Parameter configuration.
instance_id	String	Gateway ID.
update_time	String	Feature update time.

**Status code: 400**

**Table 4-1213** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1214** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1215** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1216** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1217** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "total" : 1,
  "size" : 1,
  "features" : [ {
    "config" : "on",
    "enable" : true,
    "id" : "db9a9260cd3e4a16a9b5747a65d3ffaa",
    "instance_id" : "eddc4d25480b4cd6b512f270a1b8b341",
    "name" : "app_api_key",
    "update_time" : "2020-08-24T01:17:31.041984Z"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```



## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.21.3 Querying the Supported Features of a Gateway

#### Function

This API is used to query the supported features of a gateway.

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/instance-features

**Table 4-1218** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1219** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>

## Request Parameters

**Table 4-1220** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1221** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.

Parameter	Type	Description
features	Array of strings	Supported features: <ul style="list-style-type: none"><li>• "resize_huge_flavor"</li><li>• "health_check_in_instance_etcd"</li><li>• "shubao_support_add_node"</li><li>• "upgrade_uninterrupted"</li><li>• "sm_cipher_type"</li></ul> Features not displayed in the list are not supported by the gateway.

**Status code: 401****Table 4-1222** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1223** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1224** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

## Example Responses

### Status code: 200

OK

```
{
  "total" : 3,
  "size" : 3,
  "features" : [ "health_check_in_instance_etcd", "shubao_support_add_node", "resize_huge_flavor" ]
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.22 Configuration Management

## 4.22.1 Querying Resource Configurations of a Gateway

### Function

This API is used to query the resource configurations and usage of a gateway.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/project/configs

**Table 4-1225** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1226** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>

## Request Parameters

**Table 4-1227** Request header parameters

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

## Response Parameters

**Status code: 200****Table 4-1228** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
configs	Array of <b>Config</b> objects	Quota list.

**Table 4-1229** Config

Parameter	Type	Description
config_id	String	Quota ID.
config_name	String	Quota name.
config_value	String	Quota value. It indicates the value of the quota for the current gateway.
config_time	String	Time when the quota is created.

Parameter	Type	Description
remark	String	<p>Quota description.</p> <ul style="list-style-type: none"> <li>● API_NUM_LIMIT: Maximum number of APIs you can create.</li> <li>● APP_NUM_LIMIT: Maximum number of apps you can create.</li> <li>● APIGROUP_NUM_LIMIT: Maximum number of API groups you can create.</li> <li>● ENVIRONMENT_NUM_LIMIT: Maximum number of environments you can create.</li> <li>● VARIABLE_NUM_LIMIT: Maximum number of environment variables you can create for an API group.</li> <li>● SIGN_NUM_LIMIT: Maximum number of signature keys you can create.</li> <li>● THROTTLE_NUM_LIMIT: Maximum number of request throttling policies you can create.</li> <li>● APIGROUP_DOMAIN_NUM_LIMIT: Maximum number of custom domain names you can bind to an API group.</li> <li>● API_VERSION_NUM_LIMIT: Maximum number of versions you can retain for an API.</li> <li>● VPC_NUM_LIMIT: Maximum number of VPC channels you can create.</li> <li>● VPC_INSTANCE_NUM_LIMIT: Maximum number of cloud servers you can associate with a VPC channel.</li> <li>● API_PARAM_NUM_LIMIT: Maximum number of parameters you can configure for an API.</li> <li>● API_USER_CALL_LIMIT: Maximum number of times an API can be called within a specific period.</li> <li>● ACL_NUM_LIMIT: Maximum number of access control policies you can create.</li> <li>● APP_THROTTLE_LIMIT: Maximum number of excluded apps allowed for a request throttling policy.</li> <li>● USER_THROTTLE_LIMIT: Maximum number of excluded tenants allowed for a request throttling policy.</li> <li>● API_NUM_LIMIT_PER_GROUP: Maximum number of APIs you can create for an API group.</li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>● <b>API_POLICY_NUM_LIMIT:</b> Maximum number of policy backends you can configure for an API.</li> <li>● <b>API_CONDITION_NUM_LIMIT:</b> Maximum number of conditions you can configure for a policy backend.</li> <li>● <b>SL_DOMAIN_CALL_LIMIT:</b> Maximum number of requests that can be sent to a subdomain name within a specific period.</li> <li>● <b>ELB_SWITCH:</b> Whether to enable ELB channels.</li> <li>● <b>AUTHORIZER_NUM_LIMIT:</b> Maximum number of custom authorizers you can create.</li> <li>● <b>AUTHORIZER_IDENTITY_NUM_LIMIT:</b> Maximum number of identity sources you can configure for a custom authorizer.</li> <li>● <b>APP_CODE_NUM_LIMIT:</b> Maximum number of AppCodes you can create for an app.</li> <li>● <b>REGION_MANAGER_WHITELIST_SERVICES:</b> Whitelist of services that are not verified by the region manager.</li> <li>● <b>API_SWAGGER_NUM_LIMIT:</b> Maximum number of Swagger files you can bind to an API group.</li> <li>● <b>API_TAG_NUM_LIMIT:</b> Maximum number of tags you can configure for an API.</li> <li>● <b>LTS_SWITCH:</b> Whether to enable LTS log reporting.</li> <li>● <b>APP_KEY_SECRET_SWITCH:</b> Whether to enable AppKey and AppSecret customization. 1: enable; 2: disable.</li> <li>● <b>RESPONSE_NUM_LIMIT:</b> Maximum number of responses you can create for an API group.</li> <li>● <b>CONFIG_NUM_LIMIT_PER_APP:</b> Maximum number of configuration items you can set for an app.</li> <li>● <b>BACKEND_TOKEN_ALLOW_SWITCH:</b> Whether to allow tenants to transparently transmit tokens to the backend. 1: allow; 2: disallow.</li> <li>● <b>APP_TOKEN_SWITCH:</b> Whether to enable AppTokens.</li> <li>● <b>API_DESIGNER_SWITCH:</b> Whether to enable the API designer. 1: enable; 2: disable.</li> </ul>



Parameter	Type	Description
		<ul style="list-style-type: none"> <li>• APP_API_KEY_SWITCH: Whether to enable APP_API_KEY authentication.</li> <li>• APP_BASIC_SWITCH: Whether to enable APP_BASIC authentication.</li> <li>• APP_JWT_SWITCH: Whether to enable APP_JWT authentication.</li> <li>• APP_ROUTE_SWITCH: Whether to enable app routes.</li> <li>• PUBLIC_KEY_SWITCH: Whether to enable PUBLIC_KEY backend authentication.</li> <li>• APP_SECRET_SWITCH: Whether to enable APP_SECRET authentication.</li> <li>• CASCADE_SWITCH: Whether to enable cascaded gateways.</li> <li>• IS_INIT_API_PATH_HASH: Whether API path hashing has been performed.</li> </ul>
used	Long	Used quota of the gateway.

**Status code: 400**

**Table 4-1230** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1231** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1232** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1233** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1234** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 43,
  "size": 2,
  "configs": [ {
    "config_id": "9",
    "config_name": "API_VERSION_NUM_LIMIT",
    "config_value": "10",
    "config_time": "2019-02-12T19:42:19.914989Z",
    "remark": "xxx",
    "used": 0
  }, {
    "config_id": "8",
    "config_name": "APIGROUP_DOMAIN_NUM_LIMIT",
    "config_value": "5",
    "config_time": "2019-02-12T19:42:19.914989Z",
    "remark": "xxx",
```

```
"used" : 0
}]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:eddc4d25480b4cd6b512f270a1b8b341"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.22.2 Querying Gateway Configurations

### Function

This API is used to query the gateway configurations.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instance/configs

**Table 4-1235** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

**Table 4-1236** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>

## Request Parameters

**Table 4-1237** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1238** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
configs	Array of <b>InstanceConfig</b> objects	Quota list.

**Table 4-1239** InstanceConfig

Parameter	Type	Description
config_id	String	Quota ID.

Parameter	Type	Description
config_name	String	Quota name.
config_value	String	Quota value. It indicates the value of the quota for the current gateway.
config_time	String	Time when the quota is created.
remark	String	Quota description. <ul style="list-style-type: none"> <li>INSTANCE_NUM_LIMIT: Maximum number of gateways that you can create.</li> </ul>

**Status code: 400**

**Table 4-1240** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1241** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1242** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1243** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "total" : 1,
  "size" : 1,
  "configs" : [ {
    "config_id" : "1",
    "config_name" : "INSTANCE_NUM_LIMIT",
    "config_value" : "5",
    "config_time" : 1597981093255,
    "remark" : "xxx"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIC.9000",
```

```
"error_msg" : "Failed to request internal service"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.23 Gateway Management

## 4.23.1 Creating a Dedicated Gateway (Pay-Per-Use)

### Function

This API is used to create a pay-per-use dedicated gateway.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances

**Table 4-1244** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .



## Request Parameters

**Table 4-1245** Request header parameters

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

**Table 4-1246** Request body parameters

Parameter	Mandatory	Type	Description
description	No	String	Gateway description. The value can contain up to 255 characters except > and <.
maintain_begin	No	String	Start time of the maintenance time window. It must be in the format "xx:00:00". The value of xx can be 02, 06, 10, 14, 18, or 22.  During the maintenance time period, O&M personnel perform maintenance on the gateway. During this period, services can still be used, but occasionally there may be temporary interruptions. Scheduled maintenance occurs infrequently (typically once every several months).
maintain_end	No	String	End time of the maintenance time window. It must be in the format "xx:00:00". There is a 4-hour difference between the start time and end time.  During the maintenance time period, O&M personnel perform maintenance on the gateway. During this period, services can still be used, but occasionally there may be temporary interruptions. Scheduled maintenance occurs infrequently (typically once every several months).

Parameter	Mandatory	Type	Description
instance_name	Yes	String	Gateway name. Enter 3 to 64 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed. Minimum: <b>3</b> Maximum: <b>64</b>
instance_id	No	String	Gateway ID, which will be automatically generated if you do not specify this parameter.
spec_id	Yes	String	Gateway edition. Options: <ul style="list-style-type: none"> <li>• BASIC</li> <li>• PROFESSIONAL</li> <li>• ENTERPRISE</li> <li>• PLATINUM</li> <li>• BASIC_IPV6</li> <li>• PROFESSIONAL_IPV6</li> <li>• ENTERPRISE_IPV6</li> <li>• PLATINUM_IPV6</li> <li>• PLATINUM_X2</li> <li>• PLATINUM_X3</li> <li>• PLATINUM_X4</li> <li>• PLATINUM_X5</li> <li>• PLATINUM_X6</li> <li>• PLATINUM_X7</li> <li>• PLATINUM_X8</li> </ul> Platinum 2–8 are available only in certain regions.
vpc_id	Yes	String	VPC ID. You can obtain it in either of the following ways: <ul style="list-style-type: none"> <li>• Method 1: Log in to the VPC console, and click the name of a VPC to view the VPC ID on the displayed details page.</li> <li>• Method 2: Call the corresponding VPC API. For details, see section "Querying VPCs" in the VPC API Reference.</li> </ul>

Parameter	Mandatory	Type	Description
subnet_id	Yes	String	<p>Subnet network ID.</p> <p>You can obtain it in either of the following ways:</p> <ul style="list-style-type: none"> <li>• Method 1: Log in to the VPC console and click the target subnet on the Subnets page. You can view the network ID on the displayed page.</li> <li>• Method 2: Call the corresponding VPC API. For details, see section "Querying Subnets" in the VPC API Reference.</li> </ul>
security_group_id	Yes	String	<p>ID of the security group to which the gateway belongs.</p> <p>You can obtain it in either of the following ways:</p> <ul style="list-style-type: none"> <li>• Method 1: Log in to the VPC console. Choose Access Control &gt; Security Groups in the navigation pane. On the Security Groups page, click the target security group. Then view the security group ID on the displayed page.</li> <li>• Method 2: Call the corresponding VPC API. For details, see section "Querying Security Groups" in the VPC API Reference.</li> </ul>

Parameter	Mandatory	Type	Description
eip_id	No	String	<p>EIP ID.</p> <p>This parameter is required if public access is enabled for the gateway and loadbalancer_provider is set to lvs. After you bind an EIP to the gateway, users can access APIs in the gateway from public networks using the EIP.</p> <p>To obtain an EIP ID, log in to the VPC console, and choose "Elastic IP and Bandwidth" &gt; "EIPs" in the navigation pane. Click the name of the target EIP, and view the EIP ID on the displayed page.</p>
enterprise_project_id	No	String	<p>Enterprise project ID. This parameter is required for an enterprise account.</p> <p>You can obtain it in either of the following ways:</p> <ul style="list-style-type: none"> <li>• Method 1: Log in to the Enterprise Project Management page, click the name of the target enterprise project, and view the project ID on the displayed page.</li> <li>• Method 2: Call the corresponding project management API. For details, see section "Querying the Enterprise Project List" in the Enterprise Management API Reference.</li> </ul>

Parameter	Mandatory	Type	Description
available_zone_ids	Yes	Array of strings	<p>AZs.</p> <p>An AZ is a physical region where resources use independent power supply and networks. AZs are physically isolated but interconnected through an internal network. To enhance application availability, create gateways in different AZs.</p> <p>To obtain AZ information, call the API used to query AZs.</p>
bandwidth_size	No	Integer	<p>Outbound access bandwidth.</p> <p>This parameter is required if public outbound access is enabled for the gateway. After you configure the bandwidth for the gateway, users can access resources on public networks.</p> <p>Default: <b>5</b></p>
bandwidth_charging_mode	No	String	<p>Billing type of the public outbound access bandwidth. This parameter is required if public outbound access is enabled for the gateway.</p> <ul style="list-style-type: none"> <li>bandwidth: billed by bandwidth</li> <li>traffic: billed by traffic</li> </ul> <p>Default: <b>bandwidth</b></p>
ipv6_enable	No	Boolean	<p>Indicates whether public access with an IPv6 address is supported.</p> <p>Currently, IPv6 addresses are supported only in certain regions.</p>

Parameter	Mandatory	Type	Description
loadbalancer_provider	No	String	<p>Type of the load balancer used by the gateway.</p> <ul style="list-style-type: none"> <li>This field is discarded. Whether to use ELB or LVS is determined by the region of your gateway. For details, see section "Notes and Constraints" in the API Gateway Service Overview.</li> <li>lvs: Linux VM</li> <li>elb: Elastic Load Balancer (available only in certain regions)</li> </ul> <p>Default: <b>lvs</b></p>
tags	No	Array of <b>TmsKeyValue</b> objects	<p>Tags. A maximum of 20 tags can be created for a gateway.</p> <p>Array Length: <b>0 - 20</b></p>
vpcep_service_name	No	String	<p>Name of a VPC endpoint service.</p> <p>It can contain max. 16 characters, including letters, digits, hyphens (-), and underscores.</p> <p>If this parameter is not specified, the system automatically generates a name in the "{region}.apig.{service_id}" format.</p> <p>If this parameter is specified, the system automatically generates a name in the "{region}. {vpcep_service_name}. {service_id}" format.</p> <p>After the gateway is created, you can modify this name on the Gateways &gt; VPC Endpoints page.</p>

Parameter	Mandatory	Type	Description
ingress_bandwidth_size	No	Integer	Public inbound access bandwidth. This parameter is required if public inbound access is enabled for the gateway and loadbalancer_provider is set to elb. After you bind an EIP to the gateway, users can access APIs in the gateway from public networks using the EIP. Default: <b>5</b>
ingress_bandwidth_charging_mode	No	String	Billing type of the public inbound access bandwidth. This parameter is required if public inbound access is enabled for the gateway and loadbalancer_provider is set to elb. <ul style="list-style-type: none"> <li>bandwidth: billed by bandwidth</li> <li>traffic: billed by traffic</li> </ul> Default: <b>bandwidth</b>

**Table 4-1247** TmsKeyValue

Parameter	Mandatory	Type	Description
key	No	String	Key. Include UTF-8 letters, digits, spaces, or special characters (._:=-@). Do not start with _sys_ because it is a system label. Minimum: <b>1</b> Maximum: <b>128</b>
value	No	String	Value. You can enter letters, digits, and spaces or other special characters (._:=-@) in UTF-8 format. Minimum: <b>0</b> Maximum: <b>255</b>

## Response Parameters

**Status code: 202**

**Table 4-1248** Response body parameters

Parameter	Type	Description
instance_id	String	Gateway ID.
message	String	Information about the gateway creation task.
job_id	String	Task ID.

**Status code: 400**

**Table 4-1249** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1250** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1251** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**



**Table 4-1252** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1253** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating a gateway with network and security group configurations

```
{
  "available_zone_ids" : [ "xx-xxx-7b", "xx-xxx-7a" ],
  "bandwidth_size" : 5,
  "description" : "test create instance",
  "eip_id" : "41f961ab-2bdd-4ca7-9b59-cfc4fcef10c9",
  "enterprise_project_id" : "0",
  "instance_name" : "apig-demo",
  "maintain_begin" : "22:00:00",
  "maintain_end" : "02:00:00",
  "security_group_id" : "36d0ec18-bd10-4da7-86f3-ad7a5ddc55d7",
  "spec_id" : "PROFESSIONAL",
  "subnet_id" : "a938121c-11c4-4c91-b983-bc9acd347bb5",
  "vpc_id" : "0957108c-257c-4ce0-9e93-527d279ce763"
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "instance_id" : "6a7d71827fd54572b1f31aa9548fcc81",
  "message" : "JOB_ASSIGNED_FOR_PROVISIONING_0003I:The job JOB-bdb370eb6f4c4c73b61b95a9da38beb5 has been assigned to the instance 6a7d71827fd54572b1f31aa9548fcc81 for running provisioning.",
  "job_id" : "JOB-edbac2355fb7433e98f173ea2e452e2d"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIC.7211",
  "error_msg" : "Parameter value does not match the rules, parameter name[maintainBegin]"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIC.7301",
  "error_msg" : "Instance spec not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
202	Accepted
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.2 Querying Dedicated Gateway Details

### Function

This API is used to query the details of a dedicated gateway.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}

**Table 4-1254** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-1255** Request header parameters

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

### Response Parameters

**Status code: 200**

**Table 4-1256** Response body parameters

Parameter	Type	Description
id	String	Gateway ID.

Parameter	Type	Description
project_id	String	ID of the tenant to which the gateway belongs.
instance_name	String	Gateway name.

Parameter	Type	Description
status	String	<p>Instance status:</p> <ul style="list-style-type: none"> <li>● Creating: The instance is being created.</li> <li>● CreateSuccess: The instance is created successfully.</li> <li>● CreateFail: The instance fails to be created.</li> <li>● Initing: The instance is being initialized.</li> <li>● Registering: The instance is being registered.</li> <li>● Running: The instance is running.</li> <li>● InitingFailed: The instance fails to be initialized.</li> <li>● RegisterFailed: The instance fails to be registered.</li> <li>● Installing: The instance is being installed.</li> <li>● InstallFailed: The instance fails to be installed.</li> <li>● Updating: The instance is being upgraded.</li> <li>● UpdateFailed: The instance fails to be upgraded.</li> <li>● Rollbacking: The instance is being rolled back.</li> <li>● RollbackSuccess: The instance is rolled back successfully.</li> <li>● RollbackFailed: The instance fails to be rolled back.</li> <li>● Deleting: The instance is being deleted.</li> <li>● DeleteFailed: The instance fails to be deleted.</li> <li>● Unregistering: The instance is being deregistered.</li> <li>● UnRegisterFailed: The instance fails to be deregistered.</li> <li>● CreateTimeout: Creation of the instance times out.</li> <li>● InitTimeout: Initialization of the instance times out.</li> <li>● RegisterTimeout: Registration of the instance times out.</li> <li>● InstallTimeout: Installation of the instance times out.</li> <li>● UpdateTimeout: Upgrading of the instance times out.</li> <li>● RollbackTimeout: Rollback of the instance times out.</li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>● DeleteTimeout: Deletion of the instance times out.</li> <li>● UnregisterTimeout: Deregistration of the instance times out.</li> <li>● Starting: The instance is being started.</li> <li>● Freezing: The instance is being frozen.</li> <li>● Frozen: The instance is frozen.</li> <li>● Restarting: The instance is being restarted.</li> <li>● RestartFail: The instance fails to be restarted.</li> <li>● Unhealthy: The instance is abnormal.</li> <li>● RestartTimeout: Restart of the instance times out.</li> <li>● Resizing: The instance specification is changing.</li> <li>● ResizeFailed: The instance specification fails to be changed.</li> <li>● ResizeTimeout: The instance specification change times out.</li> </ul>

Parameter	Type	Description
instance_statuses	Integer	<p>Instance status ID:</p> <ul style="list-style-type: none"> <li>● 1: Creating</li> <li>● 2: Created successfully</li> <li>● 3: Creation failed</li> <li>● 4: Initializing</li> <li>● 5: Registering</li> <li>● 6: Running</li> <li>● 7: Initialization failed</li> <li>● 8: Registration failed</li> <li>● 10: Installing</li> <li>● 11: Installation failed</li> <li>● 12: Upgrading</li> <li>● 13: Upgrade failed</li> <li>● 20: Rolling back</li> <li>● 21: Rolled back</li> <li>● 22: Rollback failed</li> <li>● 23: Deleting</li> <li>● 24: Deletion failed</li> <li>● 25: Deregistering</li> <li>● 26: Deregistration failed</li> <li>● 27: Creation timed out</li> <li>● 28: Initialization timed out</li> <li>● 29: Registration timed out</li> <li>● 30: Installation timed out</li> <li>● 31: Upgrade timed out</li> <li>● 32: Rollback timed out</li> <li>● 33: Deletion timed out</li> <li>● 34: Deregistration timed out</li> <li>● 35: Starting</li> <li>● 36: Freezing</li> <li>● 37: Frozen</li> <li>● 38: Restarting</li> <li>● 39: Restart failed</li> <li>● 40: Abnormal</li> <li>● 41: Restart timed out</li> <li>● 42: Changing specification</li> <li>● 43: Specification change failed</li> <li>● 44: Specification change timed out</li> </ul>

Parameter	Type	Description
type	String	Gateway type. The default value is apig.
spec	String	Gateway edition. <ul style="list-style-type: none"> <li>• BASIC</li> <li>• PROFESSIONAL</li> <li>• ENTERPRISE</li> <li>• PLATINUM</li> <li>• BASIC_IPV6</li> <li>• PROFESSIONAL_IPV6</li> <li>• ENTERPRISE_IPV6</li> <li>• PLATINUM_IPV6</li> </ul>
create_time	Long	Time when the gateway is created. The time is in the Unix timestamp format.
enterprise_project_id	String	Enterprise project ID. This parameter is required for an enterprise account.
eip_address	String	EIP bound to the gateway.
charging_mode	Integer	Billing mode of the gateway. <ul style="list-style-type: none"> <li>• 0: pay-per-use</li> <li>• 1: This parameter is not used currently.</li> </ul>
cbc_metadata	String	This parameter is not used currently.
loadbalancer_provider	String	Type of the load balancer used by the gateway. <ul style="list-style-type: none"> <li>• LVS</li> <li>• ELB (available only in certain regions)</li> </ul> Default: <b>lvs</b>
cbc_operation_locks	Array of <a href="#">CbcOperationLock</a> objects	Cloud operations restriction lock
description	String	Description about the gateway.
vpc_id	String	VPC ID. You can obtain it in either of the following ways: <ul style="list-style-type: none"> <li>• Method 1: Log in to the VPC console, and click the name of a VPC to view the VPC ID on the displayed details page.</li> <li>• Method 2: Call the corresponding VPC API. For details, see section "Querying VPCs" in the VPC API Reference.</li> </ul>



Parameter	Type	Description
subnet_id	String	<p>Subnet network ID.</p> <p>You can obtain it in either of the following ways:</p> <ul style="list-style-type: none"> <li>Method 1: Log in to the VPC console and click the target subnet on the Subnets page. You can view the network ID on the displayed page.</li> <li>Method 2: Call the corresponding VPC API. For details, see section "Querying Subnets" in the VPC API Reference.</li> </ul>
security_group_id	String	<p>ID of the security group to which the gateway belongs.</p> <p>You can obtain it in either of the following ways:</p> <ul style="list-style-type: none"> <li>Method 1: Log in to the VPC console. Choose Access Control &gt; Security Groups in the navigation pane. On the Security Groups page, click the target security group. Then view the security group ID on the displayed page.</li> <li>Method 2: Call the corresponding VPC API. For details, see section "Querying Security Groups" in the VPC API Reference.</li> </ul>
maintain_begin	String	<p>Start time of the maintenance time window. It must be in the format "xx:00:00". The value of xx can be 02, 06, 10, 14, 18, or 22.</p> <p>During the maintenance time period, the O&amp;M personnel can perform maintenance operations on the gateway. During maintenance, services can still be used, but occasionally there may be temporary service interruptions. Scheduled maintenance occurs infrequently (typically once every several months).</p>
maintain_end	String	<p>End time of the maintenance time window. It must be in the format "xx:00:00". There is a 4-hour difference between the start time and end time.</p> <p>During the maintenance time period, the O&amp;M personnel can perform maintenance operations on the gateway. During maintenance, services can still be used, but occasionally there may be temporary service interruptions. Scheduled maintenance occurs infrequently (typically once every several months).</p>
ingress_ip	String	VPC ingress address.

Parameter	Type	Description
ingress_ip_v6	String	VPC access address (IPv6).
user_id	String	ID of the account to which the gateway belongs.
nat_eip_ipv6_cidr	String	Public egress address (IPv6). Currently, IPv6 addresses are supported only in certain regions.
eip_ipv6_address	String	EIP (IPv6). Currently, IPv6 addresses are supported only in certain regions.
nat_eip_address	String	IP address for public outbound access.
bandwidth_size	Integer	Outbound access bandwidth.
bandwidth_charging_mode	String	Billing mode of the public outbound access bandwidth.
available_zone_ids	String	AZ.
instance_version	String	Gateway version.
virsubnet_id	String	Subnet network ID. Currently, this parameter is not supported.
roma_eip_address	String	ROMA EIP. Currently, this parameter is not supported.
listeners	Object	Listener information. Currently, this parameter is not supported.
supported_features	Array of strings	Supported features.
endpoint_service	<b>EndpointService</b> object	VPC endpoint service details. This parameter will be deprecated. Use endpoint_services instead.
endpoint_services	Array of <b>EndpointService</b> objects	VPC endpoint services.
node_ips	<b>NodeIps</b> object	VPC endpoint ID.
node_ipv6_ips	<b>NodeIps</b> object	IPv6 address of the service node.

Parameter	Type	Description
public_ipv6_ips	Array of strings	IPv6 address for public outbound access.
publicips	Array of <a href="#">IpDetails</a> objects	Public inbound access addresses.
privateips	Array of <a href="#">IpDetails</a> objects	Private inbound access addresses.
unreliable_ips	Array of strings	List of unreliable gateway inbound access IP addresses, to which the subdomain name of the group is not CNAMEd. The DEFAULT group cannot be accessed directly using the IP address in this list.
enable_fullstack_ipv6	Boolean	Whether the gateway supports full-format IPv6. <ul style="list-style-type: none"> <li>• true: The gateway supports IPv6 for both inbound and outbound access.</li> <li>• false: Not supported. The gateway supports IPv6 only for inbound access.</li> </ul>
is_releasable	Boolean	Whether the gateway can be released. <ul style="list-style-type: none"> <li>• true: The gateway can be released.</li> <li>• false: The gateway cannot be released.</li> </ul>
ingress_bandwidth_charging_mode	String	Billing mode of the public inbound access bandwidth.

**Table 4-1257** CbcOperationLock

Parameter	Type	Description
lock_scene	String	Restriction scenarios: <ul style="list-style-type: none"> <li>• TO_PERIOD_LOCK: Changing the billing mode from pay-per-use to yearly/monthly. In this scenario, deleting resources, changing specifications, and changing from pay-per-use to yearly/monthly are not allowed.</li> <li>• SPEC_CHG_LOCK: Changing specifications of the yearly/monthly billing mode. In this scenario, deleting resources and changing specifications are not allowed.</li> </ul>
lock_source_id	String	ID of the object that initiates the restriction

**Table 4-1258** EndpointService

Parameter	Type	Description
service_name	String	VPC endpoint service name.
created_at	String	Creation time.

**Table 4-1259** NodeIps

Parameter	Type	Description
livedata	Array of strings	LiveData node IP addresses.
shubao	Array of strings	Shubao node IP addresses.

**Table 4-1260** IpDetails

Parameter	Type	Description
ip_address	String	IP address.
ipv6_address	String	IPv6 address.
bandwidth_size	Integer	Bandwidth.

**Status code: 401****Table 4-1261** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1262** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1263** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1264** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Example Requests**

None

**Example Responses**

**Status code: 200**

OK

```
{
  "id" : "8dfxxxxxxxxxxxxxxxxxxxxxxxx00p",
  "spec" : "BASIC",
  "project_id" : "78xxxxxxxxxxxxxxxxxxxxxxxxxoi",
  "instance_name" : "apig-demo",
  "status" : "Running",
  "instance_status" : 6,
  "eip_address" : null,
  "type" : null,
  "create_time" : 1635890506328,
  "charging_mode" : 0,
  "enterprise_project_id" : "0",
  "loadbalancer_provider" : "elb",
  "description" : "test create instance",
  "instance_version" : "acc6d368a3cb4d47840380bf62b0ab32",
  "available_zone_ids" : "[xx-xxx-7a, xx-xxx-7b]",
  "user_id" : "e966ff7227ef4df49df7d57aaf00f8ed",
  "vpc_id" : "0402ea19-5457-4032-9d1b-eb48b98f6c66",
  "subnet_id" : "a3bd29e4-d5bc-414c-a79a-1f35ee4ead88",
  "virsubnet_id" : "a3bd29e4-d5bc-414c-a79a-1f35ee4ead88",
  "security_group_id" : "4b95a790-5cfc-463d-8de5-42199e55371c",
  "maintain_begin" : "22:00:00",
  "maintain_end" : "02:00:00",
  "ingress_ip" : "192.168.0.152",
  "ingress_ip_v6" : null,
  "nat_eip_address" : "xxx.xxx.xxx.xxx",
  "roma_eip_address" : null,
  "bandwidth_size" : 5,
}
```

```
"bandwidth_charging_mode" : "traffic",
"nat_eip_ipv6_cidr" : null,
"eip_ipv6_address" : null,
"supported_features" : [ "lts", "gateway_responses", "ratelimit", "request_body_size", "backend_timeout",
"app_token", "app_basic", "app_secret", "multi_auth", "route", "sign_basic", "app_route",
"backend_client_certificate", "ssl_ciphers", "cors", "app_quota", "app_acl", "real_ip_from_xff",
"set_resp_headers", "vpc_backup", "throttle_strategy", "watch_instance", "sign_aes",
"mock_status_code_and_header", "backend_retry_count", "custom_log", "real_ip_header_getter",
"policy_sys_param", "vpc_name_modifiable", "breaker", "default_group_host_trustlist" ],
"node_ips" : {
  "livedata" : [ ],
  "shubao" : [ "192.168.0.123", "192.168.0.114" ]
},
"endpoint_service" : null,
"endpoint_services" : [ {
  "service_name" : "xx-xxx-7a.apig.20bc4a91-1542-43s2-a278-b1e49c0hh6f9",
  "created_at" : "2021-8-03 06:04:43"
} ],
"publicips" : [ {
  "ip_address" : "xxx.xxx.xxx.xxx",
  "ipv6_address" : "xxx:xxx:xxx:xxx:xxx:xxx:xxx:2b8",
  "bandwidth_size" : 5
} ],
"privateips" : [ {
  "ip_address" : "xxx.xxx.xxx.xxx",
  "ipv6_address" : "xxx:xxx:xxx:xxx:xxx:xxx:xxx:2b8",
  "bandwidth_size" : 5
} ],
"ingress_bandwidth_charging_mode" : "traffic",
"cbc_operation_locks" : [ {
  "lock_scene" : "TO_PERIOD_LOCK",
  "lock_source_id" : "CxxxxxxxxxxM"
} ],
"public_ipv6_ips" : [ "xxx:xxx:xxx:xxx:xxx:xxx:xxx:2b83", "xxx:xxx:xxx:xxx:xxx:xxx:xxx:6fee" ],
"node_ipv6_ips" : {
  "livedata" : [ ],
  "shubao" : [ "xxx:xxx:xxx:xxx:xxx:xxx:xxx:2b81", "xxx:xxx:xxx:xxx:xxx:xxx:xxx:2b84" ]
},
"enable_fullstack_ipv6" : true,
"unreliable_ips" : [ "192.xx.xxx.xxx" ]
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

## Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

## Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

**Status code: 500**

## Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.3 Updating a Dedicated Gateway

## Function

This API is used to update a dedicated gateway.

## Calling Method

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

## URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}

**Table 4-1265** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1266** Request header parameters

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

**Table 4-1267** Request body parameters

Parameter	Mandatory	Type	Description
description	No	String	Gateway description. The value can contain up to 255 characters except > and <.
maintain_begin	No	String	Start time of the maintenance time window. It must be in the format "xx:00:00". The value of xx can be 02, 06, 10, 14, 18, or 22.  During the maintenance time period, O&M personnel perform maintenance on the gateway. During this period, services can still be used, but occasionally there may be temporary interruptions. Scheduled maintenance occurs infrequently (typically once every several months).
maintain_end	No	String	End time of the maintenance time window. It must be in the format "xx:00:00". There is a 4-hour difference between the start time and end time.  During the maintenance time period, O&M personnel perform maintenance on the gateway. During this period, services can still be used, but occasionally there may be temporary interruptions. Scheduled maintenance occurs infrequently (typically once every several months).



Parameter	Mandatory	Type	Description
instance_name	No	String	<p>Gateway name.</p> <p>Enter 3 to 64 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed.</p> <p>Minimum: <b>3</b></p> <p>Maximum: <b>64</b></p>
security_group_id	No	String	<p>Security group to which the gateway belongs.</p> <p>You can obtain it in either of the following ways:</p> <ul style="list-style-type: none"> <li>• Method 1: Log in to the VPC console. Choose Access Control &gt; Security Groups in the navigation pane. On the Security Groups page, click the target security group. Then view the security group ID on the displayed page.</li> <li>• Method 2: Call the corresponding VPC API. For details, see section "Querying Security Groups" in the VPC API Reference.</li> </ul>
vpcep_service_name	No	String	<p>Name of a VPC endpoint service.</p> <p>It can contain max. 16 characters, including letters, digits, hyphens (-), and underscores.</p> <p>If this parameter is not specified, the system automatically generates a name in the "{region}. {service_id}" format.</p> <p>If this parameter is specified, the system automatically generates a name in the "{region}. {vpcep_service_name}. {service_id}" format.</p>

## Response Parameters

Status code: 200

**Table 4-1268** Response body parameters

Parameter	Type	Description
id	String	Gateway ID.
project_id	String	ID of the tenant to which the gateway belongs.
instance_name	String	Gateway name.

Parameter	Type	Description
status	String	<p>Instance status:</p> <ul style="list-style-type: none"> <li>● Creating: The instance is being created.</li> <li>● CreateSuccess: The instance is created successfully.</li> <li>● CreateFail: The instance fails to be created.</li> <li>● Initing: The instance is being initialized.</li> <li>● Registering: The instance is being registered.</li> <li>● Running: The instance is running.</li> <li>● InitingFailed: The instance fails to be initialized.</li> <li>● RegisterFailed: The instance fails to be registered.</li> <li>● Installing: The instance is being installed.</li> <li>● InstallFailed: The instance fails to be installed.</li> <li>● Updating: The instance is being upgraded.</li> <li>● UpdateFailed: The instance fails to be upgraded.</li> <li>● Rollbacking: The instance is being rolled back.</li> <li>● RollbackSuccess: The instance is rolled back successfully.</li> <li>● RollbackFailed: The instance fails to be rolled back.</li> <li>● Deleting: The instance is being deleted.</li> <li>● DeleteFailed: The instance fails to be deleted.</li> <li>● Unregistering: The instance is being deregistered.</li> <li>● UnRegisterFailed: The instance fails to be deregistered.</li> <li>● CreateTimeout: Creation of the instance times out.</li> <li>● InitTimeout: Initialization of the instance times out.</li> <li>● RegisterTimeout: Registration of the instance times out.</li> <li>● InstallTimeout: Installation of the instance times out.</li> <li>● UpdateTimeout: Upgrading of the instance times out.</li> <li>● RollbackTimeout: Rollback of the instance times out.</li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>● DeleteTimeout: Deletion of the instance times out.</li> <li>● UnregisterTimeout: Deregistration of the instance times out.</li> <li>● Starting: The instance is being started.</li> <li>● Freezing: The instance is being frozen.</li> <li>● Frozen: The instance is frozen.</li> <li>● Restarting: The instance is being restarted.</li> <li>● RestartFail: The instance fails to be restarted.</li> <li>● Unhealthy: The instance is abnormal.</li> <li>● RestartTimeout: Restart of the instance times out.</li> <li>● Resizing: The instance specification is changing.</li> <li>● ResizeFailed: The instance specification fails to be changed.</li> <li>● ResizeTimeout: The instance specification change times out.</li> </ul>

Parameter	Type	Description
instance_statuses	Integer	<p>Instance status ID:</p> <ul style="list-style-type: none"> <li>● 1: Creating</li> <li>● 2: Created successfully</li> <li>● 3: Creation failed</li> <li>● 4: Initializing</li> <li>● 5: Registering</li> <li>● 6: Running</li> <li>● 7: Initialization failed</li> <li>● 8: Registration failed</li> <li>● 10: Installing</li> <li>● 11: Installation failed</li> <li>● 12: Upgrading</li> <li>● 13: Upgrade failed</li> <li>● 20: Rolling back</li> <li>● 21: Rolled back</li> <li>● 22: Rollback failed</li> <li>● 23: Deleting</li> <li>● 24: Deletion failed</li> <li>● 25: Deregistering</li> <li>● 26: Deregistration failed</li> <li>● 27: Creation timed out</li> <li>● 28: Initialization timed out</li> <li>● 29: Registration timed out</li> <li>● 30: Installation timed out</li> <li>● 31: Upgrade timed out</li> <li>● 32: Rollback timed out</li> <li>● 33: Deletion timed out</li> <li>● 34: Deregistration timed out</li> <li>● 35: Starting</li> <li>● 36: Freezing</li> <li>● 37: Frozen</li> <li>● 38: Restarting</li> <li>● 39: Restart failed</li> <li>● 40: Abnormal</li> <li>● 41: Restart timed out</li> <li>● 42: Changing specification</li> <li>● 43: Specification change failed</li> <li>● 44: Specification change timed out</li> </ul>

Parameter	Type	Description
type	String	Gateway type. The default value is apig.
spec	String	Gateway edition. <ul style="list-style-type: none"> <li>• BASIC</li> <li>• PROFESSIONAL</li> <li>• ENTERPRISE</li> <li>• PLATINUM</li> <li>• BASIC_IPV6</li> <li>• PROFESSIONAL_IPV6</li> <li>• ENTERPRISE_IPV6</li> <li>• PLATINUM_IPV6</li> </ul>
create_time	Long	Time when the gateway is created. The time is in the Unix timestamp format.
enterprise_project_id	String	Enterprise project ID. This parameter is required for an enterprise account.
eip_address	String	EIP bound to the gateway.
charging_mode	Integer	Billing mode of the gateway. <ul style="list-style-type: none"> <li>• 0: pay-per-use</li> <li>• 1: This parameter is not used currently.</li> </ul>
cbc_metadata	String	This parameter is not used currently.
loadbalancer_provider	String	Type of the load balancer used by the gateway. <ul style="list-style-type: none"> <li>• LVS</li> <li>• ELB (available only in certain regions)</li> </ul> Default: <b>lvs</b>
cbc_operation_locks	Array of <b>CbcOperationLock</b> objects	Cloud operations restriction lock
description	String	Description about the gateway.
vpc_id	String	VPC ID. You can obtain it in either of the following ways: <ul style="list-style-type: none"> <li>• Method 1: Log in to the VPC console, and click the name of a VPC to view the VPC ID on the displayed details page.</li> <li>• Method 2: Call the corresponding VPC API. For details, see section "Querying VPCs" in the VPC API Reference.</li> </ul>

Parameter	Type	Description
subnet_id	String	Subnet network ID. You can obtain it in either of the following ways: <ul style="list-style-type: none"> <li>Method 1: Log in to the VPC console and click the target subnet on the Subnets page. You can view the network ID on the displayed page.</li> <li>Method 2: Call the corresponding VPC API. For details, see section "Querying Subnets" in the VPC API Reference.</li> </ul>
security_group_id	String	ID of the security group to which the gateway belongs. You can obtain it in either of the following ways: <ul style="list-style-type: none"> <li>Method 1: Log in to the VPC console. Choose Access Control &gt; Security Groups in the navigation pane. On the Security Groups page, click the target security group. Then view the security group ID on the displayed page.</li> <li>Method 2: Call the corresponding VPC API. For details, see section "Querying Security Groups" in the VPC API Reference.</li> </ul>
maintain_begin	String	Start time of the maintenance time window. It must be in the format "xx:00:00". The value of xx can be 02, 06, 10, 14, 18, or 22. During the maintenance time period, the O&M personnel can perform maintenance operations on the gateway. During maintenance, services can still be used, but occasionally there may be temporary service interruptions. Scheduled maintenance occurs infrequently (typically once every several months).
maintain_end	String	End time of the maintenance time window. It must be in the format "xx:00:00". There is a 4-hour difference between the start time and end time. During the maintenance time period, the O&M personnel can perform maintenance operations on the gateway. During maintenance, services can still be used, but occasionally there may be temporary service interruptions. Scheduled maintenance occurs infrequently (typically once every several months).
ingress_ip	String	VPC ingress address.

Parameter	Type	Description
ingress_ip_v6	String	VPC access address (IPv6).
user_id	String	ID of the account to which the gateway belongs.
nat_eip_ipv6_cidr	String	Public egress address (IPv6). Currently, IPv6 addresses are supported only in certain regions.
eip_ipv6_address	String	EIP (IPv6). Currently, IPv6 addresses are supported only in certain regions.
nat_eip_address	String	IP address for public outbound access.
bandwidth_size	Integer	Outbound access bandwidth.
bandwidth_charging_mode	String	Billing mode of the public outbound access bandwidth.
available_zone_ids	String	AZ.
instance_version	String	Gateway version.
virsubnet_id	String	Subnet network ID. Currently, this parameter is not supported.
roma_eip_address	String	ROMA EIP. Currently, this parameter is not supported.
listeners	Object	Listener information. Currently, this parameter is not supported.
supported_features	Array of strings	Supported features.
endpoint_service	<b>EndpointService</b> object	VPC endpoint service details. This parameter will be deprecated. Use endpoint_services instead.
endpoint_services	Array of <b>EndpointService</b> objects	VPC endpoint services.
node_ips	<b>NodeIps</b> object	VPC endpoint ID.
node_ipv6_ips	<b>NodeIps</b> object	IPv6 address of the service node.



Parameter	Type	Description
public_ipv6_ips	Array of strings	IPv6 address for public outbound access.
publicips	Array of <a href="#">IpDetails</a> objects	Public inbound access addresses.
privateips	Array of <a href="#">IpDetails</a> objects	Private inbound access addresses.
unreliable_ips	Array of strings	List of unreliable gateway inbound access IP addresses, to which the subdomain name of the group is not CNAMEd. The DEFAULT group cannot be accessed directly using the IP address in this list.
enable_fullstack_ipv6	Boolean	Whether the gateway supports full-format IPv6. <ul style="list-style-type: none"> <li>• true: The gateway supports IPv6 for both inbound and outbound access.</li> <li>• false: Not supported. The gateway supports IPv6 only for inbound access.</li> </ul>
is_releasable	Boolean	Whether the gateway can be released. <ul style="list-style-type: none"> <li>• true: The gateway can be released.</li> <li>• false: The gateway cannot be released.</li> </ul>
ingress_bandwidth_charging_mode	String	Billing mode of the public inbound access bandwidth.

**Table 4-1269** CbcOperationLock

Parameter	Type	Description
lock_scene	String	Restriction scenarios: <ul style="list-style-type: none"> <li>• TO_PERIOD_LOCK: Changing the billing mode from pay-per-use to yearly/monthly. In this scenario, deleting resources, changing specifications, and changing from pay-per-use to yearly/monthly are not allowed.</li> <li>• SPEC_CHG_LOCK: Changing specifications of the yearly/monthly billing mode. In this scenario, deleting resources and changing specifications are not allowed.</li> </ul>
lock_source_id	String	ID of the object that initiates the restriction

**Table 4-1270** EndpointService

Parameter	Type	Description
service_name	String	VPC endpoint service name.
created_at	String	Creation time.

**Table 4-1271** NodeIps

Parameter	Type	Description
livedata	Array of strings	LiveData node IP addresses.
shubao	Array of strings	Shubao node IP addresses.

**Table 4-1272** IpDetails

Parameter	Type	Description
ip_address	String	IP address.
ipv6_address	String	IPv6 address.
bandwidth_size	Integer	Bandwidth.

**Status code: 400**

**Table 4-1273** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1274** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1275** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1276** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1277** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Modifying a gateway

```
{
  "description": "test create instance",
  "instance_name": "apig-demo"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "available_zone_ids": "[xx-xxx-7a, xx-xxx-7b]",
  "bandwidth_size": 5,
  "description": "test create instance",
  "enterprise_project_id": "0",
  "instance_name": "apig-demo",
  "maintain_begin": "22:00:00",
  "maintain_end": "02:00:00",
}
```

```
"security_group_id" : "36d0ec18-bd10-4da7-86f3-ad7a5ddc55d7",
"spec" : "PROFESSIONAL",
"subnet_id" : "a938121c-11c4-4c91-b983-bc9acd347bb5",
"vpc_id" : "0957108c-257c-4ce0-9e93-527d279ce763",
"enable_fullstack_ipv6" : true,
"unreliable_ips" : [ "192.xx.xxx.xxx" ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIC.7211",
  "error_msg" : "Parameter value does not match the rules, parameter name[maintainBegin]"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.4 Querying the Creation Progress of a Dedicated Gateway

### Function

This API is used to query the creation progress of a dedicated gateway.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/progress

**Table 4-1278** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1279** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1280** Response body parameters

Parameter	Type	Description
progress	Integer	Gateway creation progress. Unit: %
status	String	Gateway creation status. <ul style="list-style-type: none"> <li>• creating</li> <li>• success</li> <li>• failed</li> </ul>
error_code	String	Error code.
error_msg	String	Error message.
start_time	Long	Time when the gateway creation starts. The time is in the Unix timestamp format.
end_time	Long	Time when the gateway creation is completed. The time is in the Unix timestamp format.

**Status code: 401**

**Table 4-1281** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1282** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1283** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1284** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

- Gateway created.

```
{
  "end_time" : 1597390224911,
  "error_code" : null,
  "error_msg" : null,
  "progress" : 100,
  "start_time" : 1597389901161,
  "status" : "success"
}
```

- Gateway is being created.

```
{
  "end_time" : 1597390224911,
  "error_code" : null,
  "error_msg" : null,
}
```

```
"progress" : 50,  
"start_time" : 1597389901161,  
"status" : "creating"  
}
```

- Gateway creation failed due to insufficient quota.

```
{  
  "end_time" : 1597390224911,  
  "error_code" : "APIC.9218",  
  "error_msg" : "create failed...",  
  "progress" : 0,  
  "start_time" : 1597389901161,  
  "status" : "failed"  
}
```

- Gateway creation failed due to insufficient resources.

```
{  
  "end_time" : 1597390224911,  
  "error_code" : "APIC.9219",  
  "error_msg" : "create failed...",  
  "progress" : 0,  
  "start_time" : 1597389901161,  
  "status" : "failed"  
}
```

- Gateway creation failed due to other reasons.

```
{  
  "end_time" : 1597390224911,  
  "error_code" : "APIC.9206",  
  "error_msg" : "create failed...",  
  "progress" : 0,  
  "start_time" : 1597389901161,  
  "status" : "failed"  
}
```

#### Status code: 401

##### Unauthorized

```
{  
  "error_code" : "APIC.7102",  
  "error_msg" : "Incorrect token or token resolution failed"  
}
```

#### Status code: 403

##### Forbidden

```
{  
  "error_code" : "APIC.7106",  
  "error_msg" : "No permissions to request for the method"  
}
```

#### Status code: 404

##### Not Found

```
{  
  "error_code" : "APIC.7302",  
  "error_msg" : "Instance not found"  
}
```

#### Status code: 500

##### Internal Server Error

```
{  
  "error_code" : "APIC.9000",  
  "error_msg" : "Failed to request internal service"  
}
```



## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.5 Updating or Binding an EIP to a Dedicated Gateway

### Function

This API is used to bind an EIP to a dedicated gateway or update the EIP bound to a dedicated gateway (only available for LVS gateways).

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/eip

**Table 4-1285** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1286** Request header parameters

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

**Table 4-1287** Request body parameters

Parameter	Mandatory	Type	Description
eip_id	No	String	EIP ID.

## Response Parameters

**Status code: 200****Table 4-1288** Response body parameters

Parameter	Type	Description
eip_id	String	EIP ID.
eip_address	String	EIP.
eip_status	String	EIP status.
eip_ipv6_address	String	EIP (IPv6).

**Status code: 400****Table 4-1289** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1290** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1291** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1292** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1293** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding an EIP to a gateway

```
{  
  "eip_id" : "85392b45-685c-4f77-b19a-14ad875b8190"  
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "eip_id" : "85392b45-685c-4f77-b19a-14ad875b8190",
  "eip_address" : "xxx.xxx.xxx.xxx",
  "eip_status" : "ACTIVE"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIC.7211",
  "error_msg" : "Parameter value does not match the rules, parameter name[eip_id]"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.6 Unbinding the EIP of a Dedicated Gateway

### Function

This API is used to unbind the EIP of a dedicated gateway.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/eip

**Table 4-1294** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-1295** Request header parameters

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

## Response Parameters

### Status code: 401

**Table 4-1296** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-1297** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-1298** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 500

**Table 4-1299** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.7 Enabling Public Access for a Dedicated Gateway

### Function

This API is used to enable public access for a dedicated gateway.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/nat-eip

**Table 4-1300** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-1301** Request header parameters

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

**Table 4-1302** Request body parameters

Parameter	Mandatory	Type	Description
bandwidth_size	No	String	Outbound access bandwidth. Unit: Mbit/s



Parameter	Mandatory	Type	Description
bandwidth_charging_mode	No	String	Billing type of the public outbound access bandwidth. <ul style="list-style-type: none"><li>bandwidth: billed by bandwidth</li><li>traffic: billed by traffic</li></ul> Default: <b>bandwidth</b>

## Response Parameters

**Status code: 400**

**Table 4-1303** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1304** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1305** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1306** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1307** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Enabling public access for a gateway

```
{
  "bandwidth_size" : "5",
  "bandwidth_charging_mode" : "traffic"
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIC.9210",
  "error_msg" : "create cloud nat eip failed"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.8 Updating the Outbound Access Bandwidth of a Dedicated Gateway

### Function

This API is used to update the outbound access bandwidth of a dedicated gateway.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/nat-eip

**Table 4-1308** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1309** Request header parameters

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

**Table 4-1310** Request body parameters

Parameter	Mandatory	Type	Description
bandwidth_size	No	String	Outbound access bandwidth. Unit: Mbit/s
bandwidth_charging_mode	No	String	Billing type of the public outbound access bandwidth. <ul style="list-style-type: none"><li>bandwidth: billed by bandwidth</li><li>traffic: billed by traffic</li></ul> Default: <b>bandwidth</b>

## Response Parameters

Status code: 400

**Table 4-1311** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1312** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1313** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1314** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1315** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Updating the outbound access bandwidth of a gateway

```
{
  "bandwidth_size" : 5,
  "bandwidth_charging_mode" : "traffic"
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIC.9211",
  "error_msg" : "update bandwidth size failed"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.9 Disabling Public Access for a Dedicated Gateway

### Function

This API is used to disable public access for a dedicated gateway.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/nat-eip

**Table 4-1316** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1317** Request header parameters

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

## Response Parameters

### Status code: 401

**Table 4-1318** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-1319** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-1320** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 500



**Table 4-1321** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.10 Enabling Public Inbound Access

### Function

This API is used to enable public inbound access for a gateway that uses ELB for load balancing.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/ingress-eip

**Table 4-1322** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1323** Request header parameters

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

**Table 4-1324** Request body parameters

Parameter	Mandatory	Type	Description
bandwidth_size	No	Integer	Public inbound access bandwidth. Unit: Mbit/s
bandwidth_charging_mode	No	String	Billing type of the public inbound access bandwidth. <ul style="list-style-type: none"> <li>bandwidth: billed by bandwidth</li> <li>traffic: billed by traffic</li> </ul> Default: <b>bandwidth</b>

## Response Parameters

**Status code: 202**

**Table 4-1325** Response body parameters

Parameter	Type	Description
instance_id	String	Gateway ID.
message	String	Public access address change task.
job_id	String	Task ID.

**Status code: 400**

**Table 4-1326** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1327** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1328** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1329** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1330** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Enabling public inbound access for a gateway

```
{
  "bandwidth_size" : 5,
  "bandwidth_charging_mode" : "traffic"
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "instance_id" : "6a7d71827fd54572b1f31aa9548fcc81",
  "message" : "JOB_ASSIGNED_FOR_UPDATE_00771:The job JOB-a7c1241c33334490a3fdcd11102bcbda is assigned to the instance 6a7d71827fd54572b1f31aa9548fcc81 for running updating",
  "job_id" : "JOB-a7c1241c33334490a3fdcd11102bcbda"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIC.9210",
  "error_msg" : "create cloud nat eip failed"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
202	Accepted
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.23.11 Updating Public Inbound Access Bandwidth of a Gateway

#### Function

This API is used to update the public inbound access bandwidth of a gateway that uses ELB for load balancing.

#### Calling Method

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

#### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/ingress-eip

**Table 4-1331** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1332** Request header parameters

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

**Table 4-1333** Request body parameters

Parameter	Mandatory	Type	Description
bandwidth_size	No	Integer	Public inbound access bandwidth. Unit: Mbit/s
bandwidth_charging_mode	No	String	Billing type of the public inbound access bandwidth. <ul style="list-style-type: none"><li>bandwidth: billed by bandwidth</li><li>traffic: billed by traffic</li></ul> Default: <b>bandwidth</b>

## Response Parameters

**Status code: 202**

**Table 4-1334** Response body parameters

Parameter	Type	Description
instance_id	String	Gateway ID.
message	String	Public access address change task.
job_id	String	Task ID.

**Status code: 400**

**Table 4-1335** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1336** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1337** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1338** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1339** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.



## Example Requests

Updating public inbound access bandwidth of a gateway

```
{
  "bandwidth_size" : 5,
  "bandwidth_charging_mode" : "traffic"
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "instance_id" : "6a7d71827fd54572b1f31aa9548fcc81",
  "message" : "JOB_ASSIGNED_FOR_UPDATE_00771:The job JOB-a7c1241c33334490a3fdcd11102bcbda is assigned to the instance 6a7d71827fd54572b1f31aa9548fcc81 for running updating",
  "job_id" : "JOB-a7c1241c33334490a3fdcd11102bcbda"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIC.9211",
  "error_msg" : "update bandwidth size failed"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
202	Accepted
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.12 Disabling Public Inbound Access for a Gateway

### Function

This API is used to disable public inbound access for a gateway that uses ELB for load balancing.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/ingress-eip

**Table 4-1340** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1341** Request header parameters

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

## Response Parameters

### Status code: 401

**Table 4-1342** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-1343** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-1344** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 500

**Table 4-1345** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.23.13 Querying AZs

#### Function

This API is used to query AZs where you can buy gateways.

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/available-zones

**Table 4-1346** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

#### Request Parameters

**Table 4-1347** Request header parameters

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

#### Response Parameters

Status code: 200

**Table 4-1348** Response body parameters

Parameter	Type	Description
available_zones	Array of <a href="#">AvailableZone</a> objects	AZ list.

**Table 4-1349** AvailableZone

Parameter	Type	Description
name	String	AZ name.
id	String	Error message.
code	String	AZ code.
port	String	AZ port.
local_name	<a href="#">LocalName</a> object	AZ names.
specs	Map<String, Boolean>	Gateway editions available in the AZ.

**Table 4-1350** LocalName

Parameter	Type	Description
en_us	String	AZ name.
zh_cn	String	AZ name.

**Status code: 401****Table 4-1351** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1352** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1353** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "available_zones": [ {
    "code": "xx-xxx-4a",
    "id": "effdcbc7d4d64a02aa1fa26b42f56533",
    "local_name": {
      "en_us": "AZ1",
      "zh_cn": "<Name_of_AZ1>"
    },
    "name": "<Name_of_AZ1>",
    "port": "8403",
    "specs": {
      "BASIC": true,
      "BASIC_IPV6": false,
      "ENTERPRISE": true,
      "ENTERPRISE_IPV6": false,
      "PLATINUM": true,
      "PLATINUM_IPV6": false,
      "PROFESSIONAL": true,
      "PROFESSIONAL_IPV6": false,
      "TRIAL": true,
      "PLATINUM_X2": false,
      "PLATINUM_X3": false,
      "PLATINUM_X4": false,
      "PLATINUM_X5": false,
      "PLATINUM_X6": false,
      "PLATINUM_X7": false,
      "PLATINUM_X8": false
    }
  }, {
    "code": "xx-xxx-4b",
    "id": "a0865121f83b41cbafce65930a22a6e8",
```

```

"local_name" : {
  "en_us" : "AZ2",
  "zh_cn" : "<Name_of_AZ2>"
},
"name" : "<Name_of_AZ2>",
"port" : "8404",
"specs" : {
  "BASIC" : true,
  "BASIC_IPV6" : true,
  "ENTERPRISE" : true,
  "ENTERPRISE_IPV6" : true,
  "PLATINUM" : true,
  "PLATINUM_IPV6" : false,
  "PROFESSIONAL" : true,
  "PROFESSIONAL_IPV6" : true,
  "TRIAL" : true,
  "PLATINUM_X2" : false,
  "PLATINUM_X3" : false,
  "PLATINUM_X4" : false,
  "PLATINUM_X5" : false,
  "PLATINUM_X6" : false,
  "PLATINUM_X7" : false,
  "PLATINUM_X8" : false
}
}
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}

```

**Status Codes**

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
500	Internal Server Error



## Error Codes

See [Error Codes](#).

## 4.23.14 Querying Dedicated Gateways

### Function

This API is used to query dedicated gateways.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances

**Table 4-1354** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

**Table 4-1355** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
instance_id	No	String	Gateway ID.

Parameter	Mandatory	Type	Description
instance_name	No	String	Gateway name.
status	No	String	Gateway status. <ul style="list-style-type: none"> <li>• Creating</li> <li>• CreateSuccess</li> <li>• CreateFail</li> <li>• Initing</li> <li>• Registering</li> <li>• Running</li> <li>• InitingFailed</li> <li>• RegisterFailed</li> <li>• Installing</li> <li>• InstallFailed</li> <li>• Updating</li> <li>• UpdateFailed</li> <li>• Rollbacking</li> <li>• RollbackSuccess</li> <li>• RollbackFailed</li> <li>• Deleting</li> <li>• DeleteFailed</li> <li>• Unregistering</li> <li>• UnRegisterFailed</li> <li>• CreateTimeout</li> <li>• InitTimeout</li> <li>• RegisterTimeout</li> <li>• InstallTimeout</li> <li>• UpdateTimeout</li> <li>• RollbackTimeout</li> <li>• DeleteTimeout</li> <li>• UnregisterTimeout</li> <li>• Starting</li> <li>• Freezing</li> <li>• Frozen</li> <li>• Restarting</li> <li>• RestartFail</li> <li>• Unhealthy</li> <li>• RestartTimeout</li> </ul>

## Request Parameters

**Table 4-1356** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1357** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
instances	Array of <a href="#">RespInstanceBase</a> objects	Gateway list.

**Table 4-1358** RespInstanceBase

Parameter	Type	Description
id	String	Gateway ID.
project_id	String	ID of the tenant to which the gateway belongs.
instance_name	String	Gateway name.

Parameter	Type	Description
status	String	<p>Instance status:</p> <ul style="list-style-type: none"> <li>● Creating: The instance is being created.</li> <li>● CreateSuccess: The instance is created successfully.</li> <li>● CreateFail: The instance fails to be created.</li> <li>● Initing: The instance is being initialized.</li> <li>● Registering: The instance is being registered.</li> <li>● Running: The instance is running.</li> <li>● InitingFailed: The instance fails to be initialized.</li> <li>● RegisterFailed: The instance fails to be registered.</li> <li>● Installing: The instance is being installed.</li> <li>● InstallFailed: The instance fails to be installed.</li> <li>● Updating: The instance is being upgraded.</li> <li>● UpdateFailed: The instance fails to be upgraded.</li> <li>● Rollbacking: The instance is being rolled back.</li> <li>● RollbackSuccess: The instance is rolled back successfully.</li> <li>● RollbackFailed: The instance fails to be rolled back.</li> <li>● Deleting: The instance is being deleted.</li> <li>● DeleteFailed: The instance fails to be deleted.</li> <li>● Unregistering: The instance is being deregistered.</li> <li>● UnRegisterFailed: The instance fails to be deregistered.</li> <li>● CreateTimeout: Creation of the instance times out.</li> <li>● InitTimeout: Initialization of the instance times out.</li> <li>● RegisterTimeout: Registration of the instance times out.</li> <li>● InstallTimeout: Installation of the instance times out.</li> <li>● UpdateTimeout: Upgrading of the instance times out.</li> <li>● RollbackTimeout: Rollback of the instance times out.</li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>● DeleteTimeout: Deletion of the instance times out.</li> <li>● UnregisterTimeout: Deregistration of the instance times out.</li> <li>● Starting: The instance is being started.</li> <li>● Freezing: The instance is being frozen.</li> <li>● Frozen: The instance is frozen.</li> <li>● Restarting: The instance is being restarted.</li> <li>● RestartFail: The instance fails to be restarted.</li> <li>● Unhealthy: The instance is abnormal.</li> <li>● RestartTimeout: Restart of the instance times out.</li> <li>● Resizing: The instance specification is changing.</li> <li>● ResizeFailed: The instance specification fails to be changed.</li> <li>● ResizeTimeout: The instance specification change times out.</li> </ul>

Parameter	Type	Description
instance_statuses	Integer	<p>Instance status ID:</p> <ul style="list-style-type: none"> <li>● 1: Creating</li> <li>● 2: Created successfully</li> <li>● 3: Creation failed</li> <li>● 4: Initializing</li> <li>● 5: Registering</li> <li>● 6: Running</li> <li>● 7: Initialization failed</li> <li>● 8: Registration failed</li> <li>● 10: Installing</li> <li>● 11: Installation failed</li> <li>● 12: Upgrading</li> <li>● 13: Upgrade failed</li> <li>● 20: Rolling back</li> <li>● 21: Rolled back</li> <li>● 22: Rollback failed</li> <li>● 23: Deleting</li> <li>● 24: Deletion failed</li> <li>● 25: Deregistering</li> <li>● 26: Deregistration failed</li> <li>● 27: Creation timed out</li> <li>● 28: Initialization timed out</li> <li>● 29: Registration timed out</li> <li>● 30: Installation timed out</li> <li>● 31: Upgrade timed out</li> <li>● 32: Rollback timed out</li> <li>● 33: Deletion timed out</li> <li>● 34: Deregistration timed out</li> <li>● 35: Starting</li> <li>● 36: Freezing</li> <li>● 37: Frozen</li> <li>● 38: Restarting</li> <li>● 39: Restart failed</li> <li>● 40: Abnormal</li> <li>● 41: Restart timed out</li> <li>● 42: Changing specification</li> <li>● 43: Specification change failed</li> <li>● 44: Specification change timed out</li> </ul>

Parameter	Type	Description
type	String	Gateway type. The default value is apig.
spec	String	Gateway edition. <ul style="list-style-type: none"><li>• BASIC</li><li>• PROFESSIONAL</li><li>• ENTERPRISE</li><li>• PLATINUM</li><li>• BASIC_IPV6</li><li>• PROFESSIONAL_IPV6</li><li>• ENTERPRISE_IPV6</li><li>• PLATINUM_IPV6</li></ul>
create_time	Long	Time when the gateway is created. The time is in the Unix timestamp format.
enterprise_project_id	String	Enterprise project ID. This parameter is required for an enterprise account.
eip_address	String	EIP bound to the gateway.
charging_mode	Integer	Billing mode of the gateway. <ul style="list-style-type: none"><li>• 0: pay-per-use</li><li>• 1: This parameter is not used currently.</li></ul>
cbc_metadata	String	This parameter is not used currently.
loadbalancer_provider	String	Type of the load balancer used by the gateway. <ul style="list-style-type: none"><li>• LVS</li><li>• ELB (available only in certain regions)</li></ul> Default: <b>lvs</b>
cbc_operation_locks	Array of <b>CbcOperationLock</b> objects	Cloud operations restriction lock

**Table 4-1359** CbcOperationLock

Parameter	Type	Description
lock_scene	String	Restriction scenarios: <ul style="list-style-type: none"> <li>• TO_PERIOD_LOCK: Changing the billing mode from pay-per-use to yearly/monthly. In this scenario, deleting resources, changing specifications, and changing from pay-per-use to yearly/monthly are not allowed.</li> <li>• SPEC_CHG_LOCK: Changing specifications of the yearly/monthly billing mode. In this scenario, deleting resources and changing specifications are not allowed.</li> </ul>
lock_source_id	String	ID of the object that initiates the restriction

**Status code: 401**

**Table 4-1360** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1361** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1362** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.



## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 2,
  "size" : 2,
  "instances" : [ {
    "cbc_metadata" : "CS2006301043A28NF:00301-734023-0--0",
    "charging_mode" : 1,
    "create_time" : 1585302825070,
    "eip_address" : "xxx.xxx.xxx.xxx",
    "enterprise_project_id" : "0",
    "id" : "eddc4d25480b4cd6b512f270a1b8b341",
    "instance_name" : "apig-Enterprise_Project_Pay-per-Use",
    "instance_status" : 6,
    "project_id" : "73d69ae0cfcf460190522d06b60f05ad",
    "spec" : "PROFESSIONAL",
    "status" : "Running",
    "type" : "apig"
  }, {
    "charging_mode" : 0,
    "create_time" : 1594370987422,
    "eip_address" : "xxx.xxx.xxx.xxx",
    "enterprise_project_id" : "0",
    "id" : "2e2d613c64094a4a94ad38e7ca30adee",
    "instance_name" : "apig-autotest-apitests-nodelete",
    "instance_status" : 6,
    "project_id" : "73d69ae0cfcf460190522d06b60f05ad",
    "spec" : "PROFESSIONAL",
    "status" : "Running",
    "type" : "apig",
    "cbc_operation_locks" : [ {
      "lock_scene" : "TO_PERIOD_LOCK",
      "lock_source_id" : "CxxxxxxxxxM"
    } ]
  } ]
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.15 Deleting a Dedicated Gateway

### Function

This API is used to delete a dedicated gateway.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}

**Table 4-1363** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1364** Request header parameters

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

## Response Parameters

### Status code: 401

**Table 4-1365** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-1366** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-1367** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 500

**Table 4-1368** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.16 Modifying the Specifications of a Pay-Per-Use Gateway

### Function

This API is used to create a specification change order of a pay-per-use gateway.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/postpaid-resize

**Table 4-1369** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1370** Request header parameters

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

**Table 4-1371** Request body parameters

Parameter	Mandatory	Type	Description
spec_id	No	String	Target gateway specifications.

## Response Parameters

**Status code: 202**

**Table 4-1372** Response body parameters

Parameter	Type	Description
instance_id	String	Gateway ID.
message	String	Gateway scale-out information.
job_id	String	Task ID.

**Status code: 401**

**Table 4-1373** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1374** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1375** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

```
{
  "spec_id" : "PROFESSIONAL"
}
```

## Example Responses

**Status code: 202**

ACCEPTED

```
{
  "instance_id" : "6a7d71827fd54572b1f31aa9548fcc81",
  "message" : "JOB_ASSIGNED_FOR_RESIZE_0086l:The job JOB-5acb75c7565e42c997954774456eac79 is assigned to resize instance.",
  "job_id" : "JOB-5acb75c7565e42c997954774456eac79"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code" : "APIC.9000",  
  "error_msg" : "Failed to request internal service"  
}
```

## Status Codes

Status Code	Description
202	ACCEPTED
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.23.17 Querying Gateway Constraints

### Function

This API is used to query the constraints of a gateway.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/restriction

**Table 4-1376** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.



## Request Parameters

**Table 4-1377** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1378** Response body parameters

Parameter	Type	Description
restrict_cidrs	Array of strings	CIDR block list of the restricted IP network segment.
resource_subnet_cidr	String	CIDR block of the IP network segment of the resource tenant.

**Status code: 401**

**Table 4-1379** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1380** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1381** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1382** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "restrict_cidrs" : [ "127.0.0.1/32", "192.168.0.1/24" ],
  "resource_subnet_cidr" : "192.168.0.1/24"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

**Status Codes**

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**

See [Error Codes](#).

**4.24 VPC Endpoint Management**

**4.24.1 Querying VPC Endpoint Connections**

**Function**

This API is used to query the VPC endpoint connections of a gateway.

**Calling Method**

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

**URI**

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-endpoint/connections

**Table 4-1383** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1384** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
id	No	String	Unique VPC endpoint ID.
marker_id	No	Integer	Packet ID of a VPC endpoint.
status	No	String	Connection status of a VPC endpoint. Options: <ul style="list-style-type: none"><li>● pendingAcceptance</li><li>● accepted</li><li>● rejected</li><li>● failed</li></ul>

## Request Parameters

**Table 4-1385** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1386** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1387** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
connections	Array of <a href="#">EndpointConnection</a> objects	Connections.

**Table 4-1388** EndpointConnection

Parameter	Type	Description
id	String	Connection ID.
marker_id	Integer	Connection packet ID.
created_at	String	Connection creation time. UTC time in the format YYYY-MM-DDTHH:MM:SSZ.
updated_at	String	Connection update time. UTC time in the format YYYY-MM-DDTHH:MM:SSZ.

Parameter	Type	Description
domain_id	String	Domain ID.
status	String	Connection status. <ul style="list-style-type: none"> <li>• pendingAcceptance</li> <li>• creating</li> <li>• accepted</li> <li>• rejected</li> <li>• failed</li> <li>• deleting</li> </ul>

**Status code: 401**

**Table 4-1389** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1390** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1391** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1392** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1393** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1394** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1395** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1396** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 2,
  "size" : 1,
  "connections" : [ {
    "id" : "76ad893c-6a1e-4055-8019-fe9c9bd3204d",
    "marker_id" : 167960098,
    "created_at" : "2021-04-29T02:12:44Z",
    "updated_at" : "2021-04-29T02:12:45Z",
```

```
"domain_id" : "b70fde8e849b4e76a61dd8aa0ec05c81",
"status" : "accepted"
} ]
}
```

**Status code: 401**

Unauthorized

```
{
"error_code" : "APIC.7102",
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
"error_code" : "APIC.7106",
"error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

Resource Not Found

```
{
"error_code" : "APIC.7314",
"error_msg" : "Endpoint service not found"
}
```

**Status code: 500**

Internal Server Error

```
{
"error_code" : "APIC.9007",
"error_msg" : "Failed to execute VCPEP request"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Resource Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).



## 4.24.2 Accepting or Rejecting a VPC Endpoint Connection

### Function

This API is used to accept or reject a VPC endpoint connection for a gateway.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-endpoint/connections/  
action

**Table 4-1397** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-1398** Request header parameters

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

**Table 4-1399** Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Allow or reject connections. <ul style="list-style-type: none"><li>• receive</li><li>• reject</li></ul>

Parameter	Mandatory	Type	Description
endpoints	Yes	Array of strings	VPC endpoints. Array Length: <b>1 - 50</b>

## Response Parameters

Status code: 200

**Table 4-1400** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1401** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
connections	Array of <a href="#">EndpointConnection</a> objects	Connections.

**Table 4-1402** EndpointConnection

Parameter	Type	Description
id	String	Connection ID.
marker_id	Integer	Connection packet ID.
created_at	String	Connection creation time. UTC time in the format YYYY-MM-DDTHH:MM:SSZ.
updated_at	String	Connection update time. UTC time in the format YYYY-MM-DDTHH:MM:SSZ.
domain_id	String	Domain ID.

Parameter	Type	Description
status	String	Connection status. <ul style="list-style-type: none"><li>• pendingAcceptance</li><li>• creating</li><li>• accepted</li><li>• rejected</li><li>• failed</li><li>• deleting</li></ul>

**Status code: 401****Table 4-1403** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1404** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1405** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1406** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1407** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1408** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1409** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1410** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Accept a connection from a VPC endpoint.

```
{
  "action": "receive",
  "endpoints": [ "9fa04c5e-64ec-4106-a014-2ad71ad9997d" ]
}
```

- Disable a VPC endpoint connection.

```
{
  "action": "reject",
  "endpoints": [ "9fa04c5e-64ec-4106-a014-2ad71ad9997d" ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "connections": [ {
```

```

    "id" : "9cf102d8-aaa0-44cf-8222-fd6f2c073887",
    "marker_id" : 167792784,
    "created_at" : "2021-05-07T14:20:14Z",
    "updated_at" : "2021-05-07T14:30:25Z",
    "domain_id" : "c90f12a0f1ee43bc90a1f4d17bce35bc",
    "status" : "accepted"
  } ]
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}

```

**Status code: 404**

Resource Not Found

```

{
  "error_code" : "APIC.7314",
  "error_msg" : "Endpoint service not found"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIC.9007",
  "error_msg" : "Failed to execute VCPEP request"
}

```

**Status Codes**

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Resource Not Found
500	Internal Server Error

**Error Codes**

See [Error Codes](#).

## 4.24.3 Querying Whitelist Records of a VPC Endpoint Service

### Function

This API is used to query the whitelist records of a gateway's VPC endpoint service.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-endpoint/permissions

**Table 4-1411** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1412** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>

Parameter	Mandatory	Type	Description
permission	No	String	Permission account ID in format "iam:domain::domain_id". Fuzzy search is supported.

## Request Parameters

Table 4-1413 Request header parameters

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

## Response Parameters

Status code: 200

Table 4-1414 Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

Table 4-1415 Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
permissions	Array of <a href="#">EndpointPermission</a> objects	Whitelist records.

**Table 4-1416** EndpointPermission

Parameter	Type	Description
id	String	Record ID.
permission	String	Permission rules.
created_at	String	Creation time.

**Status code: 401****Table 4-1417** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1418** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1419** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1420** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**



**Table 4-1421** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1422** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1423** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1424** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 2,
  "size" : 1,
  "permissions" : [ {
    "id" : "e4a7ba21-1e5c-43cc-977d-4aeeacb937ec",
    "permission" : "iam:domain::821a2d452de64bcdb52319967f8a06b9",
    "created_at" : "2021-05-07T14:10:49Z"
  } ]
}
```

**Status code: 401**

### Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

### Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

### Resource Not Found

```
{
  "error_code" : "APIC.7314",
  "error_msg" : "Endpoint service not found"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIC.9007",
  "error_msg" : "Failed to execute VCPEP request"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Resource Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.24.4 Adding Whitelist Records for a VPC Endpoint Service

### Function

This API is used to add whitelist records in batches for a gateway's VPC endpoint service.

## Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-endpoint/permissions/  
batch-add

**Table 4-1425** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1426** Request header parameters

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

**Table 4-1427** Request body parameters

Parameter	Mandatory	Type	Description
permissions	Yes	Array of strings	Whitelist records. Each whitelist record is in the format of "iam:domain::Authorized_account_ID". The account ID contains 32 characters, including only letters (a–f) and digits. An asterisk (*) means that all users have access. Array Length: <b>1 - 50</b>

## Response Parameters

**Status code: 200**

**Table 4-1428** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1429** Response body parameters

Parameter	Type	Description
permissions	Array of strings	Whitelist records. Each whitelist record is in the format of "iam:domain::Authorized_account_ID". The account ID contains 32 characters, including only letters (a-f) and digits. An asterisk (*) means that all users have access. Array Length: <b>1 - 50</b>

**Status code: 401**

**Table 4-1430** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1431** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1432** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1433** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1434** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1435** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1436** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1437** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Add whitelist records for a vpc endpoint service.

```
{  
  "permissions" : [ "iam:domain::7cc2018e40394f7c9692f1713e76234d" ]  
}
```

## Example Responses

### Status code: 200

OK

```
{
  "permissions" : [ "iam:domain::930ba6b0ea64457e8ed1861e596c7a9a" ]
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

### Status code: 404

Resource Not Found

```
{
  "error_code" : "APIC.7314",
  "error_msg" : "Endpoint service not found"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIC.9007",
  "error_msg" : "Failed to execute VCPEP request"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Resource Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.24.5 Deleting Whitelist Records of a VPC Endpoint Service

### Function

This API is used to delete whitelist records of a gateway's VPC endpoint service in batches.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-endpoint/permissions/  
batch-delete

**Table 4-1438** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-1439** Request header parameters

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

**Table 4-1440** Request body parameters

Parameter	Mandatory	Type	Description
permissions	Yes	Array of strings	Whitelist records. Each whitelist record is in the format of "iam:domain::Authorized_account_ID". The account ID contains 32 characters, including only letters (a-f) and digits. An asterisk (*) means that all users have access. Array Length: <b>1 - 50</b>

## Response Parameters

**Status code: 200**

**Table 4-1441** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1442** Response body parameters

Parameter	Type	Description
permissions	Array of strings	Whitelist records. Each whitelist record is in the format of "iam:domain::Authorized_account_ID". The account ID contains 32 characters, including only letters (a-f) and digits. An asterisk (*) means that all users have access. Array Length: <b>1 - 50</b>

**Status code: 401**

**Table 4-1443** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.



**Table 4-1444** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1445** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1446** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1447** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1448** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1449** Response header parameters

Parameter	Type	Description
x-request-id	String	Request ID.

**Table 4-1450** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Delete whitelist records for a vpc endpoint service.

```
{  
  "permissions" : [ "iam:domain::7cc2018e40394f7c9692f1713e76234d" ]  
}
```

## Example Responses

### Status code: 200

OK

```
{  
  "permissions" : [ "iam:domain::930ba6b0ea64457e8ed1861e596c7a9a" ]  
}
```

### Status code: 401

Unauthorized

```
{  
  "error_code" : "APIC.7102",  
  "error_msg" : "Incorrect token or token resolution failed"  
}
```

### Status code: 403

Forbidden

```
{  
  "error_code" : "APIC.7106",  
  "error_msg" : "No permissions to request for the method"  
}
```

### Status code: 404

Resource Not Found

```
{  
  "error_code" : "APIC.7314",  
  "error_msg" : "Endpoint service not found"  
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIC.9007",
  "error_msg" : "Failed to execute VCPEP request"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Resource Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.25 Gateway Tag Management

## 4.25.1 Querying All Gateway Tags of a Project

### Function

This API is used to query all gateway tags of a project.

### Constraints

Only users who have been authorized with a policy containing action `apig:instanceTags:list` can call this API.

### Calling Method

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

### URI

GET `/v2/{project_id}/apigw/instance-tags`

**Table 4-1451** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

## Request Parameters

**Table 4-1452** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1453** Response body parameters

Parameter	Type	Description
tags	Array of <a href="#">TmsKeyValues</a> objects	Tags bound to all gateways in the project.

**Table 4-1454** TmsKeyValues

Parameter	Type	Description
key	String	Key. Include UTF-8 letters, digits, spaces, or special characters (._:=-@). Do not start with <code>_sys_</code> because it is a system label. Minimum: <b>1</b> Maximum: <b>128</b>

Parameter	Type	Description
values	Array of strings	Value. You can enter letters, digits, and spaces or other special characters ( _.:/=+-@ ) in UTF-8 format.

**Status code: 401****Table 4-1455** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1456** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1457** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "tags": [ {
    "key": "test-key",
    "values": [ "test-value1", "test-value2" ]
  } ]
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIC.7102",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIC.7106",
  "error_msg": "No permissions to request for the method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIC.9000",
  "error_msg": "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.25.2 Querying Tags of a Gateway

### Function

This API is used to query all tags of a gateway.

## Constraints

Only users who have been authorized with a policy containing actions `apig:instanceTags:list` and `apig:instances:get` can call this API.

## Calling Method

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

## URI

GET `/v2/{project_id}/apigw/instances/{instance_id}/instance-tags`

**Table 4-1458** Path Parameters

Parameter	Mandatory	Type	Description
<code>project_id</code>	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
<code>instance_id</code>	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1459** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1460** Response body parameters

Parameter	Type	Description
<code>tags</code>	Array of <a href="#">TmsKeyValue</a> objects	Tags bound to the gateway.

**Table 4-1461** TmsKeyValue

Parameter	Type	Description
key	String	Key. Include UTF-8 letters, digits, spaces, or special characters ( _.:/+@ ). Do not start with _sys_ because it is a system label. Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Value. You can enter letters, digits, and spaces or other special characters ( _.:/+@ ) in UTF-8 format. Minimum: <b>0</b> Maximum: <b>255</b>

**Status code: 401****Table 4-1462** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1463** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1464** Response body parameters

Parameter	Type	Description
error_code	String	Error code.



Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "tags": [ {
    "key": "test-key",
    "value": "test-vau"
  } ]
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.25.3 Adding or Deleting Tags of a Gateway

### Function

This API is used to add tags to a gateway or delete the tags of a gateway.

### Constraints

Only users who have been authorized with a policy containing actions `apig:instances:get`, `apig:instanceTags:create`, and `apig:instanceTags:delete` can call this API.

### Calling Method

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

### URI

POST `/v2/{project_id}/apigw/instances/{instance_id}/instance-tags/action`

**Table 4-1465** Path Parameters

Parameter	Mandatory	Type	Description
<code>project_id</code>	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
<code>instance_id</code>	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-1466** Request header parameters

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

**Table 4-1467** Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Operation: create and delete.
tags	Yes	Array of <b>TmsKeyValue</b> objects	Tags. A maximum of 20 tags can be created for a gateway. Array Length: <b>0 - 20</b>

**Table 4-1468** TmsKeyValue

Parameter	Mandatory	Type	Description
key	No	String	Key. Include UTF-8 letters, digits, spaces, or special characters (._:=-+@). Do not start with <code>_sys_</code> because it is a system label. Minimum: <b>1</b> Maximum: <b>128</b>
value	No	String	Value. You can enter letters, digits, and spaces or other special characters (._:=-+@) in UTF-8 format. Minimum: <b>0</b> Maximum: <b>255</b>

## Response Parameters

**Status code: 401**

**Table 4-1469** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1470** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1471** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Adding tags for a gateway

```
{
  "action": "create",
  "tags": [ {
    "key": "test-key",
    "value": "test-value"
  } ]
}
```

- Deleting tags of a gateway

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

## Example Responses

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIC.7102",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIC.7106",
  "error_msg": "No permissions to request for the method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000"
}
```

**Status Codes**

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
500	Internal Server Error

**Error Codes**

See [Error Codes](#).

**4.25.4 Querying the Number of Gateways with a Specified Tag**

**Function**

This API is used to query the number of gateways with a specified tag.

**Constraints**

When a policy is used to authorize users, this API can be called only when the apig:instance:getNumByTags action is contained.

**Calling Method**

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

**URI**

POST /v2/{project\_id}/apigw/resource-instances/count

**Table 4-1472** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

## Request Parameters

**Table 4-1473** Request header parameters

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

**Table 4-1474** Request body parameters

Parameter	Mandatory	Type	Description
without_any_tag	No	Boolean	Resources to be queried contain no tags. If this parameter is set to <b>true</b> , all resources without tags are queried. In this case, the <b>tags</b> field is ignored.  If this parameter is set to <b>false</b> or not specified, it does not take effect.
tags	No	Array of <b>TmsKeyValues</b> objects	Included tags. A maximum of 20 keys are included. Each key can have a maximum of 20 values. If no tag filtering criteria is specified, full data is returned.  Array Length: <b>0 - 20</b>
sys_tags	No	Array of <b>TmsKeyValues</b> objects	Enterprise project. Only the op_service permission can use this field to filter resources. If <b>sys_tags</b> is not used, resources are filtered by <b>tag</b> . If no tag filtering criteria is specified, full data is returned.  Array Length: <b>0 - 1</b>

Parameter	Mandatory	Type	Description
matches	No	Array of <a href="#">TmsMatches KeyValue</a> objects	Search criteria. The tag key is the field to match. Currently, only <b>resource_name</b> is supported. The tag value indicates the matched value.  Check whether fuzzy match is required based on the key value. For example, if <b>key</b> is set to <b>resource_name</b> , prefix search is performed.

**Table 4-1475** TmsKeyValues

Parameter	Mandatory	Type	Description
key	No	String	Key. Include UTF-8 letters, digits, spaces, or special characters ( <code>._:=-@</code> ). Do not start with <code>_sys_</code> because it is a system label. Minimum: <b>1</b> Maximum: <b>128</b>
values	No	Array of strings	Value. You can enter letters, digits, and spaces or other special characters ( <code>._:=-@</code> ) in UTF-8 format.

**Table 4-1476** TmsMatchesKeyValue

Parameter	Mandatory	Type	Description
key	No	String	Specifies the field to be matched. <ul style="list-style-type: none"><li>resource_name indicates that the APIG instance name is used for matching.</li></ul>

Parameter	Mandatory	Type	Description
value	No	String	Indicates the value. The value can contain UTF-8 letters, digits, spaces, and the following characters: ( _ : / = + - @ ) : / = + - @ Maximum: <b>255</b>

## Response Parameters

### Status code: 200

**Table 4-1477** Response body parameters

Parameter	Type	Description
total_count	Integer	Total number of records.

### Status code: 401

**Table 4-1478** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-1479** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 500



**Table 4-1480** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Querying the number of gateways with a specified tag

```
{
  "without_any_tag" : false,
  "tags" : [ {
    "key" : "test-key",
    "values" : [ "test-value" ]
  } ],
  "matches" : [ {
    "key" : "resource_name",
    "value" : "test-apig"
  } ]
}
```

- Querying the number of gateways with a specified enterprise project ID

```
{
  "without_any_tag" : false,
  "sys_tags" : [ {
    "key" : "_sys_enterprise_project_id",
    "values" : [ "0" ]
  } ],
  "matches" : [ {
    "key" : "resource_name",
    "value" : "test-apig"
  } ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "total_count" : 20
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code" : "APIC.9000"  
}
```

**Status Codes**

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
500	Internal Server Error

**Error Codes**See [Error Codes](#).

## 4.25.5 Querying Gateways by Tag

**Function**

This API is used to query gateways by tag.

**Constraints**When a policy is used to authorize users, this API can be called only when the `apigw:instance:listByTags` action is contained.**Calling Method**For details, see [Calling APIs](#).**URI**POST `/v2/{project_id}/apigw/resource-instances/filter`**Table 4-1481** Path Parameters

Parameter	Mandatory	Type	Description
<code>project_id</code>	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

**Table 4-1482** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>

## Request Parameters

**Table 4-1483** Request header parameters

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

**Table 4-1484** Request body parameters

Parameter	Mandatory	Type	Description
without_any_tag	No	Boolean	Resources to be queried contain no tags. If this parameter is set to <b>true</b> , all resources without tags are queried. In this case, the <b>tags</b> field is ignored. If this parameter is set to <b>false</b> or not specified, it does not take effect.

Parameter	Mandatory	Type	Description
tags	No	Array of <b>TmsKeyValues</b> objects	Included tags. A maximum of 20 keys are included. Each key can have a maximum of 20 values. If no tag filtering criteria is specified, full data is returned. Array Length: <b>0 - 20</b>
sys_tags	No	Array of <b>TmsKeyValues</b> objects	Enterprise project. Only the op_service permission can use this field to filter resources. If <b>sys_tags</b> is not used, resources are filtered by <b>tag</b> . If no tag filtering criteria is specified, full data is returned. Array Length: <b>0 - 1</b>
matches	No	Array of <b>TmsMatchesKeyValues</b> objects	Search criteria. The tag key is the field to match. Currently, only <b>resource_name</b> is supported. The tag value indicates the matched value. Check whether fuzzy match is required based on the key value. For example, if <b>key</b> is set to <b>resource_name</b> , prefix search is performed.

**Table 4-1485** TmsKeyValues

Parameter	Mandatory	Type	Description
key	No	String	Key. Include UTF-8 letters, digits, spaces, or special characters ( <code>._:/=+-@</code> ). Do not start with <code>_sys_</code> because it is a system label. Minimum: <b>1</b> Maximum: <b>128</b>
values	No	Array of strings	Value. You can enter letters, digits, and spaces or other special characters ( <code>._:/=+-@</code> ) in UTF-8 format.

**Table 4-1486** TmsMatchesKeyValue

Parameter	Mandatory	Type	Description
key	No	String	Specifies the field to be matched. <ul style="list-style-type: none"> <li>resource_name indicates that the APIG instance name is used for matching.</li> </ul>
value	No	String	Indicates the value. The value can contain UTF-8 letters, digits, spaces, and the following characters: ( _ . : / = + - @ ) : / = + - @ Maximum: <b>255</b>

## Response Parameters

Status code: 200

**Table 4-1487** Response body parameters

Parameter	Type	Description
resources	Array of <a href="#">TmsResourceResp</a> objects	Gateways
total_count	Integer	Total number of records.

**Table 4-1488** TmsResourceResp

Parameter	Type	Description
resource_id	String	Gateway ID.
resource_detail	String	Detailed description of the gateway. Not supported.
resource_name	String	Gateway name.
tags	Array of <a href="#">TmsKeyValue</a> objects	Tags bound to the gateway. Array Length: <b>0 - 20</b>

**Table 4-1489** TmsKeyValue

Parameter	Type	Description
key	String	Key. Include UTF-8 letters, digits, spaces, or special characters ( _.:/+@ ). Do not start with _sys_ because it is a system label. Minimum: <b>1</b> Maximum: <b>128</b>
value	String	Value. You can enter letters, digits, and spaces or other special characters ( _.:/+@ ) in UTF-8 format. Minimum: <b>0</b> Maximum: <b>255</b>

**Status code: 401**

**Table 4-1490** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1491** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1492** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

- Filtering gateways by tag

```
{
  "without_any_tag" : false,
  "tags" : [ {
    "key" : "test-key",
    "values" : [ "test-value" ]
  } ],
  "matches" : [ {
    "key" : "resource_name",
    "value" : "test-apig"
  } ]
}
```

- Filtering gateways by enterprise project IDs

```
{
  "without_any_tag" : false,
  "sys_tags" : [ {
    "key" : "_sys_enterprise_project_id",
    "values" : [ "0" ]
  } ],
  "matches" : [ {
    "key" : "resource_name",
    "value" : "test-apig"
  } ]
}
```

## Example Responses

### Status code: 200

Returned gateways

```
{
  "resources" : [ {
    "resource_id" : "e120108ac331422cb539d8609e9a7bb2",
    "resource_detail" : null,
    "resource_name" : "apig_instance",
    "tags" : [ {
      "key" : "test-key",
      "value" : "test-value"
    } ]
  } ],
  "total_count" : 1
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIC.9000"
}
```

## Status Codes

Status Code	Description
200	Returned gateways
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.26 Microservice Center Management

## 4.26.1 Importing a Microservice

### Function

This API is used to import a microservice.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/microservice/import



**Table 4-1493** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1494** Request header parameters

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

**Table 4-1495** Request body parameters

Parameter	Mandatory	Type	Description
group_info	Yes	<a href="#">Microservice Group</a> object	Information about the API group to import a microservice to.
service_type	Yes	String	Microservice center type. Options: <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center</li> <li>• CCE: CCE workload</li> <li>• CCE_SERVICE: CCE Service</li> <li>• NACOS: Nacos registration center. <b>nacos_info</b> is mandatory.</li> </ul>
protocol	No	String	Request protocol used by APIG to access the microservice. <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul> Default: <b>HTTPS</b>

Parameter	Mandatory	Type	Description
apis	Yes	Array of <a href="#">Microservice ApiCreate</a> objects	Imported APIs. Array Length: <b>1 - 50</b>
backend_timeout	No	Integer	Timeout allowed for APIG to request the backend service. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000, and the default value is 5000. Unit: ms. Minimum: <b>1</b> Default: <b>5000</b>
auth_type	No	String	API authentication mode. By default, authentication is not required. <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> </ul> Default: <b>NONE</b>
cors	No	Boolean	Whether CORS is supported. By default, it is not supported. <ul style="list-style-type: none"> <li>• true: Supported.</li> <li>• false: Not supported.</li> </ul> Default: <b>false</b>
cse_info	No	<a href="#">MicroServiceInfoCSECreate</a> object	CSE microservice details. This parameter is required if service_type is set to CSE.
cce_info	No	<a href="#">MicroServiceInfoCCECreate</a> object	CCE workload details. This parameter is required if service_type is set to CCE.
cce_service_info	No	<a href="#">MicroServiceInfoCCEServiceCreate</a> object	CCE Service details. This parameter is required if service_type is set to CCE_SERVICE.
nacos_info	No	<a href="#">MicroServiceInfoNacosBasic</a> object	Nacos basic information.

**Table 4-1496** MicroserviceGroup

Parameter	Mandatory	Type	Description
group_id	No	String	An existing group. If this parameter is left empty, a new group is created. Minimum: <b>0</b> Maximum: <b>64</b>
group_name	No	String	Name of the API group. This parameter is required when group_id is empty. Enter 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:() Minimum: <b>3</b> Maximum: <b>255</b>
app_id	No	String	Integration application to which the new group belongs. This parameter is required when group_id is empty. Minimum: <b>0</b> Maximum: <b>64</b>

**Table 4-1497** MicroserviceApiCreate

Parameter	Mandatory	Type	Description
name	No	String	API name. Start with a letter or digit, and use only letters, digits, and these special characters: -_./:() Minimum: <b>3</b> Maximum: <b>255</b>
req_method	No	String	Request method. Default: <b>ANY</b>

Parameter	Mandatory	Type	Description
req_uri	Yes	String	<p>Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.</p> <p>/apic/health_check is the preset health check path of APIG. If req_method=GET is passed, req_uri=/apic/health_check is not supported.</p> <p><b>NOTE</b> The address must comply with the URI specifications.</p> <p>Minimum: <b>1</b> Maximum: <b>512</b></p>
match_mode	No	String	<p>API matching mode.</p> <ul style="list-style-type: none"> <li>• SWA: Prefix match.</li> <li>• NORMAL: Exact match.</li> </ul> <p>Default value: NORMAL Default: <b>SWA</b></p>

**Table 4-1498** MicroServiceInfoCSECreate

Parameter	Mandatory	Type	Description
engine_id	Yes	String	<p>Microservice engine ID. Maximum: <b>64</b></p>
service_id	Yes	String	<p>Microservice ID. Maximum: <b>64</b></p>
version	Yes	String	<p>Microservice version. Maximum: <b>64</b></p>

**Table 4-1499** MicroServiceInfoCCECreate

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	CCE cluster ID. Maximum: <b>64</b>
namespace	Yes	String	Namespace. Maximum: <b>64</b>
workload_type	Yes	String	Workload type. <ul style="list-style-type: none"> <li>• deployment</li> <li>• statefulset</li> <li>• daemonset</li> </ul>
app_name	No	String	App name. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_key	No	String	Service label key. Start with a letter or digit, and use only letters, digits, and these special characters: -_./:(). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
label_value	No	String	Service label value. Start with a letter, and include only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>
version	No	String	Workload version. Maximum: <b>64</b>
port	Yes	Integer	Listening port No. of the workload. Minimum: <b>1</b> Maximum: <b>65535</b>
labels	No	Array of <b>MicroserviceLabel</b> objects	Workload label list.

**Table 4-1500** MicroserviceLabel

Parameter	Mandatory	Type	Description
label_name	Yes	String	Tag name. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>
label_value	Yes	String	Tag value. Start and end with a letter or digit. Use only letters, digits, hyphens (-), underscores (_), and periods (.). (Max. 63 characters.) Minimum: <b>1</b> Maximum: <b>63</b>

**Table 4-1501** MicroServiceInfoCCEServiceCreate

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	CCE cluster ID. Maximum: <b>64</b>
namespace	Yes	String	Namespace. 1 to 63 characters. Use lowercase letters, digits, and hyphens (-). Start with a letter and end with a letter or digit. Minimum: <b>1</b> Maximum: <b>63</b>
service_name	Yes	String	Service name. Start with a letter, and use only letters, digits, periods (.), hyphens (-), and underscores (_). (1 to 64 characters) Minimum: <b>1</b> Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
port	No	Integer	Service listening port. For a multi-port service, you only need to enter one port number. Minimum: <b>1</b> Maximum: <b>65535</b>

**Table 4-1502** MicroServiceInfoNacosBase

Parameter	Mandatory	Type	Description
namespace	No	String	Namespace ID. If the default namespace <b>public</b> is used, leave this parameter empty. Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
cluster_name	No	String	Cluster name. The default value is <b>DEFAULT</b> . Only letters, numbers, hyphens (-), underscores (_) are allowed. Max.: 64 characters Minimum: <b>0</b> Maximum: <b>64</b>
group_name	No	String	Group name. The default value is <b>DEFAULT_GROUP</b> . Only letters, numbers, hyphens (-), underscores (_), periods (.), and colons (:) are allowed. Max.: 128 characters Minimum: <b>0</b> Maximum: <b>128</b>
service_name	Yes	String	Microservice name. The value cannot start with @ or contain @@. Max.: 512 characters Minimum: <b>1</b> Maximum: <b>512</b>
server_config	Yes	Array of <b>NacosServerConfig</b> objects	Nacos server configurations. Array Length: <b>1 - 9</b>

Parameter	Mandatory	Type	Description
user_info	Yes	<a href="#">NacosUserInfo</a> object	Nacos user information.

**Table 4-1503** NacosServerConfig

Parameter	Mandatory	Type	Description
ip_address	Yes	String	IP address of the Nacos server. Do not enter Chinese characters. Minimum: <b>7</b> Maximum: <b>128</b>
port	Yes	Integer	Port number of the Nacos server. Range: 1–65535. Minimum: <b>1</b> Maximum: <b>65535</b>
grpc_port	No	Integer	gRPC port number of the Nacos server. Default: port number + 1000 Range: 1–65535. Minimum: <b>1</b> Maximum: <b>65535</b>

**Table 4-1504** NacosUserInfo

Parameter	Mandatory	Type	Description
user_name	Yes	String	Nacos username. Minimum: <b>1</b> Maximum: <b>64</b>
password	Yes	String	Nacos password. Minimum: <b>1</b> Maximum: <b>64</b>

## Response Parameters

Status code: 201



**Table 4-1505** Response body parameters

Parameter	Type	Description
vpc_channel_id	String	VPC channel ID.
api_group_id	String	API group ID.
apis	Array of <a href="#">MicroserviceImportApiResponse</a> objects	Imported APIs.

**Table 4-1506** MicroserviceImportApiResponse

Parameter	Type	Description
name	String	API name.
req_uri	String	Request path.
req_method	String	Request method.
id	String	API ID.
match_mode	String	API matching mode. <ul style="list-style-type: none"><li>• SWA: Prefix match.</li><li>• NORMAL: Exact match.</li></ul> Default value: SWA

**Status code: 400****Table 4-1507** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1508** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403**

**Table 4-1509** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1510** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1511** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Importing a CSE microservice

```
{
  "group_info": {
    "group_id": "6329eaa17736412b988536179cd8d662",
    "group_name": "",
    "app_id": ""
  },
  "service_type": "CSE",
  "protocol": "HTTPS",
  "apis": [ {
    "name": "api1",
    "req_method": "ANY",
    "req_uri": "/test",
    "match_mode": "SWA"
  } ]
}
```

```
    }],  
    "backend_timeout": 5000,  
    "auth_type": "NONE",  
    "cors": false,  
    "cse_info": {  
      "engine_id": "fde2c21c-5bd9-40f0-ad6a-81e4b6782805a",  
      "service_id": "92919f98fba80c2df13cc285c983946c90e635ff",  
      "version": "1.0.0"  
    }  
  }  
}
```

- Importing a CCE Deployment

```
{  
  "group_info": {  
    "group_id": "6329eaa17736412b988536179cd8d662",  
    "group_name": "",  
    "app_id": ""  
  },  
  "service_type": "CCE",  
  "protocol": "HTTPS",  
  "apis": [ {  
    "name": "dp",  
    "req_method": "ANY",  
    "req_uri": "/test",  
    "match_mode": "SWA"  
  } ],  
  "backend_timeout": 5000,  
  "auth_type": "NONE",  
  "cors": false,  
  "cce_info": {  
    "cluster_id": "11069278-f9f8-11ec-b1b2-0255ac100b06",  
    "namespace": "test",  
    "workload_type": "deployment",  
    "app_name": "dp",  
    "port": 80,  
    "labels": [ {  
      "label_name": "cluster_id",  
      "label_value": "c429700c-5dc4-482a-9c0e-99f6c0635113"  
    } ]  
  }  
}
```

## Example Responses

**Status code: 201**

success

- Example 1

```
{  
  "vpc_channel_id": "9d075537ff314a5e8e5c98bf29549b89",  
  "api_group_id": "6329eaa17736412b988536179cd8d662",  
  "apis": [ {  
    "id": "72e667087fe140529f81995b213dadbe",  
    "name": "api1",  
    "req_uri": "/test",  
    "req_method": "ANY",  
    "match_mode": "SWA"  
  } ]  
}
```

- Example 2

```
{  
  "vpc_channel_id": "3f56e9d4a747486caa4cfb59a47b6854",  
  "api_group_id": "6329eaa17736412b988536179cd8d662",  
  "apis": [ {  
    "id": "3b52e2c05710470b88e283deb0a805e6",  
    "name": "dp_b09d",  
  } ]  
}
```

```

    "req_uri" : "/test",
    "req_method" : "ANY",
    "match_mode" : "SWA"
  }]
}

```

**Status code: 400**

Bad Request

```

{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
201	success
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.27 SSL Certificate Management

## 4.27.1 Querying SSL Certificates

### Function

This API is used to query the SSL certificates.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/certificates

**Table 4-1512** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

**Table 4-1513** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
name	No	String	Certificate name.
common_name	No	String	Certificate domain name.
signature_algorithm	No	String	Certificate signature algorithm.
type	No	String	Certificate scope.
instance_id	Yes	String	ID of the gateway to which the certificate belongs.
algorithm_type	No	String	Certificate algorithm type: <ul style="list-style-type: none"><li>• RSA</li><li>• ECC</li><li>• SM2</li></ul>

## Request Parameters

Table 4-1514 Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1515** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
certs	Array of <a href="#">CertBase</a> objects	Certificate basic content.

**Table 4-1516** CertBase

Parameter	Type	Description
id	String	Certificate ID.
name	String	Certificate name.
type	String	Certificate type. <ul style="list-style-type: none"> <li>global: Global certificate.</li> <li>instance: Gateway certificate.</li> </ul>
instance_id	String	Gateway ID. <ul style="list-style-type: none"> <li>If type is set to global, the default value is common.</li> <li>If type is set to instance, a gateway ID is displayed.</li> </ul>
project_id	String	Project ID.
common_name	String	Domain name.
san	Array of strings	SAN domain name.
not_after	String	Expiration time.
signature_algorithm	String	Signature algorithm.
create_time	String	Creation time.
update_time	String	Update time.
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>

Parameter	Type	Description
algorithm_type	String	Certificate algorithm type: <ul style="list-style-type: none"><li>• RSA</li><li>• ECC</li><li>• SM2</li></ul>

**Status code: 400****Table 4-1517** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1518** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1519** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1520** Response body parameters

Parameter	Type	Description
error_code	String	Error code.



Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "certs": [ {
    "id": "a27be832f2e9441c8127fe48e3b5ac67",
    "name": "cert_demo",
    "type": "instance",
    "project_id": "73d69ae0cfcf460190522d06b60f05ad",
    "instance_id": "f0fa1789-3b76-433b-a787-9892951c620e",
    "common_name": "apigtest.example.com",
    "san": [ "apigtest.example.com", "*.san.com" ],
    "not_after": "2021-04-26T09:03:30Z",
    "signature_algorithm": "SHA256-RSA",
    "create_time": "2021-08-26T07:27:06.304004Z",
    "update_time": "2021-08-26T07:27:06.304004Z",
    "algorithm_type": "RSA"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:dict_name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.27.2 Creating an SSL Certificate

### Function

This API is used to create an SSL certificate.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/certificates

**Table 4-1521** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

## Request Parameters

**Table 4-1522** Request header parameters

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

**Table 4-1523** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Certificate name. It can contain 4 to 50 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
cert_content	Yes	String	Certificate content.
private_key	Yes	String	Certificate private key.
type	No	String	Certificate scope. Default: <b>global</b>
instance_id	No	String	Gateway ID. This parameter is required if type is set to instance.
trusted_root_certificate	No	String	Trusted root certificate (CA).
algorithm_type	No	String	Certificate algorithm type: <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>
cert_content_signature	No	String	Signature certificate content. This parameter is mandatory only when algorithm_type is set to SM2. Maximum: <b>8092</b>
private_key_signature	No	String	Signature private key content. This parameter is mandatory only when algorithm_type is set to SM2. Maximum: <b>8092</b>

## Response Parameters

Status code: 200

Table 4-1524 Response body parameters

Parameter	Type	Description
id	String	Certificate ID.
name	String	Certificate name.
type	String	Certificate type. <ul style="list-style-type: none"> <li>• global: Global certificate.</li> <li>• instance: Gateway certificate.</li> </ul>
instance_id	String	Gateway ID. <ul style="list-style-type: none"> <li>• If type is set to global, the default value is common.</li> <li>• If type is set to instance, a gateway ID is displayed.</li> </ul>
project_id	String	Project ID.
common_name	String	Domain name.
san	Array of strings	SAN domain name.
not_after	String	Expiration time.
signature_algorithm	String	Signature algorithm.
create_time	String	Creation time.
update_time	String	Update time.
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
algorithm_type	String	Certificate algorithm type: <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>
version	Integer	Version.

Parameter	Type	Description
organization	Array of strings	Company or organization.
organizational_unit	Array of strings	Department.
locality	Array of strings	City.
state	Array of strings	State or province.
country	Array of strings	Country or region.
not_before	String	Effective time.
serial_number	String	Serial number.
issuer	Array of strings	Issuer.

**Status code: 400**

**Table 4-1525** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1526** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1527** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1528** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1529** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating an SSL certificate

```
{
  "name" : "cert_demo",
  "private_key" : ""-----BEGIN PRIVATE KEY-----THIS IS YOUR PRIVATE KEY-----END PRIVATE KEY-----\n",
  "cert_content" : ""-----BEGIN CERTIFICATE-----THIS IS YOUR CERT CONTENT-----END CERTIFICATE-----\n",
  "type" : "instance",
  "instance_id" : "f0fa1789-3b76-433b-a787-9892951c620e"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "id" : "a27be832f2e9441c8127fe48e3b5ac67",
  "name" : "cert_demo",
  "common_name" : "apigtest.example.com",
  "san" : [ "apigtest.example.com", "*.san.com" ],
  "version" : 3,
  "organization" : [ "XX" ],
```

```

"organizational_unit" : [ "IT" ],
"locality" : [ "XX" ],
"state" : [ "XX" ],
"country" : [ "XX" ],
"not_before" : "2019-06-01T00:00:00Z",
"not_after" : "2031-08-16T06:36:13Z",
"serial_number" : "13010",
"issuer" : [ "XXSSL Inc" ],
"signature_algorithm" : "SHA256-RSA",
"create_time" : "2021-08-20T02:03:53Z",
"update_time" : "2021-08-20T02:03:53Z",
"algorithm_type" : "RSA"
}

```

**Status code: 400**

Bad Request

```

{
  "error_code" : "APIG.3325",
  "error_msg" : "The API quota name already exists"
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
200	OK

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.27.3 Binding a Domain Name with SSL Certificates

### Function

This API is used to bind a domain name with SSL certificates. Currently, only one certificate ID can be specified in `certificate_ids`. For gateways with custom inbound ports, the same domain name is bound to a certificate at the same time. Enabling or disabling client verification takes effect for different ports of the same domain name.

### Calling Method

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

### URI

POST `/v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}/certificates/attach`

**Table 4-1530** Path Parameters

Parameter	Mandatory	Type	Description
<code>project_id</code>	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
<code>instance_id</code>	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
<code>group_id</code>	Yes	String	API group ID.
<code>domain_id</code>	Yes	String	Domain ID.



## Request Parameters

**Table 4-1531** Request header parameters

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

**Table 4-1532** Request body parameters

Parameter	Mandatory	Type	Description
certificate_ids	Yes	Array of strings	Certificate IDs.
verified_client_certificate_enabled	No	Boolean	Whether to enable client certificate verification. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist.

## Response Parameters

**Status code: 400****Table 4-1533** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1534** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1535** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1536** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1537** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding a domain name with SSL certificates

```
{  
  "certificate_ids" : [ "a27be832f2e9441c8127fe48e3b5ac67" ]  
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{  
  "error_code" : "APIG.2012",  
  "error_msg" : "Invalid parameter value,parameterName:domain_id. Please refer to the support  
documentation"  
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3020",
  "error_msg": "The URL domain does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
204	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.27.4 Unbinding a Domain Name's SSL Certificates

#### Function

This API is used to unbind a domain name's SSL certificates. Currently, only one certificate ID can be specified in `certificate_ids`. For gateways with custom inbound

ports, the same domain name will be unbound from the certificate at the same time.

## Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/domains/{domain\_id}/certificates/detach

**Table 4-1538** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
group_id	Yes	String	API group ID.
domain_id	Yes	String	Domain ID.

## Request Parameters

**Table 4-1539** Request header parameters

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

**Table 4-1540** Request body parameters

Parameter	Mandatory	Type	Description
certificate_ids	Yes	Array of strings	Certificate IDs.

Parameter	Mandatory	Type	Description
verified_client_certificate_enabled	No	Boolean	Whether to enable client certificate verification. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist.

## Response Parameters

### Status code: 400

Table 4-1541 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 401

Table 4-1542 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

Table 4-1543 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-1544** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1545** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Unbinding a domain name's SSL certificates

```
{
  "certificate_ids" : [ "a27be832f2e9441c8127fe48e3b5ac67" ]
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:domain_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3020",
  "error_msg" : "The URL domain does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.27.5 Querying Certificate Details

### Function

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

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/certificates/{certificate\_id}

**Table 4-1546** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
certificate_id	Yes	String	Certificate ID.

## Request Parameters

**Table 4-1547** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1548** Response body parameters

Parameter	Type	Description
id	String	Certificate ID.
name	String	Certificate name.
type	String	Certificate type. <ul style="list-style-type: none"> <li>global: Global certificate.</li> <li>instance: Gateway certificate.</li> </ul>
instance_id	String	Gateway ID. <ul style="list-style-type: none"> <li>If type is set to global, the default value is common.</li> <li>If type is set to instance, a gateway ID is displayed.</li> </ul>
project_id	String	Project ID.
common_name	String	Domain name.



Parameter	Type	Description
san	Array of strings	SAN domain name.
not_after	String	Expiration time.
signature_algorithm	String	Signature algorithm.
create_time	String	Creation time.
update_time	String	Update time.
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
algorithm_type	String	Certificate algorithm type: <ul style="list-style-type: none"><li>• RSA</li><li>• ECC</li><li>• SM2</li></ul>
version	Integer	Version.
organization	Array of strings	Company or organization.
organizational_unit	Array of strings	Department.
locality	Array of strings	City.
state	Array of strings	State or province.
country	Array of strings	Country or region.
not_before	String	Effective time.
serial_number	String	Serial number.
issuer	Array of strings	Issuer.

**Status code: 400**

**Table 4-1549** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1550** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1551** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1552** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1553** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "id": "a27be832f2e9441c8127fe48e3b5ac67",
  "name": "cert_demo",
  "common_name": "apigtest.example.com",
  "san": [ "apigtest.example.com", "*.san.com" ],
  "version": 3,
  "organization": [ "XX" ],
  "organizational_unit": [ "IT" ],
  "locality": [ "XX" ],
  "state": [ "XX" ],
  "country": [ "XX" ],
  "not_before": "2019-06-01T00:00:00Z",
  "not_after": "2031-08-16T06:36:13Z",
  "serial_number": "13010",
  "issuer": [ "XXSSL Inc" ],
  "signature_algorithm": "SHA256-RSA",
  "create_time": "2021-08-20T02:03:53Z",
  "update_time": "2021-08-20T02:03:53Z",
  "algorithm_type": "RSA"
}
```

### Status code: 400

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:domain_id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code": "APIG.3020",
  "error_msg": "The URL domain does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).

## 4.27.6 Deleting an SSL Certificate

**Function**

This API is used to delete an SSL certificate. Only certificates that are not bound to any domain name can be deleted.

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

DELETE /v2/{project\_id}/apigw/certificates/{certificate\_id}

**Table 4-1554** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
certificate_id	Yes	String	Certificate ID.

## Request Parameters

**Table 4-1555** Request header parameters

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

## Response Parameters

### Status code: 400

**Table 4-1556** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 401

**Table 4-1557** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-1558** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-1559** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1560** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3093",
```

```
{
  "error_msg": "App quota c900c5612dbe451bb43cbcc49cfaf2f3 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.27.7 Modifying an SSL Certificate

### Function

This API is used to modify an SSL certificate.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/certificates/{certificate\_id}

**Table 4-1561** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
certificate_id	Yes	String	Certificate ID.

## Request Parameters

**Table 4-1562** Request header parameters

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

**Table 4-1563** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Certificate name. It can contain 4 to 50 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
cert_content	Yes	String	Certificate content.
private_key	Yes	String	Certificate private key.
type	No	String	Certificate scope. Default: <b>global</b>
instance_id	No	String	Gateway ID. This parameter is required if type is set to instance.
trusted_root_certificate	No	String	Trusted root certificate (CA).
algorithm_type	No	String	Certificate algorithm type: <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>



Parameter	Mandatory	Type	Description
cert_content_sign	No	String	Signature certificate content. This parameter is mandatory only when algorithm_type is set to SM2. Maximum: <b>8092</b>
private_key_sign	No	String	Signature private key content. This parameter is mandatory only when algorithm_type is set to SM2. Maximum: <b>8092</b>

## Response Parameters

Status code: 200

**Table 4-1564** Response body parameters

Parameter	Type	Description
id	String	Certificate ID.
name	String	Certificate name.
type	String	Certificate type. <ul style="list-style-type: none"><li>• global: Global certificate.</li><li>• instance: Gateway certificate.</li></ul>
instance_id	String	Gateway ID. <ul style="list-style-type: none"><li>• If type is set to global, the default value is common.</li><li>• If type is set to instance, a gateway ID is displayed.</li></ul>
project_id	String	Project ID.
common_name	String	Domain name.
san	Array of strings	SAN domain name.
not_after	String	Expiration time.
signature_algorithm	String	Signature algorithm.
create_time	String	Creation time.
update_time	String	Update time.

Parameter	Type	Description
is_has_trusted_root_ca	Boolean	Whether a trusted root certificate (CA) exists. The value is true if trusted_root_ca exists in the bound certificate. Default: <b>false</b>
algorithm_type	String	Certificate algorithm type: <ul style="list-style-type: none"> <li>• RSA</li> <li>• ECC</li> <li>• SM2</li> </ul>
version	Integer	Version.
organization	Array of strings	Company or organization.
organizational_unit	Array of strings	Department.
locality	Array of strings	City.
state	Array of strings	State or province.
country	Array of strings	Country or region.
not_before	String	Effective time.
serial_number	String	Serial number.
issuer	Array of strings	Issuer.

**Status code: 400**

**Table 4-1565** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1566** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1567** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1568** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1569** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

### Modifying an SSL certificate

```
{
  "name" : "cert_demo",
  "private_key" : ""-----BEGIN PRIVATE KEY-----THIS IS YOUR PRIVATE KEY-----END PRIVATE KEY-----\n",
  "cert_content" : ""-----BEGIN CERTIFICATE-----THIS IS YOUR CERT CONTENT-----END CERTIFICATE-----\n"
}
```

## Example Responses

### Status code: 200

OK

```
{
  "id" : "a27be832f2e9441c8127fe48e3b5ac67",
  "name" : "cert_demo",
  "common_name" : "apigtest.example.com",
  "san" : [ "apigtest.example.com", "*.san.com" ],
  "version" : 3,
  "organization" : [ "XX" ],
  "organizational_unit" : [ "IT" ],
  "locality" : [ "XX" ],
  "state" : [ "XX" ],
  "country" : [ "XX" ],
  "not_before" : "2019-06-01T00:00:00Z",
  "not_after" : "2031-08-16T06:36:13Z",
  "serial_number" : "13010",
  "issuer" : [ "XXSSL Inc" ],
  "signature_algorithm" : "SHA256-RSA",
  "create_time" : "2021-08-20T02:03:53Z",
  "update_time" : "2021-08-20T02:03:53Z",
  "algorithm_type" : "RSA"
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.3325",
  "error_msg" : "The dictionary name already exists"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3093",
  "error_msg" : "App quota c900c5612dbe451bb43cbcc49cfaf2f3 does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
}
```

```
"error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.27.8 Binding an SSL Certificate to a Domain Name

### Function

This API is used to bind an SSL certificate to a domain name. For gateways with custom inbound ports, the same domain name is bound to a certificate at the same time. Enabling or disabling client verification takes effect for different ports of the same domain name.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/certificates/{certificate\_id}/domains/attach

**Table 4-1570** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
certificate_id	Yes	String	Certificate ID.

## Request Parameters

**Table 4-1571** Request header parameters

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

**Table 4-1572** Request body parameters

Parameter	Mandatory	Type	Description
domains	Yes	Array of <a href="#">AttachOrDetachDomainInfo</a> objects	Domain names the certificate is bound to or unbound from.

**Table 4-1573** AttachOrDetachDomainInfo

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name.
instance_ids	No	Array of strings	Gateway IDs.
verified_client_certificate_enabled	No	Boolean	Whether to enable client certificate verification. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist.

## Response Parameters

**Status code: 400**

**Table 4-1574** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1575** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1576** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1577** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1578** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding an SSL certificate to a domain name

```
{  
  "domains": [ {  
    "domain": "apigtest.example.com",  
    "instance_ids": [ "f0fa1789-3b76-433b-a787-9892951c620e", "7d39549681c54d968ec2910da9da95cd" ]  
  }  
]
```

```
  }]  
}
```

## Example Responses

### Status code: 400

Bad Request

```
{  
  "error_code" : "APIG.2012",  
  "error_msg" : "Invalid parameter value,parameterName:domain_id. Please refer to the support  
documentation"  
}
```

### Status code: 401

Unauthorized

```
{  
  "error_code" : "APIG.1002",  
  "error_msg" : "Incorrect token or token resolution failed"  
}
```

### Status code: 403

Forbidden

```
{  
  "error_code" : "APIG.1005",  
  "error_msg" : "No permissions to request this method"  
}
```

### Status code: 404

Not Found

```
{  
  "error_code" : "APIG.3020",  
  "error_msg" : "The URL domain does not exist"  
}
```

### Status code: 500

Internal Server Error

```
{  
  "error_code" : "APIG.9999",  
  "error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
204	OK
400	Bad Request
401	Unauthorized
403	Forbidden



Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.27.9 Unbinding an SSL Certificate from a Domain Name

### Function

This API is used to unbind an SSL certificate from a domain name. For gateways with custom inbound ports, the same domain name will be unbound from the certificate at the same time.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/certificates/{certificate\_id}/domains/detach

**Table 4-1579** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
certificate_id	Yes	String	Certificate ID.

### Request Parameters

**Table 4-1580** Request header parameters

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

**Table 4-1581** Request body parameters

Parameter	Mandatory	Type	Description
domains	Yes	Array of <a href="#">AttachOrDetachDomainInfo</a> objects	Domain names the certificate is bound to or unbound from.

**Table 4-1582** AttachOrDetachDomainInfo

Parameter	Mandatory	Type	Description
domain	Yes	String	Domain name.
instance_ids	No	Array of strings	Gateway IDs.
verified_client_certificate_enabled	No	Boolean	Whether to enable client certificate verification. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist.

## Response Parameters

**Status code: 400**

**Table 4-1583** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1584** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1585** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1586** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1587** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Unbinding an SSL certificate from a domain name

```
{
  "domains": [ {
    "domain": "apigtest.example.com",
    "instance_ids": [ "f0fa1789-3b76-433b-a787-9892951c620e", "7d39549681c54d968ec2910da9da95cd" ]
  } ]
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:domain_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3020",
  "error_msg" : "The URL domain does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.27.10 Querying Domain Names of an SSL Certificate

#### Function

This API is used to query the domain names to which an SSL certificate has been bound.

## Calling Method

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

## URI

GET /v2/{project\_id}/apigw/certificates/{certificate\_id}/attached-domains

**Table 4-1588** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
certificate_id	Yes	String	Certificate ID.

**Table 4-1589** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
url_domain	No	String	Independent domain name.

## Request Parameters

**Table 4-1590** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1591** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
bound_domains	Array of <a href="#">UrlDomainReflInfo</a> objects	Bound domain names.

**Table 4-1592** UrlDomainReflInfo

Parameter	Type	Description
url_domain	String	Custom domain name.
id	String	Domain ID.
status	Integer	CNAME resolution status. <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: resolving</li> <li>• 3: resolved</li> <li>• 4: resolution failed</li> </ul>
min_ssl_version	String	Minimum SSL version supported.

Parameter	Type	Description
is_http_redirect_to_https	Boolean	Whether to enable HTTP redirection to HTTPS. The value false means disable and true means enable. The default value is false. Default: <b>false</b>
verified_client_certificate_enabled	Boolean	Whether to enable client certificate verification. This parameter is available only when a certificate is bound. It is enabled by default if trusted_root_ca exists, and disabled if trusted_root_ca does not exist. Default: <b>false</b>
ingress_http_port	Integer	Inbound HTTP port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 80. Other valid ports must be included in the HTTP inbound ports of the gateway. The value ranges from 1024 to 49151.  When creating a domain name, if this parameter is not set, the default port 80 is used. If this parameter is set, https_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.  If this parameter is not specified when you modify the domain name, the port number remains unchanged. Minimum: <b>-1</b> Maximum: <b>49151</b>

Parameter	Type	Description
ingress_https_port	Integer	<p>Inbound HTTPS port bound to the domain name. -1 indicates that no port is available and the protocol is not supported. In this case, you can use the default port 443. Other valid ports must be included in the HTTPS inbound ports of the gateway. The value ranges from 1024 to 49151.</p> <p>When creating a domain name, if this parameter is not set, the default port 443 is used. If this parameter is set, http_port must be set. If both http_port and https_port need to use the default port, leave both parameters blank.</p> <p>If this parameter is not specified when you modify the domain name, the port number remains unchanged.</p> <p>Minimum: <b>-1</b> Maximum: <b>49151</b></p>
ssl_id	String	Certificate ID.
ssl_name	String	Certificate name.
api_group_id	String	API group ID.
api_group_name	String	API group name.
instance_id	String	Gateway ID.

**Status code: 400**

**Table 4-1593** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1594** Response body parameters

Parameter	Type	Description
error_code	String	Error code.



Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403**

**Table 4-1595** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1596** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 1,
  "size" : 1,
  "bound_domains" : [ {
    "id" : "b9be707660c5406394f8973e087bae20",
    "url_domain" : "apigtest.example.com",
    "status" : 3,
    "min_ssl_version" : "TLSv1.1",
    "ssl_id" : "a27be832f2e9441c8127fe48e3b5ac67",
    "ssl_name" : "cert_demo",
    "instance_id" : "f0fa1789-3b76-433b-a787-9892951c620e",
    "api_group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
    "api_group_name" : "default"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:dict_name. Please refer to the support
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.28 Plug-in Management

## 4.28.1 Creating a Plug-in

### Function

Plug-in information.

- Plug-in names must be unique.
- Plug-ins must be bound to an API and take effect immediately for the API after binding.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/plugins

**Table 4-1597** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-1598** Request header parameters

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

**Table 4-1599** Request body parameters

Parameter	Mandatory	Type	Description
plugin_name	Yes	String	Plug-in name. Enter 3 to 255 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
plugin_type	Yes	String	Plug-in type <ul style="list-style-type: none"> <li>• cors: Cross-origin resource sharing.</li> <li>• set_resp_headers: HTTP response header management.</li> <li>• kafka_log: Kafka log push.</li> <li>• breaker: Circuit breaker.</li> <li>• rate_limit: Request throttling.</li> <li>• third_auth: Third-party authentication.</li> <li>• proxy_cache: Response cache.</li> <li>• proxy_mirror: request mirroring</li> </ul>
plugin_scope	Yes	String	Plug-in scope. global: Visible to all gateways.
plugin_content	Yes	String	Plug-in content in JSON format. For details, see the model definition. <ul style="list-style-type: none"> <li>• CorsPluginContent</li> <li>• SetRespHeadersContent</li> <li>• KafkaLogContent</li> <li>• BreakerContent</li> <li>• RateLimitContent</li> <li>• ThirdAuthContent</li> <li>• ProxyCacheContent</li> <li>• ProxyMirrorContent</li> </ul> Maximum: <b>65535</b>
remark	No	String	Plug-in description, with a maximum of 255 characters. Maximum: <b>255</b>

## Response Parameters

**Status code: 201**

**Table 4-1600** Response body parameters

Parameter	Type	Description
plugin_id	String	Plug-in ID.
plugin_name	String	Plug-in name. Start with a letter, and include only letters, digits, hyphens (-), and underscores(_). (3 to 255 characters)
plugin_type	String	Plug-in type <ul style="list-style-type: none"> <li>• cors: Cross-origin resource sharing.</li> <li>• set_resp_headers: HTTP response header management.</li> <li>• kafka_log: Kafka log push.</li> <li>• breaker: Circuit breaker.</li> <li>• rate_limit: Request throttling.</li> <li>• third_auth: Third-party authentication.</li> <li>• proxy_cache: Response cache.</li> <li>• proxy_mirror: request mirroring</li> </ul>
plugin_scope	String	Plug-in scope. global: Visible to all gateways.
plugin_content	String	Plug-in content in JSON format. For details, see the model definition. <ul style="list-style-type: none"> <li>• CorsPluginContent</li> <li>• SetRespHeadersContent</li> <li>• KafkaLogContent</li> <li>• BreakerContent</li> <li>• RateLimitContent</li> <li>• ThirdAuthContent</li> <li>• ProxyCacheContent</li> <li>• ProxyMirrorContent</li> </ul> Maximum: <b>65535</b>
remark	String	Plug-in description, with a maximum of 255 characters. Maximum: <b>255</b>
create_time	String	Creation time.
update_time	String	Update time.

**Status code: 400**

**Table 4-1601** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1602** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1603** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1604** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1605** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

- Creating a CORS plug-in

```
{
  "plugin_name" : "CORS",
  "plugin_type" : "cors",
  "plugin_scope" : "global",
  "plugin_content" : "{\"allow_origin\": \"*\", \"allow_methods\": \"GET,POST,PUT\", \"allow_headers\": \"Content-Type,Accept,Accept-Ranges,Cache-Control\", \"expose_headers\": \"X-Request-Id,X-Apig-Latency\", \"max_age\": 172800, \"allow_credentials\": true}",
  "remark" : "Cross-origin resource sharing"
}
```

- Creating an HTTP response header plug-in

```
{
  "plugin_name" : "HTTP Response Header Plug-in",
  "plugin_type" : "set_resp_headers",
  "plugin_scope" : "global",
  "plugin_content" : "{\"response_headers\": [{\"name\": \"x-demo\", \"value_type\": \"custom_value\", \"value\": \"sss\", \"action\": \"append\"}]}",
  "remark" : "HTTP response header management"
}
```

- Creating a request throttling plug-in

```
{
  "plugin_name" : "Request Throttling Plug-in",
  "plugin_type" : "rate_limit",
  "plugin_scope" : "global",
  "plugin_content" : "{\"scope\": \"basic\", \"default_time_unit\": \"minute\", \"default_interval\": 1, \"api_limit\": 50, \"app_limit\": 0, \"user_limit\": 0, \"ip_limit\": 0, \"algorithm\": \"counter\", \"specials\": [], \"parameters\": [], \"rules\": []}",
  "remark" : "Request throttling"
}
```

- Creating a Kafka log push plug-in

```
{
  "plugin_name" : "Kafka Log Plug-in",
  "plugin_type" : "kafka_log",
  "plugin_scope" : "app",
  "plugin_content" : "{\"broker_list\": [\"0.0.0.0:11\"], \"topic\": \"topic\", \"key\": \"\", \"max_retry_count\": 0, \"retry_backoff\": 1, \"sas_config\": {\"security_protocol\": \"PLAINTEXT\", \"sas_mechanisms\": \"PLAIN\", \"sas_username\": \"\", \"sas_password\": \"\", \"ssl_ca_content\": \"\", \"meta_config\": {\"system\": {\"start_time\": true, \"request_id\": true, \"client_ip\": true, \"api_id\": false, \"user_name\": false, \"app_id\": false, \"access_model1\": false, \"request_time\": true, \"http_status\": true, \"server_protocol\": false, \"scheme\": true, \"request_method\": true, \"host\": false, \"api_uri_mode\": false, \"uri\": false, \"request_size\": false, \"response_size\": false, \"upstream_uri\": false, \"upstream_addr\": true, \"upstream_status\": true, \"upstream_connect_time\": false, \"upstream_header_time\": false, \"upstream_response_time\": true, \"all_upstream_response_time\": false, \"region_id\": false, \"auth_type\": false, \"http_x_forwarded_for\": true, \"http_user_agent\": true, \"error_type\": true, \"access_model2\": false, \"inner_time\": false, \"proxy_protocol_vni\": false, \"proxy_protocol_vpce_id\": false, \"proxy_protocol_addr\": false, \"body_bytes_sent\": false, \"api_name\": false, \"app_name\": false, \"provider_app_id\": false, \"provider_app_name\": false, \"custom_data_log01\": false, \"custom_data_log02\": false, \"custom_data_log03\": false, \"custom_data_log04\": false, \"custom_data_log05\": false, \"custom_data_log06\": false, \"custom_data_log07\": false, \"custom_data_log08\": false, \"custom_data_log09\": false, \"custom_data_log10\": false, \"response_source\": false}, \"call_data\": {\"log_request_header\": false, \"request_header_filter\": \"\", \"log_request_query_string\": false, \"request_query_string_filter\": \"\", \"log_request_body\": false, \"log_response_header\": false, \"response_header_filter\": \"\", \"log_response_body\": false, \"custom_authorizer\": {\"frontend\": [], \"backend\": []}}}",
  "remark" : "Kafka log push"
}
```

- Creating a circuit breaker plug-in

```
{
  "plugin_name" : "Circuit Breaker Plug-in",
  "plugin_type" : "breaker",
  "plugin_scope" : "app",
}
```

```
"plugin_content" : "{\n  \"breaker_condition\" : {\n    \"breaker_type\" : \"timeout\",\n    \"breaker_mode\" : \"counter\",\n    \"unhealthy_condition\" : \"\",\n    \"unhealthy_threshold\" : 30,\n    \"min_call_threshold\" : 20,\n    \"unhealthy_percentage\" : 51,\n    \"time_window\" : 15,\n    \"open_breaker_time\" : 15,\n    \"downgrade_default\" : null,\n    \"downgrade_parameters\" : null,\n    \"downgrade_rules\" : null,\n    \"scope\" : \"basic\"\n  },\n  \"remark\" : \"Circuit breaker\"\n}
```

- **Creating a third-party authentication plug-in**

```
{\n  \"plugin_name\" : \"Third-Party Authentication Plug-in\",\n  \"remark\" : \"This is a third-party authentication plug-in that contains a rule expression whitelist.\",\n  \"plugin_type\" : \"third_auth\",\n  \"plugin_scope\" : \"global\",\n  \"plugin_content\" : \"{\\n    \\\"auth_request\\\": {\\n      \\\"method\\\": \\\"POST\\\",\\n      \\\"protocol\\\": \\\"HTTP\\\",\\n      \\\"url_domain\\\": \\\"xxx.xxx.xxx.xxx:1234\\\",\\n      \\\"timeout\\\": 10,\\n      \\\"path\\\": \\\"/check\\\",\\n      \\\"vpc_channel_enabled\\\": false,\\n      \\\"vpc_channel_info\\\": {\\n        \\\"vpc_proxy_host\\\": \\\"abc.com\\\",\\n        \\\"vpc_id\\\": \\\"3c113f40a54a40369ceb1eb1409a32ee\\\"\\n      },\\n      \\\"identities\\\": {\\n        \\\"headers\\\": {\\n          \\\"name\\\": \\\"token\\\",\\n          \\\"query\\\": {\\n            \\\"name\\\": \\\"user\\\",\\n            \\\"carry_body\\\": \\\"enabled\\\",\\n            \\\"max_body_size\\\": 10000,\\n            \\\"carry_path_enabled\\\": false,\\n            \\\"return_resp_body_enabled\\\": true,\\n            \\\"carry_resp_headers\\\": {\\n              \\\"x-message-result\\\",\\n              \\\"simple_auth_mode_enabled\\\": false,\\n              \\\"match_auth\\\": {\\n                \\\"key\\\": \\\"x-message-result\\\",\\n                \\\"value\\\": \\\"success\\\",\\n                \\\"rule_enabled\\\": true,\\n                \\\"rule_type\\\": \\\"allow\\\",\\n                \\\"parameters\\\": {\\n                  \\\"value\\\": \\\"reqPath\\\",\\n                  \\\"type\\\": \\\"path\\\",\\n                  \\\"name\\\": \\\"reqPath\\\",\\n                  \\\"value\\\": \\\"method\\\",\\n                  \\\"type\\\": \\\"method\\\",\\n                  \\\"name\\\": \\\"method\\\",\\n                  \\\"value\\\": \\\"Host\\\",\\n                  \\\"type\\\": \\\"header\\\",\\n                  \\\"name\\\": \\\"Host\\\",\\n                  \\\"rules\\\": {\\n                    \\\"match_regex\\\": [\\n                      \\\"OR\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"~\\\",\\n                      \\\"/xxl-job-admin/*\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/app/leave/infor/v1/addLeaveLnfor\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/api/v1/charge/home/modifyChargeSync\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/app/mweb/campaign/api/v1/getActivityConfig\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/mp/vehicle/owner/home\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/app/mweb/campaign/api/v1/getTime\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/api/c-showroom-service/v1/vehicleDetails/upload\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"~\\\",\\n                      \\\"/operation-charging-bff/carOwnerRights/certificate/*\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"~\\\",\\n                      \\\"/api/2c/v1/sales-bff/*\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/api/2c/v1/vehicleDetails/upload\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"~\\\",\\n                      \\\"/operation-admin/*\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/app/settings/api/v1/receiveClk\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/api/vehicle/relative/yTsendVehicleControl.json\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/appoint/getAppointmentByTestDrive\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/api/evd/callbackEvdPay\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/api/evd/callbackEvdOrder\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/api/evd/getUserToken\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/api/evd/callbackEvdCoupon\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/api/task/busTriggerTaskEvent.json\\\",\\n                      \\\"reqPath\\\",\\n                      \\\"=\\\",\\n                      \\\"/datacenter-log-center/api/trackApi/commonAdd.json\\\"\\n                    ]\\n                  },\\n                  \\\"rule_name\\\": \\\"allow2\\\"\\n                }\\n              }\\n            }\\n          }\\n        }\\n      }\\n    }\\n  }\\n  \\\"custom_forbid_limit\\\": 100,\\n  \\\"auth_downgrade_enabled\\\": false\\n}\n}
```

- **Creating a response cache plug-in**

```
{\n  \"plugin_name\" : \"Response Cache Plug-in\",\n  \"remark\" : \"This is a response cache plug-in.\",\n  \"plugin_type\" : \"proxy_cache\",\n  \"plugin_scope\" : \"global\",\n  \"plugin_content\" : \"{\\n    \\\"cache_key\\\": {\\n      \\\"system_params\\\": [\\n        \\\"$context.sourceIp\\\",\\n        \\\"$context.requestId\\\",\\n        \\\"parameters\\\": [\\n          \\\"demo_parameter\\\",\\n          \\\"headers\\\": [\\n            \\\"demo_header\\\",\\n            \\\"cache_http_status_and_ttl\\\": {\\n              \\\"http_status\\\": [200],\\n              \\\"ttl\\\": 300,\\n              \\\"http_status\\\": [300],\\n              \\\"ttl\\\": 200,\\n              \\\"client_cache_control\\\": {\\n                \\\"mode\\\": \\\"apps\\\",\\n                \\\"datas\\\": [\\n                  \\\"demo_app_id_1,demo_app_id_2\\\",\\n                  \\\"cacheable_headers\\\": [\\n                    \\\"demo_cacheable_headers_1,demo_cacheable_headers_2\\\"\\n                  ]\\n                }\\n              }\\n            }\\n          }\\n        }\\n      }\\n    }\\n  }\\n}
```

- **Creating a request mirroring plug-in**

```
{\n  \"plugin_name\" : \"Request mirroring plug-in\",\n  \"remark\" : \"This is a request mirroring plug-in.\",\n  \"plugin_type\" : \"proxy_mirror\",\n  \"plugin_scope\" : \"global\",\n  \"plugin_content\" : \"{\\n    \\\"protocol\\\": \\\"http\\\",\\n    \\\"host\\\": \\\"xxx.xxx.xxx.xxx:1234\\\",\\n    \\\"path\\\": \\\"/test\\\",\\n    \\\"path_concat_mode\\\": \\\"replace\\\",\\n    \\\"sample_ratio\\\": 1,\\n    \\\"timeout\\\": 5000,\\n  }\\n}
```



```
\"mirror_request_body_enabled\\\": true}"}
}
```

## Example Responses

Status code: 201

OK

- ```
{
  "plugin_id" : "5b729aa252764739b3s237ef0d66dc63",
  "plugin_name" : "CORS Plug-in",
  "plugin_type" : "cors",
  "plugin_scope" : "global",
  "plugin_content" : "{\"allow_origin\\\": \"*\", \"allow_methods\\\": \"GET,POST,PUT\", \"allow_headers\\\": \"Content-Type,Accept,Accept-Ranges,Cache-Control\", \"expose_headers\\\": \"X-Request-Id,X-Apig-Latency\", \"max_age\\\": 172800, \"allow_credentials\\\": true}",
  "remark" : "Cross-origin resource sharing.",
  "create_time" : "2022-11-02T12:31:23.353Z",
  "update_time" : "2022-11-02T12:31:23.353Z"
}
```
- ```
{
  "plugin_id" : "8a688dce7d0c45cf84edac3d7b071769",
  "plugin_name" : "HTTP Response Header Plug-in",
  "plugin_type" : "set_resp_headers",
  "plugin_scope" : "global",
  "plugin_content" : "{\"response_headers\\\":[{\"name\\\": \"x-demo\", \"value_type\\\": \"custom_value\", \"value\\\": \"sss\", \"action\\\": \"append\"}]}",
  "remark" : "HTTP response header management",
  "create_time" : "2022-11-02T12:31:23.353Z",
  "update_time" : "2022-11-02T12:31:23.353Z"
}
```
- ```
{
  "plugin_id" : "9642ff2b9a86481689ca9d28babcfdf7f",
  "plugin_name" : "Request Throttling Plug-in",
  "plugin_type" : "rate_limit",
  "plugin_scope" : "global",
  "plugin_content" : "{\"scope\\\": \"basic\", \"default_time_unit\\\": \"minute\", \"default_interval\\\": 1, \"api_limit\\\": 50, \"app_limit\\\": 0, \"user_limit\\\": 0, \"ip_limit\\\": 0, \"algorithm\\\": \"counter\", \"specials\\\": [], \"parameters\\\": [], \"rules\\\": []}",
  "remark" : "Request throttling",
  "create_time" : "2022-11-02T12:31:23.353Z",
  "update_time" : "2022-11-02T12:31:23.353Z"
}
```
- ```
{
  "plugin_id" : "92284ece6ec7466da2c2ac2416f46d5d",
  "plugin_name" : "Kafka Log Plug-in",
  "plugin_type" : "kafka_log",
  "plugin_scope" : "app",
  "plugin_content" : "{\"broker_list\\\": [\"0.0.0.0:1111\"], \"topic\\\": \"topic\", \"key\\\": \"\", \"max_retry_count\\\": 0, \"retry_backoff\\\": 1, \"sasL_config\\\": {\"security_protocol\\\": \"PLAINTEXT\", \"sasL_mechanisms\\\": \"PLAIN\", \"sasL_username\\\": \"\", \"sasL_password\\\": \"\", \"ssl_ca_content\\\": \"\", \"meta_config\\\": {\"system\\\": {\"start_time\\\": true, \"request_id\\\": true, \"client_ip\\\": true, \"api_id\\\": false, \"user_name\\\": false, \"app_id\\\": false, \"access_model1\\\": false, \"request_time\\\": true, \"http_status\\\": true, \"server_protocol\\\": false, \"scheme\\\": true, \"request_method\\\": true, \"host\\\": false, \"api_uri_mode\\\": false, \"uri\\\": false, \"request_size\\\": false, \"response_size\\\": false, \"upstream_uri\\\": false, \"upstream_addr\\\": true, \"upstream_status\\\": true, \"upstream_connect_time\\\": false, \"upstream_header_time\\\": false, \"upstream_response_time\\\": true, \"all_upstream_response_time\\\": false, \"region_id\\\": false, \"auth_type\\\": false, \"http_x_forwarded_for\\\": true, \"http_user_agent\\\": true, \"error_type\\\": true, \"access_model2\\\": false, \"inner_time\\\": false, \"proxy_protocol_vni\\\": false, \"proxy_protocol_vpce_id\\\": false, \"proxy_protocol_addr\\\": false, \"body_bytes_sent\\\": false, \"api_name\\\": false, \"app_name\\\": false, \"provider_app_id\\\": false, \"provider_app_name\\\": false, \"custom_data_log01\\\": false, \"custom_data_log02\\\": false, \"custom_data_log03\\\": false, \"custom_data_log04\\\": false, \"custom_data_log05\\\": false, \"custom_data_log06\\\": false, \"custom_data_log07\\\": false, \"custom_data_log08\\\": false, \"custom_data_log09\\\": false, \"custom_data_log10\\\": false, \"response_source\\\": false}, \"
```

```

"call_data": {"log_request_header": false, "request_header_filter": {"": ""}, "log_request_query_string": false, "request_query_string_filter": {"": ""}, "log_request_body": false, "log_response_header": false, "response_header_filter": {"": ""}, "log_response_body": false, "custom_authorizer": {"frontend": [], "backend": []}},
"remark": "Kafka log push",
"create_time": "2022-11-02T12:31:23.353Z",
"update_time": "2022-11-02T12:31:23.353Z"
}

```

- ```

{
  "plugin_id": "8b5253ed723c4a878e7b8532c08763b4",
  "plugin_name": "Circuit Breaker Plug-in",
  "plugin_type": "breaker",
  "plugin_scope": "app",
  "plugin_content": {"breaker_condition": {"breaker_type": "timeout", "breaker_mode": "counter", "unhealthy_condition": "unhealthy_threshold": 30, "min_call_threshold": 20, "unhealthy_percentage": 51, "time_window": 15, "open_breaker_time": 15, "downgrade_default": null, "downgrade_parameters": null, "downgrade_rules": null, "scope": "basic"},
  "remark": "Circuit breaker",
  "create_time": "2022-11-02T12:31:23.353Z",
  "update_time": "2022-11-02T12:31:23.353Z"
}

```

- ```

{
  "plugin_id": "235d97683439437585aff06020059720",
  "plugin_name": "Third-Party Authentication Plug-in",
  "plugin_type": "third_auth",
  "plugin_scope": "global",
  "plugin_content": {"auth_request": {"method": "POST", "protocol": "HTTP", "url_domain": "xxx.xxx.xxx.xxx:1234", "path": "/check", "timeout": 10, "vpc_channel_enabled": 2, "vpc_channel_info": null, "identities": {"headers": {"name": "token", "essential": false}, "queries": null, "carry_body": {"enabled": true, "max_body_size": 10000}, "carry_path_enabled": false, "return_resp_body_enabled": true, "carry_resp_headers": [{"x-message-result": "simple_auth_mode_enabled": false, "match_auth": {"key": "x-message-result", "value": "success"}, "parameters": [{"type": "path", "name": "reqPath", "value": "reqPath"}, {"type": "method", "name": "method", "value": "method"}, {"type": "header", "name": "Host", "value": "Host"}, {"rules": [{"rule_name": "allow2", "match_regex": "[OR]", "reqPath": "~", "xxl-job-admin/*", "reqPath": "=/", "app/leave/infor/v1/addLeaveLnfor", "reqPath": "=/api/v1/charge/home/modifyChargeSync", "reqPath": "=/", "reqPath": "=/app/mweb/campaign/api/v1/getActivityConfig", "reqPath": "=/", "reqPath": "=/mp/vehicle/owner/home", "reqPath": "=/", "reqPath": "=/app/mweb/campaign/api/v1/getTime", "reqPath": "=/", "reqPath": "=/api/c-showroom-service/v1/vehicleDetails/upload", "reqPath": "=/", "reqPath": "=/operation-charging-bff/carOwnerRights/certificate/*", "reqPath": "=/", "reqPath": "=/api/2c/v1/sales-bff/*", "reqPath": "=/", "reqPath": "=/api/2c/v1/vehicleDetails/upload", "reqPath": "=/", "reqPath": "=/operation-admin/*", "reqPath": "=/", "reqPath": "=/app/settings/api/v1/receiveCk", "reqPath": "=/", "reqPath": "=/api/vehicle/relative/yTsendVehicleControl.json", "reqPath": "=/", "reqPath": "=/", "reqPath": "=/appoint/getAppointmentByTestDrive", "reqPath": "=/", "reqPath": "=/api/evd/callbackEvdPay", "reqPath": "=/", "reqPath": "=/api/evd/callbackEvdOrder", "reqPath": "=/", "reqPath": "=/api/evd/getUserToken", "reqPath": "=/", "reqPath": "=/api/evd/callbackEvdCoupon", "reqPath": "=/", "reqPath": "=/api/task/busTriggerTaskEvent.json", "reqPath": "=/", "reqPath": "=/datacenter-log-center/api/trackApi/commonAdd.json"}]}, "rule_type": "allow", "rule_enabled": true, "custom_forbid_limit": 100, "auth_downgrade_enabled": false},
  "remark": "This is a third-party authentication plug-in that contains a rule expression whitelist.",
  "create_time": "2023-05-06T06:54:59.296181801Z",
  "update_time": "2023-05-06T06:54:59.296182035Z"
}

```

- ```

{
  "plugin_id": "d5bf25cf31e04e888907b8ad72563f45",
  "plugin_name": "Response Cache Plug-in",
  "plugin_type": "proxy_cache",
  "plugin_scope": "global",
  "plugin_content": {"cache_key": {"system_params": {"$context.sourceIp"}, "$context.requestId"}, "parameters": {"demo_parameter"}, "headers": {}
}

```

```
\"demo_header\\\"];\\\\"cache_http_status_and_ttl\\\": [{\\\\"http_status\\\": [200],\\\\"ttl\\\": 300},{\\\\"http_status\\\": [300],\\\\"ttl\\\": 200}],\\\\"client_cache_control\\\": {\\\\"mode\\\": \\\\"apps\\\"},\\\\"datas\\\": [\\\\"demo_app_id_1,demo_app_id_2\\\"];\\\\"cacheable_headers\\\": [\\\\"demo_cacheable_headers_1,demo_cacheable_headers_2\\\"];\\\\"remark\\\": \"This is a response cache plug-in.\\\",\\\\"create_time\\\": \"2024-03-18T12:31:23.353Z\\\",\\\\"update_time\\\": \"2024-03-18T12:31:23.353Z\"}
```

- {  
 \"plugin\_id\" : \"d5bf25cf31e04e888907b8ad72563f45\",  
 \"plugin\_name\" : \"Request mirroring plug-in\",  
 \"plugin\_type\" : \"proxy\_mirror\",  
 \"plugin\_scope\" : \"global\",  
 \"plugin\_content\" : \"{\\\\"protocol\\\": \\\\"http\\\"},\\\\"host\\\": \\\\"xxx.xxx.xxx.xxx:1234\\\"},\\\\"path\\\": \\\\"/test\\\"},\\\\"path\_concat\_mode\\\": \\\\"replace\\\"},\\\\"sample\_ratio\\\": 1,\\\\"timeout\\\": 5000,\\\\"mirror\_request\_body\_enabled\\\": true}\",  
 \"remark\" : \"This is a request mirroring plug-in.\\\",  
 \"create\_time\" : \"2024-03-18T12:31:23.353Z\",  
 \"update\_time\" : \"2024-03-18T12:31:23.353Z\"  
}

### Status code: 400

#### Bad Request

```
{  
  \"error_code\" : \"APIG.3326\",  
  \"error_msg\" : \"The plugin name already exists\"  
}
```

### Status code: 401

#### Unauthorized

```
{  
  \"error_code\" : \"APIG.1002\",  
  \"error_msg\" : \"Incorrect token or token resolution failed\"  
}
```

### Status code: 403

#### Forbidden

```
{  
  \"error_code\" : \"APIG.1005\",  
  \"error_msg\" : \"No permissions to request this method\"  
}
```

### Status code: 404

#### Not Found

```
{  
  \"error_code\" : \"APIG.3030\",  
  \"error_msg\" : \"The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec\"  
}
```

### Status code: 500

#### Internal Server Error

```
{  
  \"error_code\" : \"APIG.9999\",  
  \"error_msg\" : \"System error\"  
}
```

## Status Codes

| Status Code | Description           |
|-------------|-----------------------|
| 201         | OK                    |
| 400         | Bad Request           |
| 401         | Unauthorized          |
| 403         | Forbidden             |
| 404         | Not Found             |
| 500         | Internal Server Error |

## Error Codes

See [Error Codes](#).

### 4.28.2 Modifying a Plug-in

#### Function

This API is used to modify a plug-in.

- Plug-in names must be unique.
- The plug-in type and scope cannot be modified.

#### Calling Method

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

#### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/plugins/{plugin\_id}

**Table 4-1606** Path Parameters

| Parameter   | Mandatory | Type   | Description                                                                                  |
|-------------|-----------|--------|----------------------------------------------------------------------------------------------|
| project_id  | Yes       | String | Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> . |
| instance_id | Yes       | String | Gateway ID, which can be obtained from the gateway information on the APIG console.          |
| plugin_id   | Yes       | String | Plug-in ID.                                                                                  |

## Request Parameters

**Table 4-1607** Request header parameters

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

**Table 4-1608** Request body parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| plugin_name  | Yes       | String | Plug-in name. Enter 3 to 255 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.                                                                                                                                                                                                                                                                                                |
| plugin_type  | Yes       | String | Plug-in type <ul style="list-style-type: none"><li>• cors: Cross-origin resource sharing.</li><li>• set_resp_headers: HTTP response header management.</li><li>• kafka_log: Kafka log push.</li><li>• breaker: Circuit breaker.</li><li>• rate_limit: Request throttling.</li><li>• third_auth: Third-party authentication.</li><li>• proxy_cache: Response cache.</li><li>• proxy_mirror: request mirroring</li></ul> |
| plugin_scope | Yes       | String | Plug-in scope. global: Visible to all gateways.                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter      | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| plugin_content | Yes       | String | Plug-in content in JSON format. For details, see the model definition. <ul style="list-style-type: none"> <li>• CorsPluginContent</li> <li>• SetRespHeadersContent</li> <li>• KafkaLogContent</li> <li>• BreakerContent</li> <li>• RateLimitContent</li> <li>• ThirdAuthContent</li> <li>• ProxyCacheContent</li> <li>• ProxyMirrorContent</li> </ul> Maximum: <b>65535</b> |
| remark         | No        | String | Plug-in description, with a maximum of 255 characters.                     Maximum: <b>255</b>                                                                                                                                                                                                                                                                              |

## Response Parameters

Status code: 200

**Table 4-1609** Response body parameters

| Parameter    | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| plugin_id    | String | Plug-in ID.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| plugin_name  | String | Plug-in name. Start with a letter, and include only letters, digits, hyphens (-), and underscores(_). (3 to 255 characters)                                                                                                                                                                                                                                                                                                     |
| plugin_type  | String | Plug-in type <ul style="list-style-type: none"> <li>• cors: Cross-origin resource sharing.</li> <li>• set_resp_headers: HTTP response header management.</li> <li>• kafka_log: Kafka log push.</li> <li>• breaker: Circuit breaker.</li> <li>• rate_limit: Request throttling.</li> <li>• third_auth: Third-party authentication.</li> <li>• proxy_cache: Response cache.</li> <li>• proxy_mirror: request mirroring</li> </ul> |
| plugin_scope | String | Plug-in scope. global: Visible to all gateways.                                                                                                                                                                                                                                                                                                                                                                                 |

| Parameter      | Type   | Description                                                                                                                                                                                                                                                                                                                                                        |
|----------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| plugin_content | String | Plug-in content in JSON format. For details, see the model definition. <ul style="list-style-type: none"><li>• CorsPluginContent</li><li>• SetRespHeadersContent</li><li>• KafkaLogContent</li><li>• BreakerContent</li><li>• RateLimitContent</li><li>• ThirdAuthContent</li><li>• ProxyCacheContent</li><li>• ProxyMirrorContent</li></ul> Maximum: <b>65535</b> |
| remark         | String | Plug-in description, with a maximum of 255 characters.<br>Maximum: <b>255</b>                                                                                                                                                                                                                                                                                      |
| create_time    | String | Creation time.                                                                                                                                                                                                                                                                                                                                                     |
| update_time    | String | Update time.                                                                                                                                                                                                                                                                                                                                                       |

**Status code: 400****Table 4-1610** Response body parameters

| Parameter  | Type   | Description    |
|------------|--------|----------------|
| error_code | String | Error code.    |
| error_msg  | String | Error message. |

**Status code: 401****Table 4-1611** Response body parameters

| Parameter  | Type   | Description    |
|------------|--------|----------------|
| error_code | String | Error code.    |
| error_msg  | String | Error message. |

**Status code: 403**

**Table 4-1612** Response body parameters

| Parameter  | Type   | Description    |
|------------|--------|----------------|
| error_code | String | Error code.    |
| error_msg  | String | Error message. |

**Status code: 404**

**Table 4-1613** Response body parameters

| Parameter  | Type   | Description    |
|------------|--------|----------------|
| error_code | String | Error code.    |
| error_msg  | String | Error message. |

**Status code: 500**

**Table 4-1614** Response body parameters

| Parameter  | Type   | Description    |
|------------|--------|----------------|
| error_code | String | Error code.    |
| error_msg  | String | Error message. |

## Example Requests

- Updating a CORS plug-in

```
{
  "plugin_name": "CORS",
  "plugin_type": "cors",
  "plugin_scope": "global",
  "plugin_content": "{\"allow_origin\": \"*\", \"allow_methods\": \"GET,POST,PUT\", \"allow_headers\": \"Content-Type,Accept,Accept-Ranges,Cache-Control\", \"expose_headers\": \"X-Request-Id,X-Apig-Latency\", \"max_age\": 172800, \"allow_credentials\": true}",
  "remark": "Cross-origin resource sharing"
}
```

- Updating an HTTP response header plug-in

```
{
  "plugin_name": "HTTP Response Header Plug-in",
  "plugin_type": "set_resp_headers",
  "plugin_scope": "global",
  "plugin_content": "{\"response_headers\": [{\"name\": \"x-demo\", \"value_type\": \"custom_value\", \"value\": \"sss\", \"action\": \"append\"}]",
  "remark": "HTTP response header management"
}
```

- Updating a request throttling plug-in

```
{
  "plugin_name": "Request Throttling Plug-in",
  "plugin_type": "rate_limit",
}
```





```
modifyChargeSync\|", [ \| "reqPath\|", \| "==" \|, \| "/app/mweb/
campaign/api/v1/getActivityConfig\|", [ \| "reqPath\|", \| "==" \|, \| "/mp/
vehicle/owner/home\|", [ \| "reqPath\|", \| "==" \|, \| "/app/mweb/
campaign/api/v1/getTime\|", [ \| "reqPath\|", \| "==" \|, \| "/api/c-showroom-
service/v1/vehicleDetails/upload\|", [ \| "reqPath\|", \| "~\|", \| "/operation-
charging-bff/carOwnerRights/certificate/\|", [ \| "reqPath\|", \| "~\|, \|
\| "/api/2c/v1/sales-bff/\|", [ \| "reqPath\|", \| "==" \|, \| "/api/2c/v1/
vehicleDetails/upload\|", [ \| "reqPath\|", \| "~\|, \| "/operation-admin/\|
\|", [ \| "reqPath\|", \| "==" \|, \| "/app/settings/api/v1/receiveClk\|", [ \|
\| "reqPath\|", \| "==" \|, \| "/api/vehicle/relative/yTsendVehicleControl.json\|", [ \|
\| "reqPath\|", \| "==" \|, \| "/appoint/getAppointmentByTestDrive\|", [ \|
\| "reqPath\|", \| "==" \|, \| "/api/evd/callbackEvdPay\|", [ \| "reqPath\|", \|
\| "==" \|, \| "/api/evd/callbackEvdOrder\|", [ \| "reqPath\|", \| "==" \|, \|
\| "/api/evd/getUserToken\|", [ \| "reqPath\|", \| "==" \|, \| "/api/evd/
callbackEvdCoupon\|", [ \| "reqPath\|", \| "==" \|, \| "/api/task/
busTriggerTaskEvent.json\|", [ \| "reqPath\|", \| "==" \|, \| "/datacenter-log-
center/api/trackApi/commonAdd.json\|"] \|, \| "rule_name\|": \| "allow2\|"} \|
\| "custom_forbid_limit\|":100,\| "auth_downgrade_enabled\|":false}
}
```

- Updating the response cache plug-in

```
{
  "plugin_name" : "Response Cache Plug-in",
  "remark" : "This is a response cache plug-in.",
  "plugin_type" : "proxy_cache",
  "plugin_scope" : "global",
  "plugin_content" : "{\| "cache_key\|": {\| "system_params\|": [\| "$context.sourceIp\|",\|
\| "$context.requestId\|"],\| "parameters\|": [\| "demo_parameter\|"],\| "headers\|": [\|
\| "demo_header\|"],\| "cache_http_status_and_ttl\|": [\| "http_status\|": [200],\| "ttl\|": 300],\|
\| "http_status\|": [300],\| "ttl\|": 200}],\| "client_cache_control\|": {\| "mode\|": \| "apps\|",\|
\| "datas\|": [\| "demo_app_id_1,demo_app_id_2\|"],\| "cacheable_headers\|": [\|
\| "demo_cacheable_headers_1,demo_cacheable_headers_2\|"]}"
}
```

- Updating a request mirroring plug-in

```
{
  "plugin_name" : "Request mirroring plug-in",
  "remark" : "This is a request mirroring plug-in.",
  "plugin_type" : "proxy_mirror",
  "plugin_scope" : "global",
  "plugin_content" : "{\| "protocol\|": \| "http\|",\| "host\|": \| "xxx.xxx.xxx.xxx:1234\|",\| "path\|":
\| "/test\|",\| "path_concat_mode\|": \| "replace\|",\| "sample_ratio\|": 1,\| "timeout\|": 5000,\|
\| "mirror_request_body_enabled\|": true}"
}
```

## Example Responses

**Status code: 200**

OK

- ```
{
  "plugin_id" : "5b729aa252764739b3s237ef0d66dc63",
  "plugin_name" : "CORS Plug-in",
  "plugin_type" : "cors",
  "plugin_scope" : "global",
  "plugin_content" : "{\| "allow_origin\|": \| "*\|,\| "allow_methods\|": \| "GET,POST,PUT\|",\| "allow_headers\|":
\| "Content-Type,Accept,Accept-Ranges,Cache-Control\|",\| "expose_headers\|": \| "X-Request-Id,X-Apig-
Latency\|",\| "max_age\|": 172800,\| "allow_credentials\|": true}",
  "remark" : "Cross-origin resource sharing.",
  "create_time" : "2020-11-02T12:31:23.353Z",
  "update_time" : "2020-11-02T12:31:23.353Z"
}
```
- ```
{
  "plugin_id" : "8a688dce7d0c45cf84edac3d7b071769",
  "plugin_name" : "HTTP Response Header Plug-in",
  "plugin_type" : "set_resp_headers",
  "plugin_scope" : "global",
}
```

- ```
"plugin_content" : "{\\"response_headers\\":{\\"name\\":\\"x-demo\\",\\"value\\":\\"sss\\"},\\"action\\":\\"append\\"},\\"remark\\":\\"HTTP response header management\\",\\"create_time\\":\\"2022-11-02T12:31:23.353Z\\",\\"update_time\\":\\"2022-11-02T12:31:23.353Z\\"}
```
- ```
{\\"plugin_id\\":\\"9642ff2b9a86481689ca9d28babcfd7f\\",\\"plugin_name\\":\\"Request Throttling Plug-in\\",\\"plugin_type\\":\\"rate_limit\\",\\"plugin_scope\\":\\"global\\",\\"plugin_content\\":{\\"scope\\":\\"basic\\",\\"default_time_unit\\":\\"minute\\",\\"default_interval\\":1,\\"api_limit\\":50,\\"app_limit\\":0,\\"user_limit\\":0,\\"ip_limit\\":0,\\"algorithm\\":\\"counter\\",\\"specials\\":[],\\"parameters\\":[],\\"rules\\":[]},\\"remark\\":\\"Request throttling\\",\\"create_time\\":\\"2022-11-02T12:31:23.353Z\\",\\"update_time\\":\\"2022-11-02T12:31:23.353Z\\"}
```
  - ```
{\\"plugin_id\\":\\"92284ece6ec7466da2c2ac2416f46d5d\\",\\"plugin_name\\":\\"Kafka Log Plug-in\\",\\"plugin_type\\":\\"kafka_log\\",\\"plugin_scope\\":\\"app\\",\\"plugin_content\\":{\\"broker_list\\":[\\"0.0.0.0:11\\"],\\"topic\\":\\"topic\\",\\"key\\":\\"\\",\\"max_retry_count\\":0,\\"retry_backoff\\":1,\\"sas_config\\":{\\"security_protocol\\":\\"PLAINTEXT\\",\\"sas_mechanisms\\":\\"PLAIN\\",\\"sas_username\\":\\"\\",\\"sas_password\\":\\"\\",\\"ssl_ca_content\\":\\"\\",\\"meta_config\\":{\\"system\\":{\\"start_time\\":true,\\"request_id\\":true,\\"client_ip\\":true,\\"api_id\\":false,\\"user_name\\":false,\\"app_id\\":false,\\"access_model1\\":false,\\"request_time\\":true,\\"http_status\\":true,\\"server_protocol\\":false,\\"scheme\\":true,\\"request_method\\":true,\\"host\\":false,\\"api_uri_mode\\":false,\\"uri\\":false,\\"request_size\\":false,\\"response_size\\":false,\\"upstream_uri\\":false,\\"upstream_addr\\":true,\\"upstream_status\\":true,\\"upstream_connect_time\\":false,\\"upstream_header_time\\":false,\\"upstream_response_time\\":true,\\"all_upstream_response_time\\":false,\\"region_id\\":false,\\"auth_type\\":false,\\"http_x_forwarded_for\\":true,\\"http_user_agent\\":true,\\"error_type\\":true,\\"access_model2\\":false,\\"inner_time\\":false,\\"proxy_protocol_vni\\":false,\\"proxy_protocol_vpce_id\\":false,\\"proxy_protocol_addr\\":false,\\"body_bytes_sent\\":false,\\"api_name\\":false,\\"app_name\\":false,\\"provider_app_id\\":false,\\"provider_app_name\\":false,\\"custom_data_log01\\":false,\\"custom_data_log02\\":false,\\"custom_data_log03\\":false,\\"custom_data_log04\\":false,\\"custom_data_log05\\":false,\\"custom_data_log06\\":false,\\"custom_data_log07\\":false,\\"custom_data_log08\\":false,\\"custom_data_log09\\":false,\\"custom_data_log10\\":false,\\"response_source\\":false},\\"call_data\\":{\\"log_request_header\\":false,\\"request_header_filter\\":\\"\\",\\"log_request_query_string\\":false,\\"request_query_string_filter\\":\\"\\",\\"log_request_body\\":false,\\"log_response_header\\":false,\\"response_header_filter\\":\\"\\",\\"log_response_body\\":false,\\"custom_authorizer\\":{\\"frontend\\":[],\\"backend\\":[]}}},\\"remark\\":\\"Kafka log push\\",\\"create_time\\":\\"2022-11-02T12:31:23.353Z\\",\\"update_time\\":\\"2022-11-02T12:31:23.353Z\\"}
```
  - ```
{\\"plugin_id\\":\\"8b5253ed723c4a878e7b8532c08763b4\\",\\"plugin_name\\":\\"Circuit Breaker Plug-in\\",\\"plugin_type\\":\\"breaker\\",\\"plugin_scope\\":\\"app\\",\\"plugin_content\\":{\\"breaker_condition\\":{\\"breaker_type\\":\\"timeout\\",\\"breaker_mode\\":\\"counter\\",\\"unhealthy_condition\\":\\"\\",\\"unhealthy_threshold\\":30,\\"min_call_threshold\\":20,\\"unhealthy_percentage\\":51,\\"time_window\\":15,\\"open_breaker_time\\":15},\\"downgrade_default\\":null,\\"downgrade_parameters\\":null,\\"downgrade_rules\\":null,\\"scope\\":\\"basic\\"},\\"remark\\":\\"Circuit breaker\\",\\"create_time\\":\\"2022-11-02T12:31:23.353Z\\",\\"update_time\\":\\"2022-11-02T12:31:23.353Z\\"}
```
  - ```
{\\"plugin_id\\":\\"235d97683439437585aff06020059720\\",\\"plugin_name\\":\\"Third-Party Authentication Plug-in\\",\\"plugin_type\\":\\"third_auth\\",
```

```

"plugin_scope" : "global",
"plugin_content" : "{\\"auth_request\\":{\\"method\\":\\"POST\\",\\"protocol\\":\\"HTTP\\",\\"url_domain\\":\\"xxx.xxx.xxx.xxx:1234\\",\\"path\\":\\"/check\\",\\"timeout\\":10,\\"vpc_channel_enabled\\":false,\\"vpc_channel_info\\":null,\\"identities\\":{\\"headers\\":{\\"name\\":\\"token\\"},\\"queries\\":null,\\"carry_body\\":{\\"enabled\\":true,\\"max_body_size\\":10000},\\"carry_path_enabled\\":false,\\"return_resp_body_enabled\\":true,\\"carry_resp_headers\\":{\\"x-message-result\\"},\\"simple_auth_mode_enabled\\":false,\\"match_auth\\":{\\"key\\":\\"x-message-result\\",\\"value\\":\\"success\\"},\\"parameters\\":{\\"type\\":\\"path\\",\\"name\\":\\"reqPath\\",\\"value\\":\\"reqPath\\"},\\"type\\":\\"method\\",\\"name\\":\\"method\\",\\"value\\":\\"method\\"},\\"header\\":{\\"name\\":\\"Host\\",\\"value\\":\\"Host\\"},\\"rules\\":{\\"rule_name\\":\\"allow2\\"},\\"match_regex\\":{\\"OR\\",\\"reqPath\\",\\"~\\",\\"/xxl-job-admin/*\\"},\\"reqPath\\",\\"=\\",\\"/app/leave/infor/v1/addLeaveLnfor\\",\\"reqPath\\",\\"=\\",\\"/api/v1/charge/home/modifyChargeSync\\",\\"reqPath\\",\\"=\\",\\"/app/mweb/campaign/api/v1/getActivityConfig\\",\\"reqPath\\",\\"=\\",\\"/mp/vehicle/owner/home\\",\\"reqPath\\",\\"=\\",\\"/app/mweb/campaign/api/v1/getTime\\",\\"reqPath\\",\\"=\\",\\"/api/c-showroom-service/v1/vehicleDetails/upload\\",\\"reqPath\\",\\"~\\",\\"/operation-charging-bff/carOwnerRights/certificate/*\\"},\\"reqPath\\",\\"~\\",\\"/api/2c/v1/sales-bff/*\\"},\\"reqPath\\",\\"=\\",\\"/api/2c/v1/vehicleDetails/upload\\",\\"reqPath\\",\\"~\\",\\"/operation-admin/*\\"},\\"reqPath\\",\\"=\\",\\"/app/settings/api/v1/receiveClk\\",\\"reqPath\\",\\"=\\",\\"/api/vehicle/relative/yTsendVehicleControl.json\\",\\"reqPath\\",\\"=\\",\\"/appoint/getAppointmentByTestDrive\\",\\"reqPath\\",\\"=\\",\\"/api/evd/callbackEvdPay\\",\\"reqPath\\",\\"=\\",\\"/api/evd/callbackEvdOrder\\",\\"reqPath\\",\\"=\\",\\"/api/evd/getUserToken\\",\\"reqPath\\",\\"=\\",\\"/api/evd/callbackEvdCoupon\\",\\"reqPath\\",\\"=\\",\\"/datacenter-log-center/api/trackApi/commonAdd.json\\"]\\"}\\"rule_type\\":\\"allow\\",\\"rule_enabled\\":true,\\"custom_forbid_limit\\":100,\\"auth_downgrade_enable\\":false}",
"remark" : "This is a third-party authentication plug-in that contains a rule expression blacklist.",
"create_time" : "2023-05-06T06:54:59.296181801Z",
"update_time" : "2023-05-06T07:07:18.369017889Z"
}

• {
  "plugin_id" : "d5bf25cf31e04e888907b8ad72563f45",
  "plugin_name" : "Response Cache Plug-in",
  "plugin_type" : "proxy_cache",
  "plugin_scope" : "global",
  "plugin_content" : "{\\"cache_key\\":{\\"system_params\\":{\\"$context.sourceIp\\",\\"$context.requestId\\",\\"parameters\\":{\\"demo_parameter\\",\\"headers\\":{\\"demo_header\\"},\\"cache_http_status_and_ttl\\":{\\"http_status\\":[200],\\"ttl\\":300},\\"http_status\\":[300],\\"ttl\\":200},\\"client_cache_control\\":{\\"mode\\":\\"apps\\"},\\"datas\\":{\\"demo_app_id_1,demo_app_id_2\\"},\\"cacheable_headers\\":{\\"demo_cacheable_headers_1,demo_cacheable_headers_2\\"}},\\"remark\\":\\"This is a response cache plug-in.",\\"create_time\\":\\"2024-03-18T12:31:23.353Z",\\"update_time\\":\\"2024-03-18T12:31:23.353Z"
}

• {
  "plugin_id" : "d5bf25cf31e04e888907b8ad72563f45",
  "plugin_name" : "Request mirroring plug-in",
  "plugin_type" : "proxy_mirror",
  "plugin_scope" : "global",
  "plugin_content" : "{\\"protocol\\":\\"http\\",\\"host\\":\\"xxx.xxx.xxx.xxx:1234\\",\\"path\\":\\"/test\\",\\"path_concat_mode\\":\\"replace\\",\\"sample_ratio\\":1,\\"timeout\\":5000,\\"mirror_request_body_enabled\\":true},\\"remark\\":\\"This is a request mirroring plug-in.",\\"create_time\\":\\"2024-03-18T12:31:23.353Z",\\"update_time\\":\\"2024-03-18T12:31:23.353Z"
}

```

**Status code: 400**

**Bad Request**

```

{
  "error_code" : "APIG.3326",

```

```
{
  "error_msg": "The plugin name already exists"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3068",
  "error_msg": "Plugin b294018ee0554156a875b3513e02e5b9 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.28.3 Deleting a Plug-in

### Function

This API is used to delete a plug-in.

- Before deleting a plug-in, unbind it from all APIs.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/plugins/{plugin\_id}

**Table 4-1615** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
plugin_id	Yes	String	Plug-in ID.

### Request Parameters

**Table 4-1616** Request header parameters

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

### Response Parameters

**Status code: 400**

**Table 4-1617** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1618** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1619** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1620** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 409****Table 4-1621** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1622** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3068",
  "error_msg" : "Plugin b294018ee0554156a875b3513e02e5b9 does not exist"
}
```

**Status code: 409**

Conflict

```
{
  "error_code" : "APIG.3462",
  "error_msg" : "The plugin has been attached to the APIs and cannot perform the current operation"
}
```

**Status code: 500**



### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.28.4 Querying Plug-ins

#### Function

This API is used to query details about a group of plug-ins that meet specified conditions.

- Pagination query
- Query by plug-in type
- Query by plug-in scope
- Query by plug-in ID
- Fuzzy query by plug-in name

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/plugins

**Table 4-1623** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1624** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
plugin_type	No	String	Plug-in type.
plugin_scope	No	String	Plug-in scope.
plugin_id	No	String	Plug-in ID.
plugin_name	No	String	Plug-in name, which can be used for fuzz query.
precise_search	No	String	Parameter name for exact match. Plug-in name is supported.

## Request Parameters

**Table 4-1625** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1626** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
plugins	Array of <b>PluginInfo</b> objects	Plug-ins.

**Table 4-1627** PluginInfo

Parameter	Type	Description
plugin_id	String	Plug-in ID.
plugin_name	String	Plug-in name. Start with a letter, and include only letters, digits, hyphens (-), and underscores(_). (3 to 255 characters)

Parameter	Type	Description
plugin_type	String	Plug-in type <ul style="list-style-type: none"> <li>• cors: Cross-origin resource sharing.</li> <li>• set_resp_headers: HTTP response header management.</li> <li>• kafka_log: Kafka log push.</li> <li>• breaker: Circuit breaker.</li> <li>• rate_limit: Request throttling.</li> <li>• third_auth: Third-party authentication.</li> <li>• proxy_cache: Response cache.</li> <li>• proxy_mirror: request mirroring</li> </ul>
plugin_scope	String	Plug-in scope. global: Visible to all gateways.
plugin_content	String	Plug-in content in JSON format. For details, see the model definition. <ul style="list-style-type: none"> <li>• CorsPluginContent</li> <li>• SetRespHeadersContent</li> <li>• KafkaLogContent</li> <li>• BreakerContent</li> <li>• RateLimitContent</li> <li>• ThirdAuthContent</li> <li>• ProxyCacheContent</li> <li>• ProxyMirrorContent</li> </ul> Maximum: <b>65535</b>
remark	String	Plug-in description, with a maximum of 255 characters. Maximum: <b>255</b>
create_time	String	Creation time.
update_time	String	Update time.

**Status code: 400**

**Table 4-1628** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1629** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1630** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1631** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "plugins": [ {
    "plugin_id": "5b729aa252764739b3s237ef0d66dc63",
    "plugin_name": "CORS",
    "plugin_type": "cors",
    "plugin_scope": "global",
    "plugin_content": "{\"allow_origin\": \"*\", \"allow_methods\": \"GET,POST,PUT\", \"allow_headers\": \"Content-Type,Accept,Accept-Ranges,Cache-Control\", \"expose_headers\": \"X-Request-Id,X-Apig-Latency\", \"max_age\": 172800, \"allow_credentials\": true}",
    "remark": "Cross-origin resource sharing",
    "create_time": "2022-11-02T12:31:23.353Z",
    "update_time": "2022-11-02T12:31:23.353Z"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:plugin_name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

**Error Codes**See [Error Codes](#).**4.28.5 Querying Plug-in Details****Function**

This API is used to query the details of a plug-in.

## Calling Method

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

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/plugins/{plugin\_id}

**Table 4-1632** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
plugin_id	Yes	String	Plug-in ID.

## Request Parameters

**Table 4-1633** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1634** Response body parameters

Parameter	Type	Description
plugin_id	String	Plug-in ID.
plugin_name	String	Plug-in name. Start with a letter, and include only letters, digits, hyphens (-), and underscores(_). (3 to 255 characters)

Parameter	Type	Description
plugin_type	String	Plug-in type <ul style="list-style-type: none"><li>• cors: Cross-origin resource sharing.</li><li>• set_resp_headers: HTTP response header management.</li><li>• kafka_log: Kafka log push.</li><li>• breaker: Circuit breaker.</li><li>• rate_limit: Request throttling.</li><li>• third_auth: Third-party authentication.</li><li>• proxy_cache: Response cache.</li><li>• proxy_mirror: request mirroring</li></ul>
plugin_scope	String	Plug-in scope. global: Visible to all gateways.
plugin_content	String	Plug-in content in JSON format. For details, see the model definition. <ul style="list-style-type: none"><li>• CorsPluginContent</li><li>• SetRespHeadersContent</li><li>• KafkaLogContent</li><li>• BreakerContent</li><li>• RateLimitContent</li><li>• ThirdAuthContent</li><li>• ProxyCacheContent</li><li>• ProxyMirrorContent</li></ul> Maximum: <b>65535</b>
remark	String	Plug-in description, with a maximum of 255 characters. Maximum: <b>255</b>
create_time	String	Creation time.
update_time	String	Update time.

**Status code: 400****Table 4-1635** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**



**Table 4-1636** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1637** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1638** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1639** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "plugin_id" : "5b729aa252764739b3s237ef0d66dc63",
```

```

"plugin_name" : "CORS",
"plugin_type" : "cors",
"plugin_scope" : "global",
"plugin_content" : "{ \"allow_origin\" : \"*\", \"allow_methods\" : \"GET,POST,PUT\", \"allow_headers\" :
\"Content-Type,Accept,Accept-Ranges,Cache-Control\", \"expose_headers\" : \"X-Request-Id,X-Apig-Latency
\", \"max_age\" : 172800, \"allow_credentials\" : true}",
"remark" : "Cross-origin resource sharing",
"create_time" : "2022-11-02T12:31:23.353Z",
"update_time" : "2022-11-02T12:31:23.353Z"
}

```

**Status code: 400**

Bad Request

```

{
"error_code" : "APIG.2012",
"error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support
documentation"
}

```

**Status code: 401**

Unauthorized

```

{
"error_code" : "APIG.1002",
"error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
"error_code" : "APIG.1005",
"error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
"error_code" : "APIG.3068",
"error_msg" : "Plugin b294018ee0554156a875b3513e02e5b9 does not exist"
}

```

**Status code: 500**

Internal Server Error

```

{
"error_code" : "APIG.9999",
"error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.28.6 Binding a Plug-in to APIs

### Function

This API is used to bind a plug-in to APIs.

- Plug-ins can be bound only to published APIs.
- Plug-ins take effect immediately after binding.
- Plug-ins take effect immediately after being modified.
- An API can be bound with only one plug-in of the same type. Binding another plug-in will overwrite the previous one.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/plugins/{plugin\_id}/attach

**Table 4-1640** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
plugin_id	Yes	String	Plug-in ID.

## Request Parameters

**Table 4-1641** Request header parameters

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

**Table 4-1642** Request body parameters

Parameter	Mandatory	Type	Description
env_id	Yes	String	ID of the environment for binding to the API.
api_ids	Yes	Array of strings	IDs of bound APIs. Array Length: <b>1 - 500</b>

## Response Parameters

Status code: 201

**Table 4-1643** Response body parameters

Parameter	Type	Description
attached_plugins	Array of <a href="#">PluginApiAttachInfo</a> objects	Bound plug-ins.

**Table 4-1644** PluginApiAttachInfo

Parameter	Type	Description
plugin_attach_id	String	Plug-in binding record ID.
plugin_id	String	Plug-in ID.
plugin_name	String	Plug-in name. Start with a letter, and include only letters, digits, hyphens (-), and underscores(_). (3 to 255 characters)

Parameter	Type	Description
plugin_type	String	Plug-in type <ul style="list-style-type: none"> <li>• cors: Cross-origin resource sharing.</li> <li>• set_resp_headers: HTTP response header management.</li> <li>• kafka_log: Kafka log push.</li> <li>• breaker: Circuit breaker.</li> <li>• rate_limit: Request throttling.</li> <li>• third_auth: Third-party authentication.</li> <li>• proxy_cache: Response cache.</li> <li>• proxy_mirror: request mirroring</li> </ul>
plugin_scope	String	Plug-in scope. global: Visible to all gateways.
env_id	String	ID of the environment for binding to the API.
env_name	String	Name of the environment for binding to the API.
api_id	String	API ID.
api_name	String	API name.
attached_time	String	Binding time.

**Status code: 400**

**Table 4-1645** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1646** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1647** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1648** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1649** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding an API with plug-ins

```
{
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "api_ids": [ "8aa097b00e9843efabc9c593d11b769d" ]
}
```

## Example Responses

**Status code: 201**

OK

```
{
  "attached_plugins": [ {
    "plugin_attach_id": "8aa097b00e9843efabc9c593d11b769e",
    "plugin_id": "5b729aa252764739b3s237ef0d66dc63",
    "plugin_name": "CORS",
    "plugin_type": "cors",
    "plugin_scope": "global",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name": "RELEASE",
    "api_id": "8aa097b00e9843efabc9c593d11b769d",
    "api_name": "api_name",
  } ]
}
```

```

    "attached_time" : "2022-11-02T12:31:23.353Z"
  } ]
}

```

**Status code: 400**

Bad Request

```

{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
  "error_code" : "APIG.3068",
  "error_msg" : "Plugin b294018ee0554156a875b3513e02e5b9 does not exist"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
201	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.28.7 Binding an API with Plug-ins

### Function

This API is used to bind an API with plug-ins.

- Plug-ins can be bound only to published APIs.
- Plug-ins take effect immediately after binding.
- Plug-ins take effect immediately after being modified.
- An API can be bound with only one plug-in of the same type. Binding another plug-in will overwrite the previous one.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/apis/{api\_id}/plugins/attach

**Table 4-1650** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.



## Request Parameters

**Table 4-1651** Request header parameters

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

**Table 4-1652** Request body parameters

Parameter	Mandatory	Type	Description
env_id	Yes	String	ID of the environment for binding to the API.
plugin_ids	Yes	Array of strings	IDs of bound plug-ins. Array Length: <b>1 - 500</b>

## Response Parameters

Status code: 201

**Table 4-1653** Response body parameters

Parameter	Type	Description
attached_plugins	Array of <a href="#">PluginApiAttachInfo</a> objects	Bound plug-ins.

**Table 4-1654** PluginApiAttachInfo

Parameter	Type	Description
plugin_attach_id	String	Plug-in binding record ID.
plugin_id	String	Plug-in ID.
plugin_name	String	Plug-in name. Start with a letter, and include only letters, digits, hyphens (-), and underscores(_). (3 to 255 characters)

Parameter	Type	Description
plugin_type	String	Plug-in type <ul style="list-style-type: none"><li>• cors: Cross-origin resource sharing.</li><li>• set_resp_headers: HTTP response header management.</li><li>• kafka_log: Kafka log push.</li><li>• breaker: Circuit breaker.</li><li>• rate_limit: Request throttling.</li><li>• third_auth: Third-party authentication.</li><li>• proxy_cache: Response cache.</li><li>• proxy_mirror: request mirroring</li></ul>
plugin_scope	String	Plug-in scope. global: Visible to all gateways.
env_id	String	ID of the environment for binding to the API.
env_name	String	Name of the environment for binding to the API.
api_id	String	API ID.
api_name	String	API name.
attached_time	String	Binding time.

**Status code: 400****Table 4-1655** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1656** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1657** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1658** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1659** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Binding a plug-in to APIs

```
{
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "plugin_ids": [ "5b729aa252764739b3s237ef0d66dc63" ]
}
```

## Example Responses

**Status code: 201**

OK

```
{
  "attached_plugins": [ {
    "plugin_attach_id": "8aa097b00e9843efabc9c593d11b769e",
    "plugin_id": "5b729aa252764739b3s237ef0d66dc63",
    "plugin_name": "CORS",
    "plugin_type": "cors",
    "plugin_scope": "global",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name": "RELEASE",
    "api_id": "8aa097b00e9843efabc9c593d11b769d",
    "api_name": "api_name",
  } ]
}
```

```
"attached_time" : "2022-11-02T12:31:23.353Z"
}]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3068",
  "error_msg" : "Plugin b294018ee0554156a875b3513e02e5b9 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
201	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.28.8 Unbinding a Plug-in from All APIs

### Function

This API is used to unbind a plug-in from all APIs to which it has been bound.

- The unbinding takes effect immediately.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/plugins/{plugin\_id}/detach

**Table 4-1660** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
plugin_id	Yes	String	Plug-in ID.

## Request Parameters

**Table 4-1661** Request header parameters

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

**Table 4-1662** Request body parameters

Parameter	Mandatory	Type	Description
env_id	Yes	String	ID of the environment for binding to the API.
api_ids	Yes	Array of strings	IDs of bound APIs. Array Length: <b>1 - 500</b>

## Response Parameters

**Status code: 400**

**Table 4-1663** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1664** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1665** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1666** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1667** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Unbinding a plug-in from all APIs to which it has been bound

```
{
  "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "api_ids" : [ "8aa097b00e9843efabc9c593d11b769d" ]
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
```

```
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3068",
  "error_msg" : "Plugin b294018ee0554156a875b3513e02e5b9 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.28.9 Unbinding an API's Plug-ins

#### Function

This API is used to unbind an API's plug-ins.

- The unbinding takes effect immediately.



## Calling Method

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

## URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/apis/{api\_id}/plugins/detach

**Table 4-1668** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

## Request Parameters

**Table 4-1669** Request header parameters

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

**Table 4-1670** Request body parameters

Parameter	Mandatory	Type	Description
env_id	Yes	String	ID of the environment for binding to the API.
plugin_ids	Yes	Array of strings	IDs of bound plug-ins. Array Length: <b>1 - 500</b>

## Response Parameters

**Status code: 400**

**Table 4-1671** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1672** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1673** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1674** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1675** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Unbinding an API's plug-ins

```
{
  "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "plugin_ids" : [ "98df09fb-d459-4cbf-83a7-2b55ca6f3d5d" ]
}
```

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3068",
  "error_msg" : "Plugin b294018ee0554156a875b3513e02e5b9 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
204	OK

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.28.10 Querying APIs Bound with a Plug-in

### Function

This API is used to query the APIs to which a plug-in has been bound.

- Query APIs bound with a specified plug-in
- Pagination query
- Fuzzy query by API name
- APIs taken offline are also included.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/plugins/{plugin\_id}/attached-apis

**Table 4-1676** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
plugin_id	Yes	String	Plug-in ID.

**Table 4-1677** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
env_id	No	String	Environment ID.
api_name	No	String	API name.
api_id	No	String	API ID.
group_id	No	String	Group ID.
req_method	No	String	Request method.
req_uri	No	String	Request path.
tags	No	String	API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered. Minimum: <b>0</b> Maximum: <b>128</b>

## Request Parameters

**Table 4-1678** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1679** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <a href="#">PluginApiInfo</a> objects	APIs bound to the plug-in.

**Table 4-1680** PluginApiInfo

Parameter	Type	Description
api_id	String	API ID.
api_name	String	API name. Enter 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()
type	Integer	API type. <ul style="list-style-type: none"><li>1: Public API.</li><li>2: Private API.</li></ul>

Parameter	Type	Description
req_protocol	String	API request protocol. <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> <li>• BOTH: Both HTTP and HTTPS are supported.</li> </ul> Default: <b>HTTPS</b>
req_method	String	Request method.
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.  Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.  <b>NOTE</b> The address must comply with the URI specifications.
auth_type	String	API authentication mode. <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER</li> </ul>
match_mode	String	API matching mode. <ul style="list-style-type: none"> <li>• SWA: Prefix match.</li> <li>• NORMAL: Exact match.</li> </ul> Default value: NORMAL
remark	String	API description.
group_id	String	ID of the API group to which the API belongs.
group_name	String	Name of the API group to which the API belongs.
roma_app_id	String	Integration application ID for ROMA instances. This parameter can be left blank.
env_id	String	ID of the environment for binding to the API.
env_name	String	Name of the environment for binding to the API.

Parameter	Type	Description
publish_id	String	Publishing record ID.
plugin_attach_id	String	Plug-in binding record ID.
attached_time	String	Binding time.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>

**Status code: 400**

**Table 4-1681** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1682** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1683** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**



**Table 4-1684** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1685** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "apis": [ {
    "api_id": "8aa097b00e9843efabc9c593d11b769d",
    "api_name": "Test_API",
    "type": 1,
    "req_protocol": "HTTP",
    "req_method": "GET",
    "req_uri": "/test",
    "auth_type": "IAM",
    "match_mode": "NORMAL",
    "remark": "API description.",
    "group_id": "b9be707660c5406394f8973e087bae20",
    "group_name": "DEFAULT",
    "roma_app_id": "",
    "plugin_attach_id": "8aa097b00e9843efabc9c593d11b769e",
    "publish_id": "4739b3s5b729aa2237ef0d66dc635276",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name": "RELEASE",
    "attached_time": "2022-11-02T12:31:23.353Z"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:instance_id. Please refer to the support
```

```
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3068",
  "error_msg" : "Plugin b294018ee0554156a875b3513e02e5b9 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.28.11 Querying Plug-ins Bound to an API

### Function

This API is used to query the plug-ins bound to an API.

- Query plug-ins bound to a specified API
- Pagination query
- Fuzzy query by plug-in name

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apis/{api\_id}/attached-plugins

**Table 4-1686** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

**Table 4-1687** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
env_id	No	String	Environment ID.
plugin_name	No	String	Plug-in name.
plugin_id	No	String	Plug-in ID.
env_name	No	String	Environment name.
plugin_type	No	String	Plug-in type.

## Request Parameters

**Table 4-1688** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1689** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.

Parameter	Type	Description
plugins	Array of <a href="#">AttachedPluginInfo</a> objects	Plug-ins bound to the API.

**Table 4-1690** AttachedPluginInfo

Parameter	Type	Description
plugin_attach_id	String	Plug-in binding record ID.
plugin_id	String	Plug-in ID.
plugin_name	String	Plug-in name. Start with a letter, and include only letters, digits, hyphens (-), and underscores(_). (3 to 255 characters)
plugin_type	String	Plug-in type <ul style="list-style-type: none"> <li>• cors: Cross-origin resource sharing.</li> <li>• set_resp_headers: HTTP response header management.</li> <li>• kafka_log: Kafka log push.</li> <li>• breaker: Circuit breaker.</li> <li>• rate_limit: Request throttling.</li> <li>• third_auth: Third-party authentication.</li> <li>• proxy_cache: Response cache.</li> <li>• proxy_mirror: request mirroring</li> </ul>
plugin_scope	String	Plug-in scope. global: Visible to all gateways.
env_id	String	ID of the environment for binding to the API.
env_name	String	Name of the environment for binding to the API.
attached_time	String	Binding time.
plugin_content	String	Plug-in content in JSON format. Maximum: <b>65535</b>
remark	String	Plug-in description, with a maximum of 255 characters. Maximum: <b>255</b>
create_time	String	Creation time.
update_time	String	Update time.

**Status code: 400****Table 4-1691** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1692** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1693** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1694** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1695** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "plugins": [ {
    "plugin_attach_id": "8aa097b00e9843efacb9c593d11b769e",
    "plugin_id": "5b729aa252764739b3s237ef0d66dc63",
    "plugin_name": "CORS",
    "plugin_type": "cors",
    "plugin_scope": "global",
    "plugin_content": "{ \"allow_origin\": \"*\", \"allow_methods\": \"GET,POST,PUT\", \"allow_headers\": \"Content-Type,Accept,Accept-Ranges,Cache-Control\", \"expose_headers\": \"X-Request-Id,X-Apig-Latency\", \"max_age\": 172800, \"allow_credentials\": true}",
    "remark": "Cross-origin resource sharing",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "env_name": "RELEASE",
    "attached_time": "2022-11-02T12:31:23.353Z",
    "create_time": "2022-11-02T12:31:23.353Z",
    "update_time": "2022-11-02T12:31:23.353Z"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code": "APIG.3002",
  "error_msg": "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.28.12 Querying APIs to Which a Plug-in Can Be Bound

### Function

This API is used to query the APIs to which a plug-in can be bound.

- Pagination query
- Fuzzy query by API name
- APIs already bound with other plug-ins will also be returned.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/plugins/{plugin\_id}/attachable-apis



**Table 4-1696** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
plugin_id	Yes	String	Plug-in ID.

**Table 4-1697** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
env_id	Yes	String	Environment ID.
api_name	No	String	API name.
api_id	No	String	API ID.
group_id	No	String	Group ID.
req_method	No	String	Request method.
req_uri	No	String	Request path.

Parameter	Mandatory	Type	Description
tags	No	String	API tag. Multiple API tags can be specified. The relationship between multiple parameter values is OR. If this parameter is not specified, no filtering tag is specified. If this parameter is set to #no_tags#, APIs without tags are filtered. Minimum: <b>0</b> Maximum: <b>128</b>

## Request Parameters

**Table 4-1698** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1699** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <b>PluginApiInfo</b> objects	APIs bound to the plug-in.

**Table 4-1700** PluginApiInfo

Parameter	Type	Description
api_id	String	API ID.

Parameter	Type	Description
api_name	String	API name. Enter 3 to 255 characters, starting with a letter or digit. Only letters, digits, and these special characters are allowed: -_./:()
type	Integer	API type. <ul style="list-style-type: none"> <li>• 1: Public API.</li> <li>• 2: Private API.</li> </ul>
req_protocol	String	API request protocol. <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> <li>• BOTH: Both HTTP and HTTPS are supported.</li> </ul> Default: <b>HTTPS</b>
req_method	String	Request method.
req_uri	String	Request address, which can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.  Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.  <b>NOTE</b> The address must comply with the URI specifications.
auth_type	String	API authentication mode. <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER</li> </ul>
match_mode	String	API matching mode. <ul style="list-style-type: none"> <li>• SWA: Prefix match.</li> <li>• NORMAL: Exact match.</li> </ul> Default value: NORMAL
remark	String	API description.
group_id	String	ID of the API group to which the API belongs.

Parameter	Type	Description
group_name	String	Name of the API group to which the API belongs.
roma_app_id	String	Integration application ID for ROMA instances. This parameter can be left blank.
env_id	String	ID of the environment for binding to the API.
env_name	String	Name of the environment for binding to the API.
publish_id	String	Publishing record ID.
plugin_attach_id	String	Plug-in binding record ID.
attached_time	String	Binding time.
tags	Array of strings	Tags bound to the API. The default quota is 10. You can contact technical support to adjust the quota. Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 10</b>

**Status code: 400**

**Table 4-1701** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1702** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1703** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1704** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1705** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "apis": [ {
    "api_id": "8aa097b00e9843efabc9c593d11b769d",
    "api_name": "Test_API",
    "type": 1,
    "req_protocol": "HTTP",
    "req_method": "GET",
    "req_uri": "/test",
    "auth_type": "IAM",
    "match_mode": "NORMAL",
    "remark": "API description.",
    "group_id": "b9be707660c5406394f8973e087bae20",
    "group_name": "DEFAULT",
    "roma_app_id": ""
  }
]
```

```

"plugin_attach_id" : "8aa097b00e9843efacb9c593d11b769e",
"publish_id" : "4739b3s5b729aa2237ef0d66dc635276",
"env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
"env_name" : "RELEASE",
"attached_time" : "2020-11-02T12:31:23.353Z"
}
}
}

```

**Status code: 400**

Bad Request

```

{
"error_code" : "APIG.2012",
"error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}

```

**Status code: 401**

Unauthorized

```

{
"error_code" : "APIG.1002",
"error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
"error_code" : "APIG.1005",
"error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
"error_code" : "APIG.3068",
"error_msg" : "Plugin b294018ee0554156a875b3513e02e5b9 does not exist"
}

```

**Status code: 500**

Internal Server Error

```

{
"error_code" : "APIG.9999",
"error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.28.13 Querying Plug-ins That Can Be Bound to an API

### Function

This API is used to query the plug-ins that can be bound to a specified API.

- Pagination query
- Fuzzy query by plug-in name

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apis/{api\_id}/attachable-plugins

**Table 4-1706** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
api_id	Yes	String	API ID.

**Table 4-1707** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
env_id	No	String	Environment ID.
plugin_name	No	String	Plug-in name.
plugin_type	No	String	Plug-in type.
plugin_id	No	String	Plug-in ID.

## Request Parameters

**Table 4-1708** Request header parameters

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

## Response Parameters

Status code: **200**



**Table 4-1709** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
plugins	Array of <b>PluginInfo</b> objects	Plug-ins.

**Table 4-1710** PluginInfo

Parameter	Type	Description
plugin_id	String	Plug-in ID.
plugin_name	String	Plug-in name. Start with a letter, and include only letters, digits, hyphens (-), and underscores(_). (3 to 255 characters)
plugin_type	String	Plug-in type <ul style="list-style-type: none"> <li>• cors: Cross-origin resource sharing.</li> <li>• set_resp_headers: HTTP response header management.</li> <li>• kafka_log: Kafka log push.</li> <li>• breaker: Circuit breaker.</li> <li>• rate_limit: Request throttling.</li> <li>• third_auth: Third-party authentication.</li> <li>• proxy_cache: Response cache.</li> <li>• proxy_mirror: request mirroring</li> </ul>
plugin_scope	String	Plug-in scope. global: Visible to all gateways.
plugin_content	String	Plug-in content in JSON format. For details, see the model definition. <ul style="list-style-type: none"> <li>• CorsPluginContent</li> <li>• SetRespHeadersContent</li> <li>• KafkaLogContent</li> <li>• BreakerContent</li> <li>• RateLimitContent</li> <li>• ThirdAuthContent</li> <li>• ProxyCacheContent</li> <li>• ProxyMirrorContent</li> </ul> Maximum: <b>65535</b>

Parameter	Type	Description
remark	String	Plug-in description, with a maximum of 255 characters. Maximum: <b>255</b>
create_time	String	Creation time.
update_time	String	Update time.

**Status code: 400**

**Table 4-1711** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1712** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1713** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1714** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1715** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "plugins": [ {
    "plugin_id": "5b729aa252764739b3s237ef0d66dc63",
    "plugin_name": "CORS",
    "plugin_type": "cors",
    "plugin_scope": "global",
    "plugin_content": "{\"allow_origin\": \"*\", \"allow_methods\": \"GET,POST,PUT\", \"allow_headers\": \"Content-Type,Accept,Accept-Ranges,Cache-Control\", \"expose_headers\": \"X-Request-Id,X-Apig-Latency\", \"max_age\": 172800, \"allow_credentials\": true}",
    "remark": "Cross-origin resource sharing",
    "create_time": "2022-11-02T12:31:23.353Z",
    "update_time": "2022-11-02T12:31:23.353Z"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "API 5f918d104dc84480a75166ba99efff21 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.29 Credential Management

## 4.29.1 Creating an App

### Function

An app is an identity for accessing an API. An app can call the APIs to which it has been authorized.

This API is used to create an app.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/apps

**Table 4-1716** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-1717** Request header parameters

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

**Table 4-1718** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	App name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
remark	No	String	App description. It cannot exceed 255 characters.
app_key	No	String	AppKey, which can contain 8 to 200 characters, starting with a letter or digit. Only letters, digits, hyphens (-), and underscores (_) are allowed.
app_secret	No	String	Secret, which can contain 8 to 128 characters, starting with a letter or digit. Only letters, digits, and the following special characters are allowed: _-!@\$%

## Response Parameters

Status code: 201

**Table 4-1719** Response body parameters

Parameter	Type	Description
id	String	ID.
name	String	Name.
remark	String	Description.
creator	String	Creator of the app. <ul style="list-style-type: none"> <li>• USER: The app is created by an API user.</li> <li>• MARKET: The app is allocated by KooGallery.</li> </ul> The value MARKET is currently not supported.
update_time	String	Update time.
app_key	String	AppKey.
app_secret	String	AppSecret.
register_time	String	Registration time.

Parameter	Type	Description
status	Integer	Status. <ul style="list-style-type: none"><li>• 1: valid</li></ul>
app_type	String	App type. <ul style="list-style-type: none"><li>• apig: APIG app, which is not recommended.</li><li>• roma: ROMA integration application.</li></ul> The default value is apig. Other types are not supported currently.
roma_app_type	String	ROMA application type. <ul style="list-style-type: none"><li>• subscription: subscription application</li><li>• integration: integration application</li></ul> Currently, this parameter is not supported.

**Status code: 400****Table 4-1720** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1721** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1722** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1723** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating an app

```
{
  "name" : "app_demo",
  "remark" : "Demo app"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "creator" : "USER",
  "update_time" : "2020-08-03T13:09:13.122211909Z",
  "app_key" : "ee8f878c252747028f07eb116c2cd91b",
  "name" : "app_demo",
  "remark" : "Demo app",
  "id" : "356de8eb7a8742168586e5daf5339965",
  "app_secret" : "416*****ab8",
  "register_time" : "2020-08-03T13:09:13.122211659Z",
  "status" : 1,
  "app_type" : "apig"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2011",
  "error_msg" : "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
}
```



```
"error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.29.2 Modifying an App

### Function

This API is used to modify the information about an app. Only the name and remark parameters can be modified. If the function of customizing keys and secrets is enabled, app\_key and app\_secret can also be modified.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}

**Table 4-1724** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1725** Request header parameters

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

**Table 4-1726** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	App name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
remark	No	String	App description. It cannot exceed 255 characters.
app_key	No	String	AppKey, which can contain 8 to 200 characters, starting with a letter or digit. Only letters, digits, hyphens (-), and underscores (_) are allowed.
app_secret	No	String	Secret, which can contain 8 to 128 characters, starting with a letter or digit. Only letters, digits, and the following special characters are allowed: _-!@#\$\$%

## Response Parameters

**Status code: 201**

**Table 4-1727** Response body parameters

Parameter	Type	Description
id	String	ID.
name	String	Name.
remark	String	Description.
creator	String	Creator of the app. <ul style="list-style-type: none"> <li>• USER: The app is created by an API user.</li> <li>• MARKET: The app is allocated by KooGallery.</li> </ul> The value MARKET is currently not supported.
update_time	String	Update time.
app_key	String	AppKey.
app_secret	String	AppSecret.
register_time	String	Registration time.
status	Integer	Status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
app_type	String	App type. <ul style="list-style-type: none"> <li>• apig: APIG app, which is not recommended.</li> <li>• roma: ROMA integration application.</li> </ul> The default value is apig. Other types are not supported currently.
roma_app_type	String	ROMA application type. <ul style="list-style-type: none"> <li>• subscription: subscription application</li> <li>• integration: integration application</li> </ul> Currently, this parameter is not supported.

**Status code: 400**

**Table 4-1728** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1729** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1730** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1731** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1732** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

### Modifying an app

```
{  
  "name" : "app_demo",  
  "remark" : "Demo app"  
}
```

## Example Responses

### Status code: 201

OK

```
{
  "creator" : "USER",
  "update_time" : "2020-08-03T13:21:48.381148828Z",
  "app_key" : "ee8f878c252747028f07eb116c2cd91b",
  "name" : "app_demo",
  "remark" : "Demo app",
  "id" : "356de8eb7a8742168586e5daf5339965",
  "app_secret" : "416*****ab8",
  "register_time" : "2020-08-03T13:09:13",
  "status" : 1,
  "app_type" : "apig"
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "App 356de8eb7a8742168586e5daf5339965 does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.29.3 Deleting an App

#### Function

This API is used to delete an app.

Deleted apps cannot call APIs.

#### Calling Method

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

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}

**Table 4-1733** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1734** Request header parameters

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

## Response Parameters

### Status code: 400

**Table 4-1735** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 401

**Table 4-1736** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-1737** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-1738** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1739** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "App 356de8eb7a8742168586e5daf5339965 does not exist"
}
```



**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).

## 4.29.4 Resetting the AppSecret of an App

**Function**

This API is used to reset the AppSecret of an app.

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

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/apps/secret/{app\_id}

**Table 4-1740** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1741** Request header parameters

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

**Table 4-1742** Request body parameters

Parameter	Mandatory	Type	Description
app_secret	No	String	Secret, which can contain 8 to 128 characters, starting with a letter or digit. Only letters, digits, and special characters (_-!@#\$\$%). To define an AppSecret, first enable the app_secret parameter.

## Response Parameters

**Status code: 200**

**Table 4-1743** Response body parameters

Parameter	Type	Description
id	String	ID.
name	String	Name.
remark	String	Description.

Parameter	Type	Description
creator	String	Creator of the app. <ul style="list-style-type: none"> <li>• USER: The app is created by an API user.</li> <li>• MARKET: The app is allocated by KooGallery.</li> </ul> The value MARKET is currently not supported.
update_time	String	Update time.
app_key	String	AppKey.
app_secret	String	AppSecret.
register_time	String	Registration time.
status	Integer	Status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>
app_type	String	App type. <ul style="list-style-type: none"> <li>• apig: APIG app, which is not recommended.</li> <li>• roma: ROMA integration application.</li> </ul> The default value is apig. Other types are not supported currently.
roma_app_type	String	ROMA application type. <ul style="list-style-type: none"> <li>• subscription: subscription application</li> <li>• integration: integration application</li> </ul> Currently, this parameter is not supported.

**Status code: 400**

**Table 4-1744** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1745** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403**

**Table 4-1746** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1747** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1748** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Resetting secret

```
{
  "app_secret" : "1ff*****9a4"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "creator" : "USER",
```

```
"update_time" : "2020-08-03T14:12:43.038171689Z",
"app_key" : "ee8f878c252747028f07eb116c2cd91b",
"name" : "app_demo",
"remark" : "Demo app",
"id" : "356de8eb7a8742168586e5daf5339965",
"app_secret" : "1ff*****9a4",
"register_time" : "2020-08-03T13:09:13Z",
"status" : 1,
"app_type" : "apig"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "App 356de8eb7a8742168586e5daf5339965 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.29.5 Verifying an App

### Function

This API is provided for users (excluding app owner) to check whether an app exists. Only the basic information, such as ID, name, and remark, of the app is displayed.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/validation/{app\_id}

**Table 4-1749** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1750** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1751** Response body parameters

Parameter	Type	Description
id	String	ID.
name	String	Name.
remark	String	Description.

**Status code: 400**

**Table 4-1752** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1753** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1754** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1755** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1756** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "name" : "app_demo",
  "remark" : "Demo app",
  "id" : "356de8eb7a8742168586e5daf5339965"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}
```

**Status code: 401**



### Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "App 356de8eb7a8742168586e5daf5339965 does not exist"
}
```

**Status code: 500**

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.29.6 Querying App Details

#### Function

This API is used to query the details of an app.

## Calling Method

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

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}

**Table 4-1757** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1758** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1759** Response body parameters

Parameter	Type	Description
id	String	ID.
name	String	Name.
remark	String	Description.

Parameter	Type	Description
creator	String	Creator of the app. <ul style="list-style-type: none"><li>• USER: The app is created by an API user.</li><li>• MARKET: The app is allocated by KooGallery.</li></ul> The value MARKET is currently not supported.
update_time	String	Update time.
app_key	String	AppKey.
app_secret	String	AppSecret.
register_time	String	Registration time.
status	Integer	Status. <ul style="list-style-type: none"><li>• 1: valid</li></ul>
app_type	String	App type. <ul style="list-style-type: none"><li>• apig: APIG app, which is not recommended.</li><li>• roma: ROMA integration application.</li></ul> The default value is apig. Other types are not supported currently.
roma_app_type	String	ROMA application type. <ul style="list-style-type: none"><li>• subscription: subscription application</li><li>• integration: integration application</li></ul> Currently, this parameter is not supported.

**Status code: 400****Table 4-1760** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1761** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403****Table 4-1762** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1763** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1764** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "creator" : "USER",
  "update_time" : "2020-08-03T13:09:13Z",
  "app_key" : "ee8f878c252747028f07eb116c2cd91b",
```

```

"name" : "app_demo",
"remark" : "Demo app",
"id" : "356de8eb7a8742168586e5daf5339965",
"app_secret" : "416*****ab8",
"register_time" : "2020-08-03T13:09:13Z",
"status" : 1,
"app_type" : "apig"
}

```

**Status code: 400**

Bad Request

```

{
"error_code" : "APIG.2012",
"error_msg" : "Invalid parameter value,parameterName:id. Please refer to the support documentation"
}

```

**Status code: 401**

Unauthorized

```

{
"error_code" : "APIG.1002",
"error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
"error_code" : "APIG.1005",
"error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
"error_code" : "APIG.3002",
"error_msg" : "App 356de8eb7a8742168586e5daf5339965 does not exist"
}

```

**Status code: 500**

Internal Server Error

```

{
"error_code" : "APIG.9999",
"error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.29.7 Querying Apps

### Function

This API is used to query apps.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps

**Table 4-1765** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1766** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
id	No	String	App ID.
name	No	String	App name.
status	No	Integer	App status.
app_key	No	String	AppKey.
creator	No	String	Creator of the app. <ul style="list-style-type: none"><li>• USER: The app is created by an API user.</li><li>• MARKET: This parameter is not used currently.</li></ul>
precise_search	No	String	Parameter name (name) for exact matching.

## Request Parameters

Table 4-1767 Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1768** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apps	Array of <b>AppInfoWithBindNum</b> objects	App list.

**Table 4-1769** AppInfoWithBindNum

Parameter	Type	Description
id	String	ID.
name	String	Name.
remark	String	Description.
creator	String	Creator of the app. <ul style="list-style-type: none"> <li>USER: The app is created by an API user.</li> <li>MARKET: The app is allocated by KooGallery.</li> </ul> The value MARKET is currently not supported.
update_time	String	Update time.
app_key	String	AppKey.
app_secret	String	AppSecret.
register_time	String	Registration time.
status	Integer	Status. <ul style="list-style-type: none"> <li>1: valid</li> </ul>
app_type	String	App type. <ul style="list-style-type: none"> <li>apig: APIG app, which is not recommended.</li> <li>roma: ROMA integration application.</li> </ul> The default value is apig. Other types are not supported currently.
roma_app_type	String	ROMA application type. <ul style="list-style-type: none"> <li>subscription: subscription application</li> <li>integration: integration application</li> </ul> Currently, this parameter is not supported.



Parameter	Type	Description
bind_num	Integer	Number of bound APIs.

**Status code: 400****Table 4-1770** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1771** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1772** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1773** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 2,
  "size": 2,
  "apps": [ {
    "bind_num": 0,
    "creator": "USER",
    "update_time": "2020-08-03T13:09:13Z",
    "app_key": "ee8f878c252747028f07eb116c2cd91b",
    "name": "app_demo",
    "remark": "Demo app",
    "id": "356de8eb7a8742168586e5daf5339965",
    "app_secret": "416*****ab8",
    "register_time": "2020-08-03T13:09:13Z",
    "status": 1,
    "app_type": "apig"
  }, {
    "bind_num": 3,
    "creator": "USER",
    "update_time": "2020-05-27T10:38:03.133586Z",
    "app_key": "840b8b5b1efc4ec686639759c2c584da",
    "name": "app_001",
    "id": "9ed8b7fe84224de681e7d7a5587e76dc",
    "app_secret": "0a4*****c6e",
    "register_time": "2020-03-28T11:09:06Z",
    "status": 1
  }
]
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2011",
  "error_msg": "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.29.8 Creating an AppCode

### Function

This API is used to create an AppCode for an app for simple authentication.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes

**Table 4-1774** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1775** Request header parameters

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

**Table 4-1776** Request body parameters

Parameter	Mandatory	Type	Description
app_code	Yes	String	AppCode value. It can contain 64 to 180 characters, starting with a letter, digit, plus sign (+), or slash (/). Only letters, digits, and the following special characters are allowed: +_!@#\$%-=

## Response Parameters

**Status code: 201**

**Table 4-1777** Response body parameters

Parameter	Type	Description
app_code	String	AppCode value. It can contain 64 to 180 characters, starting with a letter, digit, plus sign (+), or slash (/). Only letters, digits, and the following special characters are allowed: +_!@#\$%-=
id	String	ID.
app_id	String	App ID.
create_time	String	Creation time.

**Status code: 400**

**Table 4-1778** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1779** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1780** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1781** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1782** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Creating an AppCode for simple authentication

```
{
  "app_code": "GjOD3g80AABuuFeEJpVQADBlAjBh3UzC7W
+gr4VJBB5BtJ4fdVOQoSvoji3gFxUDb5pWBz9wUcw9+8/bFZ1B/4pq29wCMQC0pQWX6zTndljDEL99As1pw
+WntAU9xcq+ffagoH6zDpKUvdxV6Ezj8LcCcPZN6BU="
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "app_code": "GjOD3g80AABuuFeEJpVQADBlAjBh3UzC7W
+gr4VJBB5BtJ4fdVOQoSvoji3gFxUDb5pWBz9wUcw9+8/bFZ1B/4pq29wCMQC0pQWX6zTndljDEL99As1pw
+WntAU9xcq+ffagoH6zDpKUvdxV6Ezj8LcCcPZN6BU=",
  "app_id": "9ed8b7fe84224de681e7d7a5587e76dc",
  "id": "32dc8ca22d1b4b9cb94022186880576b",
  "create_time": "2020-07-24T02:37:24.835128293Z"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:app_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3004",
  "error_msg": "App 9ed8b7fe84224de681e7d7a5587e76dc does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
}
```

```
"error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.29.9 Generating an AppCode

#### Function

This API is used to generate a random AppCode.

#### Calling Method

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

#### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes

**Table 4-1783** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1784** Request header parameters

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

## Response Parameters

**Status code: 201****Table 4-1785** Response body parameters

Parameter	Type	Description
app_code	String	AppCode value. It can contain 64 to 180 characters, starting with a letter, digit, plus sign (+), or slash (/). Only letters, digits, and the following special characters are allowed: +_!@#\$\$%&-/=
id	String	ID.
app_id	String	App ID.
create_time	String	Creation time.

**Status code: 400****Table 4-1786** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**



**Table 4-1787** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1788** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1789** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1790** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 201**

Created

```
{
  "app_code" : "fdc8d90a30174460a91ddacfa54d6f04c92e523a85cc4a1894f87cb13b6f572a",
```

```
"app_id" : "9ed8b7fe84224de681e7d7a5587e76dc",  
"id" : "b3d34f746d0847fb95138670e10207ed",  
"create_time" : "2020-07-24T02:31:45.790909295Z"  
}
```

**Status code: 400**

Bad Request

```
{  
  "error_code" : "APIG.2012",  
  "error_msg" : "Invalid parameter value,parameterName:app_id. Please refer to the support documentation"  
}
```

**Status code: 401**

Unauthorized

```
{  
  "error_code" : "APIG.1002",  
  "error_msg" : "Incorrect token or token resolution failed"  
}
```

**Status code: 403**

Forbidden

```
{  
  "error_code" : "APIG.1005",  
  "error_msg" : "No permissions to request this method"  
}
```

**Status code: 404**

Not Found

```
{  
  "error_code" : "APIG.3004",  
  "error_msg" : "App 9ed8b7fe84224de681e7d7a5587e76dc does not exist"  
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code" : "APIG.9999",  
  "error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.29.10 Deleting an AppCode

#### Function

This API is used to delete an AppCode. Deleted AppCodes cannot be used for simple authentication.

#### Calling Method

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

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes/{app\_code\_id}

**Table 4-1791** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.
app_code_id	Yes	String	AppCode ID.

## Request Parameters

**Table 4-1792** Request header parameters

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

## Response Parameters

### Status code: 400

**Table 4-1793** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 401

**Table 4-1794** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 403

**Table 4-1795** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

### Status code: 404

**Table 4-1796** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1797** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:app_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3004",
  "error_msg" : "App 9ed8b7fe84224de681e7d7a5587e76dc does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).**4.29.11 Querying AppCode Details****Function**

This API is used to query the details of an AppCode created for an app for simple authentication.

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

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes/{app\_code\_id}

**Table 4-1798** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.
app_code_id	Yes	String	AppCode ID.

## Request Parameters

**Table 4-1799** Request header parameters

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

## Response Parameters

**Status code: 201**

**Table 4-1800** Response body parameters

Parameter	Type	Description
app_code	String	AppCode value. It can contain 64 to 180 characters, starting with a letter, digit, plus sign (+), or slash (/). Only letters, digits, and the following special characters are allowed: +_!@#\$\$%-=
id	String	ID.
app_id	String	App ID.
create_time	String	Creation time.

**Status code: 400**

**Table 4-1801** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1802** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1803** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1804** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1805** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.



## Example Requests

None

## Example Responses

### Status code: 201

Created

```
{
  "app_code" : "fdc8d90a30174460a91ddacfa54d6f04c92e523a85cc4a1894f87cb13b6f572a",
  "app_id" : "9ed8b7fe84224de681e7d7a5587e76dc",
  "id" : "b3d34f746d0847fb95138670e10207ed",
  "create_time" : "2020-07-24T02:31:45Z"
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:app_id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3004",
  "error_msg" : "App 9ed8b7fe84224de681e7d7a5587e76dc does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.29.12 Querying AppCodes of an App

### Function

This API is used to query the AppCodes of an app.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes

**Table 4-1806** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

**Table 4-1807** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>

## Request Parameters

**Table 4-1808** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1809** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
app_codes	Array of <a href="#">AppCodeBase Info</a> objects	AppCode list.

**Table 4-1810** AppCodeBaseInfo

Parameter	Type	Description
app_code	String	AppCode value. It can contain 64 to 180 characters, starting with a letter, digit, plus sign (+), or slash (/). Only letters, digits, and the following special characters are allowed: +_!@#\$\$%-/=
id	String	ID.
app_id	String	App ID.
create_time	String	Creation time.

**Status code: 400**

**Table 4-1811** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-1812** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-1813** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-1814** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-1815** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 2,
  "size": 2,
  "app_codes": [ {
    "app_code": "GjOD3g80AABuuFeEJpVQADBlAjBh3UzC7W
+gr4VJBB5BtJ4fdVOQoSvoji3gFxUDb5pWBz9wUcw9+8/bFZ1B/4pq29wCMQC0pQWX6zTndljDEl99As1pw
+WntAU9xcq+ffagoH6zDpKUvdxV6Ezj8LcCcPZN6BU=",
    "app_id": "9ed8b7fe84224de681e7d7a5587e76dc",
    "id": "32dc8ca22d1b4b9cb94022186880576b",
    "create_time": "2020-07-24T02:37:24Z"
  }, {
    "app_code": "fdc8d90a30174460a91ddacfa54d6f04c92e523a85cc4a1894f87cb13b6f572a",
    "app_id": "9ed8b7fe84224de681e7d7a5587e76dc",
    "id": "b3d34f746d0847fb95138670e10207ed",
    "create_time": "2020-07-24T02:31:45Z"
  }
  ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:app_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3004",
  "error_msg" : "App 9ed8b7fe84224de681e7d7a5587e76dc does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.29.13 Querying Quotas Associated with a Credential

#### Function

This API is used to query quotas associated with a specified credential.

## Calling Method

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

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/bound-quota

**Table 4-1816** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1817** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1818** Response body parameters

Parameter	Type	Description
app_quota_id	String	Credential quota ID.
name	String	Quota name. Enter 3 to 255 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.

Parameter	Type	Description
call_limits	Integer	Maximum number of times a credential quota can be called.
time_unit	String	Time unit. The options are SECOND, MINUTE, HOUR, and DAY.
time_interval	Integer	Time limit of a quota.
remark	String	Parameter description. Maximum: <b>255</b>
reset_time	String	Time when the quota is reset for the first time. If this parameter is not specified, the time is calculated based on the first calling time by default.
create_time	String	Creation time.
bound_app_number	Integer	Number of applications bound to the quota policy.

**Status code: 400****Table 4-1819** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401****Table 4-1820** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403**



**Table 4-1821** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404**

**Table 4-1822** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500**

**Table 4-1823** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "app_quota_id" : "c900c5612dbe451bb43cbcc49cfaf2f3",
  "name" : "ClientQuota_demo",
  "call_limits" : 1000,
  "time_unit" : "DAY",
  "time_interval" : 1,
  "remark" : "remark",
  "reset_time" : "2020-09-20 00:00:00 +0000 +0000",
  "create_time" : "2020-09-19T07:27:47Z",
  "bound_app_num" : 0
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3002",
  "error_msg" : "App 98df09fb-d459-4cbf-83a7-2b55ca6f3d5d does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.29.14 Configuring Access Control Settings for an App

### Function

This API is used to configure access control settings for a credential.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-acl

**Table 4-1824** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

### Request Parameters

**Table 4-1825** Request header parameters

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

**Table 4-1826** Request body parameters

Parameter	Mandatory	Type	Description
app_acl_type	Yes	String	Type: <ul style="list-style-type: none"><li>PERMIT (whitelist)</li><li>DENY (blacklist)</li></ul>

Parameter	Mandatory	Type	Description
app_acl_values	Yes	Array of strings	Access control values. The values can be IP addresses, IP address ranges, or CIDR blocks. Use hyphens (-) to separate IP address segments.

## Response Parameters

**Status code: 201**

**Table 4-1827** Response body parameters

Parameter	Type	Description
app_id	String	App ID.
app_acl_type	String	Type: <ul style="list-style-type: none"> <li>PERMIT (whitelist)</li> <li>DENY (blacklist)</li> </ul>
app_acl_values	Array of strings	Access control values. The values can be IP addresses, IP address ranges, or CIDR blocks. Use hyphens (-) to separate IP address segments.

**Status code: 400**

**Table 4-1828** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401**

**Table 4-1829** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-1830** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-1831** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-1832** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Example Requests**

```
{
  "app_acl_type": "PERMIT",
  "app_acl_values": [ "192.168.0.1", "192.168.0.5-192.168.0.10", "192.168.0.100/28" ]
}
```

**Example Responses****Status code: 201**

Ok

```
{
  "app_id": "9ed8b7fe84224de681e7d7a5587e76dc",
  "app_acl_type": "PERMIT",
  "app_acl_values": [ "192.168.0.1", "192.168.0.5-192.168.0.10", "192.168.0.100/28" ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:app_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3004",
  "error_msg" : "App 9ed8b7fe84224de681e7d7a5587e76dc does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Ok
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.29.15 Querying Access Control Details About an App

### Function

This API is used to query the access control details about an app.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-acl

**Table 4-1833** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

### Request Parameters

**Table 4-1834** Request header parameters

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

### Response Parameters

Status code: 200

**Table 4-1835** Response body parameters

Parameter	Type	Description
app_id	String	App ID.
app_acl_type	String	Type: <ul style="list-style-type: none"> <li>• PERMIT (whitelist)</li> <li>• DENY (blacklist)</li> </ul>
app_acl_values	Array of strings	Access control values. The values can be IP addresses, IP address ranges, or CIDR blocks. Use hyphens (-) to separate IP address segments.

**Status code: 400**

**Table 4-1836** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401**

**Table 4-1837** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403**

**Table 4-1838** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404**



**Table 4-1839** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500**

**Table 4-1840** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "app_id" : "9ed8b7fe84224de681e7d7a5587e76dc",
  "app_acl_type" : "PERMIT",
  "app_acl_values" : [ "192.168.0.1", "192.168.0.5-192.168.0.10", "192.168.0.100/28" ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:app_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
```

```
{
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3004",
  "error_msg": "App 9ed8b7fe84224de681e7d7a5587e76dc does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.29.16 Deleting Access Control Settings of an App

### Function

This API is used to delete the access control settings of a credential.

### Calling Method

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

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-acl

**Table 4-1841** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1842** Request header parameters

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

## Response Parameters

**Status code: 400**

**Table 4-1843** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401**

**Table 4-1844** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-1845** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-1846** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-1847** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Example Requests**

None

**Example Responses****Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:app_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3004",
  "error_msg" : "App 9ed8b7fe84224de681e7d7a5587e76dc does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).

## 4.30 Credential Quota Management

### 4.30.1 Creating a Credential Quota

**Function**

This API is used to create a credential quota.

## Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/app-quotas

**Table 4-1848** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1849** Request header parameters

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

**Table 4-1850** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Quota name. Start with a letter. Use letters, digits, or underscores (_). Minimum: <b>3</b> Maximum: <b>255</b>
call_limits	Yes	Integer	Maximum number of times a credential quota can be called. Minimum: <b>1</b> Maximum: <b>2147483647</b>

Parameter	Mandatory	Type	Description
time_unit	Yes	String	Time unit. The options are SECOND, MINUTE, HOUR, and DAY.
time_interval	Yes	Integer	Time interval for throttling. Minimum: <b>1</b> Maximum: <b>2147483647</b>
reset_time	No	String	Time when the quota is reset for the first time. If this parameter is not specified, the time is calculated based on the first calling time by default.
remark	No	String	Parameter description. Brackets (<>) are not supported. Maximum: <b>255</b>

## Response Parameters

Status code: 201

Table 4-1851 Response body parameters

Parameter	Type	Description
app_quota_id	String	Credential quota ID.
name	String	Quota name. Enter 3 to 255 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
call_limits	Integer	Maximum number of times a credential quota can be called.
time_unit	String	Time unit. The options are SECOND, MINUTE, HOUR, and DAY.
time_interval	Integer	Time limit of a quota.
remark	String	Parameter description. Maximum: <b>255</b>
reset_time	String	Time when the quota is reset for the first time. If this parameter is not specified, the time is calculated based on the first calling time by default.

Parameter	Type	Description
create_time	String	Creation time.
bound_app_num	Integer	Number of applications bound to the quota policy.

**Status code: 400****Table 4-1852** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401****Table 4-1853** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-1854** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-1855** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.



**Status code: 500****Table 4-1856** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Example Requests**

```
{
  "call_limits" : 1000,
  "name" : "ClientQuota_demo",
  "reset_time" : "2020-09-20 00:00:00",
  "time_interval" : 1,
  "time_unit" : "DAY"
}
```

**Example Responses****Status code: 201**

OK

```
{
  "app_quota_id" : "c900c5612dbe451bb43bcc49cfaf2f3",
  "call_limits" : 1000,
  "create_time" : "2020-09-19T15:27:47.60571141+08:00",
  "name" : "ClientQuota_demo",
  "reset_time" : "2020-09-20 00:00:00",
  "time_interval" : 1,
  "time_unit" : "DAY"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.3325",
  "error_msg" : "The API quota name already exists"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

### Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}
```

### Status code: 500

### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.30.2 Querying Credential Quota Details

### Function

This API is used to query credential quota details.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/app-quotas/{app\_quota\_id}

**Table 4-1857** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_quota_id	Yes	String	Credential Quota ID

## Request Parameters

**Table 4-1858** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1859** Response body parameters

Parameter	Type	Description
app_quota_id	String	Credential quota ID.
name	String	Quota name. Enter 3 to 255 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
call_limits	Integer	Maximum number of times a credential quota can be called.
time_unit	String	Time unit. The options are SECOND, MINUTE, HOUR, and DAY.
time_interval	Integer	Time limit of a quota.
remark	String	Parameter description. Maximum: <b>255</b>

Parameter	Type	Description
reset_time	String	Time when the quota is reset for the first time. If this parameter is not specified, the time is calculated based on the first calling time by default.
create_time	String	Creation time.
bound_app_num	Integer	Number of applications bound to the quota policy.

**Status code: 400****Table 4-1860** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401****Table 4-1861** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-1862** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404**

**Table 4-1863** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500**

**Table 4-1864** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "app_quota_id" : "c900c5612dbe451bb43bcc49cfaf2f3",
  "call_limits" : 1000,
  "create_time" : "2020-09-19T07:27:47Z",
  "name" : "ClientQuota_demo",
  "reset_time" : "2020-09-20 00:00:00 +0000 +0000",
  "time_interval" : 1,
  "time_unit" : "DAY"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

#### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

#### Not Found

```
{
  "error_code" : "APIG.3093",
  "error_msg" : "App quota c900c5612dbe451bb43cbcc49cfaf2f3 does not exist"
}
```

**Status code: 500**

#### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.30.3 Querying Credential Quotas

#### Function

This API is used to query credential quotas. Fuzzy query by name is supported.

#### Calling Method

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

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/app-quotas

**Table 4-1865** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1866** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
name	No	String	Credential quota name.

## Request Parameters

**Table 4-1867** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1868** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
quotas	Array of <a href="#">AppQuotaInfo</a> objects	Credential quotas.

**Table 4-1869** AppQuotaInfo

Parameter	Type	Description
app_quota_id	String	Credential quota ID.
name	String	Quota name. Enter 3 to 255 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
call_limits	Integer	Maximum number of times a credential quota can be called.
time_unit	String	Time unit. The options are SECOND, MINUTE, HOUR, and DAY.
time_interval	Integer	Time limit of a quota.
remark	String	Parameter description. Maximum: <b>255</b>



Parameter	Type	Description
reset_time	String	Time when the quota is reset for the first time. If this parameter is not specified, the time is calculated based on the first calling time by default.
create_time	String	Creation time.
bound_app_num	Integer	Number of applications bound to the quota policy.

**Status code: 400**

**Table 4-1870** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401**

**Table 4-1871** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403**

**Table 4-1872** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500**

**Table 4-1873** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "total": 1,
  "size": 1,
  "quotas": [ {
    "app_quota_id": "c900c5612dbe451bb43bcc49cfaf2f3",
    "call_limits": 1000,
    "create_time": "2020-09-19T07:27:47Z",
    "name": "ClientQuota_demo",
    "reset_time": "2020-09-20 00:00:00 +0000 +0000",
    "time_interval": 1,
    "time_unit": "DAY"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:name. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.30.4 Modifying a Credential Quota

### Function

This API is used to modify a credential quota.

### Calling Method

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

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/app-quotas/{app\_quota\_id}

**Table 4-1874** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_quota_id	Yes	String	Credential Quota ID

## Request Parameters

**Table 4-1875** Request header parameters

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

**Table 4-1876** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Quota name. Start with a letter. Use letters, digits, or underscores (_). Minimum: <b>3</b> Maximum: <b>255</b>
call_limits	Yes	Integer	Maximum number of times a credential quota can be called. Minimum: <b>1</b> Maximum: <b>2147483647</b>
time_unit	Yes	String	Time unit. The options are SECOND, MINUTE, HOUR, and DAY.
time_interval	Yes	Integer	Time interval for throttling. Minimum: <b>1</b> Maximum: <b>2147483647</b>
reset_time	No	String	Time when the quota is reset for the first time. If this parameter is not specified, the time is calculated based on the first calling time by default.
remark	No	String	Parameter description. Brackets (<>) are not supported. Maximum: <b>255</b>

## Response Parameters

### Status code: 200

**Table 4-1877** Response body parameters

Parameter	Type	Description
app_quota_id	String	Credential quota ID.
name	String	Quota name. Enter 3 to 255 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
call_limits	Integer	Maximum number of times a credential quota can be called.
time_unit	String	Time unit. The options are SECOND, MINUTE, HOUR, and DAY.
time_interval	Integer	Time limit of a quota.
remark	String	Parameter description. Maximum: <b>255</b>
reset_time	String	Time when the quota is reset for the first time. If this parameter is not specified, the time is calculated based on the first calling time by default.
create_time	String	Creation time.
bound_app_num	Integer	Number of applications bound to the quota policy.

### Status code: 400

**Table 4-1878** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

### Status code: 401

**Table 4-1879** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error description.

**Status code: 403**

**Table 4-1880** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404**

**Table 4-1881** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500**

**Table 4-1882** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

```
{
  "call_limits" : 1000,
  "name" : "ClientQuota_demo",
  "reset_time" : "2020-09-20 00:00:00",
  "time_interval" : 1,
  "time_unit" : "DAY"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "app_quota_id" : "c900c5612dbe451bb43bcc49cfaf2f3",
  "call_limits" : 1000,
  "create_time" : "2020-09-19T07:27:47Z",
  "name" : "ClientQuota_demo",
  "reset_time" : "2020-09-20 00:00:00",
  "time_interval" : 1,
  "time_unit" : "DAY"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.3325",
  "error_msg" : "The API quota name already exists"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3093",
  "error_msg" : "App quota c900c5612dbe451bb43bcc49cfaf2f3 does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.30.5 Deleting a Credential Quota

#### Function

This API is used to delete a credential quota. When a credential quota is deleted, the association between the quota and credential is also deleted.

#### Calling Method

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

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/app-quotas/{app\_quota\_id}

**Table 4-1883** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_quota_id	Yes	String	Credential Quota ID



## Request Parameters

**Table 4-1884** Request header parameters

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

## Response Parameters

### Status code: 400

**Table 4-1885** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

### Status code: 401

**Table 4-1886** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

### Status code: 403

**Table 4-1887** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

### Status code: 404

**Table 4-1888** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-1889** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3093",
```

```
{  
  "error_msg": "App quota c900c5612dbe451bb43bcc49cfaf2f3 does not exist"  
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code": "APIG.9999",  
  "error_msg": "System error"  
}
```

## Status Codes

Status Code	Description
204	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.30.6 Querying the Credentials Bound to a Specified Quota

### Function

This API is used to query the credentials bound to a credential quota. Fuzzy match by credential name is supported.

### Calling Method

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

### URI

```
GET /v2/{project_id}/apigw/instances/{instance_id}/app-quotas/{app_quota_id}/  
bound-apps
```

**Table 4-1890** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_quota_id	Yes	String	Credential Quota ID

**Table 4-1891** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
app_name	No	String	Credential name.

## Request Parameters

**Table 4-1892** Request header parameters

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

## Response Parameters

Status code: 200

Table 4-1893 Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apps	Array of <a href="#">AppQuotaAppInfo</a> objects	Credentials.

Table 4-1894 AppQuotaAppInfo

Parameter	Type	Description
app_id	String	Credential ID.
name	String	Credential name.
status	Integer	Credential status: <ul style="list-style-type: none"> <li>1: enabled</li> <li>2: disabled</li> </ul>
app_key	String	Credential key.
remark	String	Credential description.
register_time	String	Creation time.
update_time	String	Update time.
app_quota_id	String	Credential quota ID.
app_quota_name	String	Quota name. Enter 3 to 255 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
bound_time	String	Binding time.

Status code: 400

Table 4-1895 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error description.

**Status code: 401****Table 4-1896** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-1897** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-1898** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-1899** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "total" : 1,
  "size" : 1,
  "apps" : [ {
    "app_id" : "98df09fb-d459-4cbf-83a7-2b55ca6f3d5d",
    "app_key" : "9b93db07-4634-4b7a-99d8-869933ed055d",
    "app_quota_name" : "ClientQuota_demo",
    "bound_time" : "2020-09-19T07:43:11Z",
    "name" : "app-demo",
    "register_time" : "2020-09-18T09:25:19Z",
    "status" : 1,
    "update_time" : "2020-09-18T09:25:19Z"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:app_name. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3093",
  "error_msg" : "The App quota c900c5612dbe451bb43bcc49cfaf2f3 does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
}
```

```
"error_msg": "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.30.7 Binding a Credential Quota with Credentials

### Function

This API is used to bind a credential quota with credentials.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/app-quotas/{app\_quota\_id}/binding-apps

**Table 4-1900** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_quota_id	Yes	String	Credential Quota ID



## Request Parameters

**Table 4-1901** Request header parameters

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

**Table 4-1902** Request body parameters

Parameter	Mandatory	Type	Description
app_ids	Yes	Array of strings	Credential ID List.

## Response Parameters

**Status code: 201**

**Table 4-1903** Response body parameters

Parameter	Type	Description
applies	Array of <a href="#">AppQuotaAppBinding</a> objects	Credential and credential quota binding list.

**Table 4-1904** AppQuotaAppBinding

Parameter	Type	Description
app_quota_id	String	Credential quota ID.
app_id	String	Credential ID.
bound_time	String	Binding time.

**Status code: 400**

**Table 4-1905** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401****Table 4-1906** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-1907** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-1908** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-1909** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

```
{
  "app_ids" : [ "98df09fb-d459-4cbf-83a7-2b55ca6f3d5d" ]
}
```

## Example Responses

### Status code: 201

OK

```
{
  "applies" : [ {
    "app_id" : "98df09fb-d459-4cbf-83a7-2b55ca6f3d5d",
    "app_quota_id" : "c900c5612dbe451bb43bcc49cfaf2f3",
    "bound_time" : "2020-09-19T07:43:11.948178051Z"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3093",
  "error_msg" : "The App quota c900c5612dbe451bb43bcc49cfaf2f3 does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.30.8 Unbinding a Credential Quota from a Credential

### Function

This API is used to unbind a credential quota from a credential.

### Calling Method

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

### URI

```
DELETE /v2/{project_id}/apigw/instances/{instance_id}/app-quotas/  
{app_quota_id}/bound-apps/{app_id}
```

**Table 4-1910** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_quota_id	Yes	String	Credential Quota ID
app_id	Yes	String	App ID.

## Request Parameters

**Table 4-1911** Request header parameters

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

## Response Parameters

### Status code: 400

**Table 4-1912** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

### Status code: 401

**Table 4-1913** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

### Status code: 403

**Table 4-1914** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

### Status code: 404

**Table 4-1915** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-1916** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support
documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3093",
```

```
{  
  "error_msg": "The App quota c900c5612dbe451bb43bcc49cfaf2f3 does not exist"  
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code": "APIG.9999",  
  "error_msg": "System error"  
}
```

## Status Codes

Status Code	Description
204	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.30.9 Querying Credentials That Can Be Bound to a Credential Quota

### Function

This API is used to query the credentials that can be bound to a credential quota. Fuzzy search by credential name is supported.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/app-quotas/{app\_quota\_id}/bindable-apps

**Table 4-1917** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
app_quota_id	Yes	String	Credential Quota ID

**Table 4-1918** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
app_name	No	String	App name.

## Request Parameters

**Table 4-1919** Request header parameters

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



## Response Parameters

**Status code: 200**

**Table 4-1920** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apps	Array of <a href="#">AppQuotaAppInfo</a> objects	Credentials.

**Table 4-1921** AppQuotaAppInfo

Parameter	Type	Description
app_id	String	Credential ID.
name	String	Credential name.
status	Integer	Credential status: <ul style="list-style-type: none"> <li>1: enabled</li> <li>2: disabled</li> </ul>
app_key	String	Credential key.
remark	String	Credential description.
register_time	String	Creation time.
update_time	String	Update time.
app_quota_id	String	Credential quota ID.
app_quota_name	String	Quota name. Enter 3 to 255 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
bound_time	String	Binding time.

**Status code: 400**

**Table 4-1922** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error description.

**Status code: 401****Table 4-1923** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-1924** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-1925** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-1926** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

### Status code: 200

OK

```
{
  "total" : 1,
  "size" : 1,
  "apps" : [ {
    "app_id" : "ac18a23f-8f06-40ac-8093-f790de2ba95b",
    "app_key" : "ac18a23f-8f06-40ac-8093-f790de2ba95b",
    "bound_time" : "0001-01-01T00:00:00Z",
    "name" : "app-test",
    "register_time" : "2020-08-22T07:57:01Z",
    "status" : 1,
    "update_time" : "2020-08-22T07:57:01Z"
  } ]
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 404

Not Found

```
{
  "error_code" : "APIG.3093",
  "error_msg" : "The App quota c900c5612dbe451bb43bcc49cfaf2f3 does not exist"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
}
```

```
"error_msg": "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.31 Asynchronous Task Management

## 4.31.1 Exporting APIs Asynchronously

### Function

This API is used to export APIs in a specified API group. The content of the exported file complies with the Swagger standard. For details about the custom extended fields of APIG, see section "Importing and Exporting APIs" > "Extended Definition" in the API Gateway User Guide.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/openapi/async-export

**Table 4-1927** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1928** Query Parameters

Parameter	Mandatory	Type	Description
oas_version	No	String	OpenAPI version. Default: <b>2.0</b>

## Request Parameters

**Table 4-1929** Request header parameters

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

**Table 4-1930** Request body parameters

Parameter	Mandatory	Type	Description
env_id	Yes	String	ID of the environment in which APIs of a group have been published.
group_id	Yes	String	API group ID.

Parameter	Mandatory	Type	Description
define	No	String	<p>Definition scope of the APIs to be exported:</p> <ul style="list-style-type: none"> <li>• spec: basic definitions, including only the frontend definitions.</li> <li>• proxy: full definitions, including the frontend and backend definitions.</li> <li>• all: extended definitions, including the frontend and backend definitions as well as request throttling policies, access control policies, and custom authorizers.</li> <li>• dev: development definitions, including the frontend and backend definitions of APIs that have not been published.</li> </ul> <p>Default: <b>spec</b></p>
type	No	String	<p>Format for exporting API definitions.</p> <p>Default: <b>json</b></p>
version	No	String	<p>Version number of the APIs after exporting. The default value is the current date and time.</p>
apis	No	Array of strings	<p>IDs of the APIs to be exported.</p>

## Response Parameters

Status code: 202

Table 4-1931 Response body parameters

Parameter	Type	Description
task_id	String	Task ID.

Status code: 400

**Table 4-1932** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1933** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1934** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1935** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Exporting APIs in batches

```
{
  "env_id" : "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "group_id" : "c77f5e81d9cb4424bf704ef2b0ac7600",
  "define" : "all"
}
```

## Example Responses

### Status code: 202

Accepted

```
{
  "task_id" : "d9ce8c9eede54b3f841ec324fe0bfdc2"
}
```

### Status code: 400

Bad Request

```
{
  "error_code" : "APIG.2001",
  "error_msg" : "The request parameters must be specified,parameterName:env_id. Please refer to the support documentation"
}
```

### Status code: 401

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

### Status code: 403

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

### Status code: 500

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
202	Accepted
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error



## Error Codes

See [Error Codes](#).

## 4.31.2 Importing APIs Asynchronously

### Function

This API is used to import APIs. The content of the imported file must comply with the Swagger standard. For details about the custom extended fields of APIG, see section "Importing and Exporting APIs" > "Extended Definition" in the API Gateway User Guide.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/openapi/async-import

**Table 4-1936** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 4-1937** Request header parameters

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

**Table 4-1938** FormData parameters

Parameter	Mandatory	Type	Description
is_create_group	No	Boolean	Whether to create a new group. Default: <b>true</b>
group_id	No	String	API group ID. This parameter is required if is_create_group is set to false.
extend_mode	No	String	Import mode of extended information. <ul style="list-style-type: none"> <li>merge: Retain the original extended information if a conflict occurs.</li> <li>override: Override the original extended information if a conflict occurs.</li> </ul> Default: <b>merge</b>
simple_mode	No	Boolean	Whether to enable fast import. Default: <b>false</b>
mock_mode	No	Boolean	Whether to enable the Mock backend. Default: <b>false</b>
api_mode	No	String	Import mode. <ul style="list-style-type: none"> <li>merge: Retain the original API information if a conflict occurs.</li> <li>override: Override the original API information if a conflict occurs.</li> </ul> Default: <b>merge</b>
file_name	Yes	File	Request body in JSON or YAML format for importing APIs

## Response Parameters

**Status code: 202**

**Table 4-1939** Response body parameters

Parameter	Type	Description
task_id	String	Task ID.

**Status code: 400****Table 4-1940** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1941** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1942** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1943** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Importing APIs

```
{
  "is_create_group" : false,
  "group_id" : "d9ce8c9eede54b3f841ec324fe0bfdc2",
  "file_name" : "APIGroup_test.json"
}
```

## Example Responses

**Status code: 202**

Accepted

```
{
  "task_id" : "d9ce8c9eede54b3f841ec324fe0bfdc2"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.3603",
  "error_msg" : "The input data is too long"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
202	Accepted
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.31.3 Querying the Result of an Asynchronous Task

#### Function

This API is used to query the result of an asynchronous task.

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/async-tasks/{task\_id}

**Table 4-1944** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
task_id	Yes	String	Asynchronous task ID.

## Request Parameters

**Table 4-1945** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-1946** Response body parameters

Parameter	Type	Description
task_id	String	Task ID.
task_status	String	Task status. Options: waiting, processing, succeed, and failed.
task_type	String	Task type. Options: import_api and export_api. Both types of tasks are asynchronous.
task_result	String	<p>Task result. A string can be converted into a JSON object.</p> <p>If task_type is set to import_api, the fields include group_id, success (array), failure (array), swagger (structure), and ignore (array). The success array contains four fields: id (ID of a successfully imported API), method (API request method), path (API request path), and action (update or create). The failure array also contains four fields: method (API request method), path (API request path), error_code (import error code), and error_msg (import error message). The swagger structure contains two fields: id (Swagger file ID) and result (import result). The ignore array has two elements: method (API request method) and path (API request path).</p> <p>If task_type is set to export_api, the fields include file_type and content.</p>

**Status code: 400**

**Table 4-1947** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-1948** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-1949** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404****Table 4-1950** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-1951** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

Status code: 200

OK

- Example 1

```
{
  "task_id" : "d9ce8c9eede54b3f841ec324fe0bfdc2",
  "task_status" : "succeed",
  "task_type" : "import_api",
  "task_result" : "{\\\"success\\\":{\\\"id\\\":\\\"ee93ce6815f04896b301452982b92222\\\",\\\"action\\\":\\\"create\\\",\\\"method\\\":\\\"GET\\\",\\\"path\\\":\\\"/test1\\\"}},\\\"failure\\\":[],\\\"swagger\\\":{\\\"id\\\":\\\"de1852ab6c5e4090b0bd88a02058e650\\\",\\\"result\\\":\\\"Success\\\"},\\\"group_id\\\":\\\"9100ae30705947cc9543d37cd7fb388c\\\"}"
}
```

- Example 2

```
{
  "task_id" : "d6e8834b6f0f4711a2fa5345e5b60833",
  "task_status" : "succeed",
  "task_type" : "export_api",
  "task_result" : "{\\\"FileName\\\":\\\"test8-RELEASE-all-2023-07-11-19:54:22\\\",\\\"FileType\\\":\\\"json\\\",\\\"Comment\\\":\\\"{\\\"swagger\\\": \\\"2.0\\\",\\\"info\\\": {\\\"title\\\": \\\"test8\\\",\\\"version\\\": \\\"2023-07-11-19:54:22\\\",\\\"host\\\": \\\"9100ae30705947cc9543d37cd7fb388c.apic.cn-north-7.huaweicloudapis.com\\\",\\\"paths\\\": {\\\"/test1\\\": {\\\"get\\\": {\\\"security\\\": [\\\"apig-auth-app\\\"],\\\"apig-auth-app\\\": [\\\"https\\\",\\\"operationId\\\": \\\"API_zjev\\\",\\\"responses\\\": {\\\"default\\\": {\\\"$ref\\\": \\\"#/responses/default\\\",\\\"x-apigateway-result-failure-sample\\\": \\\"\\\",\\\"x-apigateway-result-normal-sample\\\": \\\"\\\",\\\"x-apigateway-backend\\\": {\\\"mockEndpoints\\\": {\\\"description\\\": \\\"\\\",\\\"result-content\\\": \\\"not ok\\\",\\\"type\\\": \\\"MOCK\\\",\\\"x-apigateway-cors\\\": false,\\\"x-apigateway-match-mode\\\": \\\"NORMAL\\\",\\\"x-apigateway-request-type\\\": \\\"public\\\",\\\"responses\\\": {\\\"default\\\": {\\\"description\\\": \\\"response example\\\",\\\"securityDefinitions\\\": {\\\"apig-auth-app\\\": {\\\"type\\\": \\\"apiKey\\\",\\\"name\\\": \\\"Authorization\\\",\\\"in\\\": \\\"header\\\",\\\"x-apigateway-auth-type\\\": \\\"AppSigv1\\\",\\\"apig-auth-app-header\\\": {\\\"type\\\": \\\"apiKey\\\",\\\"name\\\": \\\"Authorization\\\",\\\"in\\\": \\\"header\\\",\\\"x-apigateway-auth-opt\\\": {\\\"appcode-auth-type\\\": \\\"header\\\",\\\"x-apigateway-auth-type\\\": \\\"AppSigv1\\\",\\\"apig-auth-iam\\\": {\\\"type\\\": \\\"apiKey\\\",\\\"name\\\": \\\"unused\\\",\\\"in\\\": \\\"header\\\",\\\"x-apigateway-auth-type\\\": \\\"IAM\\\",\\\"x-apigateway-responses\\\": {}}}}}}}}}}}}"
}
```

- Example 3

```
{
  "task_id" : "f01d2772ea4944408fa544c8ae5a9999",
  "task_status" : "failed",
  "task_type" : "import_api",
  "task_result" : "{\\\"error_code\\\":\\\"APIG.3201\\\",\\\"error_msg\\\":\\\"The API group name already exists\\\"}"
}
```

- Example 4

```
{
  "task_id" : "4dfbf6acaacf4c41a8b3c50daa90d3dc",
  "task_status" : "processing",
  "task_type" : "import_api",
  "task_result" : ""
}
```



- Example 5

```
{
  "task_id": "c3b78a52fb28461aab92bf6c6989f731",
  "task_status": "waiting",
  "task_type": "import_api",
  "task_result": ""
}
```

**Status code: 400**

## Bad Request

```
{
  "error_code": "APIG.2001",
  "error_msg": "The request parameters must be specified,parameterName:task_id. Please refer to the support documentation"
}
```

**Status code: 401**

## Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

## Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

## Not Found

```
{
  "error_code": "APIG.3093",
  "error_msg": "The asynchronous task d9ce8c9eede54b3f841ec324fe0bfdc2 does not exist"
}
```

**Status code: 500**

## Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4.32 Orchestration Rule Management

## 4.32.1 Creating an Orchestration Rule

### Function

This API is used to create an orchestration rule.

### Calling Method

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

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/orchestrations

**Table 4-1952** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-1953** Request header parameters

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

**Table 4-1954** Request body parameters

Parameter	Mandatory	Type	Description
orchestration_name	Yes	String	Orchestration mapping rule name. The name must be 3 to 64 characters long, start with a letter and use only letters, digits, and underscores (_). It must be unique in the same gateway. Minimum: <b>3</b> Maximum: <b>64</b>
orchestration_strategy	Yes	String	Orchestration policy. Options: <ul style="list-style-type: none"> <li>list</li> <li>hash</li> <li>range</li> <li>hash_range</li> <li>none_value</li> <li>default</li> <li>head_n</li> <li>tail_n.</li> </ul> If the orchestration policy is list, the number of objects in orchestration_map multiplied by that in map_param_list cannot exceed 3,000.
orchestration_mapped_param	No	<b>OrchestrationMappedParam</b> object	Parameter configuration after orchestration. This parameter is mandatory when isPreprocessing is set to false.

Parameter	Mandatory	Type	Description
is_preprocessing	No	Boolean	Indicates whether the policy is a preprocessing policy. A preprocessing policy generates only temporary parameters as the input of the subsequent parameter orchestration rule. And it cannot be used as the last orchestration rule except the default orchestration rule.
orchestration_map	No	Array of <b>OrchestrationMap</b> objects	List of orchestration mapping rules. The list contains 1 to 300 characters.  Orchestration mapping rules are prioritized in the same sequence as the the list.  Mapping rules must be unique. If orchestration_strategy is list, map_param_list cannot contain same elements.  Array Length: <b>1 - 300</b>

**Table 4-1955** OrchestrationMappedParam

Parameter	Mandatory	Type	Description
mapped_param_name	Yes	String	Name of the request parameter after orchestration. The value can contain 1 to 128 characters, including letters, digits, and hyphens (-). It must start with a letter and cannot be the same as an existing parameter name. By default, the parameter name is transparently transmitted to the backend.  Minimum: <b>1</b> Maximum: <b>128</b>
mapped_param_type	Yes	String	Type of the parameter after orchestration. The value can be string or number.
mapped_param_location	Yes	String	Position of the orchestrated parameter. The value can be query or header.

**Table 4-1956** OrchestrationMap

Parameter	Mandatory	Type	Description
map_param_list	No	Array of strings	<p>List of parameters after mapping orchestration. This parameter is mandatory when orchestration_strategy is set to list. The list length ranges from 0 to 3000.</p> <p>The value can contain 1 to 128 characters, including letters, digits, hyphens (-), and underscores (_).</p> <p>Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 3000</b></p>
map_param_range	No	<b>OrchestrationMapParamRange</b> object	<p>This parameter is for mapping range configurations of parameters after orchestration and is mandatory if orchestration_strategy is range or hash_range.</p>
mapped_param_value	No	String	<p>The parameter value after orchestration can contain 1 to 128 characters, including only letters and digits.</p> <p>This parameter is optional only when orchestration_strategy is set to hash, head_n, or tail_n, or is_preprocessing is set to false.</p> <p>Minimum: <b>0</b> Maximum: <b>128</b></p>
intercept_length	No	Integer	<p>Truncation length. The value ranges from 1 to 100. This parameter is mandatory when the policy type is head_n or tail_n. If the truncation length is greater than the parameter length, the parameter truncation result is a complete parameter.</p> <p>Minimum: <b>1</b> Maximum: <b>100</b></p>

**Table 4-1957** OrchestrationMapParamRange

Parameter	Mandatory	Type	Description
range_start	No	String	Range start value. The value is a string that can be converted to an integer. After the conversion, the value of range_start ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.
range_end	No	String	Range end value. The value is a string that can be converted to an integer. After the conversion, the value of range_end ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.

## Response Parameters

Status code: 201

**Table 4-1958** Response body parameters

Parameter	Type	Description
orchestration_name	String	Orchestration mapping rule name. The name must be 3 to 64 characters long, start with a letter and use only letters, digits, and underscores (_). It must be unique in the same gateway. Minimum: <b>3</b> Maximum: <b>64</b>

Parameter	Type	Description
orchestration_strategy	String	Orchestration policy. Options: <ul style="list-style-type: none"> <li>list</li> <li>hash</li> <li>range</li> <li>hash_range</li> <li>none_value</li> <li>default</li> <li>head_n</li> <li>tail_n.</li> </ul> <p>If the orchestration policy is list, the number of objects in orchestration_map multiplied by that in map_param_list cannot exceed 3,000.</p>
orchestration_mapped_param	<b>OrchestrationMappedParam</b> object	Parameter configuration after orchestration. This parameter is mandatory when isPreprocessing is set to false.
is_preprocessing	Boolean	Indicates whether the policy is a preprocessing policy. A preprocessing policy generates only temporary parameters as the input of the subsequent parameter orchestration rule. And it cannot be used as the last orchestration rule except the default orchestration rule.
orchestration_map	Array of <b>OrchestrationMap</b> objects	List of orchestration mapping rules. The list contains 1 to 300 characters. Orchestration mapping rules are prioritized in the same sequence as the the list. Mapping rules must be unique. If orchestration_strategy is list, map_param_list cannot contain same elements. Array Length: <b>1 - 300</b>
orchestration_id	String	Orchestration rule ID.
orchestration_create_time	String	Time when an orchestration rule was created.
orchestration_update_time	String	Time when an orchestration rule was updated.

**Table 4-1959** OrchestrationMappedParam

Parameter	Type	Description
mapped_param_name	String	Name of the request parameter after orchestration. The value can contain 1 to 128 characters, including letters, digits, and hyphens (-). It must start with a letter and cannot be the same as an existing parameter name. By default, the parameter name is transparently transmitted to the backend. Minimum: <b>1</b> Maximum: <b>128</b>
mapped_param_type	String	Type of the parameter after orchestration. The value can be string or number.
mapped_param_location	String	Position of the orchestrated parameter. The value can be query or header.

**Table 4-1960** OrchestrationMap

Parameter	Type	Description
map_param_list	Array of strings	List of parameters after mapping orchestration. This parameter is mandatory when orchestration_strategy is set to list. The list length ranges from 0 to 3000. The value can contain 1 to 128 characters, including letters, digits, hyphens (-), and underscores (_). Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 3000</b>
map_param_range	<b>OrchestrationMapParamRange</b> object	This parameter is for mapping range configurations of parameters after orchestration and is mandatory if orchestration_strategy is range or hash_range.
mapped_param_value	String	The parameter value after orchestration can contain 1 to 128 characters, including only letters and digits. This parameter is optional only when orchestration_strategy is set to hash, head_n, or tail_n, or is_preprocessing is set to false. Minimum: <b>0</b> Maximum: <b>128</b>



Parameter	Type	Description
intercept_length	Integer	Truncation length. The value ranges from 1 to 100. This parameter is mandatory when the policy type is head_n or tail_n. If the truncation length is greater than the parameter length, the parameter truncation result is a complete parameter. Minimum: <b>1</b> Maximum: <b>100</b>

**Table 4-1961** OrchestrationMapParamRange

Parameter	Type	Description
range_start	String	Range start value. The value is a string that can be converted to an integer. After the conversion, the value of range_start ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.
range_end	String	Range end value. The value is a string that can be converted to an integer. After the conversion, the value of range_end ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.

**Status code: 400**

**Table 4-1962** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401**

**Table 4-1963** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error description.

**Status code: 403**

**Table 4-1964** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404**

**Table 4-1965** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500**

**Table 4-1966** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

- Creating a **list** orchestration rule

```
{
  "orchestration_name" : "orchestration_demo_1",
  "orchestration_strategy" : "list",
  "orchestration_mapped_param" : {
    "mapped_param_name" : "shared-tag",
    "mapped_param_type" : "number",
    "mapped_param_location" : "header"
  },
  "orchestration_map" : [ {
    "map_param_list" : [ "10001", "10002" ],
    "mapped_param_value" : "1"
  }, {
    "map_param_list" : [ "10003", "10004" ],
```

```
"mapped_param_value" : "2"  
  },  
  "is_preprocessing" : false  
}
```

- Creating a **range** orchestration rule

```
{  
  "orchestration_name" : "orchestration_demo_2",  
  "orchestration_strategy" : "range",  
  "orchestration_mapped_param" : {  
    "mapped_param_name" : "shared-tag",  
    "mapped_param_type" : "number",  
    "mapped_param_location" : "header"  
  },  
  "orchestration_map" : [ {  
    "map_param_range" : {  
      "range_start" : "1",  
      "range_end" : "1000"  
    },  
    "mapped_param_value" : "1"  
  } ]  
}
```

- Creating a **hash** orchestration rule

```
{  
  "orchestration_name" : "orchestration_demo_3",  
  "orchestration_strategy" : "hash",  
  "orchestration_mapped_param" : {  
    "mapped_param_name" : "shared-tag",  
    "mapped_param_type" : "number",  
    "mapped_param_location" : "header"  
  }  
}
```

- Creating a **hash\_range** orchestration rule

```
{  
  "orchestration_name" : "orchestration_demo_4",  
  "orchestration_strategy" : "hash_range",  
  "orchestration_mapped_param" : {  
    "mapped_param_name" : "shared-tag",  
    "mapped_param_type" : "number",  
    "mapped_param_location" : "header"  
  },  
  "orchestration_map" : [ {  
    "map_param_range" : {  
      "range_start" : "1",  
      "range_end" : "1000"  
    },  
    "mapped_param_value" : "1"  
  } ]  
}
```

- Creating a **none\_value** orchestration rule

```
{  
  "orchestration_name" : "orchestration_demo_5",  
  "orchestration_strategy" : "none_value",  
  "orchestration_mapped_param" : {  
    "mapped_param_name" : "shared-tag",  
    "mapped_param_type" : "number",  
    "mapped_param_location" : "header"  
  },  
  "orchestration_map" : [ {  
    "mapped_param_value" : "1"  
  } ]  
}
```

- Creating a **default** orchestration rule

```
{  
  "orchestration_name" : "orchestration_demo_6",
```

```
"orchestration_strategy": "default",
"orchestration_mapped_param": {
  "mapped_param_name": "shared-tag",
  "mapped_param_type": "number",
  "mapped_param_location": "header"
},
"orchestration_map": [ {
  "mapped_param_value": "1"
} ]
}
```

- Creating a **head\_n** orchestration rule

```
{
  "orchestration_name": "orchestration_demo_7",
  "orchestration_strategy": "head_n",
  "orchestration_mapped_param": {
    "mapped_param_name": "shared-tag",
    "mapped_param_type": "number",
    "mapped_param_location": "header"
  },
  "orchestration_map": [ {
    "intercept_length": 10,
    "mapped_param_value": "1"
  } ]
}
```

- Creating a **tail\_n** orchestration rule

```
{
  "orchestration_name": "orchestration_demo_8",
  "orchestration_strategy": "tail_n",
  "orchestration_mapped_param": {
    "mapped_param_name": "shared-tag",
    "mapped_param_type": "number",
    "mapped_param_location": "header"
  },
  "orchestration_map": [ {
    "intercept_length": 10,
    "mapped_param_value": "1"
  } ]
}
```

- Creating a **tail\_n** preprocessing orchestration rule

```
{
  "orchestration_name": "orchestration_demo_8",
  "orchestration_strategy": "tail_n",
  "orchestration_mapped_param": {
    "mapped_param_name": "shared-tag",
    "mapped_param_type": "number",
    "mapped_param_location": "header"
  },
  "orchestration_map": [ {
    "intercept_length": 10
  } ],
  "is_preprocessing": true
}
```

## Example Responses

**Status code: 201**

Created

- Example 1

```
{
  "orchestration_id": "76545e81d9cb4424bf704ef2b0ac7600",
  "orchestration_name": "orchestration_demo_1",
  "orchestration_create_time": "2023-07-02T12:31:23.353Z",
  "orchestration_update_time": "2023-07-02T13:31:23.353Z",
}
```

```
"orchestration_strategy": "list",
"orchestration_mapped_param": {
  "mapped_param_name": "shared-tag",
  "mapped_param_type": "number",
  "mapped_param_location": "header"
},
"orchestration_map": [ {
  "map_param_list": [ "10001", "10002" ],
  "mapped_param_value": "1"
 }, {
  "map_param_list": [ "10003", "10004" ],
  "mapped_param_value": "2"
 } ]
}
```

- Example 2

```
{
  "orchestration_id": "yt655e81d9cb4424bf704ef2b0ac7600",
  "orchestration_name": "orchestration_demo_2",
  "orchestration_create_time": "2023-07-02T12:31:23.353Z",
  "orchestration_update_time": "2023-07-02T13:31:23.353Z",
  "orchestration_strategy": "range",
  "orchestration_mapped_param": {
    "mapped_param_name": "shared-tag",
    "mapped_param_type": "number",
    "mapped_param_location": "header"
  },
  "orchestration_map": [ {
    "map_param_range": {
      "range_start": "1",
      "range_end": "1000"
    },
    "mapped_param_value": "1"
  } ]
}
```

- Example 3

```
{
  "orchestration_id": "a7655e81d9cb4424bf704ef2b0ac7600",
  "orchestration_name": "orchestration_demo_3",
  "orchestration_create_time": "2023-07-02T12:31:23.353Z",
  "orchestration_update_time": "2023-07-02T13:31:23.353Z",
  "orchestration_strategy": "hash",
  "orchestration_mapped_param": {
    "mapped_param_name": "shared-tag",
    "mapped_param_type": "number",
    "mapped_param_location": "header"
  }
}
```

### Status code: 400

#### Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

### Status code: 401

#### Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

### Status code: 403

#### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

#### Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}
```

**Status code: 500**

#### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.32.2 Viewing Orchestration Rules

### Function

This API is used to view orchestration rules.

### Calling Method

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

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/orchestrations

**Table 4-1967** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-1968** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
orchestration_name	No	String	Orchestration rule name.
precise_search	No	String	Parameter name for exact matching. Separate multiple parameter names with commas (.). Only orchestration_name is supported.

Parameter	Mandatory	Type	Description
orchestration_id	No	String	Orchestration rule ID. Separate multiple orchestration rule IDs with commas (,). The maximum number of IDs is the maximum number of rules that can be bound to an API. For details, see "Notes and Constraints" in APIG Service Overview.

## Request Parameters

**Table 4-1969** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1970** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
orchestrations	Array of <b>OrchestrationBaseResp</b> objects	Orchestration rules that are queried.



**Table 4-1971** OrchestrationBaseResp

Parameter	Type	Description
orchestration_name	String	Orchestration mapping rule name. The name must be 3 to 64 characters long, start with a letter and use only letters, digits, and underscores (_). It must be unique in the same gateway. Minimum: <b>3</b> Maximum: <b>64</b>
orchestration_strategy	String	Orchestration policy. Options: <ul style="list-style-type: none"> <li>• list</li> <li>• hash</li> <li>• range</li> <li>• hash_range</li> <li>• none_value</li> <li>• default</li> <li>• head_n</li> <li>• tail_n.</li> </ul> If the orchestration policy is list, the number of objects in orchestration_map multiplied by that in map_param_list cannot exceed 3,000.
orchestration_mapped_param	<b>OrchestrationMappedParam</b> object	Parameter configuration after orchestration. This parameter is mandatory when isPreprocessing is set to false.
is_preprocessing	Boolean	Indicates whether the policy is a preprocessing policy. A preprocessing policy generates only temporary parameters as the input of the subsequent parameter orchestration rule. And it cannot be used as the last orchestration rule except the default orchestration rule.
orchestration_id	String	Orchestration rule ID.
orchestration_create_time	String	Time when an orchestration rule was created.
orchestration_update_time	String	Time when an orchestration rule was updated.

**Table 4-1972** OrchestrationMappedParam

Parameter	Type	Description
mapped_param_name	String	Name of the request parameter after orchestration. The value can contain 1 to 128 characters, including letters, digits, and hyphens (-). It must start with a letter and cannot be the same as an existing parameter name. By default, the parameter name is transparently transmitted to the backend.  Minimum: <b>1</b> Maximum: <b>128</b>
mapped_param_type	String	Type of the parameter after orchestration. The value can be string or number.
mapped_param_location	String	Position of the orchestrated parameter. The value can be query or header.

**Status code: 400**

**Table 4-1973** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401**

**Table 4-1974** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403**

**Table 4-1975** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error description.

**Status code: 404**

**Table 4-1976** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500**

**Table 4-1977** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 2,
  "size": 2,
  "orchestrations": [ {
    "orchestration_id": "76545e81d9cb4424bf704ef2b0ac7600",
    "orchestration_name": "orchestration_demo_1",
    "orchestration_create_time": "2023-07-02T12:31:23.353Z",
    "orchestration_update_time": "2023-07-02T13:31:23.353Z",
    "orchestration_strategy": "list",
    "orchestration_mapped_param": {
      "mapped_param_name": "shared-tag",
      "mapped_param_type": "number",
      "mapped_param_location": "header"
    }
  }, {
    "orchestration_id": "yt655e81d9cb4424bf704ef2b0ac7600",
    "orchestration_name": "orchestration_demo_2",
    "orchestration_create_time": "2023-07-02T12:31:23.353Z",
    "orchestration_update_time": "2023-07-02T13:31:23.353Z",
    "orchestration_strategy": "range",
```

```

"orchestration_mapped_param" : {
  "mapped_param_name" : "shared-tag",
  "mapped_param_type" : "number",
  "mapped_param_location" : "header"
}
}]
}

```

**Status code: 400**

Bad Request

```

{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}

```

**Status code: 401**

Unauthorized

```

{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}

```

**Status code: 403**

Forbidden

```

{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}

```

**Status code: 404**

Not Found

```

{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}

```

**Status code: 500**

Internal Server Error

```

{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}

```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.32.3 Querying Rule Details

#### Function

This API is used to query orchestration rule details.

#### Calling Method

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/orchestrations/{orchestration\_id}

**Table 4-1978** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
orchestration_id	Yes	String	Orchestration rule ID.

## Request Parameters

**Table 4-1979** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-1980** Response body parameters

Parameter	Type	Description
orchestration_name	String	Orchestration mapping rule name. The name must be 3 to 64 characters long, start with a letter and use only letters, digits, and underscores (_). It must be unique in the same gateway. Minimum: <b>3</b> Maximum: <b>64</b>
orchestration_strategy	String	Orchestration policy. Options: <ul style="list-style-type: none"> <li>list</li> <li>hash</li> <li>range</li> <li>hash_range</li> <li>none_value</li> <li>default</li> <li>head_n</li> <li>tail_n.</li> </ul> If the orchestration policy is list, the number of objects in orchestration_map multiplied by that in map_param_list cannot exceed 3,000.
orchestration_mapped_param	<b>OrchestrationMappedParam</b> object	Parameter configuration after orchestration. This parameter is mandatory when isPreprocessing is set to false.

Parameter	Type	Description
is_preprocessing	Boolean	Indicates whether the policy is a preprocessing policy. A preprocessing policy generates only temporary parameters as the input of the subsequent parameter orchestration rule. And it cannot be used as the last orchestration rule except the default orchestration rule.
orchestration_map	Array of <b>OrchestrationMap</b> objects	List of orchestration mapping rules. The list contains 1 to 300 characters. Orchestration mapping rules are prioritized in the same sequence as the the list. Mapping rules must be unique. If orchestration_strategy is list, map_param_list cannot contain same elements. Array Length: <b>1 - 300</b>
orchestration_id	String	Orchestration rule ID.
orchestration_create_time	String	Time when an orchestration rule was created.
orchestration_update_time	String	Time when an orchestration rule was updated.

**Table 4-1981** OrchestrationMappedParam

Parameter	Type	Description
mapped_param_name	String	Name of the request parameter after orchestration. The value can contain 1 to 128 characters, including letters, digits, and hyphens (-). It must start with a letter and cannot be the same as an existing parameter name. By default, the parameter name is transparently transmitted to the backend. Minimum: <b>1</b> Maximum: <b>128</b>
mapped_param_type	String	Type of the parameter after orchestration. The value can be string or number.
mapped_param_location	String	Position of the orchestrated parameter. The value can be query or header.

**Table 4-1982** OrchestrationMap

Parameter	Type	Description
map_param_list	Array of strings	List of parameters after mapping orchestration. This parameter is mandatory when orchestration_strategy is set to list. The list length ranges from 0 to 3000.  The value can contain 1 to 128 characters, including letters, digits, hyphens (-), and underscores (_).  Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 3000</b>
map_param_range	<b>OrchestrationMapParamRange</b> object	This parameter is for mapping range configurations of parameters after orchestration and is mandatory if orchestration_strategy is range or hash_range.
mapped_param_value	String	The parameter value after orchestration can contain 1 to 128 characters, including only letters and digits.  This parameter is optional only when orchestration_strategy is set to hash, head_n, or tail_n, or is_preprocessing is set to false.  Minimum: <b>0</b> Maximum: <b>128</b>
intercept_length	Integer	Truncation length. The value ranges from 1 to 100. This parameter is mandatory when the policy type is head_n or tail_n. If the truncation length is greater than the parameter length, the parameter truncation result is a complete parameter.  Minimum: <b>1</b> Maximum: <b>100</b>

**Table 4-1983** OrchestrationMapParamRange

Parameter	Type	Description
range_start	String	Range start value. The value is a string that can be converted to an integer. After the conversion, the value of range_start ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.



Parameter	Type	Description
range_end	String	Range end value. The value is a string that can be converted to an integer. After the conversion, the value of range_end ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.

**Status code: 400****Table 4-1984** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401****Table 4-1985** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-1986** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-1987** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error description.

**Status code: 500**

**Table 4-1988** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "orchestration_id" : "yt655e81d9cb4424bf704ef2b0ac7600",
  "orchestration_name" : "orchestration_demo_1",
  "orchestration_create_time" : "2023-07-02T12:31:23.353Z",
  "orchestration_update_time" : "2023-07-02T13:31:23.353Z",
  "orchestration_strategy" : "range",
  "orchestration_mapped_param" : {
    "mapped_param_name" : "shared-tag",
    "mapped_param_type" : "number",
    "mapped_param_location" : "header"
  },
  "orchestration_map" : [ {
    "map_param_range" : {
      "range_start" : "1",
      "range_end" : "1000"
    },
    "mapped_param_value" : "1"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
  "error_msg" : "Invalid parameter value,parameterName:domain_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
```

```
"error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3020",
  "error_msg" : "The URL domain does not exist"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**

See [Error Codes](#).

**4.32.4 Updating an Orchestration Rule**

**Function**

This API is used to update an orchestration rule.

**Calling Method**

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

## URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/orchestrations/{orchestration\_id}

**Table 4-1989** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
orchestration_id	Yes	String	Orchestration rule ID.

## Request Parameters

**Table 4-1990** Request header parameters

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

**Table 4-1991** Request body parameters

Parameter	Mandatory	Type	Description
orchestration_name	Yes	String	Orchestration mapping rule name. The name must be 3 to 64 characters long, start with a letter and use only letters, digits, and underscores (_). It must be unique in the same gateway. Minimum: <b>3</b> Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
orchestration_strategy	Yes	String	<p>Orchestration policy. Options:</p> <ul style="list-style-type: none"> <li>list</li> <li>hash</li> <li>range</li> <li>hash_range</li> <li>none_value</li> <li>default</li> <li>head_n</li> <li>tail_n.</li> </ul> <p>If the orchestration policy is list, the number of objects in orchestration_map multiplied by that in map_param_list cannot exceed 3,000.</p>
orchestration_mapped_param	No	<b>OrchestrationMappedParam</b> object	Parameter configuration after orchestration. This parameter is mandatory when isPreprocessing is set to false.
is_preprocessing	No	Boolean	Indicates whether the policy is a preprocessing policy. A preprocessing policy generates only temporary parameters as the input of the subsequent parameter orchestration rule. And it cannot be used as the last orchestration rule except the default orchestration rule.
orchestration_map	No	Array of <b>OrchestrationMap</b> objects	<p>List of orchestration mapping rules. The list contains 1 to 300 characters.</p> <p>Orchestration mapping rules are prioritized in the same sequence as the the list.</p> <p>Mapping rules must be unique. If orchestration_strategy is list, map_param_list cannot contain same elements.</p> <p>Array Length: <b>1 - 300</b></p>

**Table 4-1992** OrchestrationMappedParam

Parameter	Mandatory	Type	Description
mapped_param_name	Yes	String	Name of the request parameter after orchestration. The value can contain 1 to 128 characters, including letters, digits, and hyphens (-). It must start with a letter and cannot be the same as an existing parameter name. By default, the parameter name is transparently transmitted to the backend. Minimum: <b>1</b> Maximum: <b>128</b>
mapped_param_type	Yes	String	Type of the parameter after orchestration. The value can be string or number.
mapped_param_location	Yes	String	Position of the orchestrated parameter. The value can be query or header.

**Table 4-1993** OrchestrationMap

Parameter	Mandatory	Type	Description
map_param_list	No	Array of strings	List of parameters after mapping orchestration. This parameter is mandatory when orchestration_strategy is set to list. The list length ranges from 0 to 3000. The value can contain 1 to 128 characters, including letters, digits, hyphens (-), and underscores (_). Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 3000</b>
map_param_range	No	<b>OrchestrationMapParamRange</b> object	This parameter is for mapping range configurations of parameters after orchestration and is mandatory if orchestration_strategy is range or hash_range.

Parameter	Mandatory	Type	Description
mapped_param_value	No	String	The parameter value after orchestration can contain 1 to 128 characters, including only letters and digits. This parameter is optional only when orchestration_strategy is set to hash, head_n, or tail_n, or is_preprocessing is set to false. Minimum: <b>0</b> Maximum: <b>128</b>
intercept_length	No	Integer	Truncation length. The value ranges from 1 to 100. This parameter is mandatory when the policy type is head_n or tail_n. If the truncation length is greater than the parameter length, the parameter truncation result is a complete parameter. Minimum: <b>1</b> Maximum: <b>100</b>

**Table 4-1994** OrchestrationMapParamRange

Parameter	Mandatory	Type	Description
range_start	No	String	Range start value. The value is a string that can be converted to an integer. After the conversion, the value of range_start ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.
range_end	No	String	Range end value. The value is a string that can be converted to an integer. After the conversion, the value of range_end ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.

## Response Parameters

Status code: 200

**Table 4-1995** Response body parameters

Parameter	Type	Description
orchestration_name	String	Orchestration mapping rule name. The name must be 3 to 64 characters long, start with a letter and use only letters, digits, and underscores (_). It must be unique in the same gateway. Minimum: <b>3</b> Maximum: <b>64</b>
orchestration_strategy	String	Orchestration policy. Options: <ul style="list-style-type: none"> <li>• list</li> <li>• hash</li> <li>• range</li> <li>• hash_range</li> <li>• none_value</li> <li>• default</li> <li>• head_n</li> <li>• tail_n.</li> </ul> If the orchestration policy is list, the number of objects in orchestration_map multiplied by that in map_param_list cannot exceed 3,000.
orchestration_mapped_param	<b>OrchestrationMappedParam</b> object	Parameter configuration after orchestration. This parameter is mandatory when isPreprocessing is set to false.
is_preprocessing	Boolean	Indicates whether the policy is a preprocessing policy. A preprocessing policy generates only temporary parameters as the input of the subsequent parameter orchestration rule. And it cannot be used as the last orchestration rule except the default orchestration rule.
orchestration_map	Array of <b>OrchestrationMap</b> objects	List of orchestration mapping rules. The list contains 1 to 300 characters. Orchestration mapping rules are prioritized in the same sequence as the the list. Mapping rules must be unique. If orchestration_strategy is list, map_param_list cannot contain same elements. Array Length: <b>1 - 300</b>



Parameter	Type	Description
orchestration_id	String	Orchestration rule ID.
orchestration_create_time	String	Time when an orchestration rule was created.
orchestration_update_time	String	Time when an orchestration rule was updated.

**Table 4-1996** OrchestrationMappedParam

Parameter	Type	Description
mapped_param_name	String	Name of the request parameter after orchestration. The value can contain 1 to 128 characters, including letters, digits, and hyphens (-). It must start with a letter and cannot be the same as an existing parameter name. By default, the parameter name is transparently transmitted to the backend. Minimum: <b>1</b> Maximum: <b>128</b>
mapped_param_type	String	Type of the parameter after orchestration. The value can be string or number.
mapped_param_location	String	Position of the orchestrated parameter. The value can be query or header.

**Table 4-1997** OrchestrationMap

Parameter	Type	Description
map_param_list	Array of strings	List of parameters after mapping orchestration. This parameter is mandatory when orchestration_strategy is set to list. The list length ranges from 0 to 3000. The value can contain 1 to 128 characters, including letters, digits, hyphens (-), and underscores (_). Minimum: <b>1</b> Maximum: <b>128</b> Array Length: <b>0 - 3000</b>

Parameter	Type	Description
map_param_range	<b>OrchestrationMapParamRange</b> object	This parameter is for mapping range configurations of parameters after orchestration and is mandatory if orchestration_strategy is range or hash_range.
mapped_param_value	String	The parameter value after orchestration can contain 1 to 128 characters, including only letters and digits.  This parameter is optional only when orchestration_strategy is set to hash, head_n, or tail_n, or is_preprocessing is set to false.  Minimum: <b>0</b> Maximum: <b>128</b>
intercept_length	Integer	Truncation length. The value ranges from 1 to 100. This parameter is mandatory when the policy type is head_n or tail_n. If the truncation length is greater than the parameter length, the parameter truncation result is a complete parameter.  Minimum: <b>1</b> Maximum: <b>100</b>

**Table 4-1998** OrchestrationMapParamRange

Parameter	Type	Description
range_start	String	Range start value. The value is a string that can be converted to an integer. After the conversion, the value of range_start ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.
range_end	String	Range end value. The value is a string that can be converted to an integer. After the conversion, the value of range_end ranges from 0 to 9223372036854775807. And the value of range_start cannot be greater than that of range_end.

**Status code: 400**

**Table 4-1999** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401****Table 4-2000** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-2001** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-2002** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-2003** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

Updating an orchestration rule

```
{
  "orchestration_name": "orchestration_demo_1",
  "orchestration_strategy": "range",
  "orchestration_mapped_param": {
    "mapped_param_name": "shared-tag",
    "mapped_param_type": "number",
    "mapped_param_location": "header"
  },
  "orchestration_map": [ {
    "map_param_range": {
      "range_start": "1",
      "range_end": "1000"
    },
    "mapped_param_value": "1"
  } ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "orchestration_id": "yt655e81d9cb4424bf704ef2b0ac7600",
  "orchestration_name": "orchestration_demo_1",
  "orchestration_create_time": "2023-07-02T12:31:23.353Z",
  "orchestration_update_time": "2023-07-02T13:31:23.353Z",
  "orchestration_strategy": "range",
  "orchestration_mapped_param": {
    "mapped_param_name": "shared-tag",
    "mapped_param_type": "number",
    "mapped_param_location": "header"
  },
  "orchestration_map": [ {
    "map_param_range": {
      "range_start": "1",
      "range_end": "1000"
    },
    "mapped_param_value": "1"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:orchestration_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

#### Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

#### Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}
```

**Status code: 500**

#### Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.32.5 Deleting an Orchestration Rule

### Function

This API is used to delete an orchestration rule.

### Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/orchestrations/  
{orchestration\_id}

**Table 4-2004** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
orchestration_id	Yes	String	Orchestration rule ID.

## Request Parameters

**Table 4-2005** Request header parameters

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

## Response Parameters

**Status code: 400**

**Table 4-2006** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401**

**Table 4-2007** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403**

**Table 4-2008** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404**

**Table 4-2009** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500**

**Table 4-2010** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIG.2012",
```

```
"error_msg" : "Invalid parameter value,parameterName:orchestration_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIG.1005",
  "error_msg" : "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code" : "APIG.3030",
  "error_msg" : "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code" : "APIG.9999",
  "error_msg" : "System error"
}
```

**Status Codes**

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**

See [Error Codes](#).



## 4.32.6 Querying APIs to Which an Orchestration Rule Is Bound

### Function

This API is used to query the APIs to which a specified plug-in has been bound.

- APIs bound with a specified plug-in
- Pagination query
- Fuzzy query by API name

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/orchestrations/  
{orchestration\_id}/attached-apis

**Table 4-2011** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
orchestration_id	Yes	String	Orchestration rule ID.

**Table 4-2012** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
api_name	No	String	API name.
api_id	No	String	App ID

## Request Parameters

**Table 4-2013** Request header parameters

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

## Response Parameters

**Status code: 200**

**Table 4-2014** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
apis	Array of <b>OrchestrationApiInfo</b> objects	APIs to which an orchestration rule has been bound.

**Table 4-2015** OrchestrationApilInfo

Parameter	Type	Description
api_id	String	API ID.
api_name	String	API name. Start with a letter or digit with 3 to 255 characters. Only letters, digits, and these special characters are allowed: -_/:() <b>NOTE</b> Chinese characters must be in UTF-8 or Unicode format.
req_method	String	Request method.
req_uri	String	Request address. It can contain request parameters enclosed with braces ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), slashes (/), percent signs (%), hyphens (-), underscores (_), and periods (.), are allowed. It can contain a maximum of 512 characters and must comply with the URI specifications. Environment variables are supported. Each must start with a letter and can consist of 3 to 32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. <b>NOTE</b> The address must comply with the URI specifications.
auth_type	String	API authentication mode. Options: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER</li> </ul>
match_mode	String	API matching mode. Options: <ul style="list-style-type: none"> <li>• SWA: prefix match</li> <li>• NORMAL: normal match (absolute match)</li> </ul> Default: NORMAL
group_id	String	ID of the API group to which an API belongs.
group_name	String	Name of the API group to which the API belongs.
attached_time	String	Binding time.

**Status code: 400**

**Table 4-2016** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 401****Table 4-2017** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 403****Table 4-2018** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 404****Table 4-2019** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

**Status code: 500****Table 4-2020** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error description.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "apis": [{
    "api_id": "8aa097b00e9843efabc9c593d11b769d",
    "api_name": "api_demo",
    "req_method": "GET",
    "req_uri": "/test",
    "auth_type": "IAM",
    "match_mode": "NORMAL",
    "group_id": "b9be707660c5406394f8973e087bae20",
    "group_name": "group_demo",
    "attached_time": "2023-07-02T12:31:23.353Z"
  }]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:instance_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIG.3030",
  "error_msg": "The instance does not exist;id:f0fa1789-3b76-433b-a787-9892951c620ec"
}
```

**Status code: 500**

Internal Server Error

```
{  
  "error_code" : "APIG.9999",  
  "error_msg" : "System error"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.33 Gateway Custom Inbound Port Management

### 4.33.1 Querying the Domain Name Bound to a Custom Inbound Port

#### Function

This API is used to query the domain name bound to a custom inbound port.

#### Calling Method

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

#### URI

```
GET /v2/{project_id}/apigw/instances/{instance_id}/custom-ingress-ports/  
{ingress_port_id}/domains
```

**Table 4-2021** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
ingress_port_id	Yes	String	Gateway inbound port ID.

**Table 4-2022** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
domain_name	No	String	The domain name of the inbound port. Minimum: <b>0</b> Maximum: <b>255</b>

## Request Parameters

**Table 4-2023** Request header parameters

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

## Response Parameters

Status code: 200

**Table 4-2024** Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.
total	Long	Number of resources that match the query conditions.
domain_infos	Array of <a href="#">PortBindingDomainInfo</a> objects	Information list of domain names bound to the inbound port.

**Table 4-2025** PortBindingDomainInfo

Parameter	Type	Description
group_id	String	ID of the API group to which the inbound port is bound. Minimum: <b>0</b> Maximum: <b>64</b>
group_name	String	Name of the API group to which the inbound port is bound. Minimum: <b>3</b> Maximum: <b>255</b>
domain_name	String	Domain names bound to the inbound port. Minimum: <b>0</b> Maximum: <b>255</b>



**Status code: 400**

**Table 4-2026** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-2027** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-2028** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-2029** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total": 1,
  "size": 1,
  "domain_infos": [ {
    "group_id": "73c58022f20d495aa18885d718647f09",
    "group_name": "group_01",
    "domain_name": "test.com"
  } ]
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIG.2012",
  "error_msg": "Invalid parameter value,parameterName:ingress_port_id. Please refer to the support documentation"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIG.1002",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIG.1005",
  "error_msg": "No permissions to request this method"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIG.9999",
  "error_msg": "System error"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 4.33.2 Querying the Custom Inbound Ports of a Gateway

### Function

This API is used to query the custom inbound ports of a gateway.

### Calling Method

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

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/custom-ingress-ports

**Table 4-2030** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 4-2031** Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Long	Offset from which the query starts. If the value is less than 0, it is automatically converted to 0. Default: <b>0</b>

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of items displayed on each page. A value less than or equal to 0 will be automatically converted to 20, and a value greater than 500 will be automatically converted to 500. Minimum: <b>1</b> Maximum: <b>500</b> Default: <b>20</b>
protocol	No	String	Request protocol of inbound ports. <ul style="list-style-type: none"><li>• HTTP: The inbound port uses HTTP.</li><li>• HTTPS: The inbound port uses HTTPS.</li></ul>
ingress_port	No	Integer	Inbound port number. The value ranges from 1024 to 49151. Minimum: <b>1024</b> Maximum: <b>49151</b>

## Request Parameters

Table 4-2032 Request header parameters

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

## Response Parameters

Status code: 200

Table 4-2033 Response body parameters

Parameter	Type	Description
size	Integer	Length of the returned resource list.

Parameter	Type	Description
total	Long	Number of resources that match the query conditions.
ingress_port_infos	Array of <a href="#">IngressPortInfo</a> objects	Custom inbound ports.

**Table 4-2034** IngressPortInfo

Parameter	Type	Description
protocol	String	Custom inbound port protocol. <ul style="list-style-type: none"> <li>HTTP: The inbound port uses HTTP.</li> <li>HTTPS: The inbound port uses HTTPS.</li> </ul>
ingress_port	Integer	Inbound port number. The value ranges from 1024 to 49151. Minimum: <b>1024</b> Maximum: <b>49151</b>
ingress_port_id	String	Inbound port ID. Minimum: <b>32</b> Maximum: <b>36</b>
status	String	The status of the custom inbound port. <ul style="list-style-type: none"> <li>normal: The inbound port is normal.</li> <li>abnormal: The inbound port is abnormal and cannot be used.</li> </ul>

**Status code: 401**

**Table 4-2035** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-2036** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-2037** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "total" : 1,
  "size" : 1,
  "ingress_port_infos" : [ {
    "protocol" : "HTTP",
    "ingress_port" : 8080,
    "ingress_port_id" : "0ae98839d78043d8a6dff54d7cb096dc",
    "status" : "normal"
  } ]
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code" : "APIC.7102",
  "error_msg" : "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 500**

## Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.33.3 Adding an Inbound Port for a Gateway

## Function

This API is used to add an inbound port for a gateway. In the same gateway, a port can only support one protocol.

## Calling Method

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

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/custom-ingress-ports

**Table 4-2038** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 4-2039** Request header parameters

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

**Table 4-2040** Request body parameters

Parameter	Mandatory	Type	Description
protocol	Yes	String	Custom inbound port protocol. <ul style="list-style-type: none"> <li>• HTTP: The inbound port uses HTTP.</li> <li>• HTTPS: The inbound port uses HTTPS.</li> </ul>
ingress_port	Yes	Integer	Inbound port number. The value ranges from 1024 to 49151. Minimum: <b>1024</b> Maximum: <b>49151</b>

## Response Parameters

Status code: 201

**Table 4-2041** Response body parameters

Parameter	Type	Description
protocol	String	Custom inbound port protocol. <ul style="list-style-type: none"> <li>• HTTP: The inbound port uses HTTP.</li> <li>• HTTPS: The inbound port uses HTTPS.</li> </ul>
ingress_port	Integer	Inbound port number. The value ranges from 1024 to 49151. Minimum: <b>1024</b> Maximum: <b>49151</b>



Parameter	Type	Description
ingress_port_id	String	Inbound port ID. Minimum: <b>32</b> Maximum: <b>36</b>
status	String	The status of the custom inbound port. <ul style="list-style-type: none"><li>• normal: The inbound port is normal.</li><li>• abnormal: The inbound port is abnormal and cannot be used.</li></ul>

**Status code: 400****Table 4-2042** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401****Table 4-2043** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403****Table 4-2044** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-2045** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500****Table 4-2046** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

Adding an inbound port for a gateway

```
{
  "protocol": "HTTP",
  "ingress_port": 8080
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "protocol": "HTTP",
  "ingress_port": 8080,
  "ingress_port_id": "0ae98839d78043d8a6dff54d7cb096dc",
  "status": "normal"
}
```

**Status code: 400**

Bad Request

```
{
  "error_code": "APIC.7211",
  "error_msg": "Parameter value does not match the rules, parameter name[protocol]"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIC.7102",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

#### Forbidden

```
{
  "error_code" : "APIC.7106",
  "error_msg" : "No permissions to request for the method"
}
```

**Status code: 404**

#### Not Found

```
{
  "error_code" : "APIC.7302",
  "error_msg" : "Instance not found"
}
```

**Status code: 500**

#### Internal Server Error

```
{
  "error_code" : "APIC.9000",
  "error_msg" : "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 4.33.4 Deleting an Inbound Port of a Gateway

#### Function

This API is used to delete an inbound port of a gateway, not including ports 80 and 443.

#### Calling Method

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

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/custom-ingress-ports/{ingress\_port\_id}

**Table 4-2047** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see <a href="#">Obtaining a Project ID</a> .
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
ingress_port_id	Yes	String	Gateway inbound port ID.

## Request Parameters

**Table 4-2048** Request header parameters

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

## Response Parameters

**Status code: 400**

**Table 4-2049** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 401**

**Table 4-2050** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 403**

**Table 4-2051** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 404**

**Table 4-2052** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 500**

**Table 4-2053** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

## Example Requests

None

## Example Responses

**Status code: 400**

Bad Request

```
{
  "error_code" : "APIC.7211",
```

```
{
  "error_msg": "Parameter value does not match the rules, parameter name[ingress_port_id]"
}
```

**Status code: 401**

Unauthorized

```
{
  "error_code": "APIC.7102",
  "error_msg": "Incorrect token or token resolution failed"
}
```

**Status code: 403**

Forbidden

```
{
  "error_code": "APIC.7106",
  "error_msg": "No permissions to request for the method"
}
```

**Status code: 404**

Not Found

```
{
  "error_code": "APIC.7302",
  "error_msg": "Instance not found"
}
```

**Status code: 500**

Internal Server Error

```
{
  "error_code": "APIC.9000",
  "error_msg": "Failed to request internal service"
}
```

## Status Codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 5 Shared Gateway APIs (for Existing Users)

## 5.1 API Group Management

### 5.1.1 Object Model

This section describes the object model for API groups.

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of **C** is mandatory.

**Table 5-1** Object model for API groups

Parameter	Data Type	Description	Operation Type	Mandatory
ID	String	API group ID	R	-
NAME	String	API group name	CRU	Yes
STATUS	Integer	Status of the API group, which can be: <ul style="list-style-type: none"><li>• <b>1</b>: normal</li><li>• <b>2</b>: disabled</li><li>• <b>3</b>: deleted</li></ul> Default value: <b>1</b> This parameter is not used currently.	R	-

Parameter	Data Type	Description	Operation Type	Mandatory
SL_DOMAIN	String	Subdomain name that APIG automatically allocates to the API group. The subdomain name cannot be modified.	R	-
SL_DOMAINS	Array of strings	List of subdomain names that APIG automatically allocates to the API group. These subdomain names cannot be modified.	R	-
PROJECT_ID	String	ID of the tenant that creates the API group, that is, the owner of the API group	-	-
DOMAIN_NAME	String	Name of the tenant that creates the API group		
REGISTER_TIME	Timestamp	Time when the API group is created. The value of this parameter is generated by the system by default.	R	-
UPDATE_TIME	Timestamp	Time when the API group was last modified	R	-
REMARK	String	Description of the API group, such as functions and usage	CRU	No
THROTTLE_ID	String	ID of the request throttling policy that controls the number of times APIs in the API group can be accessed within a specified period  <b>NOTE</b> The value of this parameter indicates the total number of times all APIs in the API group can be accessed within a specified period, and not the number of times each API can be accessed within the period.	RU	-



## 5.1.2 Creating an API Group

### Function

This API is used to create an API group. An API group is an API management unit and the entry to a service. A subdomain name is returned as the access entry when an API group is created. APIs in an API group should be correlated with each other.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-2** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/api-groups

### Request

**Table 5-3** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	API group name An API group name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
remark	No	String	Description of the API group The description cannot exceed 255 characters.

Example request:

```
{
  "name": "api_group_001",
  "remark": "API group 1"
}
```

## Response

**Table 5-4** Parameter description

Parameter	Type	Description
id	String	API group ID
name	String	API group name
status	Integer	Status of the API group
sl_domain	String	Subdomain name that APIG automatically allocates to the API group
sl_domains	Array of strings	List of subdomain names that APIG automatically allocates to the API group
register_time	Timestamp	Time when the API group is created
update_time	Timestamp	Time when the API group was last modified
remark	String	Description of the API group
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. The value can be: <ul style="list-style-type: none"><li>● 1: listed</li><li>● 2: not listed</li><li>● 3: under approval</li></ul>
call_limits	Integer	Total number of times all APIs in the API group can be accessed. Set this parameter while considering the payload capacity of the backend service. By default, there is no limit on the number of API calls.
time_interval	Integer	Period of time for limiting the number of API calls
time_unit	String	Time unit for limiting the number of API calls
url_domains	Array of <a href="#">UrlDomainsResp</a> objects	List of independent domain names bound to the API group
is_default	Integer	Indicates whether the API group is the default API group. By default, the API group is not the default API group. The value can be: <ul style="list-style-type: none"><li>● 1: default API group</li><li>● 2: non-default API group</li></ul>

**Table 5-5** UrlDomainsResp

Parameter	Type	Description
id	String	Domain ID
domain	String	Domain name
cname_status	Integer	CNAME resolution status of the domain name, which can be: <ul style="list-style-type: none"> <li>● 1: not resolved</li> <li>● 2: resolving</li> <li>● 3: resolved</li> <li>● 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID
ssl_name	String	SSL certificate name

Example response:

```
{
  "id": "7efb2b91-155a-4f6a-9f45-c5c95a6e4950",
  "name": "api_group_001",
  "status": 1,
  "sl_domain": "0e91b83b-0774-4e8e-b187-2d695ed4743b.apigw.example.com",
  "sl_domains": ["0e91b83b-0774-4e8e-b187-2d695ed4743b.apigw.example.com", "0e91b83b-0774-4e8e-b187-2d695ed4743b.apigw.example.cn"],
  "remark": "API group 1",
  "register_time": "2017-12-28T11:44:53.831282304Z",
  "update_time": "2017-12-28T11:44:53.831283436Z",
  "on_sell_status": 2,
  "is_default": 2
}
```

## Status Codes

**Table 5-6** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

## 5.1.3 Modifying an API Group

### Function

This API is used to modify the attributes of an API group. Only the **name** and **remark** attributes of an API group can be modified.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-7** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/api-groups/{id}

The following table lists the parameter in the URI.

**Table 5-8** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	API group ID

### Request

**Table 5-9** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	API group name An API group name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
remark	No	String	Description of the API group The description cannot exceed 255 characters.

Example request:

```
{
  "name": "api_group_001",
  "remark": "API group 001"
}
```

## Response

**Table 5-10** Parameter description

Parameter	Type	Description
id	String	API group ID
name	String	API group name
status	Integer	Status of the API group
sl_domain	String	Subdomain name that APIG automatically allocates to the API group
sl_domains	String	List of subdomain names that APIG automatically allocates to the API group
register_time	Timestamp	Time when the API group is created
update_time	Timestamp	Time when the API group was last modified
remark	String	Description of the API group
call_limits	Integer	Total number of times all APIs in the API group can be accessed. Set this parameter while considering the payload capacity of the backend service. By default, there is no limit on the number of API calls.
time_interval	Integer	Period of time for limiting the number of API calls
time_unit	String	Time unit for limiting the number of API calls
url_domains	Array of <a href="#">UrlDomainsResp</a> objects	List of independent domain names bound to the API group
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. The value can be: <ul style="list-style-type: none"><li>● 1: listed</li><li>● 2: not listed</li><li>● 3: under approval</li></ul>
is_default	Integer	Indicates whether the API group is the default API group. By default, the API group is not the default API group. The value can be: <ul style="list-style-type: none"><li>● 1: default API group</li><li>● 2: non-default API group</li></ul>

**Table 5-11** UrlDomainsResp

Parameter	Type	Description
id	String	Domain ID
domain	String	Domain name
cname_status	Integer	CNAME resolution status of the domain name, which can be: <ul style="list-style-type: none"><li>● 1: not resolved</li><li>● 2: in progress</li><li>● 3: successful</li><li>● 4: failed</li></ul>
ssl_id	String	ID of the SSL certificate
ssl_name	String	Name of the SSL certificate

Example response:

```
{
  "id": "7efb2b91-155a-4f6a-9f45-c5c95a6e4950",
  "name": "api_group_001",
  "status": 1,
  "sl_domain": "0e91b83b-0774-4e8e-b187-2d695ed4743b.apigw.example.com",
  "sl_domains": ["0e91b83b-0774-4e8e-b187-2d695ed4743b.apigw.example.com", "0e91b83b-0774-4e8e-b187-2d695ed4743b.apigw.example.cn"],
  "remark": "API group 001",
  "register_time": "2017-12-28T11:44:53Z",
  "update_time": "2017-12-28T11:49:01.048600577Z",
  "on_sell_status": 2,
  "is_default": 2
}
```

## Status Codes

**Table 5-12** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Server Internal Error

## 5.1.4 Deleting an API Group

### Function

This API is used to delete an API group.

If the group to delete contains APIs, take the APIs offline and delete them.

All resources (independent domain names, SSL certificates, and release information) directly or indirectly associated with the group will be deleted. The operation will unbind the external domain names from the subdomain name based on the CNAME resolution mode.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-13** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/api-groups/{id}

The following table lists the parameter in the URI.

**Table 5-14** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	API group ID

### Request

N/A

### Response

N/A

### Status Codes

**Table 5-15** Status codes

Status Code	Description
204	No Content
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
409	Conflict
500	Server Internal Error

## 5.1.5 Querying Details of an API Group

### Function

This API is used to query the details of an API group.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-16** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/api-groups/{id}

The following table lists the parameter in the URI.

**Table 5-17** Parameter description

Parameter	Mandator y	Type	Description
id	Yes	String	API group ID

### Request

N/A

### Response

**Table 5-18** Parameter description

Parameter	Type	Description
id	String	API group ID



Parameter	Type	Description
name	String	API group name
status	Integer	Status of the API group
sl_domain	String	Subdomain name that APIG automatically allocates to the API group
sl_domains	Array of strings	List of subdomain names that APIG automatically allocates to the API group
register_time	Timestamp	Time when the API group is created
update_time	Timestamp	Time when the API group was last modified
remark	String	Description of the API group
call_limits	Integer	Total number of times all APIs in the API group can be accessed. Set this parameter while considering the payload capacity of the backend service. By default, there is no limit on the number of API calls.
time_interval	Integer	Period of time for limiting the number of API calls
time_unit	String	Time unit for limiting the number of API calls
url_domains	Array of <a href="#">UrlDomainsResp</a> objects	List of independent domain names bound to the API group
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. The value can be: <ul style="list-style-type: none"> <li>• 1: listed</li> <li>• 2: not listed</li> <li>• 3: under approval</li> </ul>

**Table 5-19** UrlDomainsResp

Parameter	Type	Description
id	String	Domain ID
domain	String	Domain name
cname_status	Integer	CNAME resolution status of the domain name, which can be: <ul style="list-style-type: none"> <li>• 1: not resolved</li> <li>• 2: in progress</li> <li>• 3: successful</li> <li>• 4: failed</li> </ul>

Parameter	Type	Description
ssl_id	String	SSL certificate ID
ssl_name	String	SSL certificate name

Example response:

```
{
  "id": "7efb2b91-155a-4f6a-9f45-c5c95a6e4950",
  "name": "api_group_001",
  "status": 1,
  "sl_domain": "0e91b83b-0774-4e8e-b187-2d695ed4743b.apigw.example.com",
  "sl_domains": ["0e91b83b-0774-4e8e-b187-2d695ed4743b.apigw.example.com", "0e91b83b-0774-4e8e-b187-2d695ed4743b.apigw.example.cn"],
  "remark": "API group 001",
  "register_time": "2017-12-28T11:44:53Z",
  "update_time": "2017-12-28T11:49:01.048601Z",
  "call_limits": 1000,
  "time_interval": 1,
  "time_unit": "SECOND",
  "on_sell_status": 2
}
```

## Status Codes

Table 5-20 Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.1.6 Querying the API Group List

### Function

This API is used to query the API group list.

If the operation is performed by a tenant, all groups of the tenant are queried. If the operation is performed by a tenant administrator, the groups of all tenants are queried.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-21** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/api-groups[?page_size, page_no, id, name]

 **NOTE**

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **id**, **name**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-22** Parameter description

Parameter	Mandatory	Type	Description
id	No	String	API group ID
name	No	String	API group name
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> . Maximum value: <b>500</b>
page_no	No	Integer	Page number. The default value is <b>1</b> .
precise_search	No	String	Parameter name for exact matching

## Request

N/A

## Response

**Table 5-23** Parameter description

Parameter	Type	Description
total	Integer	Number of API groups that match the query conditions

Parameter	Type	Description
size	Integer	Length of the returned API group list
groups	Dictionary	API group list

**Table 5-24** API group parameter description

Parameter	Type	Description
id	String	API group ID
name	String	API group name
status	Integer	API group status
sl_domain	String	Subdomain name that APIG automatically allocates to the API group
sl_domains	Array of strings	List of subdomain names that APIG automatically allocates to the API group
register_time	Timestamp	Time when the API group is created
update_time	Timestamp	Time when the API group was last modified
remark	String	Description of the API group
on_sell_status	Integer	Indicates whether the API group has been listed on KooGallery. The value can be: <ul style="list-style-type: none"> <li>• 1: listed</li> <li>• 2: not listed</li> <li>• 3: under approval</li> </ul>
call_limits	Integer	Total number of times all APIs in the API group can be accessed. Set this parameter while considering the payload capacity of the backend service. By default, there is no limit on the number of API calls.
time_interval	Integer	Period of time for limiting the number of API calls
time_unit	String	Time unit for limiting the number of API calls
url_domains	Array of <a href="#">UrlDomainsResp</a> objects	List of independent domain names bound to the API group

**Table 5-25** UrlDomainsResp

Parameter	Type	Description
id	String	Domain ID
domain	String	Domain name
cname_status	Integer	CNAME resolution status of the domain name, which can be: <ul style="list-style-type: none"> <li>● 1: not resolved</li> <li>● 2: resolving</li> <li>● 3: resolved</li> <li>● 4: resolution failed</li> </ul>
ssl_id	String	SSL certificate ID
ssl_name	String	SSL certificate name

Example response:

```
{
  "total": 2,
  "size": 2,
  "groups": [{
    "id": "02a8ab3c-b278-4de5-a096-852829671ae7",
    "name": "api_group_002",
    "status": 1,
    "sl_domain": "19e62eca-43d9-4ce2-a478-b3f48e67fb91.apigw.example.com",
    "sl_domains": ["19e62eca-43d9-4ce2-a478-
b3f48e67fb91.apigw.example.com","19e62eca-43d9-4ce2-a478-b3f48e67fb91.apigw.example.cn"],
    "remark": "API group 002",
    "register_time": "2017-12-28T11:57:35Z",
    "update_time": "2017-12-28T11:57:35Z",
    "on_sell_status": 2
  },
  {
    "id": "73c58022-f20d-495a-a188-85d718647f09",
    "name": "api_group_001",
    "status": 1,
    "sl_domain": "c4c230d1-a8f2-4816-b9df-09ac5989180c.apigw.example.com",
    "sl_domains": ["c4c230d1-a8f2-4816-b9df-09ac5989180c.apigw.example.com","c4c230d1-
a8f2-4816-b9df-09ac5989180c.apigw.example.cn"],
    "remark": "API group 001",
    "register_time": "2017-12-28T11:57:27Z",
    "update_time": "2017-12-28T11:57:27Z",
    "on_sell_status": 2
  }
  ]
}
```

## Status Codes

**Table 5-26** Status codes

Status Code	Description
200	OK

Status Code	Description
400	Bad Request
401	Unauthorized
500	Server Internal Error

## 5.2 API Management

### 5.2.1 Object Model

This section describes the API and backend service object models.

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

Table 5-27 API object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	API ID	R	-
name	String	API name	CRU	Yes
group_id	String	ID of the API group to which the API belongs	CR	Yes
type	Integer	Type of the API, which can be: <ul style="list-style-type: none"><li>• 1: public</li><li>• 2: private</li></ul>	CRU	Yes
status	Integer	Status of the API, which can be: <ul style="list-style-type: none"><li>• 1: enabled</li><li>• 2: disabled</li><li>• 3: deleted</li></ul> Default value: 1 This parameter is not used currently.	R	-
version	String	Version of the API	CRU	No

Parameter	Type	Description	Operation Type	Mandatory
req_protocol	String	Request protocol, which can be: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> <li>• <b>BOTH</b>: The API can be accessed through both HTTP and HTTPS.</li> </ul> Default value: <b>HTTPS</b>	CRU	No
req_method	String	Request method, which can be: <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> <li>• ANY</li> </ul>	CRU	Yes
req_uri	String	Access address (URI) of the API, excluding the domain name, port number, and request protocol	CRU	Yes
auth_type	String	Security authentication mode, which can be: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER</li> </ul>	CRU	Yes
authorizer_id	String	ID of the frontend custom authorizer	CRU	No
match_mode	String	Route matching mode, which can be: <ul style="list-style-type: none"> <li>• <b>SWA</b>: prefix match</li> <li>• <b>NORMAL</b>: exact match</li> </ul>	CRU	Yes

Parameter	Type	Description	Operation Type	Mandatory
arrange_necessary	Integer	Indicates whether orchestration is required. The value can be: <ul style="list-style-type: none"> <li>• <b>1</b>: yes</li> <li>• <b>2</b>: no</li> </ul> Default value: <b>2</b>	R	-
backend_type	String	Backend type, which can be: <ul style="list-style-type: none"> <li>• HTTP (web)</li> <li>• FUNCTION</li> <li>• MOCK</li> </ul>	CRU	Yes
register_time	Timestamp	Time when the API was created	R	-
update_time	Timestamp	Time when the API was last modified	R	-
remark	String	Description of the API	CRU	No
tag	String	API tag	CRU	No
cors	String	Indicates whether cross-origin resource sharing (CORS) is supported <ul style="list-style-type: none"> <li>• <b>TRUE</b>: supported</li> <li>• <b>FALSE</b>: not supported</li> </ul> Default value: <b>FALSE</b>	CRU	No
response_id	String	ID of the custom response	CRU	No

**Table 5-28** Web backend object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Web backend ID	R	-



Parameter	Type	Description	Operation Type	Mandatory
status	Integer	Status of the web backend, which can be: <ul style="list-style-type: none"> <li>• 1: enabled</li> <li>• 2: disabled</li> <li>• 3: deleted</li> </ul> Default value: 1 This parameter is not used currently.	R	-
version	String	Version of the web backend	CRU	No
url_domain	String	Backend endpoint	CRU	Yes
req_protocol	String	Request protocol, which can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>	CRU	Yes
req_method	String	Request method, which can be: <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> <li>• ANY</li> </ul>	CRU	Yes
req_uri	String	Access address (URI) of the web backend	CRU	Yes
timeout	Integer	Timeout duration in milliseconds. Range: 1-60,000.	CRU	Yes
front_api_id	String	API ID	R	-
register_time	Timestamp	Creation time	R	-
update_time	Timestamp	Time when the web backend was last modified	R	-
remark	String	Description of the web backend	CRU	No

Parameter	Type	Description	Operation Type	Mandatory
vpc_status	Integer	Indicates whether to use a VPC channel. The value can be: <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>	CRU	No. No VPC channel is used by default.
vpc_info	String	VPC channel information	CRU	No. This parameter is required only when <b>vpc_status</b> is set to 1.
authorizer_id	String	ID of the backend custom authorizer	CRU	No

**Table 5-29** Mock backend object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Mock backend ID	R	-
front_api_id	String	API ID	R	-
status	Integer	Status of the Mock backend, which can be: <ul style="list-style-type: none"> <li>• 1: enabled</li> <li>• 2: disabled</li> <li>• 3: deleted</li> </ul> Default value: 1 This parameter is not used currently.	R	-
version	String	Version of the Mock backend	CRU	No
result_content	String	Mock response	CRU	No

Parameter	Type	Description	Operation Type	Mandatory
register_time	Timestamp	Creation time	R	-
update_time	Timestamp	Time when the Mock backend was last modified	R	-
remark	String	Description of the Mock backend	CRU	No

**Table 5-30** FunctionGraph backend object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Function ID	R	-
front_api_id	String	API ID	R	-
status	Integer	Status of the function, which can be: <ul style="list-style-type: none"> <li>• 1: enabled</li> <li>• 2: disabled</li> <li>• 3: deleted</li> </ul> Default value: 1 This parameter is not used currently.	R	-
version	String	Function version	CRU	No
function_urn	String	Function URN	CRU	Yes
invocation_type	String	Invocation mode, which can be <b>async</b> or <b>sync</b>	CRU	Yes
timeout	Integer	Timeout duration in milliseconds. Range: 1–60,000.	CRU	Yes
register_time	Date	Creation time	R	-
update_time	Date	Time when the function was last modified	R	-
remark	String	Description of the function	CRU	No

**Table 5-31** Request parameter object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Parameter ID	R	-
front_api_id	String	API ID	R	-
name	String	Parameter name	CRU	Yes
type	String	Parameter type, which can be: <ul style="list-style-type: none"> <li>string</li> <li>number</li> </ul>	CRU	Yes
location	String	Parameter location, which can be: <ul style="list-style-type: none"> <li>PATH</li> <li>QUERY</li> <li>HEADER</li> <li>FORMDATA</li> </ul>	CRU	Yes
default_value	String	Default value	CRU	No
sample_value	String	Example value	CRU	No
required	Integer	Whether the parameter is mandatory <ul style="list-style-type: none"> <li>1: yes</li> <li>2: no</li> </ul>	CRU	Yes
valid_enable	Integer	Whether validity check is enabled <ul style="list-style-type: none"> <li>1: yes</li> <li>2: no</li> </ul>	CRU	Yes
remark	String	Parameter description	CRU	No
enumerations	String	Enumerated value	CRU	No
min_num	String	Minimum value	CRU	No
max_num	String	Maximum value	CRU	No
min_size	Integer	Minimum length	CRU	No
max_size	Integer	Maximum length	CRU	No
regular	String	Regular verification rule (currently not supported)	CRU	No
json_schema	String	JSON verification rule (currently not supported)	CRU	No

**Table 5-32** Backend parameter object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Parameter ID	R	-
front_api_id	String	API ID	R	-
req_param_id	String	ID of the request parameter to which the backend parameter is mapped	R	-
name	String	Parameter name	CRU	Yes
location	String	Parameter location, which can be: <ul style="list-style-type: none"> <li>• PATH</li> <li>• QUERY</li> <li>• HEADER</li> <li>• FORMDATA</li> </ul>	CRU	Yes
origin	String	Parameter type, which can be: <ul style="list-style-type: none"> <li>• REQUEST</li> <li>• CONSTANT</li> <li>• SYSTEM</li> </ul>	CRU	Yes
value	String	Parameter value <ul style="list-style-type: none"> <li>• If <b>origin</b> is set to <b>REQUEST</b>, the value is the name of the request parameter.</li> <li>• If <b>origin</b> is set to <b>SYSTEM</b>, the value is the name of the gateway parameter.</li> <li>• If <b>origin</b> is set to <b>CONSTANT</b>, the value is the real value of the backend parameter.</li> </ul>	CRU	No
remark	String	Parameter description	CRU	No
policy_id	String	ID of the associated policy condition	CRU	No

**Table 5-33** Web backend policy object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Backend ID	R	-
front_api_id	String	API ID	R	-
name	String	Backend name	CRU	Yes
url_domain	String	Backend endpoint	CRU	Yes
req_protocol	String	Request protocol, which can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>	CRU	Yes
req_method	String	Request method, which can be: <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> <li>• ANY</li> </ul>	CRU	Yes
req_uri	String	Access address (URI) of the web backend	CRU	Yes
timeout	Integer	Timeout duration in milliseconds. Range: 1-60,000.	CRU	No
vpc_status	Integer	Indicates whether to use a VPC channel. The value can be: <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>	CRU	No. No VPC channel is used by default.

Parameter	Type	Description	Operation Type	Mandatory
vpc_info	String	VPC channel information	CRU	No This parameter is required only when <b>vpc_status</b> is set to <b>1</b> .
effect_mode	String	Effective mode of the backend policy <ul style="list-style-type: none"> <li>• ALL</li> <li>• ANY</li> </ul>	CRU	Yes

**Table 5-34** Mock backend policy object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Backend ID	R	-
front_api_id	String	API ID	R	-
name	String	Backend name	CRU	Yes
result_content	String	Mock response	CRU	No
effect_mode	String	Effective mode of the backend policy <ul style="list-style-type: none"> <li>• ALL</li> <li>• ANY</li> </ul>	CRU	Yes

**Table 5-35** FunctionGraph policy backend object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Backend ID	R	-
front_api_id	String	API ID	R	-
name	String	Backend name	CRU	Yes

Parameter	Type	Description	Operation Type	Mandatory
version	String	Function version	CRU	No
function_urn	String	Function URN	CRU	Yes
invocation_type	String	Invocation mode, which can be <b>async</b> or <b>sync</b>	CRU	Yes
timeout	Integer	Timeout duration in milliseconds. Range: 1–60,000.	CRU	Yes
effect_mode	String	Effective mode of the backend policy <ul style="list-style-type: none"> <li>• ALL</li> <li>• ANY</li> </ul>	CRU	Yes

**Table 5-36** Backend policy condition object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Backend policy condition ID	R	-
condition_type	String	Condition type. Options: <ul style="list-style-type: none"> <li>• <b>exact</b>: Exact match</li> <li>• <b>enum</b>: Enumeration</li> <li>• <b>pattern</b>: Regular expression</li> </ul>	CRU	No
condition_value	String	Condition value	CRU	Yes
condition_origin	String	Condition source. Options: <ul style="list-style-type: none"> <li>• <b>param</b>: Input parameter</li> <li>• <b>source</b>: Source IP address</li> </ul>	CRU	Yes
req_param_id	String	Input parameter ID	R	-
policy_backend_id	String	Backend policy ID	CRU	Yes



**Table 5-37** Authentication mode parameter object model

Parameter	Type	Description	Operation Type	Mandatory
app_code_auth_type	String	<p>Indicates whether AppCode authentication is enabled. This parameter is valid only when <b>auth_type</b> is set to <b>App</b>. The default value is <b>DISABLE</b>.</p> <ul style="list-style-type: none"> <li>• <b>DISABLE</b>: AppCode authentication is disabled.</li> <li>• <b>HEADER</b>: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul>	CRU	-

## 5.2.2 Creating an API

### Function

This API is used to register an API. API is an interface that encapsulates a set of service capabilities.

The definition of an API is divided into two parts. One part defines how the API is called by users, and the other part defines how APIG accesses the actual backend service requested by users.

APIG supports three backend types: HTTP/HTTPS web, FunctionGraph, and Mock.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-38** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/apis

## Request

**Table 5-39** Parameter description

Parameter	Mandatory	Type	Description
group_id	Yes	String	ID of the API group to which the API to be created will belong
name	Yes	String	API name An API name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Yes	Integer	Indicates whether the API is available to the public. The value can be: <ul style="list-style-type: none"> <li>• 1: public</li> <li>• 2: private</li> </ul>
version	No	String	Version of the API A maximum of 16 characters are allowed.
req_protocol	No	String	Request protocol, which can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> <li>• BOTH: The API can be accessed through both HTTP and HTTPS.</li> </ul> Default value: <b>HTTPS</b>
req_method	Yes	String	Request method, which can be: <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> <li>• ANY</li> </ul>
req_uri	Yes	String	Access address <b>NOTE</b> The value of this parameter must comply with URI specifications.
match_mode	No	String	Route matching mode, which can be: <ul style="list-style-type: none"> <li>• SWA: prefix match</li> <li>• NORMAL: exact match</li> </ul> Default value: <b>NORMAL</b>

Parameter	Mandatory	Type	Description
remark	No	String	Description of the API The description cannot exceed 255 characters.
auth_type	Yes	String	Security authentication mode, which can be: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER</li> </ul>
auth_opt	No	<a href="#">AuthOpt</a> object	Security authentication mode parameter
authorizer_id	No	String	ID of the frontend custom authorizer
backend_type	Yes	String	Backend type, which can be: <ul style="list-style-type: none"> <li>• <b>HTTP</b>: web backend</li> <li>• <b>FUNCTION</b>: FunctionGraph backend</li> <li>• <b>MOCK</b>: Mock backend</li> </ul>
tag	No	String	Service name tag This field will be discarded.
tags	No	Array of string	API tags Optional. This parameter contains a service name tag and other tags. The service name tag must start with APIG-SN-. Other tags cannot start with APIG-SN-.
cors	No	Bool	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• <b>TRUE</b>: supported</li> <li>• <b>FALSE</b>: not supported</li> </ul> Default value: <b>FALSE</b>
body_remark	No	String	Description of the API request body, which can be an example request body, media type, or parameter information The description cannot exceed 20,480 characters.
result_normal_sample	No	String	Example response for a successful request The length cannot exceed 20,480 characters.

Parameter	Mandatory	Type	Description
result_failure_sample	No	String	Example response for a failed request The length cannot exceed 20,480 characters.
response_id	No	String	ID of the custom response
backend_api	Required if <b>backend_type</b> is set to <b>HTTP</b> .	Dictionary	Web backend details
mock_info	Required if <b>backend_type</b> is set to <b>MOCK</b> .	Dictionary	Mock backend details
func_info	Required if <b>backend_type</b> is set to <b>FUNCTION</b> .	Dictionary	FunctionGraph backend details
req_params	No	Dictionary	Request parameter list
backend_params	No	Dictionary	Backend parameter list
policy_https	Optional if <b>backend_type</b> is set to <b>HTTP</b> .	Dictionary	Web backend policy list
policy_mocks	Optional if <b>backend_type</b> is set to <b>MOCK</b> .	Dictionary	Mock backend policy list

Parameter	Mandatory	Type	Description
policy_functions	Optional if <b>backend_type</b> is set to <b>FUNCTION</b> .	Dictionary	FunctionGraph backend policy list

**Table 5-40** Parameter description of backend\_api

Parameter	Mandatory	Type	Description
url_domain	Required when no VPC channel is used.	String	Backend service address An endpoint URL is in the format of "domain name (or IP address):port number", with up to 255 characters. For example, <b>apig.example.com:7443</b> . By default, the port number would be 443 for HTTPS or 80 for HTTP if it is not specified. An endpoint can contain environment variables, each starting with a letter and consisting of 3–32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed in environment variables.
version	No	String	Web backend version A maximum of 16 characters are allowed.
req_protocol	Yes	String	Request protocol, which can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
req_method	Yes	String	Request method, which can be: <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> <li>• ANY</li> </ul>

Parameter	Mandatory	Type	Description
req_uri	Yes	String	Request address A request address can contain up to 512 characters and must comply with URI specifications. The request address can contain environment variables, each starting with a letter and consisting of 3–32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed in environment variables. <b>NOTE</b> The value of this parameter must comply with URI specifications.
timeout	Yes	Integer	Timeout duration for APIG to request for the backend service. Range: 1–60,000. Unit: ms.
remark	No	String	Description of the backend service The description cannot exceed 255 characters.
vpc_status	No	Integer	Indicates whether to use a VPC channel. The value can be: <ul style="list-style-type: none"><li>• 1: yes</li><li>• 2: no</li></ul>
vpc_info	Required when <b>vpc_status</b> is set to 1.	Dictionary	VPC channel details
authorizer_id	No	String	ID of the backend custom authorizer

**Table 5-41** VPC channel parameter description

Parameter	Mandatory	Type	Description
vpc_id	Yes	String	VPC channel ID
vpc_proxy_host	No	String	Proxy host

**Table 5-42** Parameter description of mock\_info

Parameter	Mandatory	Type	Description
result_content	No	String	Mock response
version	No	String	Version of the Mock backend A maximum of 64 characters are allowed.
remark	No	String	Description of the Mock backend The description cannot exceed 255 characters.

**Table 5-43** Parameter description of func\_info

Parameter	Mandatory	Type	Description
function_urn	Yes	String	Function URN
invocation_type	Yes	String	Invocation mode, which can be <b>async</b> or <b>sync</b>
timeout	Yes	Integer	Timeout duration for APIG to request for FunctionGraph. Range: 1-60,000. Unit: ms.
version	No	String	Function version A maximum of 64 characters are allowed.
remark	No	String	Description of the function The description cannot exceed 255 characters.

**Table 5-44** Parameter description of req\_params

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name A parameter name consists of 1-32 characters, starting with a letter. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
type	Yes	String	Parameter type, which can be: <ul style="list-style-type: none"><li>• STRING</li><li>• NUMBER</li></ul>
location	Yes	String	Parameter location, which can be: <ul style="list-style-type: none"><li>• PATH</li><li>• QUERY</li><li>• HEADER</li></ul>
default_value	No	String	Default value
sample_value	No	String	Example value
required	No	Integer	Indicates whether the parameter is mandatory. <ul style="list-style-type: none"><li>• 1: yes</li><li>• 2: no</li></ul> The value of this parameter is <b>1</b> if <b>Location</b> is set to <b>PATH</b> and <b>2</b> if <b>Location</b> is set to another value.
valid_enable	No	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"><li>• 1: enabled</li><li>• 2: disabled</li></ul> The default value is <b>2</b> .
remark	No	String	Description of the parameter The description cannot exceed 255 characters.
enumerations	No	String	Enumerated value
min_num	No	Integer	Minimum value, which is valid when the parameter type is <b>NUMBER</b>
max_num	No	Integer	Maximum value, which is valid when the parameter type is <b>NUMBER</b>
min_size	No	Integer	Minimum length
max_size	No	Integer	Maximum length
regular	No	String	Regular verification rule (currently not supported)
json_schema	No	String	JSON verification rule (currently not supported)



**Table 5-45** Parameter description of backend\_params

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name A parameter name consists of 1–32 characters, starting with a letter. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.
location	Yes	String	Parameter location, which can be: <ul style="list-style-type: none"><li>• PATH</li><li>• QUERY</li><li>• HEADER</li></ul>
origin	Yes	String	Parameter type, which can be: <ul style="list-style-type: none"><li>• REQUEST</li><li>• CONSTANT</li><li>• SYSTEM</li></ul>
value	Yes	String	Parameter value, which can contain no more than 255 characters If <b>origin</b> is set to <b>REQUEST</b> , the value is the parameter name in <b>req_params</b> . If <b>origin</b> is set to <b>CONSTANT</b> , the value is the real value of the backend parameter. If <b>origin</b> is set to <b>SYSTEM</b> , the value is the name of the gateway parameter.
remark	No	String	Description of the parameter The description cannot exceed 255 characters.

**Table 5-46** Parameter description of policy\_https

Parameter	Mandatory	Type	Description
name	Yes	String	Backend name A backend name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
url_domain	Required when no VPC channel is used.	String	<p>Endpoint of the policy backend</p> <p>An endpoint consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "<i>Domain name.Port number</i>", for example, <b>apig.example.com:7443</b>. By default, the port number would be 443 for HTTPS or 80 for HTTP if it is not specified.</p> <p>An endpoint can contain environment variables, each starting with a letter and consisting of 3–32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed in environment variables.</p>
req_protocol	Yes	String	<p>Request protocol, which can be:</p> <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
req_method	Yes	String	<p>Request method, which can be:</p> <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> <li>• ANY</li> </ul>
req_uri	Yes	String	<p>Request address</p> <p>A request address can contain up to 512 characters and must comply with URI specifications.</p> <p>The request address can contain environment variables, each starting with a letter and consisting of 3–32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed in environment variables.</p> <p><b>NOTE</b> The value of this parameter must comply with URI specifications.</p>
timeout	No	Integer	<p>Timeout duration for APIG to request for the backend service. Range: 1–60,000.</p> <p>Unit: ms.</p>

Parameter	Mandatory	Type	Description
vpc_status	No	Integer	Indicates whether to use a VPC channel. The value can be: <ul style="list-style-type: none"> <li>1: yes</li> <li>2: no</li> </ul>
vpc_info	Required when <b>vpc_status</b> is set to 1.	Dictionary	VPC channel details
effect_mode	Yes	String	Effective mode of the backend policy <ul style="list-style-type: none"> <li>ALL</li> <li>ANY</li> </ul>
conditions	Yes	Dictionary	Policy condition list
backend_params	No	Dictionary	Backend parameter list

**Table 5-47** Parameter description of policy\_mocks

Parameter	Mandatory	Type	Description
name	Yes	String	Backend name A backend name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
result_content	No	String	Mock response
effect_mode	Yes	String	Effective mode of the backend policy <ul style="list-style-type: none"> <li>ALL</li> <li>ANY</li> </ul>
conditions	Yes	Dictionary	Policy condition list
backend_params	No	Dictionary	Backend parameter list

**Table 5-48** Parameter description of policy\_functions

Parameter	Mandatory	Type	Description
name	Yes	String	Backend name A backend name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
function_urn	Yes	String	Function URN
invocation_type	Yes	String	Invocation mode. Options: <ul style="list-style-type: none"> <li>• <b>async</b>: asynchronous</li> <li>• <b>sync</b>: synchronous</li> </ul>
timeout	No	Integer	Timeout duration for APIG to request for FunctionGraph. Range: 1–60,000. Unit: ms.
version	No	String	Function version A maximum of 64 characters are allowed.
effect_mode	Yes	String	Effective mode of the backend policy <ul style="list-style-type: none"> <li>• ALL</li> <li>• ANY</li> </ul>
conditions	Yes	Dictionary	Policy condition list
backend_params	No	Dictionary	Backend parameter list

**Table 5-49** Parameter description of conditions

Parameter	Mandatory	Type	Description
condition_type	Mandatory if the policy type is <b>param</b> .	String	Condition type. Options: <ul style="list-style-type: none"> <li>• <b>exact</b>: Exact match</li> <li>• <b>enum</b>: Enumeration</li> <li>• <b>pattern</b>: Regular expression</li> </ul>
condition_value	Yes	String	Condition value

Parameter	Mandatory	Type	Description
condition_origin	Yes	String	Condition source. Options: <ul style="list-style-type: none"> <li>• <b>param</b>: Input parameter</li> <li>• <b>source</b>: Source IP address</li> </ul>
req_param_name	Mandatory if the policy type is <b>param</b> .	String	Input parameter name

Table 5-50 AuthOpt

Parameter	Mandatory	Type	Description
app_code_auth_type	No	String	Indicates whether AppCode authentication is enabled. This parameter is valid only when <b>auth_type</b> is set to <b>App</b> . The default value is <b>DISABLE</b> . <ul style="list-style-type: none"> <li>• <b>DISABLE</b>: AppCode authentication is disabled.</li> <li>• <b>HEADER</b>: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul>

Example request:

```
{
  "auth_type": "app",
  "auth_opt": {
    "app_code_auth_type": "HEADER"
  },
  "backend_api": {
    "req_method": "get",
    "req_protocol": "http",
    "req_uri": "/test",
    "timeout": 1000,
    "url_domain": "xxxxxxxxxx"
  },
  "backend_params": [
    {
      "location": "query",
      "name": "project_id",
      "origin": "request",
      "value": "project_id"
    },
    {
      "location": "query",
      "name": "city",
      "origin": "request",

```

```

    "value": "city"
  }
],
"backend_type": "http",
"group_id": "f71f69876f90456ca6fd18ed012fdc11",
"name": "test",
"req_method": "get",
"req_params": [
  {
    "location": "path",
    "name": "project_id",
    "required": 1,
    "type": "string"
  },
  {
    "location": "query",
    "name": "city",
    "required": 2,
    "type": "string"
  }
],
"req_uri": "/test/{project_id}",
"tags": ["APIG-SN-test", "test"],
"type": 1,
"result_normal_sample": "hello world!"
}

```

## Response

**Table 5-51** Parameter description

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs
status	Integer	API status
type	Integer	API type
version	String	API version
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
auth_type	String	Security authentication mode
auth_opt	Object	Security authentication mode parameter
match_mode	String	Matching mode
register_time	Timestamp	Time when the API was created
update_time	Timestamp	Time when the API was last modified

Parameter	Type	Description
remark	String	API description
backend_type	String	Backend type
arrange_necessary	Integer	Indicates whether orchestration is required.
tag	String	Service name tag, which is to be discarded
tags	[]String	API tags
cors	Bool	Indicates whether CORS is supported.
body_remark	String	Description of the API request body, which can be an example request body, media type, or parameter information
result_normal_sample	String	Example response for a successful request
result_failure_sample	String	Example response for a failed request
response_id	String	ID of the gateway response
backend_api	Dictionary	Web backend details
mock_info	Dictionary	Mock backend details
func_info	Dictionary	FunctionGraph backend details
req_params	Dictionary	Request parameter list
backend_params	Dictionary	Backend parameter list
policy_https	Dictionary	Web backend policy list
policy_mocks	Dictionary	Mock backend policy list
policy_functions	Dictionary	FunctionGraph backend policy list

**Table 5-52** Parameter description of backend\_api

Parameter	Type	Description
id	String	Backend ID
status	Integer	Web backend status
url_domain	String	Backend endpoint
version	String	Web backend version

Parameter	Type	Description
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
timeout	Integer	Timeout duration in milliseconds
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the web backend was last modified
remark	String	Description of the web backend
vpc_status	String	Indicates whether to use a VPC channel.
vpc_info	String	VPC channel information

**Table 5-53** Parameter description of mock\_info

Parameter	Type	Description
id	String	Mock backend ID
status	Integer	Mock backend status
version	String	Mock backend version
result_content	String	Mock response
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the Mock backend was last modified
remark	String	Description of the Mock backend

**Table 5-54** Parameter description of func\_info

Parameter	Type	Description
id	String	Function ID
status	Integer	Function status
version	String	Function version
function_urn	String	Function URN
invocation_type	String	Invocation mode, which can be <b>async</b> or <b>sync</b>
register_time	Timestamp	Creation time



Parameter	Type	Description
update_time	Timestamp	Time when the function was last updated
timeout	Integer	Timeout duration in milliseconds
remark	String	Description of the function

**Table 5-55** Parameter description of req\_params

Parameter	Type	Description
id	String	Parameter ID
name	String	Parameter name
type	String	Parameter type
location	String	Parameter location
default_value	String	Default value
sample_value	String	Example value
required	Integer	Indicates whether the parameter is mandatory.
valid_enable	Integer	Indicates whether validity check is enabled.
remark	String	Description of the parameter
enumerations	String	Enumerated value
min_num	Integer	Minimum value, which is valid when the parameter type is <b>NUMBER</b>
max_num	Integer	Maximum value, which is valid when the parameter type is <b>NUMBER</b>
min_size	Integer	Minimum length
max_size	Integer	Maximum length
regular	String	Regular verification rule (currently not supported)
json_schema	String	JSON verification rule (currently not supported)

**Table 5-56** Parameter description of backend\_params

Parameter	Type	Description
id	String	Parameter ID

Parameter	Type	Description
req_param_id	String	ID of the request parameter to which the backend parameter is mapped
name	String	Parameter name
location	String	Parameter location
origin	String	Parameter type
value	String	Parameter value
remark	String	Description of the backend parameter

**Table 5-57** Parameter description of policy\_https

Parameter	Type	Description
id	String	Backend policy ID
name	String	Backend name
url_domain	String	Endpoint of the policy backend
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
timeout	Integer	Timeout duration in milliseconds
vpc_status	String	Indicates whether to use a VPC channel.
vpc_info	String	VPC channel information
effect_mode	String	Effective mode of the backend policy
conditions	Dictionary	Policy condition list
backend_params	Dictionary	Backend parameter list

**Table 5-58** Parameter description of policy\_mocks

Parameter	Type	Description
id	String	Backend policy ID
name	String	Backend name
result_content	String	Mock response
effect_mode	String	Effective mode of the backend policy

Parameter	Type	Description
conditions	Dictionary	Policy condition list
backend_params	Dictionary	Backend parameter list

**Table 5-59** Parameter description of policy\_functions

Parameter	Type	Description
id	String	Backend policy ID
name	String	Backend name
version	String	Function version
function_urn	String	Function URN
invocation_type	String	Invocation mode, which can be <b>async</b> or <b>sync</b>
timeout	Integer	Timeout duration in milliseconds
effect_mode	String	Effective mode of the backend policy
conditions	Dictionary	Policy condition list
backend_params	Dictionary	Backend parameter list

**Table 5-60** Parameter description of conditions

Parameter	Type	Description
id	String	Backend policy condition ID
condition_type	String	Condition type
condition_value	String	Condition value
condition_origin	String	Condition source
req_param_name	String	Input parameter name
req_param_id	String	Input parameter ID
req_param_location	String	Input parameter location

**Table 5-61** Parameter description of auth\_opt

Parameter	Type	Description
app_code_auth_type	String	Indicates whether AppCode authentication is enabled.

Example response:

```
{
  "name": "test",
  "type": 1,
  "version": "V0.0.1",
  "req_protocol": "HTTPS",
  "req_method": "GET",
  "req_uri": "/test/{tenant_id}",
  "auth_type": "APP",
  "auth_opt": {
    "app_code_auth_type": "HEADER"
  },
  "tags": ["APIG-SN-test", "test"],
  "cors": false,
  "match_mode": "NORMAL",
  "backend_type": "HTTP",
  "group_id": "f71f69876f90456ca6fd18ed012fdc11",
  "result_normal_sample": "hello world!",
  "id": "81efcfd94b8747a0b21e8c04144a4e8c",
  "status": 1,
  "arrange_necessary": 2,
  "register_time": "2018-08-15T03:41:11.0239936Z",
  "update_time": "2018-08-15T03:41:11.0239936Z",
  "group_name": "group0002",
  "backend_api": {
    "url_domain": "xxxxxxxxxx",
    "req_protocol": "HTTP",
    "req_method": "GET",
    "req_uri": "/test",
    "timeout": 1000,
    "vpc_status": 2,
    "id": "3442ffd031814e3a8f133a9f1ea08453",
    "status": 1,
    "register_time": "2018-08-15T03:41:11.1019236Z",
    "update_time": "2018-08-15T03:41:11.1019236Z"
  },
  "req_params": [
    {
      "name": "tenant_id",
      "type": "STRING",
      "location": "PATH",
      "required": 1,
      "valid_enable": 2,
      "id": "593c5560e0924e00af08fb458f850ecb"
    },
    {
      "name": "city",
      "type": "STRING",
      "location": "QUERY",
      "required": 2,
      "valid_enable": 2,
      "id": "e0b91bc81ae54f8ea850848d782d6e1e"
    }
  ],
  "backend_params": [
    {
      "name": "tenant_id",
```

```

"location": "QUERY",
"origin": "REQUEST",
"value": "tenant_id",
"id": "44e03de2351e43a8b18ba9ec1e71d2e9",
"req_param_id": "593c5560e0924e00af08fb458f850ecb"
},
{
"name": "city",
"location": "QUERY",
"origin": "REQUEST",
"value": "city",
"id": "b60fbc5b86f4f5c8705c445b9bd6325",
"req_param_id": "e0b91bc81ae54f8ea850848d782d6e1e"
}
],
"policy_https": [{
"conditions": [{
"id": "44e03de2351e43a8b18ba9ec1e71d2e9",
"condition_type": "pattern",
"condition_value": "^[0-9]$",
"condition_origin": "param",
"req_param_name": "project_id",
"req_param_id": "b60fbc5b86f4f5c8705c445b9sda325",
"req_param_location": "PATH"
}],
"backend_params": [{
"name": "project_id",
"value": "bbb",
"location": "QUERY",
"origin": "REQUEST",
"id": "44e03de2351e43a8b18ba9ec1e71d2e8",
"req_param_id": "593c5560e0924e00af08fb458f850ecb"
}],
"effect_mode": "ANY",
"id": "44e03de2351e43a8b18ba9ec1e71d2e8",
"name": "policy001",
"req_method": "GET",
"req_protocol": "http",
"req_uri": "/test/policy",
"timeout": 10000,
"url_domain": "xxxxxxxxxx",
"vpc_status": 2
}]
}

```

## Status Codes

Table 5-62 Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.2.3 Modifying an API

### Function

This API is used to modify the information about an API, including its backend information.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-63** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/apis/{id}

The following table lists the parameter in the URI.

**Table 5-64** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	API ID, which can be obtained by querying the API information

### Request

**Table 5-65** Parameter description

Parameter	Mandatory	Type	Description
group_id	No	String	ID of the API group to which the API belongs. The value of this parameter cannot be modified.
name	Yes	String	API name An API name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Yes	Integer	Indicates whether the API is available to the public. The value can be: <ul style="list-style-type: none"> <li>1: public</li> <li>2: private</li> </ul>

Parameter	Mandatory	Type	Description
version	No	String	Version of the API A maximum of 16 characters are allowed.
req_protocol	No	String	Request protocol, which can be: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> <li>• <b>BOTH</b>: The API can be accessed through both HTTP and HTTPS.</li> <li>• <b>WEBSOCKET</b></li> </ul> Default value: <b>HTTPS</b>
req_method	Yes	String	Request method, which can be: <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> <li>• ANY</li> </ul>
req_uri	Yes	String	Access address <b>NOTE</b> The value of this parameter must comply with URI specifications.
match_mode	No	String	Route matching mode, which can be: <ul style="list-style-type: none"> <li>• <b>SWA</b>: prefix match</li> <li>• <b>NORMAL</b>: exact match</li> </ul> Default value: <b>NORMAL</b>
remark	No	String	Description of the API The description cannot exceed 255 characters.
auth_type	Yes	String	Security authentication mode, which can be: <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER</li> </ul>
auth_opt	No	Dictionary	Security authentication mode parameter

Parameter	Mandatory	Type	Description
authorizer_id	No	String	ID of the frontend custom authorizer
backend_type	Yes	String	Backend type, which can be: <ul style="list-style-type: none"> <li>• <b>HTTP</b>: web backend</li> <li>• <b>FUNCTION</b>: FunctionGraph backend</li> <li>• <b>MOCK</b>: Mock backend</li> </ul>
tag	No	String	Service name tag This field will be discarded.
tags	No	[]String	API tags Optional. This parameter contains a service name tag and other tags. The service name tag must start with APIG-SN-. Other tags cannot start with APIG-SN-.
cors	No	Bool	Indicates whether CORS is supported. <ul style="list-style-type: none"> <li>• <b>TRUE</b>: supported</li> <li>• <b>FALSE</b>: not supported</li> </ul> Default value: <b>FALSE</b>
body_remark	No	String	Description of the API request body, which can be an example request body, media type, or parameter information The description cannot exceed 20,480 characters.
result_normal_sample	No	String	Example response for a successful request The length cannot exceed 20,480 characters.
result_failure_sample	No	String	Example response for a failed request The length cannot exceed 20,480 characters.
response_id	No	String	ID of the gateway response
backend_api	Required if <b>backend_type</b> is set to <b>HTTP</b> .	Dictionary	Web backend details



Parameter	Mandatory	Type	Description
mock_info	Required if <b>backend_type</b> is set to <b>MOCK</b> .	Dictionary	Mock backend details
func_info	Required if <b>backend_type</b> is set to <b>FUNCTION</b> .	Dictionary	FunctionGraph backend details
req_params	No	Dictionary	Request parameter list
backend_params	No	Dictionary	Backend parameter list
policy_https	Optional if <b>backend_type</b> is set to <b>HTTP</b> .	Dictionary	Web backend policy list
policy_mocks	Optional if <b>backend_type</b> is set to <b>MOCK</b> .	Dictionary	Mock backend policy list
policy_functions	Optional if <b>backend_type</b> is set to <b>FUNCTION</b> .	Dictionary	FunctionGraph backend policy list

**Table 5-66** Parameter description of backend\_api

Parameter	Mandatory	Type	Description
url_domain	Required when no VPC channel is used.	String	Backend endpoint An endpoint URL is in the format of "domain name (or IP address):port number", with up to 255 characters. For example, <b>apig.example.com:7443</b> . By default, the port number would be 443 for HTTPS or 80 for HTTP if it is not specified. An endpoint can contain environment variables, each starting with a letter and consisting of 3–32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed in environment variables.
version	No	String	Web backend version A maximum of 16 characters are allowed.
req_protocol	Yes	String	Request protocol, which can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
req_method	Yes	String	Request method, which can be: <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> <li>• ANY</li> </ul>
req_uri	Yes	String	Request address <b>NOTE</b> The value of this parameter must comply with URI specifications.
timeout	Yes	Integer	Timeout duration for APIG to request for the backend service. Range: 1–60,000. Unit: ms. Default value: <b>45000</b> . This value will be used if the specified value is outside the allowable range.
remark	No	String	Description of the web backend The description cannot exceed 255 characters.

Parameter	Mandatory	Type	Description
vpc_status	No	Integer	Indicates whether to use a VPC channel. The value can be: <ul style="list-style-type: none"> <li>1: yes</li> <li>2: no</li> </ul>
vpc_info	Required if <b>vpc_status</b> is set to 1.	Dictionary	VPC channel details
authorizer_id	No	String	ID of the backend custom authorizer

**Table 5-67** VPC channel parameter description

Parameter	Mandatory	Type	Description
vpc_id	Yes	String	VPC channel ID
vpc_proxy_host	No	String	Proxy host

**Table 5-68** Parameter description of mock\_info

Parameter	Mandatory	Type	Description
result_content	No	String	Mock response
version	No	String	Version of the Mock backend A maximum of 64 characters are allowed.
remark	No	String	Description of the Mock backend The description cannot exceed 255 characters.

**Table 5-69** Parameter description of func\_info

Parameter	Mandatory	Type	Description
function_urn	Yes	String	Function URN
invocation_type	Yes	String	Invocation mode, which can be <b>async</b> or <b>sync</b>
timeout	Yes	Integer	Timeout duration for APIG to request for FunctionGraph. Range: 1–60,000. Unit: ms. Default value: <b>45000</b> . This value will be used if the specified value is outside the allowable range.
version	No	String	Function version A maximum of 64 characters are allowed.
remark	No	String	Description of the function The description cannot exceed 255 characters.

**Table 5-70** Parameter description of req\_params

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name A parameter name consists of 1–32 characters, starting with a letter. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.
type	Yes	String	Parameter type, which can be: <ul style="list-style-type: none"> <li>• STRING</li> <li>• NUMBER</li> </ul>
location	Yes	String	Parameter location, which can be: <ul style="list-style-type: none"> <li>• PATH</li> <li>• QUERY</li> <li>• HEADER</li> </ul>
default_value	No	String	Default value
sample_value	No	String	Example value

Parameter	Mandatory	Type	Description
required	No	Integer	Indicates whether the parameter is mandatory. <ul style="list-style-type: none"> <li>1: yes</li> <li>2: no</li> </ul> The value of this parameter is <b>1</b> if <b>Location</b> is set to <b>PATH</b> and <b>2</b> if <b>Location</b> is set to another value.
valid_enable	No	Integer	Indicates whether validity check is enabled. <ul style="list-style-type: none"> <li>1: enabled</li> <li>2: disabled</li> </ul> The default value is <b>2</b> .
remark	No	String	Description of the parameter The description cannot exceed 255 characters.
enumerations	No	String	Enumerated value
min_num	No	Integer	Minimum value, which is valid when the parameter type is <b>NUMBER</b>
max_num	No	Integer	Maximum value, which is valid when the parameter type is <b>NUMBER</b>
min_size	No	Integer	Minimum length
max_size	No	Integer	Maximum length
regular	No	String	Regular verification rule (currently not supported)
json_schema	No	String	JSON verification rule (currently not supported)

**Table 5-71** Parameter description of backend\_params

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name A parameter name consists of 1–32 characters, starting with a letter. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
location	Yes	String	Parameter location, which can be: <ul style="list-style-type: none"> <li>• PATH</li> <li>• QUERY</li> <li>• HEADER</li> </ul>
origin	Yes	String	Parameter type, which can be: <ul style="list-style-type: none"> <li>• REQUEST</li> <li>• CONSTANT</li> <li>• SYSTEM</li> </ul>
value	Yes	String	Parameter value, which can contain not more than 255 characters If <b>origin</b> is set to <b>REQUEST</b> , the value is the parameter name in <b>req_params</b> . If <b>origin</b> is set to <b>CONSTANT</b> , the value is the real value of the backend parameter. If <b>origin</b> is set to <b>SYSTEM</b> , the value is the name of the gateway parameter.
remark	No	String	Description of the parameter The description cannot exceed 255 characters.

**Table 5-72** Parameter description of policy\_https

Parameter	Mandatory	Type	Description
name	Yes	String	Backend name A backend name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
url_domain	Required when no VPC channel is used.	String	<p>Endpoint of the policy backend</p> <p>An endpoint consists of a domain name or IP address and a port number, with not more than 255 characters. It must be in the format "<i>Domain name.Port number</i>", for example, <b>apig.example.com:7443</b>. By default, the port number would be 443 for HTTPS or 80 for HTTP if it is not specified.</p> <p>An endpoint can contain environment variables, each starting with a letter and consisting of 3–32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed in environment variables.</p>
req_protocol	Yes	String	<p>Request protocol, which can be:</p> <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
req_method	Yes	String	<p>Request method, which can be:</p> <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> <li>• ANY</li> </ul>
req_uri	Yes	String	<p>Request address</p> <p>A request address can contain up to 512 characters and must comply with URI specifications.</p> <p>The request address can contain environment variables, each starting with a letter and consisting of 3–32 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed in environment variables.</p> <p><b>NOTE</b> The value of this parameter must comply with URI specifications.</p>

Parameter	Mandatory	Type	Description
timeout	No	Integer	Timeout duration for APIG to request for the backend service. Range: 1–60,000. Unit: ms. Default value: <b>45000</b> . This value will be used if the specified value is outside the allowable range.
vpc_status	No	Integer	Indicates whether to use a VPC channel. The value can be: <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>
vpc_info	Required if <b>vpc_status</b> is set to 1.	Dictionary	VPC channel details
effect_mode	Yes	String	Effective mode of the backend policy <ul style="list-style-type: none"> <li>• ALL</li> <li>• ANY</li> </ul>
conditions	Yes	Dictionary	Policy condition list
backend_params	No	Dictionary	Backend parameter list

**Table 5-73** Parameter description of policy\_mocks

Parameter	Mandatory	Type	Description
name	Yes	String	Backend name A backend name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
result_content	No	String	Mock response
effect_mode	Yes	String	Effective mode of the backend policy <ul style="list-style-type: none"> <li>• ALL</li> <li>• ANY</li> </ul>
conditions	Yes	Dictionary	Policy condition list



Parameter	Mandatory	Type	Description
backend_params	No	Dictionary	Backend parameter list

**Table 5-74** Parameter description of policy\_functions

Parameter	Mandatory	Type	Description
name	Yes	String	Backend name A backend name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
function_urn	Yes	String	Function URN
invocation_type	Yes	String	Invocation mode, which can be <b>async</b> or <b>sync</b>
timeout	No	Integer	Timeout duration for APIG to request for FunctionGraph. Range: 1–60,000. Unit: ms. Default value: <b>45000</b> . This value will be used if the specified value is outside the allowable range.
version	No	String	Function version A maximum of 64 characters are allowed.
effect_mode	Yes	String	Effective mode of the backend policy <ul style="list-style-type: none"> <li>• ALL</li> <li>• ANY</li> </ul>
conditions	Yes	Dictionary	Policy condition list
backend_params	No	Dictionary	Backend parameter list

**Table 5-75** Parameter description of conditions

Parameter	Mandatory	Type	Description
condition_type	Mandatory if the policy type is <b>param</b> .	String	Condition type. Options: <ul style="list-style-type: none"> <li>• <b>exact</b>: Exact match</li> <li>• <b>enum</b>: Enumeration</li> <li>• <b>pattern</b>: Regular expression</li> </ul>
condition_value	Yes	String	Condition value
condition_origin	Yes	String	Condition source. Options: <ul style="list-style-type: none"> <li>• <b>param</b>: Input parameter</li> <li>• <b>source</b>: Source IP address</li> </ul>
req_param_name	Mandatory if the policy type is <b>param</b> .	String	Input parameter name

**Table 5-76** Parameter description of auth\_opt

Parameter	Mandatory	Type	Description
app_code_auth_type	No	String	Indicates whether AppCode authentication is enabled. This parameter is valid only when <b>auth_type</b> is set to <b>App</b> . The default value is <b>DISABLE</b> . <ul style="list-style-type: none"> <li>• <b>DISABLE</b>: AppCode authentication is disabled.</li> <li>• <b>HEADER</b>: AppCode authentication is enabled and the AppCode is located in the header.</li> </ul>

Example request:

```
{
  "auth_type": "app",
  "auth_opt": {
    "app_code_auth_type": "HEADER"
  },
  "backend_api": {
    "req_method": "get",
    "req_protocol": "http",
    "req_uri": "/test",
    "timeout": 1000,
    "url_domain": "xxxxxxxxx"
  }
}
```

```
},
"backend_params": [
  {
    "location": "query",
    "name": "project_id",
    "origin": "request",
    "value": "project_id"
  },
  {
    "location": "query",
    "name": "city",
    "origin": "request",
    "value": "city"
  }
],
"backend_type": "http",
"group_id": "f71f69876f90456ca6fd18ed012fdc11",
"name": "test",
"req_method": "get",
"req_params": [
  {
    "location": "path",
    "name": "project_id",
    "required": 1,
    "type": "string"
  },
  {
    "location": "query",
    "name": "city",
    "required": 2,
    "type": "string"
  }
],
"req_uri": "/test/{project_id}",
"tags": ["APIG-SN-test", "test"],
"type": 1,
"result_normal_sample": "hello world!"
}
```

## Response

**Table 5-77** Parameter description

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs
status	Integer	API status
type	Integer	API type
version	String	API version
req_protocol	String	Request protocol
req_method	String	Request method

Parameter	Type	Description
req_uri	String	Access address
auth_type	String	Security authentication mode
auth_opt	Object	Security authentication mode parameter
match_mode	String	Matching mode
register_time	Timestamp	Time when the API was created
update_time	Timestamp	Time when the API was last modified
remark	String	Description of the API
backend_type	String	Backend type
run_env_name	String	Name of the environment in which the API has been published
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	ID of the publication record
arrange_necessary	Integer	Indicates whether orchestration is required.
tag	String	Service name tag, which is to be discarded
tags	[]String	API tags
cors	Bool	Indicates whether CORS is supported.
body_remark	String	Description of the API request body, which can be an example request body, media type, or parameter information
result_normal_sample	String	Example response for a successful request
result_failure_sample	String	Example response for a failed request
response_id	String	ID of the gateway response
backend_api	Dictionary	Web backend details
mock_info	Dictionary	Mock backend details
func_info	Dictionary	FunctionGraph backend details
req_params	Dictionary	Request parameter list
backend_params	Dictionary	Backend parameter list
policy_https	Dictionary	Web backend policy list

Parameter	Type	Description
policy_mocks	Dictionary	Mock backend policy list
policy_functions	Dictionary	FunctionGraph backend policy list

**Table 5-78** Parameter description of backend\_api

Parameter	Type	Description
id	String	Web backend ID
status	Integer	Web backend status
url_domain	String	Backend endpoint
version	String	Web backend version
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
timeout	Integer	Timeout duration in milliseconds
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the web backend was last modified
remark	String	Description of the web backend
vpc_status	String	Indicates whether to use a VPC channel.
vpc_info	String	VPC channel information

**Table 5-79** Parameter description of mock\_info

Parameter	Type	Description
id	String	Mock backend ID
status	Integer	Mock backend status
version	String	Version of the Mock backend
result_content	String	Mock response
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the Mock backend was last modified
remark	String	Description of the Mock backend

**Table 5-80** Parameter description of func\_info

Parameter	Type	Description
id	String	Function ID
status	Integer	Function status
version	String	Function version
function_urn	String	Function URN
invocation_type	String	Invocation mode, which can be <b>async</b> or <b>sync</b>
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the function was last updated
timeout	Integer	Timeout duration in milliseconds
remark	String	Description of the function

**Table 5-81** Parameter description of req\_params

Parameter	Type	Description
id	String	Parameter ID
name	String	Parameter name
type	String	Parameter type
location	String	Parameter location
default_value	String	Default value
sample_value	String	Example value
required	Integer	Indicates whether the parameter is mandatory.
valid_enable	Integer	Indicates whether validity check is enabled.
remark	String	Description of the parameter
enumerations	String	Enumerated value
min_num	Integer	Minimum value, which is valid when the parameter type is <b>NUMBER</b>
max_num	Integer	Maximum value, which is valid when the parameter type is <b>NUMBER</b>
min_size	Integer	Minimum length
max_size	Integer	Maximum length

Parameter	Type	Description
regular	String	Regular verification rule (currently not supported)
json_schema	String	JSON verification rule (currently not supported)

**Table 5-82** Parameter description of backend\_params

Parameter	Type	Description
id	String	Parameter ID
req_param_id	String	ID of the request parameter to which the backend parameter is mapped
name	String	Parameter name
location	String	Parameter location
origin	String	Parameter type
value	String	Parameter value
remark	String	Description of the parameter

**Table 5-83** Parameter description of policy\_https

Parameter	Type	Description
id	String	Backend policy ID
name	String	Backend name
url_domain	String	Endpoint of the policy backend
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
timeout	Integer	Timeout duration in milliseconds
vpc_status	String	Indicates whether to use a VPC channel.
vpc_info	String	VPC channel information
effect_mode	String	Effective mode of the backend policy
conditions	Dictionary	Policy condition list
backend_params	Dictionary	Backend parameter list

**Table 5-84** Parameter description of policy\_mocks

Parameter	Type	Description
id	String	Backend policy ID
name	String	Backend name
result_content	String	Mock response
effect_mode	String	Effective mode of the backend policy
conditions	Dictionary	Policy condition list
backend_params	Dictionary	Backend parameter list

**Table 5-85** Parameter description of policy\_functions

Parameter	Type	Description
id	String	Backend policy ID
name	String	Backend name
version	String	Function version
function_urn	String	Function URN
invocation_type	String	Invocation mode, which can be <b>async</b> or <b>sync</b>
timeout	Integer	Timeout duration in milliseconds
effect_mode	String	Effective mode of the backend policy
conditions	Dictionary	Policy condition list
backend_params	Dictionary	Backend parameter list

**Table 5-86** Parameter description of conditions

Parameter	Type	Description
id	String	Backend policy condition ID
condition_type	String	Condition type
condition_value	String	Condition value



Parameter	Type	Description
condition_origin	String	Condition source
req_param_name	String	Input parameter name
req_param_id	String	Input parameter ID
req_param_location	String	Input parameter location

**Table 5-87** Parameter description of auth\_opt

Parameter	Type	Description
app_code_auth_type	String	Indicates whether AppCode authentication is enabled.

Example response:

```
{
  "name": "test",
  "type": 1,
  "version": "V0.0.1",
  "req_protocol": "HTTPS",
  "req_method": "GET",
  "req_uri": "/test/{tenant_id}",
  "auth_type": "APP",
  "auth_opt": {
    "app_code_auth_type": "DISABLE"
  },
  "tags": ["APIG-SN-test", "test"],
  "cors": false,
  "match_mode": "NORMAL",
  "backend_type": "HTTP",
  "group_id": "f71f69876f90456ca6fd18ed012fdc11",
  "result_normal_sample": "hello world!",
  "id": "81efcfd94b8747a0b21e8c04144a4e8c",
  "status": 1,
  "arrange_necessary": 2,
  "register_time": "2018-08-15T03:41:11.0239936Z",
  "update_time": "2018-08-15T03:41:11.0239936Z",
  "group_name": "group0002",
  "backend_api": {
    "url_domain": "xxxxxxxxxx",
    "req_protocol": "HTTP",
    "req_method": "GET",
    "req_uri": "/test",
    "timeout": 1000,
    "vpc_status": 2,
    "id": "3442ffd031814e3a8f133a9f1ea08453",
    "status": 1,
    "register_time": "2018-08-15T03:41:11.1019236Z",
    "update_time": "2018-08-15T03:41:11.1019236Z"
  },
  "req_params": [
    {
      "name": "tenant_id",
```

```
"type": "STRING",
"location": "PATH",
"required": 1,
"valid_enable": 2,
"id": "593c5560e0924e00af08fb458f850ecb"
},
{
  "name": "city",
  "type": "STRING",
  "location": "QUERY",
  "required": 2,
  "valid_enable": 2,
  "id": "e0b91bc81ae54f8ea850848d782d6e1e"
}
],
"backend_params": [
  {
    "name": "tenant_id",
    "location": "QUERY",
    "origin": "REQUEST",
    "value": "tenant_id",
    "id": "44e03de2351e43a8b18ba9ec1e71d2e9",
    "req_param_id": "593c5560e0924e00af08fb458f850ecb"
  },
  {
    "name": "city",
    "location": "QUERY",
    "origin": "REQUEST",
    "value": "city",
    "id": "b60fbc5b86f4f5c8705c445b9bd6325",
    "req_param_id": "e0b91bc81ae54f8ea850848d782d6e1e"
  }
],
"policy_https": [{
  "conditions": [{
    "id": "44e03de2351e43a8b18ba9ec1e71d2e9",
    "condition_type": "pattern",
    "condition_value": "^[0-9]$",
    "condition_origin": "param",
    "req_param_name": "project_id",
    "req_param_id": "b60fbc5b86f4f5c8705c445b9sda325",
    "req_param_location": "PATH"
  }],
  "backend_params": [{
    "name": "project_id",
    "value": "bbbb",
    "location": "QUERY",
    "origin": "REQUEST",
    "id": "44e03de2351e43a8b18ba9ec1e71d2e8",
    "req_param_id": "593c5560e0924e00af08fb458f850ecb"
  }],
  "effect_mode": "ANY",
  "id": "44e03de2351e43a8b18ba9ec1e71d2e8",
  "name": "policy001",
  "req_method": "GET",
  "req_protocol": "http",
  "req_uri": "/test/policy",
  "timeout": 10000,
  "url_domain": "xxxxxxxxxx",
  "vpc_status": 2
}]
}
```

## Status Codes

**Table 5-88** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Server Internal Error

## 5.2.4 Deleting an API

### Function

This API is used to delete an API.

This operation will delete all related resources and binding relationships of the API, such as publication records, backend services, and app authorization information.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-89** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/apis/{id}

The following table lists the parameter in the URI.

**Table 5-90** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	API ID

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-91** Status codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Server Internal Error

## 5.2.5 Publishing an API

### Function

This API is used to publish an API in a specified environment. An API can be called in an environment only after it is published in it. APIs that have not been published cannot be called.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-92** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/apis/publish/{api_id}

The following table lists the parameter in the URI.

**Table 5-93** Parameter description

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID

## Request

**Table 5-94** Parameter description

Parameter	Mandatory	Type	Description
env_id	Yes	String	ID of the environment in which the API will be published
remark	No	String	Description about the publication The description cannot exceed 255 characters.

Example request:

```
{
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "remark": "Published in the production environment"
}
```

## Response

**Table 5-95** Parameter description

Parameter	Type	Description
publish_id	String	ID of the publication record
api_id	String	API ID
env_id	String	ID of the environment in which the API has been published
remark	String	Description about the publication
publish_time	Timestamp	Time when the API is published
version_id	String	API version

Example response:

```
{
  "publish_id": "5b729aa252764739be2c37ef0d66dc63",
  "api_id": "7addcd00cfab433984b1d8bf2fe08aaa",
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
}
```

```
"version_id": "3d9dcb733ba34352b0d02f85fd16b026",
"remark": "string",
"publish_time": "2018-07-26T13:18:04.1079916Z"
}
```

## Status Codes

**Table 5-96** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.2.6 Taking an API Offline

### Function

This API is used to remove an API from an environment in which it has been published. After this operation, the API can no longer be called in the environment.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-97** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/apis/publish/{api_id}[?env_id]

The following table lists the parameters in the URI.

**Table 5-98** Parameter description

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID

Parameter	Mandatory	Type	Description
env_id	Yes	String	ID of the environment in which the API has been published

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-99** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Server Internal Error

## 5.2.7 Publishing Multiple APIs or Taking Multiple APIs Offline

### Function

This API is used to publish multiple APIs in an environment or to remove multiple APIs from the environment in which they have been published.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-100** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/apis/publish[?action]

The following table lists the parameter in the URI.

**Table 5-101** Parameter description

Parameter	Mandatory	Type	Description
action	No	String	<b>online:</b> publish <b>offline:</b> take offline

## Request

**Table 5-102** Parameter description

Parameter	Mandatory	Type	Description
apis	Yes	String Array	IDs of the APIs to be published or taken offline
env_id	Yes	String	Environment ID
remark	No	String	Description of the publication The description cannot exceed 255 characters.

Example request:

```
{
  "apis": ["81efcd94b8747a0b21e8c04144a4e8c", "7addcd00cfab433984b1d8bf2fe08aaa"],
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "remark": "Published in the production environment"
}
```

## Response

**Table 5-103** Parameter description

Parameter	Type	Description
success	Array	Message for successful API publication or taking offline



Parameter	Type	Description
failure	Array	Error message and APIs that fail to be published or taken offline

**Table 5-104** Parameter description of success (batch publishing)

Parameter	Type	Description
publish_id	String	Publication record ID
api_id	String	ID of a successfully published API
api_name	String	Name of the API
env_id	String	ID of the environment in which the API has been published
remark	String	Description of the publication
publish_time	Timestamp	Time when the API is published
version_id	String	API version

**Table 5-105** Parameter description of success (taking offline in batches)

Parameter	Type	Description
api_id	String	ID of an API that is successfully taken offline
api_name	String	Name of the API

**Table 5-106** Parameter description of failure

Parameter	Type	Description
api_id	String	ID of an API that fails to be published or taken offline
api_name	String	Name of the API
error_code	String	Error code
error_msg	String	Error message

Example response:

```
{
  "success": [{
    "publish_id": "5b729aa252764739be2c37ef0d66dc63",
    "api_id": "7addcd00cfab433984b1d8bf2fe08aaa",
```

```

    "api_name": "testApi",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "version_id": "3d9dcb733ba34352b0d02f85fd16b026",
    "remark": "string",
    "publish_time": "2018-07-26T13:18:04.1079916Z"
  }],
  "failure": [{
    "api_id": "81efcfd94b8747a0b21e8c04144a4e8c",
    "error_code": "APIG.3002",
    "error_msg": "api with id 81efcfd94b8747a0b21e8c04144a4e8c not found"
  }]
}

```

## Status Codes

**Table 5-107** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.2.8 Querying API Details

### Function

This API is used to query the details of a specified API.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-108** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apis/{id}

The following table lists the parameters in the URI.

**Table 5-109** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	API ID

## Request

N/A

## Response

**Table 5-110** Parameter description

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs
status	Integer	API status
type	Integer	API type
version	String	API version
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
auth_type	String	Security authentication mode
auth_opt	Object	Security authentication mode parameter
authorizer_id	String	ID of the frontend custom authorizer
match_mode	String	Matching mode
register_time	Timestamp	Time when the API was created
update_time	Timestamp	Time when the API was last modified
remark	String	API description
backend_type	String	Backend type
run_env_name	String	Name of the environment in which the API has been published

Parameter	Type	Description
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	ID of the publication record
arrange_necessary	Integer	Indicates whether orchestration is required.
tag	String	Service name tag, which is to be discarded
tags	[]String	API tags
cors	Bool	Indicates whether CORS is supported.
body_remark	String	Description of the API request body, which can be an example request body, media type, or parameter information
result_normal_sample	String	Example response for a successful request
result_failure_sample	String	Example response for a failed request
response_id	String	ID of the gateway response
backend_api	Dictionary	Web backend details
mock_info	Dictionary	Mock backend details
func_info	Dictionary	FunctionGraph backend details
req_params	Dictionary	Request parameter list
backend_params	Dictionary	Backend parameter list
policy_https	Dictionary	Web backend policy list
policy_mocks	Dictionary	Mock backend policy list
policy_functions	Dictionary	FunctionGraph backend policy list

**Table 5-111** Parameter description of backend\_api

Parameter	Type	Description
id	String	Web backend ID
status	Integer	Web backend status
url_domain	String	Backend endpoint
version	String	Web backend version

Parameter	Type	Description
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
timeout	Integer	Timeout duration in milliseconds
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the web backend was last modified
remark	String	Description of the web backend
vpc_status	String	Indicates whether to use a VPC channel.
vpc_info	String	VPC channel information
authorizer_id	String	ID of the backend custom authorizer

**Table 5-112** Parameter description of mock\_info

Parameter	Type	Description
id	String	Mock backend ID
status	Integer	Mock backend status
version	String	Mock backend version
result_content	String	Mock response
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the Mock backend was last modified
remark	String	Description of the Mock backend

**Table 5-113** Parameter description of func\_info

Parameter	Type	Description
id	String	Function ID
status	Integer	Function status
version	String	Function version
function_urn	String	Function URN
invocation_type	String	Invocation mode, which can be <b>async</b> or <b>sync</b>

Parameter	Type	Description
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the function was last updated
timeout	Integer	Timeout duration in milliseconds
remark	String	Description of the function

**Table 5-114** Parameter description of req\_params

Parameter	Type	Description
id	String	Parameter ID
name	String	Parameter name
type	String	Parameter type
location	String	Parameter location
default_value	String	Default value
sample_value	String	Example value
required	Integer	Indicates whether the parameter is mandatory. The value can be: <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>
valid_enable	Integer	Indicates whether validity check is enabled.
remark	String	Description of the parameter
enumerations	String	Enumerated value
min_num	Integer	Minimum value, which is valid when the parameter type is <b>NUMBER</b>
max_num	Integer	Maximum value, which is valid when the parameter type is <b>NUMBER</b>
min_size	Integer	Minimum length
max_size	Integer	Maximum length
regular	String	Regular verification rule (currently not supported)
json_schema	String	JSON verification rule (currently not supported)

**Table 5-115** Parameter description of backend\_params

Parameter	Type	Description
id	String	Parameter ID
req_param_id	String	ID of the request parameter to which the backend parameter is mapped
name	String	Parameter name
location	String	Parameter location
origin	String	Parameter type
value	String	Parameter value
remark	String	Description of the parameter

**Table 5-116** Parameter description of policy\_https

Parameter	Type	Description
id	String	Backend policy ID
name	String	Backend name
url_domain	String	Endpoint of the policy backend
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
timeout	Integer	Timeout duration in milliseconds
vpc_status	String	Indicates whether to use a VPC channel.
vpc_info	String	VPC channel information
effect_mode	String	Effective mode of the backend policy
conditions	Dictionary	Policy condition list
backend_params	Dictionary	Backend parameter list

**Table 5-117** Parameter description of policy\_mocks

Parameter	Type	Description
id	String	Backend policy ID
name	String	Backend name

Parameter	Type	Description
result_content	String	Mock response
effect_mode	String	Effective mode of the backend policy
conditions	Dictionary	Policy condition list
backend_params	Dictionary	Backend parameter list

**Table 5-118** Parameter description of policy\_functions

Parameter	Type	Description
id	String	Backend policy ID
name	String	Backend name
version	String	Function version
function_urn	String	Function URN
invocation_type	String	Invocation mode, which can be <b>async</b> or <b>sync</b>
timeout	Integer	Timeout duration in milliseconds
effect_mode	String	Effective mode of the backend policy
conditions	Dictionary	Policy condition list
backend_params	Dictionary	Backend parameter list

**Table 5-119** Parameter description of conditions

Parameter	Type	Description
id	String	Backend policy condition ID
condition_type	String	Condition type
condition_value	String	Condition value
condition_origin	String	Condition source
req_param_name	String	Input parameter name
req_param_id	String	Input parameter ID



Parameter	Type	Description
req_param_location	String	Input parameter location

**Table 5-120** Parameter description of auth\_opt

Parameter	Type	Description
app_code_auth_type	String	Indicates whether AppCode authentication is enabled.

Example response:

```
{
  "name": "test",
  "type": 1,
  "version": "V0.0.1",
  "req_protocol": "HTTPS",
  "req_method": "GET",
  "req_uri": "/test/{tenant_id}",
  "auth_type": "APP",
  "auth_opt": {
    "app_code_auth_type": "DISABLE"
  },
  "tags": ["APIG-SN-test", "test"],
  "cors": false,
  "match_mode": "NORMAL",
  "backend_type": "HTTP",
  "group_id": "f71f69876f90456ca6fd18ed012fdc11",
  "result_normal_sample": "hello world!",
  "id": "81efcfd94b8747a0b21e8c04144a4e8c",
  "status": 1,
  "arrange_necessary": 2,
  "register_time": "2018-08-15T03:41:11.0239936Z",
  "update_time": "2018-08-15T03:41:11.0239936Z",
  "group_name": "group0002",
  "backend_api": {
    "url_domain": "xxxxxxxxxx",
    "req_protocol": "HTTP",
    "req_method": "GET",
    "req_uri": "/test",
    "timeout": 1000,
    "vpc_status": 2,
    "id": "3442ffd031814e3a8f133a9f1ea08453",
    "status": 1,
    "register_time": "2018-08-15T03:41:11.1019236Z",
    "update_time": "2018-08-15T03:41:11.1019236Z"
  },
  "req_params": [
    {
      "name": "tenant_id",
      "type": "STRING",
      "location": "PATH",
      "required": 1,
      "valid_enable": 2,
      "id": "593c5560e0924e00af08fb458f850ecb"
    },
    {
      "name": "city",
      "type": "STRING",

```

```

"location": "QUERY",
"required": 2,
"valid_enable": 2,
"id": "e0b91bc81ae54f8ea850848d782d6e1e"
}
],
"backend_params": [
{
"name": "tenant_id",
"location": "QUERY",
"origin": "REQUEST",
"value": "tenant_id",
"id": "44e03de2351e43a8b18ba9ec1e71d2e9",
"req_param_id": "593c5560e0924e00af08fb458f850ecb"
},
{
"name": "city",
"location": "QUERY",
"origin": "REQUEST",
"value": "city",
"id": "b60fbc5b86f4f5c8705c445b9bd6325",
"req_param_id": "e0b91bc81ae54f8ea850848d782d6e1e"
}
],
"policy_https": [{
"conditions": [{
"id": "44e03de2351e43a8b18ba9ec1e71d2e9",
"condition_type": "pattern",
"condition_value": "^[0-9]$",
"condition_origin": "param",
"req_param_name": "project_id",
"req_param_id": "b60fbc5b86f4f5c8705c445b9sda325",
"req_param_location": "PATH"
}],
"backend_params": [{
"name": "project_id",
"value": "bbbb",
"location": "QUERY",
"origin": "REQUEST",
"id": "44e03de2351e43a8b18ba9ec1e71d2e8",
"req_param_id": "593c5560e0924e00af08fb458f850ecb"
}],
"effect_mode": "ANY",
"id": "44e03de2351e43a8b18ba9ec1e71d2e8",
"name": "policy001",
"req_method": "GET",
"req_protocol": "http",
"req_uri": "/test/policy",
"timeout": 10000,
"url_domain": "xxxxxxxxxx",
"vpc_status": 2
}]
}

```

## Status Codes

**Table 5-121** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found

## 5.2.9 Querying an API List

### Function

This API is used to query an API list to return details and publication information of the APIs. Backend information of the APIs will not be returned.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-122** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apis[?page_size, page_no, id, name, group_id, req_protocol, req_method, req_uri, auth_type, env_id, type,status, tags]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **ID, name, group\_id, req\_protocol, req\_method, req\_uri, auth\_type, env\_id, type, status, tags, page\_size, and page\_no.**

### Request

**Table 5-123** Parameter description

Parameter	Mandatory	Type	Description
id	No	String	API ID
name	No	String	API name
group_id	No	String	ID of the API group to which the API belongs
req_protocol	No	String	Request protocol
req_method	No	String	Request method
req_uri	No	String	Request path

Parameter	Mandatory	Type	Description
auth_type	No	String	Security authentication mode
env_id	No	String	ID of the environment in which the API has been published
type	No	Integer	API type
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> and the maximum value is <b>500</b> . When the value of <b>page_size</b> is set to <b>0</b> , all APIs are returned.
page_no	No	Integer	Page number. The default value is <b>1</b> .
precise_search	No	String	Parameter name ( <b>name</b> or <b>req_uri</b> ) for exact matching

## Response

**Table 5-124** Parameter description

Parameter	Type	Description
total	Integer	Number of APIs that match the query conditions
size	Integer	Length of the returned API list
apis	Dictionary	API list

**Table 5-125** Parameter description of apis

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs
status	Integer	API status
type	Integer	API type
version	String	API version

Parameter	Type	Description
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
auth_type	String	Security authentication mode
auth_opt	Object	Security authentication mode parameter
authorizer_id	String	ID of the frontend custom authorizer
match_mode	String	Matching mode
register_time	Timestamp	Time when the API was created
update_time	Timestamp	Time when the API was last modified
remark	String	API description
backend_type	String	Backend type
run_env_name	String	Name of the environment in which the API has been published
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	ID of the publication record
arrange_necessary	Integer	Indicates whether orchestration is required.
cors	Bool	Indicates whether CORS is supported.
tag	String	Service name tag, which is to be discarded
tags	[]String	API tags
response_id	String	ID of the gateway response

**Table 5-126** Parameter description of auth\_opt

Parameter	Type	Description
app_code_auth_type	String	Indicates whether AppCode authentication is enabled.

Example response:

```
{
  "total": 3,
  "size": 3,
  "apis": [
    {
```

```
"name": "test",
"type": 1,
"version": "V0.0.1",
"req_protocol": "HTTPS",
"req_method": "GET",
"req_uri": "/test/{project_id}",
"auth_type": "APP",
"auth_opt": {
  "app_code_auth_type": "DISABLE"
},
"tags": ["APIG-SN-test", "test"],
"cors": false,
"match_mode": "NORMAL",
"backend_type": "HTTP",
"group_id": "f71f69876f90456ca6fd18ed012fdc11",
"id": "81efcd94b8747a0b21e8c04144a4e8c",
"status": 1,
"arrange_necessary": 2,
"register_time": "2018-08-15T03:41:11Z",
"update_time": "2018-08-15T03:41:11Z",
"group_name": "group0002"
},
{
  "name": "bbbb",
  "type": 1,
  "version": "0.0.1",
  "req_protocol": "HTTPS",
  "req_method": "GET",
  "req_uri": "/test002",
  "auth_type": "APP",
  "auth_opt": {
    "app_code_auth_type": "DISABLE"
  },
  "tags": ["APIG-SN-test", "test"],
  "cors": false,
  "match_mode": "NORMAL",
  "backend_type": "MOCK",
  "remark": "aaa",
  "group_id": "70f1b578da9b4dfe889b4c33d1b995c2",
  "id": "91c26288acea4448be205265d77dae22",
  "status": 1,
  "arrange_necessary": 2,
  "register_time": "2018-07-27T11:54:24Z",
  "update_time": "2018-07-27T11:54:24Z",
  "group_name": "test001",
  "run_env_name": "RELEASE",
  "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "publish_id": "a6e06a00c382436eb524fa2dd343cb6d"
},
{
  "name": "aaa",
  "type": 1,
  "version": "0.0.1",
  "req_protocol": "HTTPS",
  "req_method": "GET",
  "req_uri": "/test001",
  "auth_type": "APP",
  "auth_opt": {
    "app_code_auth_type": "DISABLE"
  },
  "tags": ["APIG-SN-test", "test"],
  "cors": false,
  "match_mode": "NORMAL",
  "backend_type": "MOCK",
  "remark": "aaa",
  "group_id": "70f1b578da9b4dfe889b4c33d1b995c2",
  "id": "aebacac6095942b4b2dd2b209bb7b9bc",
  "status": 1,
  "arrange_necessary": 2,
```

```

"register_time": "2018-07-27T11:23:34Z",
"update_time": "2018-07-27T11:23:34Z",
"group_name": "test001",
"run_env_name": "RELEASE",
"run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
"publish_id": "1bc8b2b741a04bd4af3ef9d7cd003104"
}
]
}

```

## Status Codes

**Table 5-127** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
500	Server Internal Error

## 5.2.10 Querying Historical API Versions

### Function

This API is used to query the historical versions of an API. APIG retains a maximum of 10 historical versions for each API in an environment.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-128** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apis/publish/{api_id}[?env_id,env_name]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **env\_id** and **env\_name**.

The following table lists the parameters in the URI.

**Table 5-129** Parameter description

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID
env_id	No	String	ID of the environment in which the API has been published
env_name	No	String	Name of the environment in which the API has been published

## Request

N/A

## Response

**Table 5-130** Parameter description

Parameter	Type	Description
total	Integer	Number of historical versions that match the query conditions
size	Integer	Length of the returned historical version list
api_versions	Dictionary	Historical version list

**Table 5-131** Parameter description of api\_versions

Parameter	Type	Description
version_id	String	API version ID
version_no	String	API version
api_id	String	API ID
env_id	String	ID of the environment in which the API has been published
env_name	String	Name of the environment in which the API has been published
remark	String	Description about the publication
publish_time	Timestamp	Time when the API is published



Parameter	Type	Description
status	Integer	Version status, which can be: <ul style="list-style-type: none"> <li>• Effective</li> <li>• Not effective</li> </ul>

Example response:

```
{
  "total": 1,
  "size": 1,
  "api_versions": [
    {
      "version_id": "04c194dc7b5340ed942f2451702060da",
      "version_no": "20180722102526",
      "api_id": "acf141aa6279415088b593a4bbb55eed",
      "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "env_name": "RELEASE",
      "publish_time": "2018-04-14T07:32:23Z",
      "status": 2
    }
  ]
}
```

## Status Codes

Table 5-132 Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.2.11 Taking an Effective Version of an API Offline

#### Function

This API is used to remove an effective version of an API. After this operation, the API cannot be called in the environment in which it takes effect.

This API is provided for FunctionGraph.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-133** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/apis/versions/{version_id}

The following table lists the parameter in the URI.

**Table 5-134** Parameter description

Parameter	Mandatory	Type	Description
version_id	Yes	String	API version ID

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-135** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.2.12 Querying Details of an API Version

### Function

This API is used to query the details of a specified API version.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-136** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apis/versions/{version_id}

The following table lists the parameter in the URI.

**Table 5-137** Parameter description

Parameter	Mandatory	Type	Description
version_id	Yes	String	API version ID

## Request

N/A

## Response

**Table 5-138** Parameter description

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs
status	Integer	API status
type	Integer	API type
version	String	API version
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
auth_type	String	Security authentication mode
auth_opt	Object	Security authentication mode parameter
authorizer_id	String	ID of the frontend custom authorizer
match_mode	String	Matching mode

Parameter	Type	Description
register_time	Timestamp	Time when the API was created
update_time	Timestamp	Time when the API was last modified
remark	String	Description of the API
backend_type	String	Backend type
run_env_name	String	Name of the environment in which the API has been published
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	ID of the publication record
arrange_necessary	Integer	Indicates whether orchestration is required.
tag	String	Service name tag, which is to be discarded
tags	[]String	API tags
cors	Bool	Indicates whether CORS is supported.
body_remark	String	Description of the API request body, which can be an example request body, media type, or parameter information
result_normal_sample	String	Example response for a successful request
result_failure_sample	String	Example response for a failed request
response_id	String	ID of the gateway response
sl_domain	String	Subdomain name of the API group
sl_domains	Array of strings	List of subdomain names bound to the API group
version_id	String	API version
publish_time	Timestamp	Time when the API version is published
backend_api	Dictionary	Web backend details
mock_info	Dictionary	Mock backend details
func_info	Dictionary	FunctionGraph backend details
req_params	Dictionary	Request parameter list
backend_params	Dictionary	Backend parameter list

**Table 5-139** Parameter description of backend\_api

Parameter	Type	Description
id	String	Web backend ID
status	Integer	Web backend status
url_domain	String	Backend endpoint
version	String	Backend version
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
timeout	Integer	Timeout duration in milliseconds
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the web backend was last modified
remark	String	Description of the backend
vpc_status	String	Indicates whether to use a VPC channel.
vpc_info	String	VPC channel information
authorizer_id	String	ID of the backend custom authorizer

**Table 5-140** Parameter description of mock\_info

Parameter	Type	Description
id	String	Mock backend ID
status	Integer	Mock backend status
version	String	Backend version
result_content	String	Mock response
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the Mock backend was last modified
remark	String	Description of the backend

**Table 5-141** Parameter description of func\_info

Parameter	Type	Description
id	String	Function ID

Parameter	Type	Description
status	Integer	Function status
version	String	Function version
function_urn	String	Function URN
invocation_type	String	Invocation mode, which can be <b>async</b> or <b>sync</b>
register_time	Timestamp	Creation time
update_time	Timestamp	Time when the function was last updated
timeout	Integer	Timeout duration in milliseconds
remark	String	Description of the function

**Table 5-142** Parameter description of req\_params

Parameter	Type	Description
id	String	Parameter ID
name	String	Parameter name
type	String	Parameter type
location	String	Parameter location
default_value	String	Default value
sample_value	String	Example value
required	Integer	Indicates whether the parameter is mandatory.
valid_enable	Integer	Indicates whether validity check is enabled.
remark	String	Description of the parameter
enumerations	String	Enumerated value
min_num	Integer	Minimum value, which is valid when the parameter type is <b>NUMBER</b>
max_num	Integer	Maximum value, which is valid when the parameter type is <b>NUMBER</b>
min_size	Integer	Minimum length
max_size	Integer	Maximum length
regular	String	Regular expression validation rule
json_schema	String	JSON validation rule

**Table 5-143** Parameter description of backend\_params

Parameter	Type	Description
id	String	Parameter ID
req_param_id	String	ID of the request parameter to which the backend parameter is mapped
name	String	Parameter name
location	String	Parameter location
origin	Integer	Parameter type
value	Integer	Parameter value
remark	String	Description of the parameter

**Table 5-144** Parameter description of auth\_opt

Parameter	Type	Description
app_code_auth_type	String	Indicates whether AppCode authentication is enabled.

Example response:

```
{
  "name": "test",
  "type": 1,
  "version": "V0.0.1",
  "req_protocol": "HTTPS",
  "req_method": "GET",
  "req_uri": "/test/{project_id}",
  "auth_type": "APP",
  "auth_opt": {
    "app_code_auth_type": "HEADER"
  },
  "tags": ["APIG-SN-test", "test"],
  "cors": false,
  "match_mode": "NORMAL",
  "backend_type": "HTTP",
  "group_id": "f71f69876f90456ca6fd18ed012fdc11",
  "result_normal_sample": "hello world!",
  "id": "81efcfd94b8747a0b21e8c04144a4e8c",
  "status": 1,
  "arrange_necessary": 2,
  "register_time": "2018-08-15T03:41:11.0239936Z",
  "update_time": "2018-08-15T03:41:11.0239936Z",
  "group_name": "group0002",
  "sl_domain": "a8be0e466f0e4d8bb18ebd15402cdd66.apigw.example.com",
  "sl_domains": ["a8be0e466f0e4d8bb18ebd15402cdd66.apigw.example.com",
"a8be0e466f0e4d8bb18ebd15402cdd66.apigw.example.cn"],
  "version_id": "69b7492e2855487398d45733b9d6147a",
  "publish_time": "2018-08-24T03:10:14Z",
  "backend_api": {
    "url_domain": "xxxxxxxx",
    "req_protocol": "HTTP",
    "req_method": "GET",

```

```

"req_uri": "/test",
"timeout": 1000,
"vpc_status": 2,
"id": "3442ffd031814e3a8f133a9f1ea08453",
"status": 1,
"register_time": "2018-08-15T03:41:11.1019236Z",
"update_time": "2018-08-15T03:41:11.1019236Z"
},
"req_params": [
  {
    "name": "project_id",
    "type": "STRING",
    "location": "PATH",
    "required": 1,
    "valid_enable": 2,
    "id": "593c5560e0924e00af08fb458f850ecb"
  },
  {
    "name": "city",
    "type": "STRING",
    "location": "QUERY",
    "required": 2,
    "valid_enable": 2,
    "id": "e0b91bc81ae54f8ea850848d782d6e1e"
  }
],
"backend_params": [
  {
    "name": "project_id",
    "location": "QUERY",
    "origin": "REQUEST",
    "value": "project_id",
    "id": "44e03de2351e43a8b18ba9ec1e71d2e9",
    "req_param_id": "593c5560e0924e00af08fb458f850ecb"
  },
  {
    "name": "city",
    "location": "QUERY",
    "origin": "REQUEST",
    "value": "city",
    "id": "b60fbc5b86f4f5c8705c445b9bd6325",
    "req_param_id": "e0b91bc81ae54f8ea850848d782d6e1e"
  }
]
}

```

## Status Codes

**Table 5-145** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error



## 5.2.13 Querying the Runtime Definition of an API

### Function

This API is used to query the runtime definition of an API in a specified environment. The runtime definition of an API in the RELEASE environment is queried if no environment is specified.

The definition of an API is classified into the following types:

- Temporary definition: definition of an API used after the API was last edited.
- Runtime definition: snapshot of the temporary definition of an API captured when the API is published in an environment.

The runtime definition of an API is accessed when the API is called in an environment.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-146** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apis/runtime/{id}[?env_id]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- The query condition is **env\_id**.

The following table lists the parameter in the URI.

**Table 5-147** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	API ID

## Request

**Table 5-148** Parameter description

Parameter	Mandatory	Type	Description
env_id	No	String	ID of the environment in which the API is published

## Response

**Table 5-149** Parameter description

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs
type	Integer	API type
version	String	API version
req_protocol	String	Request protocol
req_method	String	Request method
req_uri	String	Access address
auth_type	String	Security authentication mode
auth_opt	Object	Security authentication mode parameter
authorizer_id	String	ID of the frontend custom authorizer
match_mode	String	Matching mode
remark	String	Description of the API
backend_type	String	Backend type
run_env_name	String	Name of the environment in which the API has been published
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	ID of the publication record

Parameter	Type	Description
tag	String	Service name tag, which is to be discarded
tags	[]String	API tags
cors	Bool	Indicates whether CORS is supported.
body_remark	String	Description of the API request body, which can be an example request body, media type, or parameter information
result_normal_sample	String	Example response for a successful request
result_failure_sample	String	Example response for a failed request
response_id	String	ID of the gateway response
sl_domain	String	Subdomain name of the API group
sl_domains	Array of strings	List of subdomain names bound to the API group
req_params	Dictionary	Request parameter list

**Table 5-150** Parameter description of req\_params

Parameter	Type	Description
id	String	Parameter ID
name	String	Parameter name
type	String	Parameter type
location	String	Parameter location
default_value	String	Default value
sample_value	String	Example value
required	Integer	Indicates whether the parameter is mandatory.
valid_enable	Integer	Indicates whether validity check is enabled.
remark	String	Description of the parameter
enumerations	String	Enumerated value
min_num	Integer	Minimum value, which is valid when the parameter type is <b>NUMBER</b>
max_num	Integer	Maximum value, which is valid when the parameter type is <b>NUMBER</b>

Parameter	Type	Description
min_size	Integer	Minimum length
max_size	Integer	Maximum length
regular	String	Regular expression validation rule
json_schema	String	JSON validation rule

**Table 5-151** Parameter description of auth\_opt

Parameter	Type	Description
app_code_auth_type	String	Indicates whether AppCode authentication is enabled.

Example response:

```
{
  "name": "market_api01",
  "type": 1,
  "version": "V0.0.1",
  "req_protocol": "HTTPS",
  "req_method": "GET",
  "req_uri": "/test01",
  "auth_type": "APP",
  "auth_opt": {
    "app_code_auth_type": "HEADER"
  },
  "tags": ["APIG-SN-test", "test"],
  "cors": true,
  "match_mode": "NORMAL",
  "backend_type": "MOCK",
  "remark": "market_api01",
  "group_id": "7f848adc971749cda9c6aff3877cfc3e",
  "body_remark": "market_api01",
  "result_normal_sample": "success",
  "result_failure_sample": "",
  "id": "0e51b689e0784bc884f43756bbf34fa5",
  "group_name": "market_group01",
  "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "run_env_name": "RELEASE",
  "publish_id": "f07eb9f5e5ba4bbf8e89326f5cae99c7",
  "sl_domain": "61297835ff1e4905b6f635dbcdf1777e.apigw.example.com",
  "sl_domains": ["61297835ff1e4905b6f635dbcdf1777e.apigw.example.com",
    "61297835ff1e4905b6f635dbcdf1777e.apigw.example.cn"],
  "req_params": [
    {
      "name": "project_id",
      "type": "STRING",
      "location": "PATH",
      "default_value": "",
      "sample_value": "",
      "required": 1,
      "valid_enable": 2,
      "remark": "",
      "enumerations": "",
      "min_num": 0,
      "max_num": 0,
      "min_size": 0,

```

```

    "max_size": 0,
    "regular": "",
    "json_schema": "",
    "id": "2a61905ea2304186a9422faba2940735"
  }
]
}

```

## Status Codes

**Table 5-152** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

## 5.2.14 Debugging an API

### Function

This API is used to debug the definition of an API in a specified environment. The API caller must have the permissions required for operating this API.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-153** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/apis/debug/{api_id}

The following table lists the parameter in the URI.

**Table 5-154** Parameter description

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID

## Request

**Table 5-155** Parameter description

Parameter	Mandatory	Type	Description
scheme	Yes	String	Request protocol, which can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
method	Yes	String	Request method, which can be: <ul style="list-style-type: none"> <li>• GET</li> <li>• POST</li> <li>• PUT</li> <li>• DELETE</li> <li>• HEAD</li> <li>• PATCH</li> <li>• OPTIONS</li> </ul>
domain	No	String	Access domain name of the API. If no value is specified, one of the following default values will be used based on the setting of <b>mode</b> : <ul style="list-style-type: none"> <li>• For <b>DEVELOPER</b>, the subdomain name of the API group will be used.</li> <li>• For <b>MARKET</b>, the domain name of the API group allocated by KooGallery will be used.</li> <li>• For <b>CONSUMER</b>, the subdomain name of the API group will be used.</li> </ul>
path	Yes	String	Request path of the API, starting with a slash (/) and with up to 1024 characters <b>NOTE</b> The request path must meet path requirements so that it can be correctly decoded after percent-encoding.

Parameter	Mandatory	Type	Description
query	No	Dictionary	<p>Query parameters, with each value being a character string array. Each parameter name must meet the following requirements:</p> <ul style="list-style-type: none"> <li>• Contains letters, digits, periods (.), hyphens (-), or underscores (_).</li> <li>• Starts with a letter, with a maximum length of 32 bytes.</li> <li>• Case-insensitive and not starts with <b>X-Apig-</b> or <b>X-Sdk-</b>.</li> <li>• Case-insensitive and cannot be <b>X-Stage</b>.</li> </ul>
header	No	Dictionary	<p>Header parameters, with each value being a character string array. Each parameter name must meet the following requirements:</p> <ul style="list-style-type: none"> <li>• Contains letters, digits, periods (.), and hyphens (-).</li> <li>• Starts with a letter, with a maximum length of 32 bytes.</li> <li>• Case-insensitive and not starts with <b>X-Apig-</b> or <b>X-Sdk-</b>.</li> <li>• Case-insensitive and cannot be <b>X-Stage</b>.</li> <li>• Case-insensitive and cannot be <b>X-Auth-Token</b> or <b>Authorization</b> when <b>mode</b> is set to <b>MARKET</b> or <b>CONSUMER</b>.</li> </ul> <p><b>NOTE</b> Each header name is normalized before use. For example, <b>x-MY-hEaDer</b> is normalized as <b>X-My-Header</b>.</p>
body	No	String	Message body, with a maximum length of 2,097,152 bytes.

Parameter	Mandatory	Type	Description
mode	Yes	String	<p>Debugging mode, which can be:</p> <ul style="list-style-type: none"> <li>• <b>DEVELOPER</b>: debugs the definition of an API that has not been published.</li> <li>• <b>MARKET</b>: debugs the definition of an API purchased from KooGallery.</li> <li>• <b>CONSUMER</b>: debugs the definition of an API that has been published in a specified environment.</li> </ul> <p><b>NOTE</b></p> <p>In <b>DEVELOPER</b> mode, the API caller must be the API owner.</p> <p>In <b>MARKET</b> mode, the API caller must be the API purchaser or owner.</p> <p>In <b>CONSUMER</b> mode, the API caller must be the API owner or has authorized its access to apps in the specified environment.</p>
app_key	No	String	AppKey used in the debugging request
app_secret	No	String	AppSecret used in the debugging request
stage	No	String	Running environment specified in the debugging request. This parameter is valid only when <b>mode</b> is set to <b>CONSUMER</b> . If no value is specified, <b>RELEASE</b> is used.

Example request:

```
{
  "mode": "DEVELOPER",
  "scheme": "HTTPS",
  "method": "GET",
  "path": "/test",
  "query": {
    "city": [
      "city01",
      "city02"
    ]
  },
  "header": {
    "X-My-City": [
      "city01",
      "city02"
    ]
  }
}
```



## Response

**Table 5-156** Parameter description

Parameter	Type	Description
request	String	Body of the debugging request
response	String	Body of the debugging response, with a maximum length of 2,097,152 bytes. Any content beyond this threshold will be truncated.  <b>NOTE</b> Any content beyond the length limit will be truncated, and text <b>[TRUNCATED]</b> will be added to the response body.
latency	String	Debugging duration in milliseconds
log	String	Debugging logs

Example response:

```
{
  "request": "GET /test?city=city01&city=city02 HTTP/1.1\r\nHost:
edf94892b11d440795562cb81c5be059.apigw.example.com\r\nUser-Agent: APIGatewayDebugClient/1.0\r\nX-
Apig-Mode: debug\r\nX-My-City: city01\r\nX-My-City: city02\r\n\r\n",
  "response": "HTTP/1.1 200 OK\r\nContent-Length: 33\r\nConnection: keep-alive\r\nContent-Type:
application/json; charset=utf-8\r\nDate: Fri, 24 Aug 2018 10:36:47 GMT\r\nServer: api-gateway\r\nX-Apig-
Latency: 13\r\nX-Apig-Ratelimit-API: remain:92,limit:100,time:1 minute\r\nX-Apig-Ratelimit-API-Allenv:
remain:9,limit:10,time:1 second\r\nX-Apig-Upstream-Latency: 1\r\nX-Request-Id:
12f69943cc2fa4f8a3674ee947655339\r\n\r\n{\r\n  \"version\": \"4.0.12.201808190004\"
  },
  "latency": "12",
  "log": ""
}
```

## Status Codes

**Table 5-157** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## 5.3 App Management

### 5.3.1 Object Model

This section describes the app object model.

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-158** App object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	App ID	R	-
name	String	App name	CRU	Yes
status	Integer	App status, which can be: <ul style="list-style-type: none"><li>• 1: enabled</li><li>• 2: disabled</li><li>• 3: deleted</li></ul> Default value: 1 This parameter is not used currently.	R	-
appkey	String	AppKey, which is globally unique	R	-
app_secret	String	AppSecret	RU	-
project_id	String	ID of the tenant to which the app belongs, that is, the user that creates the app	-	-
remark	String	Description of the app	CRU	No
register_time	Timestamp	Creation time	R	-
update_time	Timestamp	Time when the app was last updated	R	-

## 5.3.2 Creating an App

### Function

This API is used to create an app. An app is an identity for accessing an API. An app can call the APIs to which it has been authorized.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-159** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/apps

### Request

**Table 5-160** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	App name An app name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
remark	No	String	Description of the app The description cannot exceed 255 characters.
app_key	No	String	AppKey An AppKey consists of 8–64 characters, starting with a letter or digit. Only letters, digits, underscores (_), and hyphens (-) are allowed. <b>NOTE</b> This parameter is available in some regions.
app_secret	No	String	AppSecret An AppSecret consists of 8–64 characters, starting with a letter or digit. Only letters, digits, and the following special characters are allowed: _!@#\$\$% <b>NOTE</b> This parameter is available in some regions.

Example request:

```
{
  "name": "app_001",
  "remark": "first app",
  "app_key": "app_key_sample",
  "app_secret": "app_secret_sample"
}
```

## Response

**Table 5-161** Parameter description

Parameter	Type	Description
id	String	App ID
name	String	App name
status	Integer	App status
app_key	String	AppKey
app_secret	String	AppSecret
creator	String	App creator, which can be: <ul style="list-style-type: none"><li>● <b>USER</b>: The app is created by the API user.</li><li>● <b>MARKET</b>: The app is allocated by KooGallery.</li></ul>
register_time	Timestamp	Creation time
remark	String	Description of the app
update_time	Timestamp	Time when the app was last updated
app_type	String	App type. The default value is <b>apig</b> .

Example response:

```
{
  "id": "14b3****537e9",
  "name": "app_001",
  "status": 1,
  "app_key": "d49b1****376eb",
  "app_secret": "*****",
  "creator": "USER",
  "remark": "First app",
  "register_time": "2017-12-28T12:26:54.2345858Z",
  "update_time": "2017-12-28T12:26:54.2345858Z",
  "app_type": "apig"
}
```

## Status Codes

Table 5-162 Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

### 5.3.3 Modifying an App

#### Function

This API is used to modify the information about a specified app. The following parameters can be modified: **name** and **remark**. If the function of customizing keys and secrets is enabled, **app\_key** and **app\_secret** can also be modified. Other parameters cannot be modified.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

Table 5-163 HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/apps/{id}

The following table lists the parameter in the URI.

Table 5-164 Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	App ID, which can be obtained by querying the app list

## Request

**Table 5-165** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	App name An app name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
remark	No	String	Description of the app The description cannot exceed 255 characters.
app_key	No	String	AppKey An AppKey consists of 8–64 characters, starting with a letter or digit. Only letters, digits, underscores (_), and hyphens (-) are allowed. <b>NOTE</b> This parameter is available in some regions.
app_secret	No	String	AppSecret An AppSecret consists of 8–64 characters, starting with a letter or digit. Only letters, digits, and the following special characters are allowed: _-!@#\$\$% <b>NOTE</b> This parameter is available in some regions.

Example request:

```
{
  "name": "app_001",
  "remark": "First app",
  "app_key": "app_key_sample",
  "app_secret": "app_secret_sample"
}
```

## Response

**Table 5-166** Parameter description

Parameter	Type	Description
id	String	App ID
name	String	App name
status	Integer	App status

Parameter	Type	Description
app_key	String	AppKey
app_secret	String	AppSecret
creator	String	App creator, which can be: <ul style="list-style-type: none"> <li>● <b>USER</b>: The app is created by the API user.</li> <li>● <b>MARKET</b>: The app is allocated by KooGallery.</li> </ul>
register_time	Timestamp	Creation time
remark	String	Description of the app
update_time	Timestamp	Time when the app was last updated
app_type	String	App type. The default value is <b>apig</b> .

Example response:

```
{
  "id": "14b3****37e9",
  "name": "app_001",
  "status": 1,
  "app_key": "d49b1****e376eb",
  "app_secret": "*****",
  "creator": "USER",
  "remark": "First app",
  "register_time": "2017-12-28T12:26:54Z",
  "update_time": "2017-12-28T12:28:07.2966182Z",
  "app_type": "apig"
}
```

## Status Codes

**Table 5-167** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.3.4 Resetting an AppSecret

### Function

This API is used to reset the secret of a specified app.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-168** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/apps/secret/{id}

The following table lists the parameter in the URI.

**Table 5-169** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	App ID, which can be obtained by querying the app list

### Request

**Table 5-170** Parameter description

Parameter	Mandatory	Type	Description
app_secret	No	String	<p>AppSecret</p> <p>An AppSecret consists of 8–64 characters, starting with a letter or digit. Only letters, digits, and the following special characters are allowed: _!@#\$\$%</p> <p><b>NOTE</b> This parameter is available in some regions.</p>

Example request:

```
{
  "app_secret": "app_secret_sample"
}
```



## Response

**Table 5-171** Parameter description

Parameter	Type	Description
id	String	App ID
name	String	App name
status	Integer	App status
app_key	String	AppKey
app_secret	String	AppSecret
creator	String	App creator, which can be: <ul style="list-style-type: none"><li>● <b>USER</b>: The app is created by the API user.</li><li>● <b>MARKET</b>: The app is allocated by KooGallery.</li></ul>
register_time	Timestamp	Creation time
remark	String	Description of the app
update_time	Timestamp	Time when the app was last updated

Example response:

```
{
  "id": "14b399****537e9",
  "name": "app_001",
  "status": 1,
  "app_key": "d49b1cb****8e376eb",
  "app_secret": "*****",
  "creator": "USER",
  "remark": "First app",
  "register_time": "2017-12-28T12:26:54Z",
  "update_time": "2017-12-28T12:29:35.571Z"
}
```

## Status Codes

**Table 5-172** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

Status Code	Description
500	Server Internal Error

## 5.3.5 Deleting an App

### Function

This API is used to delete an app.

Deleted apps cannot call any APIs. Apps automatically created by KooGallery cannot be deleted.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-173** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/apps/{id}

The following table lists the parameter in the URI.

**Table 5-174** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	App ID

### Request

N/A

### Response

N/A

### Status Codes

**Table 5-175** Status codes

Status Code	Description
204	No Content

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Server Internal Error

## 5.3.6 Verifying an App

### Function

This API is used to check whether an app exists. This API can be used by people except the app owner to verify an app. Only the basic information, such as **ID**, **name**, and **remark**, of the app is displayed.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-176** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apps/validation/{id}

The following table lists the parameter in the URI.

**Table 5-177** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	App ID

### Request

N/A

## Response

**Table 5-178** Parameter description

Parameter	Type	Description
id	String	App ID
name	String	App name
remark	String	Description of the app

Example response:

```
{
  "id": "14b399ac-967f-4115-bb62-c0346b4537e9",
  "name": "app_001",
  "remark": "First app"
}
```

## Status Codes

**Table 5-179** Status codes

Status Code	Description
200	OK
401	Unauthorized
404	Not Found
500	Server Internal Error

### 5.3.7 Querying App Details

#### Function

This API is used to query the details of a specified app.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-180** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apps/{id}

The following table lists the parameter in the URI.

**Table 5-181** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	App ID

## Request

N/A

## Response

**Table 5-182** Parameter description

Parameter	Type	Description
id	String	App ID
name	String	App name
status	Integer	App status
app_key	String	AppKey
app_secret	String	AppSecret
creator	String	App creator, which can be: <ul style="list-style-type: none"> <li>• <b>USER</b>: The app is created by the API user.</li> <li>• <b>MARKET</b>: The app is allocated by KooGallery.</li> </ul>
register_time	Timestamp	Creation time
remark	String	Description of the app
update_time	Timestamp	Time when the app was last updated
app_type	String	App type. The default value is <b>apig</b> .

Example response:

```
{
  "id": "14b399a****4537e9",
  "name": "app_001",
  "status": 1,
  "app_key": "d49b1****e376eb",
  "app_secret": "*****",
  "creator": "USER",
  "remark": "First app",
  "register_time": "2017-12-28T12:26:54Z",
  "update_time": "2017-12-28T12:28:07.2966182Z",
  "app_type": "apig"
}
```

## Status Codes

**Table 5-183** Status codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.3.8 Querying an App List

#### Function

This API is used to query a list of apps that match specified conditions.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-184** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apps[?page_size, page_no, id, name, app_key, creator]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **id**, **name**, **app\_key**, **creator**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-185** Parameter description

Parameter	Mandatory	Type	Description
id	No	String	App ID
name	No	String	App name
status	No	Integer	App status

Parameter	Mandatory	Type	Description
app_key	No	String	AppKey
creator	No	String	App creator, which can be: <ul style="list-style-type: none"><li>• <b>USER</b>: The app is created by the API user.</li><li>• <b>MARKET</b>: The app is allocated by KooGallery.</li></ul>
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .
precise_search	No	String	Parameter name ( <b>name</b> ) for exact matching

## Request

N/A

## Response

**Table 5-186** Parameter description

Parameter	Type	Description
total	Integer	Number of apps that match the query conditions
size	Integer	Length of the returned app list
apps	Dictionary	App list

**Table 5-187** Parameter description of apps

Parameter	Type	Description
id	String	App ID

Parameter	Type	Description
name	String	App name
status	Integer	App status
app_key	String	AppKey
app_secret	String	AppSecret
register_time	Timestamp	Creation time
remark	String	Description of the app
update_time	Timestamp	Time when the app was last updated
creator	String	App creator, which can be: <ul style="list-style-type: none"><li>● <b>USER</b>: The app is created by the API user.</li><li>● <b>MARKET</b>: The app is allocated by KooGallery.</li></ul>
app_type	String	App type. The default value is <b>apig</b> .
bind_num	Integer	Number of APIs to which the app has been bound

Example response:

```
{
  "total": 2,
  "size": 2,
  "apps": [{
    "id": "98ef****a286a4",
    "name": "app_002",
    "status": 1,
    "app_key": "f627f****54d3fe2",
    "app_secret": "*****",
    "remark": "Second app",
    "register_time": "2017-12-28T12:32:50Z",
    "update_time": "2017-12-28T12:32:50Z",
    "creator": "MARKET",
    "app_type": "apig",
    "bind_num": 2
  },
  {
    "id": "14b39****4537e9",
    "name": "app_001",
    "status": 1,
    "app_key": "d49b****76eb",
    "app_secret": "*****",
    "remark": "First app",
    "register_time": "2017-12-28T12:26:54Z",
    "update_time": "2017-12-28T12:29:35.571Z",
    "creator": "USER",
    "app_type": "apig",
    "bind_num": 2
  }
  ]
}
```



## Status Codes

**Table 5-188** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
500	Server Internal Error

### 5.3.9 Creating an AppCode

#### Function

An AppCode is a sub-module of an app and can be used for simple app authentication. This API is used to create an AppCode.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-189** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/apps/{app_id}/app-codes

The following table lists the parameters in the URI.

**Table 5-190** Parameter description

Parameter	Mandatory	Type	Description
app_id	Yes	String	App ID

## Request

**Table 5-191** Parameter description

Parameter	Mandatory	Type	Description
app_code	Yes	String	App name An app name consists of 64–180 characters, starting with a letter, plus sign (+), or slash (/). Only letters and the following special characters are allowed: +_!@#\$/=

Example request:

```
{
  "app_code": "GjOD3g80AABuuFeEjPvQADBlAjBh3UzC7W
+gr4VJBB5BtJ4fdVOQoSvoji3gFxUDb5pWBz9wUcw9+8/bFZ1B/4pq29wCMQC0pQWX6zTndljDEL99As1pw
+WntAU9xcq+ffagoH6zDpKUvdxV6Ezj8LcCcPZN6BU="
}
```

## Response

**Table 5-192** Parameter description

Parameter	Type	Description
id	String	AppCode ID
app_code	String	AppCode value
app_id	String	App ID
create_time	Timestamp	Time when the AppCode is created

Example response:

```
{
  "app_code": "GjOD3g80AABuuFeEjPvQADBlAjBh3UzC7W
+gr4VJBB5BtJ4fdVOQoSvoji3gFxUDb5pWBz9wUcw9+8/bFZ1B/4pq29wCMQC0pQWX6zTndljDEL99As1pw
+WntAU9xcq+ffagoH6zDpKUvdxV6Ezj8LcCcPZN6BU=",
  "id": "2fb07c4391d0401696ed345dd1229158",
  "app_id": "db246f3f2ecd45f29ecb0f305e821fdc",
  "create_time": "2019-06-05T04:57:14.470987604Z"
}
```

## Status Codes

**Table 5-193** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

### 5.3.10 Generating an AppCode

#### Function

This API is used to generate a random AppCode.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-194** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/apps/{app_id}/app-codes

The following table lists the parameters in the URI.

**Table 5-195** Parameter description

Parameter	Mandatory	Type	Description
app_id	Yes	String	App ID

#### Request

N/A

## Response

**Table 5-196** Parameter description

Parameter	Type	Description
id	String	AppCode ID
app_code	String	AppCode value
app_id	String	App ID
create_time	Timestamp	Time when the AppCode is generated

Example response:

```
{
  "app_code": "GjOD3g80AABuuFeEJpVQADBIAjBh3UzC7W
+gr4VJBB5BtJ4fdVOQoSvoji3gFxUDb5pWBz9wUcw9+8/bFZ1B/4pq29wCMQC0pQWX6zTndljDEL99As1pw
+WntAU9xcq+ffagoH6zDpKUvdxV6Ezj8LcCcPZN6BU=",
  "id": "2fb07c4391d0401696ed345dd1229158",
  "app_id": "db246f3f2eccd45f29ecb0f305e821fdc",
  "create_time": "2019-06-05T04:57:14.470987604Z"
}
```

## Status Codes

**Table 5-197** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

### 5.3.11 Querying AppCode Details

#### Function

This API is used to query details of a specified AppCode.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-198** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apps/{app_id}/app-codes/{id}

The following table lists the parameters in the URI.

**Table 5-199** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	AppCode ID
app_id	Yes	String	App ID

## Request

N/A

## Response

**Table 5-200** Parameter description

Parameter	Type	Description
id	String	AppCode ID
app_code	String	AppCode value
app_id	String	App ID
create_time	Timestamp	Time when the AppCode is created

Example response:

```
{
  "app_code": "GjOD3g80AABuuFeEJpVQADBlAjBh3UzC7W
+gr4VJBB5BtJ4fdVOQoSvoji3gFxUDb5pWBz9wUcw9+8/bFZ1B/4pq29wCMQC0pQWX6zTndljDEl99As1pw
+WntAU9xcq+ffagoH6zDpKUvdxV6Ezj8LcCcPZN6BU=",
  "id": "2fb07c4391d0401696ed345dd1229158",
  "app_id": "db246f3f2ecd45f29ecb0f305e821fdc",
  "create_time": "2019-06-05T04:57:14.470987604Z"
}
```

## Status Codes

**Table 5-201** Status codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.3.12 Querying an AppCode List

#### Function

This API is used to query a list of AppCodes that match specified conditions.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-202** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/apps/{app_id}/app-codes[?page_size, page_no]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **page\_size** and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-203** Parameter description

Parameter	Mandatory	Type	Description
app_id	Yes	String	App ID

## Request

N/A

## Response

**Table 5-204** Parameter description

Parameter	Type	Description
total	Integer	Number of apps that match the query conditions
size	Integer	Length of the returned AppCode list
app_codes	Dictionary	AppCode list

**Table 5-205** Parameter description of app\_codes

Parameter	Type	Description
id	String	AppCode ID
app_code	String	AppCode value
app_id	String	App ID
create_time	Timestamp	Time when the AppCode is created

Example response:

```
{
  "total": 4,
  "size": 4,
  "app_codes": [
    {
      "app_code": "7049bc6b5b4140b4a93340f2555641bbc4cc7179e7734baeb85a773041cbfb1a",
      "id": "5434c97d872f41a88b039a8a973e0652",
      "app_id": "db246f3f2ecd45f29ecb0f305e821fdc",
      "create_time": "2019-06-05T08:54:25Z"
    },
    {
      "app_code": "asdssdadasdssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssss",
      "id": "787860297c3d4e51b76fff8abd089a94",
      "app_id": "db246f3f2ecd45f29ecb0f305e821fdc",
      "create_time": "2019-06-05T04:56:51Z"
    },
    {
      "app_code": "MeOAgeemgeatouS7peiwg+ivleaooeW8j+aJp+ihjHNoZWxs6lSa5pyslCAGLS0tLS0tLS3lronoo4XljiXmrovnlZnvvIzkulvkuKrniYjmnKzlop7liqDpg6jnvbLlronoo4XljiXliKDpmaQ2222221234124",
      "id": "c7a87cdfa50b4a4eaa644901c4dddb98",
      "app_id": "db246f3f2ecd45f29ecb0f305e821fdc",
      "create_time": "2019-05-10T03:14:02Z"
    }
  ]
}
```

```

    "app_code": "MeOAgeemgeatouS7peiwg+ivleaooeW8j+aJp
+ihjHNoZWxs6lSa5pyslCAgLS0tLS0tLS3Ironoo4XljlXmrovnlZnvvIzkulvkuKrniYjmnKzlop7liqDpg6jnvbLlronoo4
XljXliKDpmaQ",
    "id": "7be28fde162b4186a9a07543ca48a28e",
    "app_id": "db246f3f2ecd45f29ecb0f305e821fdc",
    "create_time": "2019-05-10T03:13:27Z"
  }
]
}

```

## Status Codes

**Table 5-206** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
500	Server Internal Error

### 5.3.13 Deleting an AppCode

#### Function

This API is used to delete a specified AppCode. After the AppCode is deleted, the corresponding API cannot be called through AppCode authentication.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-207** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/apps/{app_id}/app-codes/{id}

The following table lists the parameters in the URI.

**Table 5-208** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	AppCode ID
app_id	Yes	String	App ID



## Request

N/A

## Response

N/A

## Status Codes

**Table 5-209** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Server Internal Error

## 5.4 App Authorization Management

### 5.4.1 Object Model

This section describes the object model for app authorization.

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-210** Object model for app authorization

Parameter	Type	Description	Operation Type	Mandatory
id	String	Authorization ID	R	-
app_id	String	App ID	CR	Yes
front_api_id	String	API ID	CR	Yes

Parameter	Type	Description	Operation Type	Mandatory
env_id	String	ID of the environment in which the API is published	CR	Yes
create_time	Timestamp	Authorization time	R	-
auth_role	String	Authorizer	R	-

## 5.4.2 Querying the List of APIs Not Bound to an App

### Function

This API is used to query the list of self-developed APIs that have not been bound to an app in a specified environment.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-211** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/app-auths/unbound-apis[?page_size, page_no, app_id, env_id, api_id, api_name, group_id]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **app\_id**, **api\_id**, **api\_name**, **group\_id**, **env\_id**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-212** Parameter description

Parameter	Mandatory	Type	Description
app_id	Yes	String	App ID
env_id	Yes	String	Environment ID
group_id	No	String	API group ID

Parameter	Mandatory	Type	Description
api_id	No	String	API ID
api_name	No	String	API name
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-213** Parameter description

Parameter	Type	Description
total	Integer	Number of APIs that match the query conditions
size	Integer	Length of the returned API list
apis	Dictionary	API list

**Table 5-214** Parameter description of apis

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs
remark	String	Description of the API
run_env_name	String	Name of the environment in which the API has been published
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	ID of the publication record

Parameter	Type	Description
auth_type	String	Security authentication mode
req_uri	String	Access address

Example response:

```
{
  "total": 1,
  "size": 1,
  "apis": [{
    "id": "5bbc47e2-95b0-4a56-904e-a3cdc422f8e9",
    "name": "API_group_list_query",
    "remark": "API group list query",
    "group_id": "73c58022-f20d-495a-a188-85d718647f09",
    "group_name": "api_group_001",
    "run_env_name": "RELEASE",
    "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "publish_id": "65e6fe53-1ac3-4481-ba36-9f0bc6f22057",
    "auth_type": "APP",
    "req_uri": "/test"
  }]
}
```

## Status Codes

Table 5-215 Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.4.3 Authorizing Apps

### Function

An app cannot access any APIs immediately after it is created. To access an API in an environment, first authorize the app to call the API.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-216** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/app-auths

## Request

**Table 5-217** Parameter description

Parameter	Mandatory	Type	Description
api_ids	Yes	Array of strings	List of API IDs
app_ids	Yes	Array of strings	List of app IDs
env_id	Yes	String	ID of the environment in which the apps will be authorized

Example request:

```
{
  "api_ids": ["5bbc47e2-95b0-4a56-904e-a3cdc422f8e9",
    "6632a062-9dcf-4f18-9646-3cabb925a290"],
  "app_ids": ["14b399ac-967f-4115-bb62-c0346b4537e9"],
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID"
}
```

## Response

**Table 5-218** Parameter description

Parameter	Type	Description
--	Dictionary	Authorization list

**Table 5-219** Parameter description of the authorization list

Parameter	Type	Description
id	String	Authorization ID
api_id	String	API ID
app_id	String	App ID
auth_time	Timestamp	Authorization time

Parameter	Type	Description
auth_role	String	Authorizer, which can be: PROVIDER CONSUMER
auth_result	String	Authorization result, which can be: SUCCESS SKIPPED

Example response:

```
[{
  "id": "dffcaff92d144135a9f420fcd485bbf3",
  "api_id": "8aa097b00e9843efabc9c593d11b769d",
  "app_id": "f8c6ea15-0d1b-4c5b-bd4b-911610bd3b3e",
  "auth_time": "2018-03-30T09:37:43.490197204Z",
  "auth_role": "PROVIDER",
  "auth_result": "SUCCESS"
}]
```

## Status Codes

Table 5-220 Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Server Internal Error

### 5.4.4 Querying the List of APIs Bound to an App

#### Function

This API is used to query the list of APIs that have been bound to a specified app.

 **NOTE**

Only APIs that an app has been authorized to access in an environment can be queried.

## URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-221** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/app-auths/binded-apis[?page_size, page_no, app_id, api_id, api_name, group_id, group_name, env_id]

### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **app\_id**, **api\_id**, **api\_name**, **group\_id**, **group\_name**, **env\_id**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-222** Parameter description

Parameter	Mandatory	Type	Description
app_id	Yes	String	App ID
api_id	No	String	API ID
api_name	No	String	API name
group_id	No	String	API group ID
group_name	No	String	API group name
env_id	No	String	ID of the environment in which the app has been authorized
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-223** Parameter description

Parameter	Type	Description
total	Integer	Number of APIs that match the query conditions
size	Integer	Length of the returned API list
auths	Dictionary	API list

**Table 5-224** Parameter description of auths

Parameter	Type	Description
id	String	Authorization ID
api_id	String	API ID
api_name	String	API name
group_name	String	API group to which the API belongs
api_remark	String	Description of the API
api_type	Integer	API type
envname	String	Name of the environment in which the app has been authorized to call the API
env_id	String	ID of the environment
auth_role	String	Authorizer
auth_time	String	Authorization time
appid	String	App ID
app_name	String	App name
app_creator	String	App creator, which can be: <ul style="list-style-type: none"> <li>● <b>USER</b>: tenant</li> <li>● <b>MARKET</b>: API marketplace</li> </ul>
app_remark	String	App description
app_type	String	App type
publish_id	String	API publication ID

Example response:

```
{
  "total": 1,
```



```

"size": 1,
"auths": [{
  "id": "cfa688d8-094b-445a-b270-6aeb0b70a84a",
  "api_id": "6632a062-9dcf-4f18-9646-3cabb925a290",
  "api_name": "API_list_query",
  "group_name": "api_group_001",
  "api_type": 1,
  "api_remark": "API list query",
  "envname": "RELEASE",
  "auth_role": "PROVIDER",
  "auth_time": "2017-12-28T12:46:43Z",
  "appid": "14b399ac-967f-4115-bb62-c0346b4537e9",
  "app_name": "app_001",
  "app_creator": "USER",
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "app_remark": "App description",
  "app_type": "apig",
  "publish_id": "f500ba7e369b4b1ebae99aa9d114a17a"
}]
}

```

## Status Codes

**Table 5-225** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.4.5 Querying the List of Apps Bound to an API

#### Function

This API is used to query the list of apps that have been bound to a specified API.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-226** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/app-auths/binded-apps[?page_size, page_no, api_id, app_name, app_id, env_id]

 NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **api\_id**, **app\_name**, **app\_id**, **env\_id**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-227** Parameter description

Parameter	Mandatory	Type	Description
api_id	No	String	API ID
app_name	No	string	App name
app_id	No	String	App ID
env_id	No	String	Environment ID
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-228** Parameter description

Parameter	Type	Description
total	Integer	Number of apps that match the query conditions
size	Integer	Length of the returned app list
auths	Dictionary	App list

**Table 5-229** Parameter description of auths

Parameter	Type	Description
id	String	Authorization ID
api_id	String	API ID

Parameter	Type	Description
api_name	String	API name
group_name	String	API group to which the API belongs
api_remark	String	Description of the API
api_type	Integer	API type
envname	String	Environment in which access to the API has been authorized to an app
auth_role	String	Authorizer
auth_time	String	Authorization time
appid	String	App ID
app_name	String	App name
app_creator	String	App creator, which can be: <ul style="list-style-type: none"><li>● <b>USER</b>: tenant</li><li>● <b>MARKET</b>: API marketplace</li></ul>
publish_id	String	ID of the publication record
env_id	String	Environment ID
app_remark	String	App description
app_type	String	App type

Example response:

```
{
  "total": 1,
  "size": 1,
  "auths": [{
    "id": "cfa688d8-094b-445a-b270-6aeb0b70a84a",
    "api_id": "6632a062-9dcf-4f18-9646-3cabb925a290",
    "api_name": "API_list_query",
    "group_name": "api_group_001",
    "api_type": 1,
    "api_remark": "API list query",
    "envname": "RELEASE",
    "auth_role": "PROVIDER",
    "auth_time": "2017-12-28T12:46:43Z",
    "appid": "14b399ac-967f-4115-bb62-c0346b4537e9",
    "app_name": "app_001",
    "app_creator": "USER",
    "publish_id": "fe9d8ea9f9424594abc3bbe8d861c0f0",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "app_remark": "",
    "app_type": "apig"
  }]
}
```

## Status Codes

**Table 5-230** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.4.6 Canceling Authorization

### Function

This API is used to cancel the authorization of an app for accessing an API. After this operation, the app can no longer call the API.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-231** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/app-auths/{id}

The following table lists the parameter in the URI.

**Table 5-232** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Authorization ID

### Request

N/A

## Response

N/A

## Status Codes

**Table 5-233** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

# 5.5 Environment Management

## 5.5.1 Object Model

This section describes the object model for environment management.

 **NOTE**

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-234** Object model for environment management

Parameter	Type	Description	Operation Type	Mandatory
id	String	Environment ID	R	-
name	String	Environment name	CUR	Yes
alias	String	Environment alias	RU	-
project_id	String	ID of the tenant that creates the environment	-	-
create_time	String	Time when the environment is created	R	-
remark	String	Description of the environment	CUR	No

## 5.5.2 Creating an Environment

### Function

API providers can publish an API in different environments, such as the development, test, and production environments. API information, such as the version, request address, and even request message, varies depending on the environment in which an API is published. For example, v1.0 of an API is published in the production environment, v1.1 in the test environment, and v1.2 in the development environment.

APIG provides environment management, enabling you to access APIG in different scenarios at minimal costs.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-235** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/envs

### Request

**Table 5-236** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Environment name An environment name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
remark	No	String	Description of the environment The description cannot exceed 255 characters.

Example request:

```
{
  "name": "DEV",
  "remark": "Development environment"
}
```

## Response

**Table 5-237** Parameter description

Parameter	Type	Description
id	String	Environment ID
name	String	Environment name
create_time	Timestamp	Time when the environment is created
remark	String	Description of the environment

Example response:

```
{
  "id": "0035dd2e76dd4e3fa45fef634318ada4",
  "name": "DEV",
  "remark": "Development environment",
  "create_time": "2017-12-28T12:50:47.0744311Z"
}
```

## Status Codes

**Table 5-238** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

## 5.5.3 Modifying an Environment

### Function

This API is used to modify the information about a specified environment. Only the **name** and **remark** attributes of an environment can be modified.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-239** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/envs/{id}

The following table lists the parameter in the URI.

**Table 5-240** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Environment ID, which can be obtained by querying the environment information

## Request

**Table 5-241** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Environment name An environment name consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
remark	No	String	Description of the environment The description cannot exceed 255 characters.

Example request:

```
{
  "name": "DEVELOP",
  "remark": "Development environment"
}
```

## Response

**Table 5-242** Parameter description

Parameter	Type	Description
id	String	Environment ID



Parameter	Type	Description
name	String	Environment name
create_time	Timestamp	Time when the environment is created
remark	String	Description of the environment

Example response:

```
{
  "id": "0035dd2e76dd4e3fa45fef634318ada4",
  "name": "DEVELOP",
  "remark": "Development environment",
  "create_time": "2017-12-28T12:50:47Z"
}
```

## Status Codes

**Table 5-243** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.5.4 Deleting an Environment

### Function

This API is used to delete a specified environment.

This operation will cause the APIs published in the environment to become inaccessible to relevant apps and users. Ensure that you have notified users of the deletion or confirm that you insist on removing APIs from the deleted environment.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-244** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/envs/{id}

The following table lists the parameter in the URI.

**Table 5-245** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Environment ID

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-246** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.5.5 Querying an Environment List

### Function

This API is used to query an environment list that matches specified conditions.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-247** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/envs[?page_no, page_size,name]

 **NOTE**

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **name**, **page\_size**, and **page\_no**.

**Table 5-248** Parameter description

Parameter	Mandatory	Type	Description
name	No	String	Environment name.
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .
precise_search	No	String	Parameter name ( <b>name</b> supported only) for exact match.

## Request

N/A

## Response

**Table 5-249** Parameter description

Parameter	Type	Description
total	Integer	Number of environments that match the query conditions
size	Integer	Length of the returned environment list
envs	Dictionary	Environment list

**Table 5-250** Parameter description of envs

Parameter	Type	Description
id	String	Environment ID
name	String	Environment name
create_time	Timestamp	Time when the environment is created
remark	String	Description of the environment

Example response:

```
{
  "total": 2,
  "size": 2,
  "envs": [
    {
      "id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "name": "RELEASE",
      "remark": "Production environment",
      "create_time": "2017-12-29T03:39:03.165657Z"
    },
    {
      "id": "0035dd2e76dd4e3fa45fef634318ada4",
      "name": "DEVELOP",
      "remark": "Development environment",
      "create_time": "2017-12-28T12:50:47Z"
    }
  ]
}
```

## Status Codes

**Table 5-251** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
500	Server Internal Error

## 5.6 Environment Variable Management

### 5.6.1 Object Model

This section describes the environment variable object model.

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-252** Environment variable object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Environment variable ID	R	-
env_id	String	Environment ID	CR	Yes
group_id	String	API group ID	CR	Yes
variable_name	String	Variable name	CR	Yes
variable_value	String	Variable value	CR	Yes

## 5.6.2 Creating an Environment Variable

### Function

Publishing an API in different environments may involve various environment variables, such as API service deployment address and request version.

Define environment variables when creating an API. When the API is called, the environment variables will be replaced with the variable values to distinguish environments.

Environment variables are defined for an API group and apply to all APIs in the group.

 NOTE

1. Environment variable names must be unique for an API group in the same environment.
2. Environment variable names are case-sensitive. For example, **ABC** and **abc** are two different variables.
3. APIs that use environment variables cannot be debugged.
4. You must enclose an environment variable in number signs (#) so that it can be replaced with the actual value of the environment in which the API is published. For example, if the URL of an API is <https://#address#:8080> and the value of variable **address** is **192.168.1.5** in the RELEASE environment, the real URL of the API is <https://192.168.1.5:8080> after publishing.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-253** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/env-variables

## Request

**Table 5-254** Parameter description

Parameter	Mandatory	Type	Description
env_id	Yes	String	Environment ID
group_id	Yes	String	API group ID
variable_name	Yes	String	Variable name A variable name consists of 3–32 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed. The variable name is equivalent to <b>#Name#</b> in an API definition. Characters between the number signs are case-sensitive. The variable name will be replaced with the variable value after API publishing.
variable_value	Yes	String	Variable value A variable value consists of 1–255 characters. Only letters, digits, and special characters (_/./:) are allowed.

Example request:

```
{
  "env_id": "cca3616af3684b329064b2a631cb3eeb",
  "group_id": "73c58022f20d495aa18885d718647f09",
  "variable_name": "address",
  "variable_value": "192.168.1.5"
}
```

## Response

**Table 5-255** Parameter description

Parameter	Type	Description
id	String	Environment variable ID
env_id	String	Environment ID

Parameter	Type	Description
group_id	String	API group ID
variable_name	String	Variable name
variable_value	String	Variable value

Example response:

```
{
  "id": "104185e53e8f4c63a7e5ef4117bf870c",
  "env_id": "cca3616af3684b329064b2a631cb3eeb",
  "group_id": "73c58022f20d495aa18885d718647f09",
  "variable_name": "address",
  "variable_value": "192.168.1.5"
}
```

## Status Codes

**Table 5-256** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.6.3 Deleting an Environment Variable

#### Function

This API is used to delete a specified environment variable.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-257** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/env-variables/{id}

The following table lists the parameter in the URI.

**Table 5-258** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Environment variable ID

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-259** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.6.4 Querying Environment Variable Details

### Function

This API is used to query the details of an environment variable.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.



**Table 5-260** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/env-variables/{id}

The following table lists the parameter in the URI.

**Table 5-261** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Environment variable ID

## Request

N/A

## Response

**Table 5-262** Parameter description

Parameter	Type	Description
id	String	Environment variable ID
env_id	String	Environment ID
group_id	String	API group ID
variable_name	String	Variable name
variable_value	String	Variable value

Example response:

```
{
  "id": "104185e53e8f4c63a7e5ef4117bf870c",
  "env_id": "cca3616af3684b329064b2a631cb3eeb",
  "group_id": "73c58022f20d495aa18885d718647f09",
  "variable_name": "address",
  "variable_value": "192.168.1.5"
}
```

## Status Codes

**Table 5-263** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.6.5 Querying an Environment Variable List

### Function

This API is used to query the list of all environment variables under an API group.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-264** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/env-variables[?page_size, page_no, env_id, group_id, variable_name]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **env\_id**, **group\_id**, **variable\_name**, **page\_size**, and **page\_no**.

**Table 5-265** Parameter description

Parameter	Mandatory	Type	Description
env_id	No	String	Environment ID
group_id	Yes	String	API group ID
variable_name	No	String	Variable name

Parameter	Mandatory	Type	Description
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .
precise_search	No	String	Parameter name ( <b>variable_name</b> ) for exact matching

## Request

N/A

## Response

**Table 5-266** Parameter description

Parameter	Type	Description
variables	Dictionary	Environment variable list
total	Integer	Number of environment variables that match the query conditions
size	Integer	Length of the returned environment variable list

**Table 5-267** Parameter description of variables

Parameter	Type	Description
id	String	Environment variable ID
env_id	String	Environment ID
group_id	String	API group ID
variable_name	String	Variable name
variable_value	String	Variable value

Example response:

```
{
  "total": 2,
  "size": 2,
  "variables": [{
    "id": "09ab8135722440b9bf5d107f2a09d409",
    "env_id": "cca3616af3684b329064b2a631cb3eeb",
    "group_id": "73c58022f20d495aa18885d718647f09",
    "variable_name": "port",
    "variable_value": "8080"
  },
  {
    "id": "104185e53e8f4c63a7e5ef4117bf870c",
    "env_id": "cca3616af3684b329064b2a631cb3eeb",
    "group_id": "73c58022f20d495aa18885d718647f09",
    "variable_name": "address",
    "variable_value": "192.168.1.5"
  }
]}
```

## Status Codes

Table 5-268 Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.7 Request Throttling Policy Management

### 5.7.1 Object Model

This section describes the request throttling policy object model.

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-269** Request throttling policy object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	ID of a request throttling policy	R	-
name	String	Name of a request throttling policy	CRU	Yes
project_id	String	ID of the tenant that creates the request throttling policy	-	-
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period	CRU	Yes
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter must be less than or equal to that of <b>api_call_limits</b> .	CRU	No
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter must be less than or equal to that of <b>user_call_limits</b> .	CRU	No
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter must be less than or equal to that of <b>api_call_limits</b> .	CRU	No
time_interval	Integer	Period of time for limiting the number of API calls	CRU	Yes

Parameter	Type	Description	Operation Type	Mandatory
time_unit	String	Time unit, which can be: <ul style="list-style-type: none"> <li>• SECOND</li> <li>• MINUTE</li> <li>• HOUR</li> <li>• DAY</li> </ul>	CRU	Yes
create_time	Timestamp	Time when the request throttling policy is created	R	-
remark	String	Description of the request throttling policy	CRU	No
type	Integer	Type of the request throttling policy, which can be: <ul style="list-style-type: none"> <li>• 1: exclusive</li> <li>• 2: shared</li> </ul>	CRU	No

## 5.7.2 Creating a Request Throttling Policy

### Function

After an API goes online, the system attaches a request throttling policy to it by default. The API provider can change the request throttling policy based on the service capabilities and load of the API.

A request throttling policy restricts the maximum number of times an API can be called within a specified period.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-270** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/throttles

## Request

**Table 5-271** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the request throttling policy The name of a request throttling policy consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
api_call_limits	Yes	Integer	Maximum number of times an API can be accessed within a specified period. The value of this parameter cannot exceed the default limit 200 TPS. You can change the default limit to meet service requirements. The maximum value is 2,147,483,647. Enter a positive integer.
user_call_limits	No	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter must be less than or equal to that of <b>api_call_limits</b> . The maximum value is 2,147,483,647. Enter a positive integer.
app_call_limits	No	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter must be less than or equal to that of <b>user_call_limits</b> . The maximum value is 2,147,483,647. Enter a positive integer.
ip_call_limits	No	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter must be less than or equal to that of <b>api_call_limits</b> . The maximum value is 2,147,483,647. Enter a positive integer.
time_interval	Yes	Integer	Period of time for limiting the number of API calls. This parameter applies with each of the preceding three API call limits. The maximum value is 2,147,483,647. Enter a positive integer.
time_unit	Yes	String	Time unit, which can be: <ul style="list-style-type: none"> <li>• SECOND</li> <li>• MINUTE</li> <li>• HOUR</li> <li>• DAY</li> </ul>

Parameter	Mandatory	Type	Description
remark	No	String	Description of the request throttling policy The description cannot exceed 255 characters.
type	No	Integer	Type of the request throttling policy, which can be: <ul style="list-style-type: none"> <li>• 1: exclusive, limiting the maximum number of times a single API can be called within the specified period.</li> <li>• 2: shared, limiting the maximum number of times all APIs can be called within the specified period.</li> </ul>
enable_adaptive_control	No	String	Enabling status of dynamic request throttling <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> This function is currently not available.

Example request:

```
{
  "api_call_limits": 800,
  "user_call_limits": 500,
  "app_call_limits": 300,
  "ip_call_limits": 600,
  "name": "800_calls_per_second",
  "remark": "Total: 800 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
  "time_interval": 1,
  "time_unit": "SECOND"
}
```

## Response

Table 5-272 Parameter description

Parameter	Type	Description
id	String	ID of the request throttling policy
name	String	Name of the request throttling policy
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period



Parameter	Type	Description
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period
time_interval	Integer	Period of time for limiting the number of API calls
time_unit	String	Time unit for limiting the number of API calls
remark	String	Description of the request throttling policy
create_time	Timestamp	Time when the request throttling policy is created
is_include_special_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. The value can be: <ul style="list-style-type: none"><li>• 1: yes</li><li>• 2: no</li></ul>
type	Integer	Type of the request throttling policy, which can be: <ul style="list-style-type: none"><li>• 1: exclusive</li><li>• 2: shared</li></ul>
bind_num	Integer	Number of APIs to which the request throttling policy has been bound
enable_adaptive_control	String	Enabling status of dynamic request throttling <ul style="list-style-type: none"><li>• TRUE</li><li>• FALSE</li></ul> This function is currently not available.

Example response:

```
{
  "id": "0325b671-2d50-4614-9868-22102262695d",
  "name": "800_calls_per_second",
  "api_call_limits": 800,
  "user_call_limits": 500,
  "app_call_limits": 300,
  "ip_call_limits": 600,
  "time_interval": 1,
  "time_unit": "SECOND",
  "create_time": "2017-12-29T01:55:59.9904225Z",
  "remark": "Total: 800 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
  "is_inclu_special_throttle": 2,
  "type": 1,
  "bind_num": 0,
  "enable_adaptive_control": "FALSE"
}
```

## Status Codes

**Table 5-273** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
500	Server Internal Error

## 5.7.3 Modifying a Request Throttling Policy

### Function

This API is used to modify the detailed information of a request throttling policy.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-274** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/throttles/{id}

The following table lists the parameter in the URI.

**Table 5-275** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	ID of the request throttling policy that you want to modify

## Request

**Table 5-276** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the request throttling policy that you want to modify The name of a request throttling policy consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores ( _ ) are allowed.
api_call_limits	Yes	Integer	Maximum number of times an API can be accessed within a specified period. The value of this parameter cannot exceed the default limit 200 TPS. You can change the default limit to meet service requirements. The maximum value is 2,147,483,647. Enter a positive integer.
user_call_limits	No	Integer	Maximum number of times the API can be accessed by a user within the same period. The value of this parameter must be less than or equal to that of <b>api_call_limits</b> . The maximum value is 2,147,483,647. Enter a positive integer.
app_call_limits	No	Integer	Maximum number of times the API can be accessed by an app within the same period. The value of this parameter must be less than or equal to that of <b>user_call_limits</b> . The maximum value is 2,147,483,647. Enter a positive integer.
ip_call_limits	No	Integer	Maximum number of times the API can be accessed by an IP address within the same period. The value of this parameter must be less than or equal to that of <b>api_call_limits</b> . The maximum value is 2,147,483,647. Enter a positive integer.
time_interval	Yes	Integer	Period of time for limiting the number of API calls. This parameter applies with each of the preceding three API call limits. The maximum value is 2,147,483,647. Enter a positive integer.

Parameter	Mandatory	Type	Description
time_unit	Yes	String	Time unit, which can be: <ul style="list-style-type: none"> <li>SECOND</li> <li>MINUTE</li> <li>HOUR</li> <li>DAY</li> </ul>
remark	No	String	Description of the request throttling policy The description cannot exceed 255 characters.
type	No	Integer	Type of the request throttling policy, which can be: <ul style="list-style-type: none"> <li>1: exclusive, limiting the maximum number of times a single API can be called within the specified period.</li> <li>2: shared, limiting the maximum number of times all APIs can be called within the specified period.</li> </ul>
enable_adaptive_control	No	String	Enabling status of dynamic request throttling <ul style="list-style-type: none"> <li>TRUE</li> <li>FALSE</li> </ul> This function is currently not available.

Example request:

```
{
  "api_call_limits": 1000,
  "user_call_limits": 500,
  "app_call_limits": 300,
  "ip_call_limits": 600,
  "name": "1000_calls_per_second",
  "remark": "Total: 1000 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
  "time_interval": 1,
  "time_unit": "SECOND"
}
```

## Response

**Table 5-277** Parameter description

Parameter	Type	Description
id	String	ID of the request throttling policy
name	String	Name of the request throttling policy

Parameter	Type	Description
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period
time_interval	Integer	Period of time for limiting the number of API calls
time_unit	String	Time unit for limiting the number of API calls
remark	String	Description of the request throttling policy
create_time	Timestamp	Time when the request throttling policy is created
is_include_special_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. The value can be: <ul style="list-style-type: none"> <li>• 1: yes</li> <li>• 2: no</li> </ul>
type	Integer	Type of the request throttling policy, which can be: <ul style="list-style-type: none"> <li>• 1: exclusive</li> <li>• 2: shared</li> </ul>
bind_num	Integer	Number of APIs to which the request throttling policy has been bound
enable_adaptive_control	String	Enabling status of dynamic request throttling <ul style="list-style-type: none"> <li>• TRUE</li> <li>• FALSE</li> </ul> This function is currently not available.

Example response:

```
{
  "id": "0325b671-2d50-4614-9868-22102262695d",
  "name": "1000_calls_per_second",
  "api_call_limits": 1000,
  "user_call_limits": 500,
  "app_call_limits": 300,
  "ip_call_limits": 600,
  "time_interval": 1,
  "time_unit": "SECOND",
```

```
"create_time": "2017-12-29T01:55:59Z",
"remark": "Total: 1000 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
"is_inclu_special_throttle": 2,
"type": 1,
"bind_num": 0,
"enable_adaptive_control": "FALSE"
}
```

## Status Codes

**Table 5-278** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.7.4 Deleting a Request Throttling Policy

### Function

This API is used to delete a request throttling policy and all binding relationships between the policy and APIs.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-279** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/throttles/{id}

The following table lists the parameter in the URI.

**Table 5-280** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	ID of a request throttling policy

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-281** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.7.5 Querying Details of a Request Throttling Policy

### Function

This API is used to query the details of a request throttling policy.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-282** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/throttles/{id}

The following table lists the parameter in the URI.

**Table 5-283** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	ID of a request throttling policy

## Request

N/A

## Response

**Table 5-284** Parameter description

Parameter	Type	Description
id	String	ID of the request throttling policy
name	String	Name of the request throttling policy
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period
time_interval	Integer	Period of time for limiting the number of API calls
time_unit	String	Time unit for limiting the number of API calls
remark	String	Description of the request throttling policy
create_time	Timestamp	Time when the request throttling policy is created
is_include_special_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. The value can be: <ul style="list-style-type: none"><li>• 1: yes</li><li>• 2: no</li></ul>



Parameter	Type	Description
type	Integer	Type of the request throttling policy, which can be: <ul style="list-style-type: none"><li>• 1: exclusive</li><li>• 2: shared</li></ul>
bind_num	Integer	Number of APIs to which the request throttling policy has been bound
enable_adaptive_control	String	Enabling status of dynamic request throttling <ul style="list-style-type: none"><li>• TRUE</li><li>• FALSE</li></ul> This function is currently not available.

Example response:

```
{
  "id": "0325b671-2d50-4614-9868-22102262695d",
  "name": "1000_calls_per_second",
  "api_call_limits": 1000,
  "user_call_limits": 500,
  "app_call_limits": 300,
  "ip_call_limits": 600,
  "time_interval": 1,
  "time_unit": "SECOND",
  "create_time": "2017-12-29T01:55:59Z",
  "remark": "Total: 1000 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
  "is_inclu_special_throttle": 2,
  "type": 1,
  "bind_num": 0,
  "enable_adaptive_control": "FALSE"
}
```

## Status Codes

Table 5-285 Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.7.6 Querying the Request Throttling Policy List

### Function

This API is used to query all request throttling policies.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-286** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/throttles[?page_size, page_no, id, name]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **id**, **name**, **page\_size**, and **page\_no**.

### Request

**Table 5-287** Parameter description

Parameter	Mandatory	Type	Description
id	No	String	ID of a request throttling policy
name	No	String	Name of the request throttling policy
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .
precise_search	No	String	Parameter name ( <b>name</b> ) for exact matching

## Response

**Table 5-288** Parameter description

Parameter	Type	Description
total	Integer	Number of request throttling policies that match the query conditions
size	Integer	Length of the returned request throttling policy list
throttles	Dictionary	Request throttling policy list

**Table 5-289** Parameter description of throttles

Parameter	Type	Description
id	String	ID of a request throttling policy
name	String	Name of the request throttling policy
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period
time_interval	Integer	Period of time for limiting the number of API calls
time_unit	String	Time unit for limiting the number of API calls
remark	String	Description of the request throttling policy
create_time	Timestamp	Time when the request throttling policy is created
is_include_special_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. The value can be: <ul style="list-style-type: none"><li>• 1: yes</li><li>• 2: no</li></ul>

Parameter	Type	Description
type	Integer	Type of the request throttling policy, which can be: <ul style="list-style-type: none"> <li>● 1: exclusive</li> <li>● 2: shared</li> </ul>
bind_num	Integer	Number of APIs to which the request throttling policy has been bound
enable_adaptive_control	String	Enabling status of dynamic request throttling <ul style="list-style-type: none"> <li>● TRUE</li> <li>● FALSE</li> </ul> This function is currently not available.

Example response:

```
{
  "total": 2,
  "size": 2,
  "throttles": [{
    "id": "a3106cfe-801f-4919-b0d7-d785dc5b47f9",
    "name": "500_calls_per_second",
    "api_call_limits": 500,
    "user_call_limits": 200,
    "app_call_limits": 100,
    "ip_call_limits": 100,
    "time_interval": 1,
    "time_unit": "SECOND",
    "create_time": "2017-12-29T02:04:08Z",
    "remark": "Total: 500 calls/second; user: 200 calls/second; app: 100 calls/second; IP address: 100 calls/second",
    "is_inclu_special_throttle": 2,
    "type": 1,
    "bind_num": 1,
    "enable_adaptive_control": "FALSE"
  },
  {
    "id": "0325b671-2d50-4614-9868-22102262695d",
    "name": "1000_calls_per_second",
    "api_call_limits": 1000,
    "user_call_limits": 500,
    "app_call_limits": 300,
    "ip_call_limits": 600,
    "time_interval": 1,
    "time_unit": "SECOND",
    "create_time": "2017-12-29T01:55:59Z",
    "remark": "Total: 1000 calls/second; user: 500 calls/second; app: 300 calls/second; IP address: 600 calls/second",
    "is_inclu_special_throttle": 2,
    "type": 1,
    "bind_num": 1,
    "enable_adaptive_control": "FALSE"
  }
  ]
}
```

## Status Codes

**Table 5-290** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
500	Server Internal Error

## 5.8 Binding Request Throttling Policies

### 5.8.1 Object Model

This section describes the object model for binding a request throttling policy to an API.

 **NOTE**

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-291** Object model for binding a request throttling policy

Parameter	Type	Description	Operation Type	Mandatory
id	String	Binding ID	R	-
throttle_id	String	Request throttling policy ID	CR	Yes
front_api_id	String	API ID	CR	Yes
env_id	String	Environment ID	CR	Yes
create_time	Timestamp	Time when the request throttling policy is bound to the API	R	-

## 5.8.2 Querying the List of APIs Not Bound to a Request Throttling Policy

### Function

This API is used to query the list of self-developed APIs that are not bound to a request throttling policy. Only published APIs will be displayed.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-292** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/throttle-bindings/unbound-apis[?page_size, page_no, throttle_id, group_id, env_id, api_id, api_name]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **group\_id**, **env\_id**, **throttle\_id**, **api\_id**, **api\_name**, **page\_size**, and **page\_no**.

### Request

**Table 5-293** Parameter description

Parameter	Mandatory	Type	Description
throttle_id	Yes	String	ID of a request throttling policy
env_id	No	String	Environment ID
group_id	No	String	API group ID
api_id	No	String	API ID
api_name	No	String	API name
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .

Parameter	Mandatory	Type	Description
page_no	No	Integer	Page number. The default value is 1.

## Response

**Table 5-294** Parameter description

Parameter	Type	Description
total	Integer	Number of APIs that match the query conditions
size	Integer	Length of the returned API list
apis	Dictionary	API list

**Table 5-295** Parameter description of apis

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs
type	Integer	API type
remark	String	Description of the API
run_env_name	String	Name of the environment in which the API has been published
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	ID of the publication record
throttle_apply_id	String	Binding ID
throttle_name	String	Name of the request throttling policy bound to the API
apply_time	Timestamp	Time when the request throttling policy is bound to the API
auth_type	String	Security authentication mode

Parameter	Type	Description
req_uri	String	Access address

Example response:

```
{
  "total": 2,
  "size": 2,
  "apis": [{
    "id": "5bbc47e2-95b0-4a56-904e-a3cdc422f8e9",
    "name": "API_group_list_query",
    "type": 1,
    "remark": "API group list query",
    "group_id": "73c58022-f20d-495a-a188-85d718647f09",
    "group_name": "api_group_001",
    "run_env_name": "RELEASE",
    "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "publish_id": "65e6fe53-1ac3-4481-ba36-9f0bc6f22057",
    "auth_type": "APP",
    "req_uri": "/test"
  },
  {
    "id": "6632a062-9dcf-4f18-9646-3cabb925a290",
    "name": "API_list_query",
    "type": 1,
    "remark": "API list query",
    "group_id": "73c58022-f20d-495a-a188-85d718647f09",
    "group_name": "api_group_001",
    "run_env_name": "RELEASE",
    "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "publish_id": "374a6d5a-20c7-4ea1-82e1-19fce4556956",
    "auth_type": "APP",
    "req_uri": "/test"
  }
  ]
}
```

## Status Codes

Table 5-296 Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error



## 5.8.3 Binding a Request Throttling Policy

### Function

The request throttling policy bound to an API will control all access to the API. If the number of API calls within a specified period reaches the limit, subsequent access will be rejected, protecting the backend API from abnormal traffic and ensuring stable service running.

This API is used to bind a request throttling policy to an API that has been published in an environment.

You can bind different request throttling policies to an API in different environments, but can bind only one request throttling policy to the API in each environment.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-297** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/throttle-bindings

### Request

**Table 5-298** Parameter description

Parameter	Mandatory	Type	Description
publish_ids	Yes	Array of strings	API publication record ID
strategy_id	Yes	String	ID of a request throttling policy

Example request:

```
{
  "publish_ids": [
    "374a6d5a-20c7-4ea1-82e1-19fce4556956",
    "65e6fe53-1ac3-4481-ba36-9f0bc6f22057"
  ],
  "strategy_id": "0325b671-2d50-4614-9868-22102262695d"
}
```

## Response

**Table 5-299** Parameter description

Parameter	Type	Description
throttle_appl s	Dictionary	Binding list

**Table 5-300** Parameter description of throttle\_applys

Parameter	Type	Description
id	String	Binding ID
strategy_id	String	ID of a request throttling policy
publish_id	String	API publication record ID
scope	Integer	Scope of the request throttling policy, which can be: <ul style="list-style-type: none"> <li>● 1: access from users and apps</li> <li>● 2: access from a user</li> <li>● 3: access from an app</li> </ul> Currently, only 1 is supported.
apply_time	Timestamp	Time when the request throttling policy is bound to the API

Example response:

```
{
  "throttle_applys": [{
    "id": "507c6a9f-8322-4dc2-8ba5-b4d74e3690d3",
    "strategy_id": "0325b671-2d50-4614-9868-22102262695d",
    "publish_id": "374a6d5a-20c7-4ea1-82e1-19fce4556956",
    "scope": 1,
    "apply_time": "2017-12-29T03:01:11.138456Z"
  },
  {
    "id": "90f05978-06a3-4096-8bea-b5e2fa12b843",
    "strategy_id": "0325b671-2d50-4614-9868-22102262695d",
    "publish_id": "65e6fe53-1ac3-4481-ba36-9f0bc6f22057",
    "scope": 1,
    "apply_time": "2017-12-29T03:01:11.138456Z"
  }
]
```

## Status Codes

**Table 5-301** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.8.4 Querying the List of APIs Bound to a Request Throttling Policy

#### Function

This API is used to query the list of APIs to which a specified request throttling policy has been bound.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-302** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/throttle-bindings/binded-apis[?page_size, page_no, throttle_id, env_id, group_id, api_id, api_name]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **group\_id**, **env\_id**, **throttle\_id**, **api\_id**, **api\_name**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-303** Parameter description

Parameter	Mandatory	Type	Description
throttle_id	Yes	String	ID of a request throttling policy
env_id	No	String	Environment ID
group_id	No	String	API group ID
api_id	No	String	API ID
api_name	No	String	API name
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-304** Parameter description

Parameter	Type	Description
total	Integer	Number of APIs that match the query conditions
size	Integer	Length of the returned API list
apis	Dictionary	API list

**Table 5-305** Parameter description of apis

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs
type	Integer	API type

Parameter	Type	Description
remark	String	Description of the API
run_env_name	String	Name of the environment in which the API has been published
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	ID of the publication record
throttle_apply_id	String	Binding ID
throttle_name	String	Name of the request throttling policy bound to the API
apply_time	Timestamp	Time when the request throttling policy is bound to the API
auth_type	String	Security authentication mode
req_uri	String	Access address

Example response:

```
{
  "total": 2,
  "size": 2,
  "apis": [
    {
      "id": "5bbc47e2-95b0-4a56-904e-a3cdc422f8e9",
      "name": "API_group_list_query",
      "type": 1,
      "remark": "API group list query",
      "group_id": "73c58022-f20d-495a-a188-85d718647f09",
      "group_name": "api_group_001",
      "run_env_name": "RELEASE",
      "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "publish_id": "65e6fe53-1ac3-4481-ba36-9f0bc6f22057",
      "throttle_apply_id": "90f05978-06a3-4096-8bea-b5e2fa12b843",
      "throttle_name": "throttle1",
      "apply_time": "2017-12-29T03:01:11.138456Z",
      "auth_type": "APP",
      "req_uri": "/test"
    },
    {
      "id": "6632a062-9dcf-4f18-9646-3cabb925a290",
      "name": "API_list_query",
      "type": 1,
      "remark": "API list query",
      "group_id": "73c58022-f20d-495a-a188-85d718647f09",
      "group_name": "api_group_001",
      "run_env_name": "RELEASE",
      "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "publish_id": "374a6d5a-20c7-4ea1-82e1-19fce4556956",
      "throttle_apply_id": "507c6a9f-8322-4dc2-8ba5-b4d74e3690d3",
      "throttle_name": "throttle1",
      "apply_time": "2017-12-29T03:01:11.138456Z",
      "auth_type": "APP",
      "req_uri": "/test"
    }
  ]
}
```

## Status Codes

**Table 5-306** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.8.5 Querying the List of Request Throttling Policies Bound to an API

### Function

This API is used to query the list of request throttling policies that have been bound to an API. Only one request throttling policy can be bound to an API in an environment.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-307** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/throttle-bindings/binded-throttles[? page_no, page_size, api_id, throttle_id, throttle_name,env_id]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **api\_id**, **throttle\_id**, **throttle\_name**, **env\_id**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-308** Parameter description

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID
throttle_id	No	String	Request throttling policy ID
throttle_name	No	String	Request throttling policy name
env_id	No	String	Environment ID
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-309** Parameter description

Parameter	Type	Description
total	Integer	Number of request throttling policies that match the query conditions
size	Integer	Length of the returned request throttling policy list
throttles	Dictionary	Request throttling policy list

**Table 5-310** Parameter description of throttles

Parameter	Type	Description
id	String	Request throttling policy ID
name	String	Request throttling policy name
api_call_limits	Integer	Maximum number of times an API can be accessed within a specified period

Parameter	Type	Description
user_call_limits	Integer	Maximum number of times the API can be accessed by a user within the same period
app_call_limits	Integer	Maximum number of times the API can be accessed by an app within the same period
ip_call_limits	Integer	Maximum number of times the API can be accessed by an IP address within the same period
time_interval	Integer	Period of time for limiting the number of API calls
time_unit	String	Time unit for limiting the number of API calls
remark	String	Description of the request throttling policy
create_time	Timestamp	Time when the request throttling policy is created
is_include_special_throttle	Integer	Indicates whether an excluded request throttling configuration has been created. The value can be: <b>1</b> : yes <b>2</b> : no
env_name	String	Environment in which the request throttling policy takes effect
type	Integer	Type of the request throttling policy
bind_id	String	Binding ID
bind_time	Timestamp	Time when the request throttling policy is bound to the API
bind_num	Integer	Number of APIs to which the request throttling policy has been bound
enable_adaptive_control	String	Enabling status of dynamic request throttling. This function is currently not available.

Example response:

```
{
  "total": 1,
  "size": 1,
  "throttles": [{
    "id": "0325b671-2d50-4614-9868-22102262695d",
    "name": "1000_calls_per_second",
    "api_call_limits": 1000,
    "user_call_limits": 500,
    "app_call_limits": 300,
    "ip_call_limits": 100,
    "time_interval": 1,
    "time_unit": "SECOND",
    "create_time": "2017-12-29T01:55:59Z",
```



```

    "remark": "Total: 1000 calls/second; user: 500 calls/second; app: 300 calls/second",
    "is_inclu_special_throttle": 2,
    "env_name": "RELEASE",
    "type": 1,
    "bind_id": "359f5c1868f647b6ad0f0d285154a791",
    "bind_time": "2019-07-08T01:27:38Z",
    "bind_num": 1,
    "enable_adaptive_control": "FALSE"
  }}
}

```

## Status Codes

**Table 5-311** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.8.6 Unbinding a Request Throttling Policy

### Function

This API is used to unbind a request throttling policy from an API.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-312** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/throttle-bindings/{id}

The following table lists the parameters in the URI.

**Table 5-313** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Binding ID

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-314** Status codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

# 5.9 Excluded Request Throttling Configuration

## 5.9.1 Object Model

This section describes the object model for excluded request throttling configurations.

 **NOTE**

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-315** Object model for excluded request throttling configurations

Parameter	Type	Description	Operation Type	Mandatory
id	String	Excluded request throttling configuration ID	R	-
strategy_id	String	Request throttling policy ID	CR	Yes

Parameter	Type	Description	Operation Type	Mandatory
instance_id	String	ID of the object to which the excluded request throttling configuration applies	CR	Yes
instance_type	String	Object type, which can be <b>APP</b> or <b>USER</b> .	CR	Yes
call_limits	Integer	Maximum number of times the excluded object can access an API within the throttling period	CRU	Yes
apply_time	Timestamp	Time when the excluded request throttling configuration is created	R	-

## 5.9.2 Creating an Excluded Request Throttling Configuration

### Function

A request throttling policy controls the maximum number of times an API can be accessed within a specified period and the maximum numbers of times the API can be accessed by a tenant or an app within the same period.

When necessary, you can create an excluded request throttling configuration to specify the threshold of API calls for a specific app. For example, after you set the API call threshold for all apps to 500 calls/minute, you can specify the API call threshold of app 1 as 800 calls/minute.

You can add excluded apps or tenants to a request throttling policy.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-316** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/throttle-specials

## Request

**Table 5-317** Parameter description

Parameter	Mandatory	Type	Description
call_limits	Yes	Integer	Maximum number of times the excluded object can access an API within the throttling period
instance_id	Yes	String	Excluded app ID or excluded account ID
instance_type	Yes	String	Object type, which can be <b>APP</b> or <b>USER</b>
strategy_id	Yes	String	Request throttling policy ID

Example request:

```
{
  "call_limits": 150,
  "instance_id": "98efd77d-10b5-4eca-8170-ed30a4a286a4",
  "instance_type": "APP",
  "strategy_id": "a3106cfe-801f-4919-b0d7-d785dc5b47f9"
}
```

## Response

**Table 5-318** Parameter description

Parameter	Type	Description
id	String	Excluded request throttling configuration ID
strategy_id	String	Request throttling policy ID
instance_id	Integer	Excluded object ID
instance_name	String	Name of an app or a tenant to which the excluded request throttling configuration applies
instance_type	Integer	Type of the excluded object
call_limits	Integer	Maximum number of times the excluded object can access an API within the throttling period
apply_time	Timestamp	Time when the excluded request throttling configuration is created
app_id	String	ID of the app to which the excluded request throttling configuration applies

Parameter	Type	Description
app_name	String	Name of the app to which the excluded request throttling configuration applies

Example response:

```
{
  "id": "778879b8-df10-495b-a087-874859fdea6d",
  "strategy_id": "a3106cfe-801f-4919-b0d7-d785dc5b47f9",
  "instance_id": "98efd77d-10b5-4eca-8170-ed30a4a286a4",
  "instance_name": "app_002",
  "instance_type": "APP",
  "call_limits": 150,
  "apply_time": "2017-12-29T03: 11: 18.2698381Z",
  "app_id": "98efd77d-10b5-4eca-8170-ed30a4a286a4",
  "app_name": "app_002"
}
```

## Status Codes

**Table 5-319** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.9.3 Modifying an Excluded Request Throttling Configuration

### Function

This API is used to modify an excluded configuration of a request throttling policy.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-320** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/throttle-specials/{id}

The following table lists the parameter in the URI.

**Table 5-321** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Excluded request throttling configuration ID

## Request

**Table 5-322** Parameter description

Parameter	Mandatory	Type	Description
call_limits	Yes	Integer	Maximum number of times the excluded object can access an API within the throttling period

Example request:

```
{
  "call_limits": 180
}
```

## Response

**Table 5-323** Parameter description

Parameter	Type	Description
id	String	Excluded request throttling configuration ID
strategy_id	String	ID of the request throttling policy to which the excluded configuration belongs
instance_id	Integer	ID of an object specified in the excluded request throttling configuration
instance_name	String	Name of an app or a tenant to which the excluded request throttling configuration applies
instance_type	Integer	Type of the excluded object
call_limits	Integer	Maximum number of times the excluded object can access an API within the throttling period

Parameter	Type	Description
apply_time	Timestamp	Time when the excluded request throttling configuration is created
app_id	String	ID of the app to which the excluded request throttling configuration applies
app_name	String	Name of the app to which the excluded request throttling configuration applies

Example response:

```
{
  "id": "778879b8-df10-495b-a087-874859fdea6d",
  "strategy_id": "a3106cfe-801f-4919-b0d7-d785dc5b47f9",
  "instance_id": "98efd77d-10b5-4eca-8170-ed30a4a286a4",
  "instance_name": "app_002",
  "instance_type": "APP",
  "call_limits": 180,
  "apply_time": "2017-12-29T03:11:18Z",
  "app_id": "98efd77d-10b5-4eca-8170-ed30a4a286a4",
  "app_name": "app_002"
}
```

## Status Codes

Table 5-324 Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.9.4 Deleting an Excluded Request Throttling Configuration

### Function

This API is used to delete an excluded configuration of a request throttling policy.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-325** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/throttle-specials/{id}

The following table lists the parameter in the URI.

**Table 5-326** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Excluded request throttling configuration ID

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-327** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.9.5 Querying the List of Excluded Request Throttling Configurations

### Function

This API is used to query all excluded configurations of a request throttling policy.



## URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-328** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/throttle-specials/{strategy_id}[?page_size, page_no, instance_type, app_name, user]

### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **strategy\_id**, **app\_name**, **user**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-329** Parameter description

Parameter	Mandatory	Type	Description
strategy_id	Yes	String	Request throttling policy ID
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .
instance_type	No	String	Object type, which can be <b>APP</b> or <b>USER</b>
app_name	No	String	Name of an excluded app
user	No	String	Account ID

## Request

N/A

## Response

**Table 5-330** Parameter description

Parameter	Type	Description
throttle_specials	Dictionary	Excluded request throttling configuration list
total	Integer	Number of excluded request throttling configurations that match the query conditions
size	Integer	Length of the returned excluded request throttling configuration list

**Table 5-331** Parameter description of throttle\_specials

Parameter	Type	Description
id	String	Excluded request throttling configuration ID
strategy_id	String	ID of the request throttling policy to which the excluded request throttling configuration belongs
instance_id	Integer	ID of an object specified in the excluded request throttling configuration
instance_name	String	Name of an app or a tenant to which the excluded request throttling configuration applies
instance_type	Integer	Type of the excluded object
call_limits	Integer	Maximum number of times the excluded object can access an API within the throttling period
apply_time	Timestamp	Time when the excluded request throttling configuration is created
app_id	String	ID of the app to which the excluded request throttling configuration applies
app_name	String	Name of the app to which the excluded request throttling configuration applies

Example response:

```
{
  "total": 1,
  "size": 1,
  "throttle_specials": [{
    "id": "778879b8-df10-495b-a087-874859fdea6d",
    "strategy_id": "a3106cfe-801f-4919-b0d7-d785dc5b47f9",
```

```

    "instance_id": "98efd77d-10b5-4eca-8170-ed30a4a286a4",
    "instance_name": "app_002",
    "instance_type": "APP",
    "call_limits": 180,
    "apply_time": "2017-12-29T03:11:18Z",
    "app_id": "98efd77d-10b5-4eca-8170-ed30a4a286a4",
    "app_name": "app_002"
  }
}

```

## Status Codes

Table 5-332 Status codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.10 Access Control Policy Management

### 5.10.1 Object Model

To improve access security of a published API, you can control the access from certain IP addresses by configuring a blacklist or whitelist. This section describes the object model for blacklist/whitelist (access control policy) management, as shown in [object model for access control policies](#).

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

Table 5-333 Object model for access control policies

Parameter	Type	Description	Operation Type	Mandatory
id	String	Blacklist or whitelist ID	R	-
acl_name	String	Blacklist or whitelist name	CRU	Yes

Parameter	Type	Description	Operation Type	Mandatory
entity_type	String	Object type, which can be: <ul style="list-style-type: none"> <li>• <b>IP</b></li> <li>• <b>DOMAIN:</b> tenant name</li> </ul>	CRU	Yes
acl_type	String	Access control type, which can be: <ul style="list-style-type: none"> <li>• <b>PERMIT</b> (whitelist)</li> <li>• <b>DENY</b> (blacklist)</li> </ul>	CRU	Yes
acl_value	String	IP address or tenant name	CRU	Yes
project_id	String	ID of the tenant that creates the access control policy	-	-
update_time	Timestamp	Time when the access control policy was last updated		

## 5.10.2 Creating an Access Control Policy

### Function

This API is used to create an access control policy to allow or deny API access from certain IP addresses or domains. The **acl\_value** value of a domain is a tenant name rather than a domain name (such as **www.exampleDomain.com**).

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-334** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/acls

## Request

**Table 5-335** Parameter description

Parameter	Type	Description
acl_name	String	Name of the access control policy The name of an access control policy consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
acl_type	String	Access control type, which can be: <ul style="list-style-type: none"> <li>● <b>PERMIT</b> (whitelist)</li> <li>● <b>DENY</b> (blacklist)</li> </ul>
acl_value	String	One or more objects from which the access will be controlled. Separate multiple objects with commas.
entity_type	String	Object type, which can be: <ul style="list-style-type: none"> <li>● IP</li> <li>● DOMAIN</li> </ul>

Example request:

```
{
  "acl_name": "test001",
  "acl_type": "PERMIT",
  "acl_value": "192.168.1.5,192.168.10.0/24,192.168.12.12-192.168.12.19",
  "entity_type": "IP"
}
```

## Response

**Table 5-336** Parameter description

Parameter	Type	Description
id	String	Access control policy ID
acl_name	String	Access control policy name
acl_type	String	Access control type, which can be: <ul style="list-style-type: none"> <li>● <b>PERMIT</b> (whitelist)</li> <li>● <b>DENY</b> (blacklist)</li> </ul>
acl_value	String	Access control objects
entity_type	String	Object type, which can be: <ul style="list-style-type: none"> <li>● IP</li> <li>● DOMAIN</li> </ul>

Parameter	Type	Description
update_time	Timestamp	Time when the access control policy was last updated

Example response:

```
{
  "id": "d402b35e-1054-4280-b1c5-0d741a28c995",
  "acl_name": "test",
  "entity_type": "IP",
  "acl_type": "PERMIT",
  "acl_value": "192.168.1.5,192.168.10.0/24,192.168.12.12-192.168.12.19",
  "update_time": "2017-11-18T14:27:36.918578+08:00"
}
```

## Status Codes

**Table 5-337** Status codes

Status Code	Description
201	Created
400	Bad Request
500	Server Internal Error

## 5.10.3 Modifying an Access Control Policy

### Function

This API is used to modify a specified access control policy. Only attributes **acl\_name**, **acl\_type**, and **acl\_value** can be modified.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-338** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/acls/{id}

The following table lists the parameter in the URI.

**Table 5-339** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	ID of the access control policy that you want to modify. Obtain the ID by querying the access control policy.

## Request

**Table 5-340** Parameter description

Parameter	Type	Description
acl_name	String	Name of the access control policy The name of an access control policy consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores ( _ ) are allowed.
acl_type	String	Access control type, which can be: <ul style="list-style-type: none"><li>● <b>PERMIT</b> (whitelist)</li><li>● <b>DENY</b> (blacklist)</li></ul>
acl_value	String	One or more objects from which the access will be controlled. Separate multiple objects with commas.

Example request:

```
{
  "acl_name": "string",
  "acl_type": "PERMIT",
  "acl_value": "19asdfaf-adfaf"
}
```

## Response

**Table 5-341** Parameter description

Name	Type	Description
id	String	Access control policy ID
acl_name	String	Access control policy name
acl_type	String	Access control type, which can be: <ul style="list-style-type: none"><li>● <b>PERMIT</b> (whitelist)</li><li>● <b>DENY</b> (blacklist)</li></ul>

Name	Type	Description
acl_value	String	Access control objects
update_time	Timestamp	Time when the access control policy was last updated

Example response:

```
{
  "id": "d402b35e-1054-4280-b1c5-0d741a28c995",
  "acl_name": "goodone",

  "acl_type": "PERMIT",
  "acl_value": "19asdfaf-adfadf",
  "update_time": "2017-11-18T14:27:36.918578+08:00"
}
```

## Status Codes

Table 5-342 Status codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden
404	Not Found

## 5.10.4 Deleting an Access Control Policy

### Function

This API is used to delete a specified access control policy. Access control policies bound to APIs cannot be deleted.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

Table 5-343 HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/acls/{id}

The following table lists the parameter in the URI.



**Table 5-344** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Access control policy ID

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-345** Status codes

Status Code	Description
204	No Content
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.10.5 Deleting Multiple Access Control Policies

### Function

This API is used to delete multiple access control policies.

Access control policies bound to APIs cannot be deleted.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-346** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/acls[?action]

The following table lists the parameter in the URI.

**Table 5-347** Parameter description

Parameter	Mandatory	Type	Description
action	Yes	String	The value must be <b>delete</b> .

## Request

**Table 5-348** Parameter description

Parameter	Mandatory	Type	Description
acls	No	String Array	IDs of the access control policies to be deleted

Example request:

```
{  
  "acls": ["81efcfd94b8747a0b21e8c04144a4e8c","7addcd00cfab433984b1d8bf2fe08aaa"]  
}
```

## Response

**Table 5-349** Parameter description

Parameter	Type	Description
success_count	Number	Number of successfully deleted access control policies
failure	Array	Error message and access control policies that fail to be deleted

**Table 5-350** Parameter description of failure

Parameter	Type	Description
acl_id	String	ID of an access control policy that fails to be deleted
acl_name	String	Name of the access control policy
error_code	String	Error code
error_msg	String	Error message

Example response:

```
{
  "failure": [{
    "ac_id": "81efcd94b8747a0b21e8c04144a4e8c",
    "acl_name": "acl1",
    "error_code": "APIG.3447",
    "error_msg": "The Acl Strategy has already binded to APIs"
  }],
  "success_count": 3
}
```

## Status Codes

**Table 5-351** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.10.6 Querying Details of an Access Control Policy

### Function

This API is used to query the details of a specified access control policy.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-352** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/acls/{id}

The following table lists the parameter in the URI.

**Table 5-353** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Access control policy ID

## Request

N/A

## Response

**Table 5-354** Parameter description

Parameter	Type	Description
id	String	Access control policy ID
acl_name	String	Access control policy name
acl_type	String	Access control type, which can be: <ul style="list-style-type: none"> <li>● <b>PERMIT</b> (whitelist)</li> <li>● <b>DENY</b> (blacklist)</li> </ul>
acl_value	String	Access control objects
entity_type	String	Object type, which can be: <ul style="list-style-type: none"> <li>● IP</li> <li>● DOMAIN</li> </ul>
update_time	Timestamp	Time when the access control policy was last updated

Example response:

```
{
  "id": "d402b35e-1054-4280-b1c5-0d741a28c995",
  "acl_name": "goodone",
  "entity_type": "DOMAIN",
  "acl_type": "PERMIT",
  "acl_value": "19asdfaf-adfadf",
  "update_time": "2017-11-18T14:27:36.918578+08:00"
}
```

## Status Codes

**Table 5-355** Status codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden
404	Not Found

### 5.10.7 Querying the Access Control Policy List

#### Function

This API is used to query the list of all access control policies.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-356** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/acls[?page_size, page_no, id, name, acl_type, entity_type]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **id**, **name**, **acl\_type**, **entity\_type**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-357** Parameter description

Parameter	Mandatory	Type	Description
id	No	String	Access control policy ID
name	No	String	Access control policy name
acl_type	No	String	Access control type, which can be <b>PERMIT</b> or <b>DENY</b>

Parameter	Mandatory	Type	Description
entity_type	No	String	Object type, which can be <b>IP</b> or <b>DOMAIN</b>
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .
precise_search	No	String	Parameter name ( <b>name</b> ) for exact matching

## Request

N/A

## Response

**Table 5-358** Parameter description

Parameter	Type	Description
size	Integer	Number of access control policies displayed on the current page
total	Integer	Total number of access control policies
acls	Dictionary	Access control policy list

**Table 5-359** Parameter description of acls

Parameter	Type	Description
id	String	Access control policy ID
acl_name	String	Access control policy name
acl_type	String	Access control type, which can be: <ul style="list-style-type: none"><li>● <b>PERMIT</b> (whitelist)</li><li>● <b>DENY</b> (blacklist)</li></ul>
acl_value	String	Access control objects
entity_type	String	Object type, which can be: <ul style="list-style-type: none"><li>● IP</li><li>● DOMAIN</li></ul>

Parameter	Type	Description
update_time	Timestamp	Time when the access control policy was last updated
bind_num	Integer	Number of APIs to which the access control policy has been bound

Example response:

```
{
  "total": 1,
  "size": 1,
  "acls": [{
    "id": "d402b35e-1054-4280-b1c5-0d741a28c995",
    "acl_name": "goodone",
    "entity_type": "DOMAIN",
    "acl_type": "PERMIT",
    "acl_value": "19asdfaf-adfadf",
    "update_time": "2017-11-18T14:27:36.918578+08:00",
    "bind_num": 1
  }]
}
```

## Status Codes

Table 5-360 Status codes

Status Code	Description
200	OK
400	Bad Request
500	Server Internal Error

## 5.11 Binding Access Control Policies

### 5.11.1 Object Model

An access control policy can protect access security of an API only after being bound to the API. This section describes the object model for binding an access control policy to an API, as shown in [Table 5-361](#).

#### NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-361** Object model for binding an access control policy

Parameter	Type	Description	Operation Type	Mandatory
id	String	Binding ID	R	-
front_api_id	String	API ID	CR	Yes
env_id	String	Environment ID	CR	Yes
acl_id	String	Access control policy ID	CR	Yes
create_time	Timestamp	Time when the access control policy is bound to the API	CR	No

## 5.11.2 Binding an Access Control Policy to an API

### Function

This API is used to bind an access control policy to a specified API.

You can bind different access control policies to an API in different environments, but you can bind only one type of access control policy to the API in each environment.

### URI

The following table lists the HTTPS request method and URI of the API.

**Table 5-362** HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/acl-bindings

### Request

**Table 5-363** Parameter description

Parameter	Type	Description
acl_id	String	Access control policy ID
publish_ids	[]String	API publication record ID



Example request:

```
{
  "acl_id": "206bb985d8a04ec09f13c3e51ef77095",
  "publish_ids": [
    "1bc8b2b741a04bd4af3ef9d7cd003104"
  ]
}
```

## Response

**Table 5-364** Parameter description

Parameter	Type	Description
id	String	Binding ID
api_id	String	API ID
env_id	String	Environment ID
acl_id	String	Access control policy ID
create_time	Timestamp	Time when the access control policy is bound to the API

Example response:

```
[
  {
    "id": "4ffc0da71ddd4c22add8ff801e19846c",
    "api_id": "aebacac6095942b4b2dd2b209bb7b9bc",
    "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
    "acl_id": "206bb985d8a04ec09f13c3e51ef77095",
    "create_time": "2018-07-27T11:27:10.7470224Z"
  }
]
```

## Status Codes

**Table 5-365** Status codes

Status Code	Description
201	Created
400	Bad Request
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.11.3 Querying the List of Access Control Policies Bound to an API

### Function

This API is used to query the list of access control policies that have been bound to a specified API.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-366** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/acl-bindings/binded-acls[?page_no,page_size,api_id,env_id,env_name,acl_id,acl_name]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **api\_id**, **env\_id**, **env\_name**, **acl\_id**, **acl\_name**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-367** Parameter description

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID
env_id	No	String	Environment ID
env_name	No	String	Environment name
acl_id	No	String	Access control policy ID
acl_name	No	String	Access control policy name
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .

Parameter	Mandatory	Type	Description
page_no	No	Integer	Page number. The default value is 1.

## Request

N/A

## Response

**Table 5-368** Parameter description

Parameter	Type	Description
total	Integer	Number of access control policies bound to the API
size	Integer	Number of returned access control policies
acls	Dictionary	Access control policy list

**Table 5-369** Parameter description of acls

Parameter	Type	Description
acl_id	String	Access control policy ID
acl_name	String	Access control policy name
acl_type	String	Access control type, which can be: <ul style="list-style-type: none"><li>● <b>PERMIT</b> (whitelist)</li><li>● <b>DENY</b> (blacklist)</li></ul>
acl_value	String	Access control objects
entity_type	String	Object type, which can be: <ul style="list-style-type: none"><li>● IP</li><li>● DOMAIN</li><li>● ADMIN</li></ul>
env_id	String	ID of the environment in which the access control policy takes effect
env_name	String	Name of the environment in which the access control policy takes effect
bind_id	String	Binding ID

Parameter	Type	Description
bind_time	Timestamp	Time when the access control policy is bound to the API

Example response:

```
{
  "total": 1,
  "size": 1,
  "acIs": [
    {
      "acl_id": "206bb985d8a04ec09f13c3e51ef77095",
      "acl_name": "acl_001",
      "entity_type": "IP",
      "acl_type": "PERMIT",
      "acl_value": "192.168.1.14,192.168.2.0/24,192.168.1.8-192.168.1.110",
      "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "env_name": "RELEASE",
      "bind_id": "4ffc0da71ddd4c22add8ff801e19846c",
      "bind_time": "2018-07-27T11:27:10Z"
    }
  ]
}
```

## Status Codes

Table 5-370 Status codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.11.4 Querying the List of APIs Bound to an Access Control Policy

#### Function

This API is used to query the list of APIs bound to a specified access control policy.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-371** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/acl-bindings/binded-apis[?page_no,page_size,acl_id,env_id,api_id,api_name,group_id]

 **NOTE**

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **acl\_id**, **api\_id**, **api\_name**, **group\_id**, **env\_id**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-372** Parameter description

Parameter	Mandatory	Type	Description
acl_id	Yes	String	Access control policy ID
api_id	No	String	API ID
api_name	No	String	API name
group_id	No	String	API group ID
env_id	No	String	Environment ID
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-373** Parameter description

Parameter	Type	Description
total	Integer	Number of APIs to which the access control policy has been bound
size	Integer	Number of returned APIs
apis	Dictionary	API list

**Table 5-374** Parameter description of apis

Parameter	Type	Description
api_id	String	API ID
api_name	String	API name
group_name	String	API group name
api_type	Integer	API type
api_remark	String	Description of the API
env_id	String	ID of the environment in which the access control policy takes effect
env_name	String	Name of the environment in which the access control policy takes effect
bind_id	String	Binding ID
bind_time	Timestamp	Time when the access control policy is bound to the API
publish_id	String	ID of the API publication record

Example response:

```
{
  "total": 1,
  "size": 1,
  "apis": [
    {
      "api_id": "aebacac6095942b4b2dd2b209bb7b9bc",
      "api_name": "aaa",
      "group_name": "test001",
      "api_type": 1,
      "api_remark": "aaa",
      "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "env_name": "RELEASE",
      "bind_id": "4ffc0da71ddd4c22add8ff801e19846c",
      "bind_time": "2018-07-27T11:27:10Z",
      "publish_id": "1bc8b2b741a04bd4af3ef9d7cd003104"
    }
  ]
}
```

```
}  
]  
}
```

## Status Codes

**Table 5-375** Status codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.11.5 Querying the List of APIs Not Bound to an Access Control Policy

### Function

This API is used to query the list of published APIs that have not been bound to a specified access control policy.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-376** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/acl-bindings/unbinded-apis[?page_no,page_size,acl_id,env_id,api_id,api_name,group-id]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **acl\_id**, **env\_id**, **api\_id**, **group\_id**, **api\_name**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-377** Parameter description

Parameter	Mandatory	Type	Description
acl_id	Yes	String	Access control policy ID
env_id	No	String	Environment ID
group_id	No	String	API group ID
api_id	No	String	API ID
api_name	No	String	API name
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-378** Parameter description

Parameter	Type	Description
total	Integer	Number of APIs that match the query conditions
size	Integer	Number of returned APIs
apis	Dictionary	API list

**Table 5-379** Parameter description of apis

Parameter	Type	Description
id	String	API ID
name	String	API name
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs



Parameter	Type	Description
type	Integer	Opening status of the API
remark	String	Description of the API
run_env_name	String	Name of the environment in which the API has been published
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	ID of the API publication record
acl_name	String	Name of the same type of access control policy that has been bound to the API
req_uri	String	Access address
auth_type	String	Security authentication mode

Example response:

```
{
  "total": 1,
  "size": 1,
  "apis": [
    {
      "name": "bbbbbb",
      "type": 1,
      "remark": "aaa",
      "group_id": "70f1b578da9b4dfe889b4c33d1b995c2",
      "id": "91c26288acea4448be205265d77dae22",
      "group_name": "test001",
      "run_env_name": "RELEASE",
      "run_env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "publish_id": "a6e06a00c382436eb524fa2dd343cb6d",
      "req_uri": "/test",
      "auth_type": "NONE"
    }
  ]
}
```

## Status Codes

**Table 5-380** Status codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.11.6 Unbinding an Access Control Policy from an API

### Function

This API is used to unbind an access control policy from an API.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-381** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/acl-bindings/{id}

The following table lists the parameter in the URI.

**Table 5-382** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Binding ID

### Request

N/A

### Response

N/A

### Status Codes

**Table 5-383** Status codes

Status Code	Description
204	No Content
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.11.7 Unbinding Multiple Access Control Policies from APIs

### Function

This API is used to unbind multiple access control policies from APIs.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-384** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/acl-bindings[?action]

The following table lists the parameter in the URI.

**Table 5-385** Parameter description

Parameter	Mandatory	Type	Description
action	Yes	String	The value must be <b>delete</b> .

### Request

**Table 5-386** Parameter description

Parameter	Mandatory	Type	Description
acl_bindings	No	String Array	IDs of the access control policies to be unbound

Example request:

```
{
  "acl_bindings": ["81efcd94b8747a0b21e8c04144a4e8c","7addcd00cfab433984b1d8bf2fe08aaa"]
}
```

## Response

**Table 5-387** Parameter description

Parameter	Type	Description
success_count	Number	Number of successfully unbound access control policies
failure	Array	Error message and access control policies that fail to be unbound

**Table 5-388** Parameter description of failure

Parameter	Type	Description
bind_id	String	ID of an access control policy that fails to be unbound
error_code	String	Error code
error_msg	String	Error message
api_id	String	ID of an API from which an access control policy fails to be unbound
api_name	String	Name of the API from which an access control policy fails to be unbound

Example response:

```
{
  "failure": [{
    "bind_id": "81efcfd94b8747a0b21e8c04144a4e8c",
    "error_code": "APIG.3010",
    "error_msg": "Access control policy binding record not found",
    "api_id": "81efcfd94b8747a0b21e8c04144a4e8c",
    "api_name": "api01"
  }],
  "success_count": 3
}
```

## Status Codes

**Table 5-389** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden

Status Code	Description
404	Not Found
500	Server Internal Error

## 5.12 Querying Subscription Information in KooGallery

### 5.12.1 Querying the List of Purchased API Groups

#### Function

This API is used to query the list of purchased API groups.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-390** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/purchases/groups[? page_size, page_no, id, group_id, group_name]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **id**, **group\_id**, **group\_name**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-391** Parameter description

Parameter	Mandatory	Type	Description
id	No	String	Subscription ID
group_id	No	String	API group ID
group_name	No	String	API group name
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .

Parameter	Mandatory	Type	Description
page_no	No	Integer	Page number. The default value is 1.

## Request

N/A

## Response

**Table 5-392** Parameter description

Parameter	Type	Description
total	Integer	Total number of API groups that match the query conditions
size	Integer	Number of returned API groups
purchases	Dictionary	API group list

**Table 5-393** Parameter description of purchases

Parameter	Type	Description
id	String	Subscription ID
group_id	String	API group ID
group_name	String	API group name
group_remark	String	Description of the API group
order_time	Timestamp	Time when the order is placed
start_time	Timestamp	Time when the order takes effect
expire_time	Timestamp	Time when the order expires
group_domains	[]String	List of API group domain names. No value will be returned when you query the list of purchased API groups.
quota_left	Integer	Remaining API call quota
quota_used	Integer	Used API call quota
app_key	String	Generated AppKey
app_secret	String	Generated AppSecret

Example response:

```
{
  "total": 3,
  "size": 3,
  "purchases": [{
    "id": "615af8d9-f31d-4cdf-8807-b191dc969a07",
    "group_id": "f0585333-5722-4878-b7fa-31ae00b6ae3a",
    "group_name": "api_group_003",
    "group_remark": "API group 003",
    "group_domains": null,
    "quota_used": 0,
    "quota_left": 2000000000,
    "order_time": "2017-12-29T06:22:46Z",
    "start_time": "2018-01-01T00:00:00Z",
    "expire_time": "2019-01-01T00:00:00Z",
    "app_key": "0e24****4785",
    "app_secret": "*****"
  },
  {
    "id": "9d0b****e4d13",
    "group_id": "02a8****71ae7",
    "group_name": "api_group_002",
    "group_remark": "API group 002",
    "group_domains": null,
    "quota_used": 0,
    "quota_left": 2000000000,
    "order_time": "2017-12-29T06:22:46Z",
    "start_time": "2018-01-01T00:00:00Z",
    "expire_time": "2019-01-01T00:00:00Z",
    "app_key": "0e242****04785",
    "app_secret": "*****"
  },
  {
    "id": "3f30d****c587",
    "group_id": "73c5802****47f09",
    "group_name": "api_group_001",
    "group_remark": "API group 001",
    "group_domains": null,
    "quota_used": 0,
    "quota_left": 2000000000,
    "order_time": "2017-12-29T06:16:03Z",
    "start_time": "2018-01-01T00:00:00Z",
    "expire_time": "2019-01-01T00:00:00Z",
    "app_key": "0e242****4785",
    "app_secret": "*****"
  }
  ]
}
```

## Status Codes

Table 5-394 Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
500	Server Internal Error

## 5.12.2 Querying Details of a Purchased API Group

### Function

This API is used to query the details of a purchased API group.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-395** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/purchases/groups/{purchase_id}

The following table lists the parameter in the URI.

**Table 5-396** Parameter description

Parameter	Mandatory	Type	Description
purchase_id	Yes	String	Subscription ID

### Request

N/A

### Response

**Table 5-397** Parameter description

Parameter	Type	Description
id	String	Subscription ID
group_id	String	API group ID
group_name	String	API group name
group_remark	String	Description of the API group
order_time	Timestamp	Time when the order is placed
start_time	Timestamp	Time when the order takes effect
expire_time	Timestamp	Time when the order expires



Parameter	Type	Description
group_domains	[]String	List of API group domain names. A value will be returned when you query the details of a purchased API group.
quota_left	Integer	Remaining API call quota
quota_used	Integer	Used API call quota
app_key	String	Generated AppKey
app_secret	String	Generated AppSecret

Example response:

```
{
  "id": "3f3****cc587",
  "group_id": "73c58****7f09",
  "group_name": "api_group_001",
  "group_remark": "API group 001",
  "group_domains": [
    "test.market.example.com"
  ],
  "quota_used": 0,
  "quota_left": 2000000000,
  "order_time": "2018-01-02T10: 51: 26Z",
  "start_time": "2018-01-01T00: 00: 00Z",
  "expire_time": "2019-01-01T00: 00: 00Z",
  "app_key": "0e242****4785",
  "app_secret": "*****"
}
```

## Status Codes

Table 5-398 Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

### 5.12.3 Querying the List of Purchased APIs

#### Function

This API is used to query the list of purchased APIs.

## URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-399** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/purchases/apis[?page_size, page_no, api_id, api_name, group_id, group_name]

### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **api\_id**, **api\_name**, **group\_id**, **group\_name**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-400** Parameter description

Parameter	Mandatory	Type	Description
api_id	No	String	API ID
api_name	No	String	API name
group_id	No	String	API group ID
group_name	No	String	API group name
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-401** Parameter description

Parameter	Type	Description
total	Integer	Total number of APIs that match the query conditions
size	Integer	Number of returned APIs
apis	Dictionary	API list

**Table 5-402** Parameter description of apis

Parameter	Type	Description
id	String	API ID
name	String	API name
purchase_id	String	Subscription ID
remark	String	Description of the API
req_uri	String	Access address

Example response:

```
{
  "total": 3,
  "size": 3,
  "apis": [
    {
      "id": "cb498965-8acf-4c98-bd08-4033ef1fcfb4",
      "name": "Environment_list_query",
      "purchase_id": "730f8a84-c8db-45ba-a6a5-2669ceb08574",
      "remark": "Environment list query",
      "req_uri": "/envs"
    },
    {
      "id": "5bbc47e2-95b0-4a56-904e-a3cdc422f8e9",
      "name": "API_group_list_query",
      "purchase_id": "2ae11f50-3938-4560-8b76-58e89bb3f825",
      "remark": "API group list query",
      "req_uri": "/groups"
    },
    {
      "id": "6632a062-9dcf-4f18-9646-3cabb925a290",
      "name": "API_list_query",
      "purchase_id": "2ae11f50-3938-4560-8b76-58e89bb3f825",
      "remark": "API list query",
      "req_uri": "/apis"
    }
  ]
}
```

## Status Codes

**Table 5-403** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
500	Server Internal Error

## 5.13 Configuration Management

### 5.13.1 Object Model

The tenant can manage and modify the default configurations according to the system running status.

 **NOTE**

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-404** System configuration object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Configuration ID	R	-
module_name	String	Name of the module to which the configuration belongs	R	-
config_name	String	Configuration name	R	-
config_value	String	Configuration value	RU	-
can_special	Integer	Indicates whether excluded configurations are supported. The value can be: <ul style="list-style-type: none"> <li>• 1: supported</li> <li>• 2: not supported</li> </ul>	R	-
remarks	String	Description of the configuration	R	-

Parameter	Type	Description	Operation Type	Mandatory
update_time	Timestamp	Time when the configuration was last updated	RU	-
match_regexp	String	Rule that the configuration value must meet	R	-
encrypt_flag	Integer	Indicates whether to encrypt the <b>config_value</b> parameter. The value can be: <ul style="list-style-type: none"> <li>1: encrypt</li> <li>2: not encrypt</li> </ul>	R	-

## 5.13.2 Querying Configuration Details

### Function

This API is used to query the configurations and configuration values of a tenant.

### URI

**Table 5-405** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/config/project[?page_size, page_no, config_id, config_name]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **config\_name**, **config\_id**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-406** Parameter description

Parameter	Mandatory	Type	Description
config_name	No	String	Configuration name

Parameter	Mandatory	Type	Description
config_id	No	String	Configuration ID
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-407** Parameter description

Parameter	Type	Description
total	Integer	Total number of configurations that match the query conditions
size	Integer	Length of the returned configuration list
configs	Dictionary	Configuration list

**Table 5-408** Parameter description of configs

Parameter	Type	Description
config_id	String	Configuration ID
config_name	String	Configuration name
config_value	String	Configuration value
remark	String	Description of the configuration
config_time	Timestamp	Time when the configuration is created

Example response:

```
{
  "total": 3,
  "size": 3,
  "configs": [
    {
      "config_id": "1",
      "config_name": "API_NUM_LIMIT",
      "config_value": "300",
```

```

"config_time": "2017-12-29T08: 00: 39.543642Z",
"remark": "Maximum number of APIs a tenant can create"
},
{
"config_id": "2",
"config_name": "APP_NUM_LIMIT",
"config_value": "30",
"config_time": "2017-12-29T03: 39: 03.165657Z",
"remark": "Maximum number of apps a tenant can create"
},
{
"config_id": "3",
"config_name": "APIGROUP_NUM_LIMIT",
"config_value": "30",
"config_time": "2017-12-29T03: 39: 03.165657Z",
"remark": "Maximum number of API groups a tenant can create"
}
]
}

```

## Status Codes

**Table 5-409** Status codes

Status Code	Description
200	OK
401	Unauthorized
403	Forbidden
500	Server Internal Error

## 5.14 Resource Query

### 5.14.1 Querying API Group Quantities

#### Function

This API is used to query the number of API groups that have been listed and the number of API groups that have not been listed.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-410** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/resources/outline/groups

## Request

N/A

## Response

**Table 5-411** Parameter description

Parameter	Type	Description
offsell_nums	Integer	Number of API groups that have not been listed on KooGallery
onsell_nums	Integer	Number of API groups that have been listed on KooGallery

Example response:

```
{
  "offsell_nums": 1,
  "onsell_nums": 2
}
```

## Status Codes

**Table 5-412** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

## 5.14.2 Querying API Quantities

### Function

This API is used to query the number of APIs that have been published in the RELEASE environment and the number of APIs that have not been published.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.



**Table 5-413** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/resources/outline/apis

## Request

N/A

## Response

**Table 5-414** Parameter description

Parameter	Type	Description
instance_num	Integer	Total number of APIs
nums_off_release	Integer	Number of APIs that have not been published in the RELEASE environment
nums_on_release	Integer	Number of APIs that have been published in the RELEASE environment

Example response:

```
{
  "instance_num": 3,"nums_off_release": 1,
  "nums_on_release": 2
}
```

## Status Codes

**Table 5-415** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

## 5.14.3 Querying App Quantities

### Function

This API is used to query the number of apps that have been authorized to access APIs and the number of apps that have not been authorized to access APIs.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-416** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/resources/outline/apps

### Request

N/A

### Response

**Table 5-417** Parameter description

Parameter	Type	Description
authed_nums	Integer	Number of apps that have been authorized to access APIs
unauthed_nums	Integer	Number of apps that have not been authorized to access APIs

Example response:

```
{
  "authed_nums": 1,
  "unauthed_nums": 2
}
```

### Status Codes

**Table 5-418** Status codes

Status Code	Description
200	OK
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
500	Server Internal Error

## 5.15 Signature Key Management

### 5.15.1 Object Model

This section describes the object model for signature key management.

 **NOTE**

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-419** Object model for signature key management

Parameter	Type	Description	Operation Type	Mandatory
id	String	Signature key ID	R	-
name	String	Signature key name	CRU	Yes
sign_key	String	Signature key	CRU	Yes
sign_secret	String	Signature secret	CRU	Yes
create_time	Timestamp	Time when the signature key is created	R	-
update_time	Timestamp	Time when the signature key was last updated	R	-

### 5.15.2 Creating a Signature Key

#### Function

It is a good practice to provide a protection mechanism for APIs to ensure access security. For example, authenticating API request sources and denying the access from unauthorized sources.

A signature key is a protection mechanism in case.

Create a signature key and bind it to an API. When requesting the API, APIG uses the signature key to encrypt request parameter data and generate a signature.

The backend service of the API verifies requests by using the signature. Unauthorized requests will be denied to protect the API against attacks from unknown sources.

## URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-420** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/signs

## Request

**Table 5-421** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Signature key name The name of a signature key consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
sign_key	No	String	Signature key A signature key consists of 8–32 characters, starting with a letter or digit. Only letters, digits, hyphens (-), and underscores (_) are allowed. A key is automatically generated by the backend if no key is specified.
sign_secret	No	String	Signature secret A signature secret consists of 16–64 characters, starting with a letter or digit. Only letters, digits, and special characters (-_!@#%) are allowed. A value is automatically generated by the backend if no value is specified.

Example request:

```
{
  "name": "signature01",
  "sign_key": "abcd_123",
  "sign_secret": "*****"
}
```

## Response

**Table 5-422** Parameter description

Parameter	Type	Description
id	String	Signature key ID
name	String	Signature key name
sign_key	String	Signature key
sign_secret	String	Signature secret
create_time	Timestamp	Time when the signature key is created
update_time	Timestamp	Time when the signature key was last updated

Example response:

```
{
  "name": "signature01",
  "sign_key": "abcd_123",
  "sign_secret": "*****",
  "id": "3a793b65a9034bdfae08924f149bfb4a",
  "create_time": "2018-02-06T12:17:36.039953112Z",
  "update_time": "2018-02-06T12:17:36.039954198Z"
}
```

## Status Codes

**Table 5-423** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

### 5.15.3 Modifying a Signature Key

#### Function

This API is used to modify the information about a signature key.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-424** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/signs/{id}

The following table lists the parameter in the URI.

**Table 5-425** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Signature key ID

## Request

**Table 5-426** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Signature key name The name of a signature key consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
sign_key	No	String	Signature key A signature key consists of 8–32 characters, starting with a letter or digit. Only letters, digits, hyphens (-), and underscores (_) are allowed. A key is automatically generated by the backend if no key is specified.
sign_secret	No	String	Signature secret A signature secret consists of 16–64 characters, starting with a letter or digit. Only letters, digits, and special characters (-_!@#)\$%) are allowed. A value is automatically generated by the backend if no value is specified.

Example request:

```
{
  "name": "signature01",
  "sign_key": "abcd_1234",
  "sign_secret": "*****"
}
```

## Response

**Table 5-427** Parameter description

Parameter	Type	Description
id	String	Signature key ID
name	String	Signature key name
sign_key	String	Signature key
sign_secret	String	Signature secret
create_time	Timestamp	Time when the signature key is created
update_time	Timestamp	Time when the signature key was last updated

Example response:

```
{
  "name": "signature01",
  "sign_key": "abcd_123",
  "sign_secret": "*****",
  "id": "3a793b65a9034bdfae08924f149bfb4a",
  "create_time": "2018-02-06T12:17:36.039953112Z",
  "update_time": "2018-02-06T12:17:36.039954198Z"
}
```

## Status Codes

**Table 5-428** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.15.4 Deleting a Signature Key

#### Function

This API is used to delete a specified signature key.

This operation will invalidate the signature key and unbind it from relevant APIs.

## URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-429** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/signs/{id}

The following table lists the parameter in the URI.

**Table 5-430** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Signature key ID

## Request

N/A

## Response

N/A

## Status Codes

**Table 5-431** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.15.5 Querying the Signature Key List

### Function

This API is used to query the information about all signature keys.



## URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-432** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/signs[?page_size, page_no, id, name]

### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **id** and **name**.

## Request

**Table 5-433** Parameter description

Parameter	Mandatory	Type	Description
id	No	String	Signature key ID
name	No	String	Signature key name
precise_search	No	String	Parameter name ( <b>name</b> ) for exact matching

## Response

**Table 5-434** Parameter description

Parameter	Type	Description
total	Integer	Number of signature keys that match the query conditions
size	Integer	Length of the returned signature key list
signs	Dictionary	Signature key list

**Table 5-435** Parameter description of signs

Parameter	Type	Description
id	String	Signature key ID
name	String	Signature key name
sign_key	String	Signature key
sign_secret	String	Signature secret
create_time	Timestamp	Time when the signature key is created
update_time	Timestamp	Time when the signature key was last updated
bind_num	Integer	Number of APIs to which the signature key has been bound

Example response:

```
{
  "total": 2,
  "size": 2,
  "signs": [{
    "name": "signature01",
    "sign_key": "abcd_1234",
    "sign_secret": "*****",
    "id": "3a793b65a9034bdfae08924f149bfb4a",
    "create_time": "2018-02-06T12:17:36Z",
    "update_time": "2018-02-07T02:00:27.964766Z",
    "bind_num":1
  },
  {
    "name": "sada",
    "sign_key": "asdasdasdasda",
    "sign_secret": "*****",
    "id": "51ce490901f4411fa54eb06d33bd7218",
    "create_time": "2018-02-06T11:53:08Z",
    "update_time": "2018-02-06T11:53:08Z",
    "bind_num":1
  }
  ]
}
```

## Status Codes

**Table 5-436** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
500	Server Internal Error

## 5.16 Binding Signature Keys

### 5.16.1 Object Model

This section describes the object model for binding a signature key to an API.

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-437** Object model for binding a signature key to an API

Parameter	Type	Description	Operation Type	Mandatory
id	String	Binding ID	R	-
front_api_id	String	API ID	CR	Yes
sign_id	String	Signature key ID	CR	Yes
env_id	String	Environment ID	CR	Yes
create_time	Timestamp	Time when the signature key is bound to the API	R	No

### 5.16.2 Querying the List of APIs Not Bound to a Signature Key

#### Function

This API is used to query the list of APIs that have not been bound to a specified signature key. Only published APIs will be displayed.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-438** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/sign-bindings/unbound-apis[?page_size, page_no, sign_id, env_id, api_id, api_name, group_id]

 NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **sign\_id**, **env\_id**, **api\_id**, **api\_name**, **group\_id**, **page\_size**, and **page\_no**.

## Request

**Table 5-439** Parameter description

Parameter	Mandatory	Type	Description
sign_id	Yes	String	Signature key ID
env_id	No	String	Environment ID
api_id	No	String	API ID
api_name	No	String	API name
group_id	No	String	API group ID

## Response

**Table 5-440** Parameter description

Parameter	Type	Description
total	Integer	Total number of APIs that match the query conditions
size	Integer	Length of the returned API list
apis	Dictionary	API list

**Table 5-441** Parameter description of apis

Parameter	Type	Description
id	String	API ID
name	String	API name
type	Integer	API type
remark	String	Description of the API
group_id	String	ID of the API group to which the API belongs
group_name	String	Name of the API group to which the API belongs

Parameter	Type	Description
run_env_name	String	Name of the environment in which the API has been published
run_env_id	String	ID of the environment in which the API has been published
publish_id	String	API publication record ID
signature_name	String	Name of the signature key bound to the API
auth_type	String	Security authentication mode
req_uri	String	Access address

Example response:

```
{
  "total": 2,
  "size": 2,
  "apis": [
    {
      "name": "bbb",
      "type": 1,
      "group_id": "7ccc0b94-eb5a-48e6-8554-6d0105a540e2",
      "id": "3c6769c6-ec61-4b45-b478-c60310dbaa1b",
      "group_name": "asd",
      "run_env_name": "das",
      "run_env_id": "1fdbcb2e4-f90a-4159-817d-98c9b8e8b215",
      "publish_id": "6dff16c4-813f-486a-bba4-fdad45a55a70",
      "auth_type": "NONE",
      "req_uri": "/test"
    },
    {
      "name": "aaa",
      "type": 1,
      "group_id": "7ccc0b94-eb5a-48e6-8554-6d0105a540e2",
      "id": "d85c502a-f916-47e8-bba0-50537a2d1af2",
      "group_name": "asd",
      "run_env_name": "das",
      "run_env_id": "1fdbcb2e4-f90a-4159-817d-98c9b8e8b215",
      "publish_id": "dec83400-a0c6-4ea6-abfd-5bf237292f4d",
      "auth_type": "NONE",
      "req_uri": "/test"
    }
  ]
}
```

## Status Codes

**Table 5-442** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.16.3 Binding a Signature Key

#### Function

A signature key takes effect only after being bound to an API. When requesting the backend service, APIG uses the signature key to cryptographically sign requests. The backend service verifies the signature to identify request sources.

This API is used to bind a signature key to one or more published APIs.

Different signature keys can be bound to an API in different environments, but only one signature key can be bound to the API in the same environment.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-443** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/sign-bindings

#### Request

**Table 5-444** Parameter description

Parameter	Mandatory	Type	Description
sign_id	Yes	String	Signature key ID
publish_ids	Yes	Array of strings	API publication record ID

Example request:

```
{
  "sign_id": "3a793b65a9034bdfae08924f149bfb4a",
  "publish_ids": [
    "374a6d5a-20c7-4ea1-82e1-19fce4556956",
    "65e6fe53-1ac3-4481-ba36-9f0bc6f22057"
  ]
}
```

```
]
}
```

## Response

**Table 5-445** Parameter description

Parameter	Type	Description
-	Dictionary	List of APIs bound to the signature key

**Table 5-446** Parameter description of the API list

Parameter	Type	Description
id	String	Binding ID
api_id	String	API ID
api_name	String	API name
api_remark	String	Description of the API
group_name	String	Name of the API group to which the API belongs
api_type	Integer	API type
sign_id	String	Signature key ID
sign_name	String	Signature key name
sign_key	String	Signature key
sign_secret	String	Signature secret
env_id	String	ID of the environment in which the API has been published
env_name	String	Name of the environment in which the API has been published
binding_time	Timestamp	Time when the signature key is bound to the API
publish_id	String	ID of the publication record

Example response:

```
[
  {
    "id": "d8426fb090e442c4a56a35e451bea085",
    "api_id": "3c6769c6-ec61-4b45-b478-c60310dbaa1b",
    "api_name": "bbb",
    "api_remark": "",
    "group_name": "asd",
    "api_type": 1,
```

```
"sign_id": "3a793b65a9034bdfae08924f149bfb4a",
"sign_name": "signature01",
"sign_key": "abcd_1234",
"sign_secret": "*****",
"env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
"env_name": "RELEASE",
"binding_time": "2018-02-07T03:17:26.396039456Z",
"publish_id": "23234202f5834ab69113fc1b790b6bed"
},
{
  "id": "97952732e6d7452d99de02db99acce27",
  "api_id": "d85c502a-f916-47e8-bba0-50537a2d1af2",
  "api_name": "aaa",
  "api_remark": "",
  "group_name": "asd",
  "api_type": 1,
  "sign_id": "3a793b65a9034bdfae08924f149bfb4a",
  "sign_name": "signature01",
  "sign_key": "abcd_1234",
  "sign_secret": "*****",
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "env_name": "RELEASE",
  "binding_time": "2018-02-07T03:17:26.39803282Z",
  "publish_id": "6581f68efddc4ff0815e156ec6ecfb52"
}
]
```

## Status Codes

Table 5-447 Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.16.4 Querying the List of APIs Bound to a Signature Key

#### Function

This API is used to query the list of APIs that have been bound to a specified signature key.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.



**Table 5-448** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/sign-bindings/binded-apis[?page_size, page_no, sign_id, env_id, api_id, api_name, group_id]

 **NOTE**

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **sign\_id**, **env\_id**, **api\_id**, **api\_name**, **group\_id**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-449** Parameter description

Parameter	Mandatory	Type	Description
sign_id	Yes	String	Signature key ID
env_id	No	String	Environment ID
api_id	No	String	API ID
api_name	No	String	API name
group_id	No	String	API group ID

## Request

N/A

## Response

**Table 5-450** Parameter description

Parameter	Type	Description
total	Integer	Total number of APIs that match the query conditions
size	Integer	Length of the returned API list
bindings	Dictionary	API list

**Table 5-451** Parameter description of bindings

Parameter	Type	Description
id	String	Binding ID
api_id	String	API ID
api_name	String	API name
api_remark	String	Description of the API
group_name	String	Name of the API group to which the API belongs
api_type	Integer	API type
sign_id	String	Signature key ID
sign_name	String	Signature key name
sign_key	String	Signature key
sign_secret	String	Signature secret
env_id	String	ID of the environment in which the API has been published
env_name	String	Name of the environment in which the API has been published
binding_time	Timestamp	Time when the signature key is bound to the API
publish_id	String	API publication ID

Example response:

```
{
  "total": 2,
  "size": 2,
  "bindings": [
    {
      "id": "4588ec6f5dab4f67b298dc693f58029e",
      "api_id": "d85c502a-f916-47e8-bba0-50537a2d1af2",
      "api_name": "aaa",
      "api_remark": "",
      "group_name": "asd",
      "api_type": 1,
      "sign_id": "3a793b65a9034bdfae08924f149bfb4a",
      "sign_name": "signature01",
      "sign_key": "abcd_1234",
      "sign_secret": "*****",
      "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "env_name": "RELEASE",
      "binding_time": "2018-02-07T07:08:51Z",
      "publish_id": "3a793b65a9034bdfae08924f149bfsda"
    },
    {
      "id": "d8426fb090e442c4a56a35e451bea085",
      "api_id": "3c6769c6-ec61-4b45-b478-c60310dbaa1b",
      "api_name": "bbb",
      "api_remark": ""
    }
  ]
}
```

```

"group_name": "asd",
"api_type": 1,
"sign_id": "3a793b65a9034bdfae08924f149bfb4a",
"sign_name": "signature01",
"sign_key": "abcd_1234",
"sign_secret": "*****",
"env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
"env_name": "RELEASE",
"binding_time": "2018-02-07T03:17:26Z",
"publish_id": "3a793b65a9034bdfae08924f149bfda"
}
]
}

```

## Status Codes

**Table 5-452** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.16.5 Querying the List of Signature Keys Bound to an API

### Function

This API is used to query the list of signature keys that have been bound to a specified API. Only one signature key can be bound to an API in an environment.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-453** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/sign-bindings/binded-signs[?page_no, page_size, api_id, sign_id, sign_name, env_id]

 NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **api\_id**, **sign\_id**, **sign\_name**, **env\_id**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-454** Parameter description

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID
sign_id	No	String	Signature key ID
sign_name	No	String	Signature key name
env_id	No	String	Environment ID

**Request**

N/A

**Response****Table 5-455** Parameter description

Parameter	Type	Description
total	Integer	Total number of signature keys that match the query conditions
size	Integer	Length of the returned signature key list
bindings	Dictionary	Signature key list

**Table 5-456** Parameter description of bindings

Parameter	Type	Description
id	String	Binding ID
api_id	String	API ID
api_name	String	API name
api_remark	String	Description of the API
group_name	String	Name of the API group to which the API belongs
api_type	Integer	API type

Parameter	Type	Description
sign_id	String	Signature key ID
sign_name	String	Signature key name
sign_key	String	Signature key
sign_secret	String	Signature secret
env_id	String	ID of the environment in which the API has been published
env_name	String	Name of the environment in which the API has been published
binding_time	Timestamp	Time when the signature key is bound to the API
publish_id	String	API publication ID

Example response:

```
{
  "total": 2,
  "size": 2,
  "bindings": [
    {
      "id": "4588ec6f5dab4f67b298dc693f58029e",
      "api_id": "d85c502a-f916-47e8-bba0-50537a2d1af2",
      "api_name": "aaa",
      "api_remark": "",
      "group_name": "asd",
      "api_type": 1,
      "sign_id": "3a793b65a9034bdfae08924f149bfb4a",
      "sign_name": "signature01",
      "sign_key": "abcd_1234",
      "sign_secret": "*****",
      "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "env_name": "RELEASE",
      "binding_time": "2018-02-07T07: 08: 51Z",
      "publish_id": "3a793b65a9034bdfae08924f149bfsda"
    },
    {
      "id": "d8426fb090e442c4a56a35e451bea085",
      "api_id": "3c6769c6-ec61-4b45-b478-c60310dbaa1b",
      "api_name": "bbb",
      "api_remark": "",
      "group_name": "asd",
      "api_type": 1,
      "sign_id": "3a793b65a9034bdfae08924f149bfb4a",
      "sign_name": "signature01",
      "sign_key": "abcd_1234",
      "sign_secret": "*****",
      "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
      "env_name": "RELEASE",
      "binding_time": "2018-02-07T03: 17: 26Z",
      "publish_id": "3a793b65a9034bdfae08924f149bfsda"
    }
  ]
}
```

## Status Codes

**Table 5-457** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.16.6 Unbinding a Signature Key

#### Function

This API is used to unbind a signature key from an API.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-458** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/sign-bindings/{id}

The following table lists the parameter in the URI.

**Table 5-459** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Binding ID

#### Request

N/A

#### Response

N/A

## Status Codes

**Table 5-460** Status codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.17 Domain Name Management

### 5.17.1 Object Model

This section describes the object models for certificates and user-defined domain names.

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.

**Table 5-461** Domain name object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Domain ID	R	-
url_domain	String	Domain name	CR	Yes
cname_status	Integer	CNAME resolution status, which can be: <ul style="list-style-type: none"><li>• 1: not resolved</li><li>• 2: in progress</li><li>• 3: successful</li><li>• 4: failed</li></ul>	R	No
ssl_id	String	Certificate ID	R	No
group_id	String	API group ID	CR	Yes

**Table 5-462** Certificate object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Certificate ID	R	-
name	String	Certificate name	CRU	Yes
context	String	Content of the certificate	CRU	Yes
private_key	String	Private key of the certificate	CRU	Yes

## 5.17.2 Binding a Domain Name

### Function

Domain names are user-defined, and take effect only after CNAME records are added to point the domain names to subdomain names of API groups. For details, see [Adding a CNAME Record Set](#).

An API group can be bound to a maximum of five domain names. After you bind a domain name to an API group, APIs in the group can be called using the domain name.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-463** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/api-groups/{group_id}/domains

The following table lists the parameter in the URI.

**Table 5-464** Parameter description

Parameter	Mandatory	Type	Description
group_id	Yes	String	API group ID



## Request

**Table 5-465** Parameter description

Parameter	Mandatory	Type	Description
url_domain	Yes	String	Domain name A domain name consists of a maximum of 255 characters and must comply with domain name specifications.

Example request:

```
{  
  "url_domain": "www.MyCompany.com"  
}
```

## Response

**Table 5-466** Parameter description

Parameter	Type	Description
id	String	Domain ID
url_domain	String	Domain name
status	Integer	CNAME resolution status, which can be: <ul style="list-style-type: none"><li>• 1: not resolved</li><li>• 2: in progress</li><li>• 3: successful</li><li>• 4: failed</li></ul>

Example response:

```
{  
  "id": "c5e0d5ba62a34d26ad5c709ae22c1a17",  
  "url_domain": "www.MyCompany.com",  
  "status": 3  
}
```

## Status Codes

**Table 5-467** Status codes

Status Code	Description
201	Created

Status Code	Description
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.17.3 Unbinding a Domain Name

#### Function

This API is used to unbind a custom domain name from an API group.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-468** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/api-groups/{group_id}/domains/{id}

The following table lists the parameter in the URI.

**Table 5-469** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	Domain ID
group_id	Yes	String	API group ID

#### Request

N/A

#### Response

N/A

## Status Codes

**Table 5-470** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.17.4 Adding a Certificate to a Domain Name

#### Function

When you create an API to be accessed through HTTPS, you must add an SSL certificate to the independent domain name that has been bound to the group the API belongs to.

This API is used to add a certificate to a specific domain name.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-471** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/api-groups/{group_id}/domains/{domain_id}/certificate

The following table lists the parameters in the URI.

**Table 5-472** Parameter description

Parameter	Mandatory	Type	Description
group_id	Yes	String	API group ID
domain_id	Yes	String	Domain ID

## Request

**Table 5-473** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Certificate name A certificate name consists of 4–50 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
cert_content	Yes	String	Content of the certificate
private_key	Yes	String	Private key

Example request:

```
{
  "cert_content": "example",
  "name": "test_ssl",
  "private_key": "example"
}
```

## Response

**Table 5-474** Parameter description

Parameter	Type	Description
id	String	Domain ID
url_domain	String	Domain name
status	Integer	CNAME resolution status
ssl_id	String	Certificate ID
ssl_name	String	Certificate name

Example response:

```
{
  "id": " b9be707660c5406394f8973e087bae20",
  "url_domain": "www.example.com",
  "status": 3,
  "ssl_id": "0a515af69f4e4dcca84fbf85f68c0e27",
  "ssl_name": "Certificate"
}
```

## Status Codes

**Table 5-475** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.17.5 Deleting a Certificate Bound to a Domain Name

#### Function

This API is used to delete a certificate that is no longer needed or has expired.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-476** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/api-groups/{group_id}/domains/{domain_id}/certificate/{id}

The following table lists the parameter in the URI.

**Table 5-477** Parameter description

Parameter	Mandatory	Type	Description
group_id	Yes	String	API group ID
domain_id	Yes	String	Domain ID
id	Yes	String	Certificate ID

#### Request

N/A

## Response

N/A

## Status Codes

**Table 5-478** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.17.6 Querying Details of a Certificate Bound to a Domain Name

### Function

This API is used to query the details of a specified certificate bound to a domain name.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-479** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/api-groups/{group_id}/domains/{domain_id}/certificate/{id}

The following table lists the parameters in the URI.

**Table 5-480** Parameter description

Parameter	Mandatory	Type	Description
group_id	Yes	String	API group ID

Parameter	Mandatory	Type	Description
domain_id	Yes	String	Domain ID
id	Yes	String	Certificate ID

## Request

N/A

## Response

**Table 5-481** Parameter description

Parameter	Type	Description
common_name	String	Certificate domain name
san	Dictionary	Subject alternative name (SAN)
version	String	Certificate version
organization	Dictionary	Company or organization
organizational_unit	Dictionary	Department
locality	Dictionary	City
state	Dictionary	Province or state
country	Dictionary	Country or region
not_before	Timestamp	Start time of the certificate validity period
not_after	Timestamp	Expiration time of the certificate validity period
serial_number	String	SN
issuer	Dictionary	Certificate issuer
signature_algorithm	String	Signature algorithm

Example response:

```
{
  "san": [
    "xxx.xxx.xxx"
  ],
  "country": [
    "CN"
  ],
  "not_before": "2019-04-29T11:49:18Z",
```

```

"locality": [
  "XXX"
],
"serial_number": "00000000000000000000000000000000",
"version": 3,
"issuer": [
  "XXX"
],
"not_after": "2029-04-29T11:49:18Z",
"organization": [
  "XXX"
],
"signature_algorithm": "SHA256-RSA",
"state": [
  "XXX"
],
"common_name": "xxx.xxx.xxx",
"organizational_unit": [
  "XXX"
]
}

```

## Status Codes

Table 5-482 Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.18 VPC Channel Management

### 5.18.1 Object Model

This section describes the object models for VPC channel management.

 NOTE

- **Operation Type** indicates the operation that can be performed on a field.  
C: create; U: update; R: read
- **Mandatory** indicates whether a field with the **Operation Type** of C is mandatory.



**Table 5-483** VPC channel object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	VPC channel ID	R	-
name	String	VPC channel name	CRU	Yes
type	Integer	VPC channel type, which can be: <ul style="list-style-type: none"> <li>• 2: built-in channel</li> </ul>	CRU	Yes
status	Integer	VPC channel status, which can be: <ul style="list-style-type: none"> <li>• 1: normal</li> <li>• 2: abnormal</li> </ul>	R	Yes
project_id	String	Tenant ID	CRU	Yes
port	Integer	Port number	CR	Yes
balance_strategy	Integer	Distribution algorithm, which can be: <ul style="list-style-type: none"> <li>• 1: weighted round robin (WRR)</li> <li>• 2: weighted least connection (WLC)</li> <li>• 3: source hashing (SH)</li> <li>• 4: URI hashing</li> </ul>	CRU	Yes
create_time	Timestamp	Time when the VPC channel is created	R	Yes

**Table 5-484** Health check object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Health check ID	R	-
vpc_id	String	VPC channel ID	CRU	Yes
protocol	String	Protocol for health checks, which can be: <ul style="list-style-type: none"> <li>• tcp</li> <li>• http</li> </ul>	CRU	Yes
path	Integer	Path for health checks, which is valid only when <b>protocol</b> is set to <b>http</b>	CRU	No

Parameter	Type	Description	Operation Type	Mandatory
port	Integer	Port number. The port number of the VPC channel will be used if no value is specified.	CRU	No
threshold_normal	Integer	Healthy threshold	CRU	Yes
threshold_abnormal	Integer	Unhealthy threshold	CRU	Yes
time_out	Integer	Timeout to wait for a response	CRU	Yes
time_interval	Integer	Interval between consecutive checks	CRU	Yes
http_code	String	Success codes, which are valid only when <b>protocol</b> is set to <b>http</b>	CRU	No
create_time	Timestamp	Time when the health check configuration is created	R	Yes

**Table 5-485** Backend instance object model

Parameter	Type	Description	Operation Type	Mandatory
id	String	Backend instance object ID	R	-
vpc_id	String	VPC channel ID	CRU	Yes
ext_vpc_id	String	ID of the VPC associated with the backend instance object This parameter is not used currently.	R	Yes
instance_id	String	Instance ID	CRU	No
instance_name	String	Instance name	CRU	No
host	String	IP address of the backend instance object	CRU	Yes

Parameter	Type	Description	Operation Type	Mandatory
status	Integer	Status of the backend instance object <ul style="list-style-type: none"><li>• 1: normal</li><li>• 2: abnormal</li></ul>	R	Yes
weight	Integer	Weight	CRU	Yes
create_time	Timestamp	Time when the member is created	R	Yes

## 5.18.2 Creating a VPC Channel

### Function

This API is used to create a VPC channel from APIG to your private VPC resources. Afterwards, when creating an API, you can configure your backend service to use this VPC channel so that APIG can directly access your private VPC resources.

#### NOTE

You can create a maximum of 30 VPC channels.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-486** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/vpc-channels

### Request

**Table 5-487** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	VPC channel name A VPC channel name consists of 3–64 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
type	Yes	Integer	VPC channel type, which can be: <ul style="list-style-type: none"> <li>• <b>2</b>: fast channel with the load balancing function</li> </ul>
member_type	Mandatory if <b>type</b> is <b>2</b>	String	Member type of the VPC channel, which can be: <ul style="list-style-type: none"> <li>• ip (not supported currently)</li> <li>• instance</li> </ul> This parameter is valid only when the VPC channel type is set to <b>2</b> . The default value is <b>instance</b> .
port	Mandatory if <b>type</b> is <b>2</b>	Integer	Host port of the VPC channel This parameter is valid only when the VPC channel type is set to <b>2</b> . The value range is 1–65535.
balance_strategy	Mandatory if <b>type</b> is <b>2</b>	Integer	Distribution algorithm, which can be: <ul style="list-style-type: none"> <li>• <b>1</b>: WRR</li> <li>• <b>2</b>: WLC</li> <li>• <b>3</b>: SH</li> <li>• <b>4</b>: URI hashing</li> </ul> This parameter is valid only when the VPC channel type is set to <b>2</b> . The default value is <b>1</b> .
vpc_health_config	Mandatory if <b>type</b> is <b>2</b>	Dictionary	Health check details. This parameter is valid only when the VPC channel type is set to <b>2</b> .

**Table 5-488** Health check details

Parameter	Mandatory	Type	Description
protocol	Yes	String	Protocol for performing health checks on cloud servers in the VPC channel. The value can be: <ul style="list-style-type: none"> <li>• TCP</li> <li>• HTTP</li> <li>• HTTPS</li> </ul>

Parameter	Mandatory	Type	Description
path	Required when <b>protocol</b> is set to <b>http</b> .	String	Destination path for health checks <b>NOTE</b> The value of this parameter must comply with URI specifications.
port	No	Integer	Destination port for health checks. By default, the host port of the VPC channel is used. Range: 1-65535
threshold_normal	Yes	Integer	Healthy threshold It refers to the number ( $x$ ) of consecutive successful checks required for a cloud server to be marked as healthy. Range: 2-10
threshold_abnormal	Yes	Integer	Unhealthy threshold It refers to the number ( $x$ ) of consecutive failed checks required for a cloud server to be marked as unhealthy. Range: 2-10
time_out	Yes	Integer	Timeout for determining whether a health check fails. Unit: s. The value must be less than the value of <b>time_interval</b> . Range: 2-30
time_interval	Yes	Integer	Interval between consecutive checks. Unit: s. The value must be greater than the value of <b>time_out</b> . Range: 5-300
http_code	Required when <b>protocol</b> is set to <b>http</b> .	String	HTTP response codes for determining a successful HTTP response The value can be any integer within 100-599 in one of the following formats: <ul style="list-style-type: none"> <li>• Multiple values, for example, <b>200,201,202</b></li> <li>• Range, for example, <b>200-299</b></li> <li>• Multiple values and ranges, for example, <b>201,202,210-299</b></li> </ul>

**Table 5-489** Backend instance list

Parameter	Mandatory	Type	Description
instance_name	Yes	String	Backend instance name The name must contain 1–64 characters. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.
instance_id	Yes	String	Backend instance ID The ID must contain 1–64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
weight	Mandatory if <b>type</b> is <b>2</b>	Integer	Cloud server weight The larger the weight is, the more requests are forwarded to the backend instance. This parameter is valid only when the VPC channel type is set to <b>2</b> . The value range is 1–100.

Example request:

```
{
  "balance_strategy": 1,
  "name": "vpc_001",
  "port": 15565,
  "type": 2,
  "member_type": "instance",
  "vpc_health_config": {
    "http_code": "205",
    "path": "/hc",
    "port": 15563,
    "protocol": "http",
    "threshold_abnormal": 5,
    "threshold_normal": 5,
    "time_interval": 200,
    "time_out": 30
  },
  "vpc_instances": [
    {
      "instance_id": "instance01",
      "instance_name": "instance_name01",
      "weight": 10
    }
  ]
}
```

## Response

**Table 5-490** Parameter description

Parameter	Type	Description
id	String	VPC channel ID

Parameter	Type	Description
name	String	VPC channel name
type	Integer	VPC channel type, which can be: <ul style="list-style-type: none"><li>• 2: fast channel with the load balancing function</li></ul>
member_type	String	Member type of the VPC channel, which can be: <ul style="list-style-type: none"><li>• ip (not supported currently)</li><li>• instance</li></ul> This parameter is valid only when the VPC channel type is set to 2.
status	Integer	VPC channel status, which can be: <ul style="list-style-type: none"><li>• 1: normal</li><li>• 2: abnormal</li></ul>
port	Integer	Host port of the VPC channel
balance_strategy	Integer	Distribution algorithm, which can be: <ul style="list-style-type: none"><li>• 1: WRR</li><li>• 2: WLC</li><li>• 3: SH</li><li>• 4: URI hashing</li></ul>
create_time	Timestamp	Time when the VPC channel is created

Example response:

```
{
  "name": "vpc_001",
  "type": 2,
  "member_type": "instance",
  "port": 15565,
  "balance_strategy": 1,
  "id": "c3e6a7d85d9e47be89dfcc3cd37405d7",
  "create_time": "2018-07-27T12:30:48.027484Z",
  "status": 1
}
```

## Status Codes

Table 5-491 Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.18.3 Updating a VPC Channel

### Function

This API is used to update the parameters of a specified VPC channel.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-492** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/vpc-channels/{id}

The following table lists the parameter in the URI.

**Table 5-493** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	VPC channel ID

### Request

**Table 5-494** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	VPC channel name A VPC channel name consists of 3–64 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) are allowed.



Parameter	Mandatory	Type	Description
type	Yes	Integer	VPC channel type, which can be: <ul style="list-style-type: none"> <li>• <b>2</b>: fast channel with the load balancing function</li> </ul>
member_type	Mandatory if <b>type</b> is <b>2</b>	String	Member type of the VPC channel, which can be: <ul style="list-style-type: none"> <li>• ip (not supported currently)</li> <li>• instance</li> </ul> This parameter is valid only when the VPC channel type is set to <b>2</b> . The default value is <b>instance</b> .
port	Mandatory if <b>type</b> is <b>2</b>	Integer	Host port of the VPC channel This parameter is valid only when the VPC channel type is set to <b>2</b> . The value range is 1–65535.
balance_strategy	Mandatory if <b>type</b> is <b>2</b>	Integer	Distribution algorithm, which can be: <ul style="list-style-type: none"> <li>• <b>1</b>: WRR</li> <li>• <b>2</b>: WLC</li> <li>• <b>3</b>: SH</li> <li>• <b>4</b>: URI hashing</li> </ul> This parameter is valid only when the VPC channel type is set to <b>2</b> . The default value is <b>1</b> .
vpc_health_config	Mandatory if <b>type</b> is <b>2</b>	Dictionary	Health check details. This parameter is valid only when the VPC channel type is set to <b>2</b> .
vpc_instances	Yes	Dictionary	Backend instance list. Only one backend instance is included if the VPC channel type is set to <b>1</b> .

**Table 5-495** Health check details

Parameter	Mandatory	Type	Description
protocol	Yes	String	Protocol for performing health checks on cloud servers in the VPC channel. The value can be: <ul style="list-style-type: none"> <li>• TCP</li> <li>• HTTP</li> <li>• HTTPS</li> </ul>

Parameter	Mandatory	Type	Description
path	Required if <b>protocol</b> is set to <b>http</b> .	String	Destination path for health checks <b>NOTE</b> The value of this parameter must comply with URI specifications.
port	No	Integer	Destination port for health checks. By default, the host port of the VPC channel is used. Range: 1-65535
threshold_normal	Yes	Integer	Healthy threshold It refers to the number ( $x$ ) of consecutive successful checks required for a cloud server to be marked as healthy. Range: 2-10
threshold_abnormal	Yes	Integer	Unhealthy threshold It refers to the number ( $x$ ) of consecutive failed checks required for a cloud server to be marked as unhealthy. Range: 2-10
time_out	Yes	Integer	Timeout for determining whether a health check fails. Unit: s. The value must be less than the value of <b>time_interval</b> . Range: 2-30
time_interval	Yes	Integer	Interval between consecutive checks. Unit: s. The value must be greater than the value of <b>time_out</b> . Range: 5-300
http_code	Required if <b>protocol</b> is set to <b>http</b> .	String	HTTP response codes for determining a successful HTTP response The value can be any integer within 100-599 in one of the following formats: <ul style="list-style-type: none"> <li>• Multiple values, for example, <b>200,201,202</b></li> <li>• Range, for example, <b>200-299</b></li> <li>• Multiple values and ranges, for example, <b>201,202,210-299</b></li> </ul>

**Table 5-496** Backend instance list

Parameter	Mandatory	Type	Description
instance_name	Yes	String	Backend instance name The name must contain 1–64 characters. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.
instance_id	Yes	String	Backend instance ID The ID must contain 1–64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
weight	Mandatory if type is 2	Integer	Cloud server weight The larger the weight is, the more requests are forwarded to the backend instance. This parameter is valid only when the VPC channel type is set to 2. The value range is 1–100.

Example request:

```
{
  "balance_strategy": 1,
  "name": "vpc_001",
  "port": 15565,
  "type": 2,
  "member_type": "instance",
  "vpc_health_config": {
    "http_code": "205",
    "path": "/hc",
    "port": 15563,
    "protocol": "http",
    "threshold_abnormal": 5,
    "threshold_normal": 5,
    "time_interval": 200,
    "time_out": 30
  },
  "vpc_instances": [
    {
      "instance_id": "instance01",
      "instance_name": "instance_name01",
      "weight": 10
    }
  ]
}
```

## Response

**Table 5-497** Parameter description

Parameter	Type	Description
id	String	VPC channel ID

Parameter	Type	Description
name	String	VPC channel name
type	Integer	VPC channel type, which can be: <ul style="list-style-type: none"> <li>● 2: fast channel with the load balancing function</li> </ul>
member_type	String	Member type of the VPC channel, which can be: <ul style="list-style-type: none"> <li>● ip (not supported currently)</li> <li>● instance</li> </ul> This parameter is valid only when the VPC channel type is set to 2.
status	Integer	VPC channel status, which can be: <ul style="list-style-type: none"> <li>● 1: normal</li> <li>● 2: abnormal</li> </ul>
port	Integer	Host port of the VPC channel
balance_strategy	Integer	Distribution algorithm, which can be: <ul style="list-style-type: none"> <li>● 1: WRR</li> <li>● 2: WLC</li> <li>● 3: SH</li> <li>● 4: URI hashing</li> </ul>
create_time	Timestamp	Time when the VPC channel is created

Example response:

```
{
  "name": "vpc_001",
  "type": 2,
  "member_type": "instance",
  "port": 15565,
  "balance_strategy": 1,
  "id": "c3e6a7d85d9e47be89dfcc3cd37405d7",
  "create_time": "2018-07-27T12:30:48.027484Z",
  "status": 1
}
```

## Status Codes

**Table 5-498** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized

Status Code	Description
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.18.4 Deleting a VPC Channel

### Function

This API is used to delete a specified VPC channel.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-499** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/vpc-channels/{id}

The following table lists the parameter in the URI.

**Table 5-500** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	VPC channel ID

### Request

N/A

### Response

N/A

## Status Codes

**Table 5-501** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.18.5 Querying VPC Channel Details

### Function

This API is used to query the details of a specified VPC channel.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-502** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/vpc-channels/{id}

The following table lists the parameter in the URI.

**Table 5-503** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	VPC channel ID

### Request

N/A

## Response

**Table 5-504** Parameter description

Parameter	Type	Description
id	String	VPC channel ID
name	String	VPC channel name
type	Integer	VPC channel type, which can be: <ul style="list-style-type: none"><li>• 2: fast channel with the load balancing function</li></ul>
member_type	String	Member type of the VPC channel, which can be: <ul style="list-style-type: none"><li>• ip (not supported currently)</li><li>• instance</li></ul>
status	Integer	VPC channel status, which can be: <ul style="list-style-type: none"><li>• 1: normal</li><li>• 2: abnormal</li></ul>
port	Integer	Host port of the VPC channel
balance_strategy	Integer	Distribution algorithm, which can be: <ul style="list-style-type: none"><li>• 1: WRR</li><li>• 2: WLC</li><li>• 3: SH</li><li>• 4: URI hashing</li></ul>
create_time	Timestamp	Time when the VPC channel is created
vpc_health_config	Dictionary	Health check details
vpc_instances	Dictionary	Backend instance list

**Table 5-505** Health check details

Parameter	Type	Description
id	String	Health check ID
vpc_id	String	VPC channel ID
protocol	String	Protocol for performing health checks on cloud servers in the VPC channel. The value can be: <ul style="list-style-type: none"><li>• TCP</li><li>• HTTP</li><li>• HTTPS</li></ul>

Parameter	Type	Description
path	String	Destination path for health checks <b>NOTE</b> The value of this parameter must comply with URI specifications.
port	Integer	Destination port for health checks. By default, the host port of the VPC channel is used. Range: 1–65535
threshold_normal	Integer	Healthy threshold It refers to the number ( $x$ ) of consecutive successful checks required for a cloud server to be marked as healthy. Range: 2–10
threshold_abnormal	Integer	Unhealthy threshold It refers to the number ( $x$ ) of consecutive failed checks required for a cloud server to be marked as unhealthy. Range: 2–10
time_out	Integer	Timeout for determining whether a health check fails. Unit: s. The value must be less than the value of <b>time_interval</b> . Range: 2–30
time_interval	Integer	Interval between consecutive checks. Unit: s. The value must be greater than the value of <b>time_out</b> . Range: 5–300
http_code	String	HTTP response codes for determining a successful HTTP response The value can be any integer within 100–599 in one of the following formats: <ul style="list-style-type: none"> <li>• Multiple values, for example, <b>200,201,202</b></li> <li>• Range, for example, <b>200-299</b></li> <li>• Multiple values and ranges, for example, <b>201,202,210-299</b></li> </ul>
create_time	Timestamp	Time when the VPC channel is created

**Table 5-506** Backend instance details

Parameter	Type	Description
id	String	Backend instance object ID
vpc_id	String	VPC channel ID



Parameter	Type	Description
status	Integer	Status of the backend instance object
instance_name	String	Backend instance name
instance_id	String	Backend instance ID
host	String	IP address of the backend instance
weight	Integer	Cloud server weight The larger the weight is, the more requests are forwarded to the backend instance. Range: 1–100
create_time	Timestamp	Time when the backend instance is added to the VPC channel

Example response:

```
{
  "name": "vpc_001",
  "type": 2,
  "member_type": "instance",
  "port": 15565,
  "balance_strategy": 1,
  "id": "c3e6a7d85d9e47be89dfcc3cd37405d7",
  "create_time": "2018-07-27T12:30:48Z",
  "status": 1,
  "vpc_health_config": {
    "protocol": "http",
    "path": "/hc",
    "port": 15563,
    "threshold_normal": 5,
    "threshold_abnormal": 5,
    "time_out": 30,
    "time_interval": 200,
    "http_code": "205",
    "id": "f26c1b158f2e40f2b531cf5c1b5e05e5",
    "vpc_id": "c3e6a7d85d9e47be89dfcc3cd37405d7",
    "create_time": "2018-07-27T12:30:48Z"
  },
  "vpc_instances": [
    {
      "instance_id": "instance01",
      "instance_name": "instance_name01",
      "host": "127.0.0.1",
      "weight": 10,
      "id": "c3bc73605a8b400793363c87574fbad7",
      "vpc_id": "c3e6a7d85d9e47be89dfcc3cd37405d7",
      "status": 1,
      "create_time": "2018-07-27T12:30:48Z"
    }
  ]
}
```

## Status Codes

**Table 5-507** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.18.6 Querying the VPC channel List

#### Function

This API is used to query the list of VPC channels that have been created.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-508** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/vpc-channels[?page_size, page_no, id, name, vpc_type]

o

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **id**, **name**, **vpc\_type**, **page\_size**, and **page\_no**.

**Table 5-509** Parameter description

Parameter	Mandatory	Type	Description
id	No	String	VPC channel ID

Parameter	Mandatory	Type	Description
name	No	String	VPC channel name
vpc_type	No	Integer	VPC channel type, which can be:
page_size	No	Integer	Number of VPC channels displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .
precise_search	No	String	Parameter name ( <b>name</b> ) for exact matching

## Request

N/A

## Response

**Table 5-510** Parameter description

Parameter	Type	Description
total	Integer	Total number of VPC channels that match the query conditions
size	Integer	Length of the returned VPC channel list
vpcs	Dictionary	VPC channel list

**Table 5-511** VPC channel parameter description

Parameter	Type	Description
id	String	VPC channel ID
name	String	VPC channel name
type	Integer	VPC channel type, which can be: <ul style="list-style-type: none"> <li><b>2</b>: fast channel with the load balancing function</li> </ul>

Parameter	Type	Description
member_type	String	Member type of the VPC channel, which can be: <ul style="list-style-type: none"><li>ip (not supported currently)</li><li>instance</li></ul>
status	Integer	VPC channel status, which can be: <ul style="list-style-type: none"><li>1: normal</li><li>2: abnormal</li></ul>
port	Integer	Host port of the VPC channel
balance_strategy	Integer	Distribution algorithm, which can be: <ul style="list-style-type: none"><li>1: WRR</li><li>2: WLC</li><li>3: SH</li><li>4: URI hashing</li></ul>
create_time	Timestamp	Time when the VPC channel is created

Example response:

```
{
  "total": 2,
  "size": 2,
  "vpcs": [
    {
      "name": "Channel_1",
      "type": 1,
      "member_type": "instance",
      "port": 8080,
      "balance_strategy": 1,
      "id": "39c62689302a48fe9f4bd7cf5c052064",
      "create_time": "2018-04-24T12:07:58Z",
      "status": 1
    },
    {
      "name": "Channel_2",
      "type": 2,
      "member_type": "instance",
      "port": 8088,
      "balance_strategy": 1,
      "id": "e6831cbcbe2b45bbbc6318c2892f060b",
      "create_time": "2018-04-24T11:57:03Z",
      "status": 1
    }
  ]
}
```

## Status Codes

**Table 5-512** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

### 5.18.7 Adding Backend Instances (Cloud Servers)

#### Function

This API is used to add cloud servers to a specified VPC channel.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-513** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/vpc-channels/{id}/members

The following table lists the parameter in the URI.

**Table 5-514** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	VPC channel ID

## Request

**Table 5-515** Parameter description

Parameter	Mandatory	Type	Description
vpc_instances	Yes	Dictionary	Backend instance list

**Table 5-516** Backend instance details

Parameter	Mandatory	Type	Description
instance_name	Yes	String	Cloud server name The name must contain 1–64 characters. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.
instance_id	Yes	String	Cloud server ID The ID must contain 1–64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
weight	Yes	Integer	Cloud server weight The larger the weight is, the more requests are forwarded to the cloud server. Range: 1–100

Example request:

```
{
  "vpc_instances": [
    {
      "instance_id": "instance02",
      "instance_name": "instance_name02",
      "weight": 10
    }
  ]
}
```

## Response

**Table 5-517** Parameter description

Parameter	Type	Description
total	Integer	Total number of cloud servers under the VPC channel

Parameter	Type	Description
size	Integer	Total number of cloud servers returned
vpc_instances	Dictionary	Cloud server list

**Table 5-518** Backend instance details

Parameter	Type	Description
id	String	Backend instance object ID
vpc_id	String	VPC channel ID
status	Integer	Status of the backend instance object
instance_name	String	Cloud server name
instance_id	String	Cloud server ID
host	String	Cloud server IP address
weight	Integer	Cloud server weight The larger the weight is, the more requests are forwarded to the cloud server. Range: 1–100
create_time	Timestamp	Time when the cloud server is added to the VPC channel

Example response:

```
{
  "total": 2,
  "size": 2,
  "vpc_instances": [
    {
      "instance_id": "instance02",
      "instance_name": "instance_name02",
      "host": "127.0.0.2",
      "weight": 10,
      "id": "680e42fab429447ca23b9623107523d9",
      "vpc_id": "c3e6a7d85d9e47be89dfcc3cd37405d7",
      "status": 1,
      "create_time": "2018-07-27T12:42:32Z"
    },
    {
      "instance_id": "instance01",
      "instance_name": "instance_name01",
      "host": "127.0.0.1",
      "weight": 10,
      "id": "c3bc73605a8b400793363c87574fbad7",
      "vpc_id": "c3e6a7d85d9e47be89dfcc3cd37405d7",
      "status": 1,
      "create_time": "2018-07-27T12:30:48Z"
    }
  ]
}
```

```
}  
]  
}
```

## Status Codes

**Table 5-519** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.18.8 Deleting a Backend Instance (Cloud Server)

### Function

This API is used to delete a cloud server of a specified VPC channel.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-520** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/vpc-channels/{id}/members/{inst_id}

The following table lists the parameters in the URI.

**Table 5-521** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	VPC channel ID
inst_id	Yes	String	Backend instance object ID



## Request

N/A

## Response

N/A

## Status Codes

**Table 5-522** Status codes

Status Code	Description
204	No Content
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.18.9 Querying the Backend Instance List (Cloud Server List)

### Function

This API is used to query the cloud servers of a specified VPC channel.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-523** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/vpc-channels/{id}/members[?page_size, page_no, name]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **name**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-524** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	VPC channel ID
name	No	String	Cloud server name
page_size	No	Integer	Number of cloud servers displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-525** Parameter description

Parameter	Type	Description
total	Integer	Total number of cloud servers that match the query conditions
size	Integer	Length of the returned cloud server list
vpc_instances	Dictionary	Cloud server list

**Table 5-526** Backend instance details

Parameter	Type	Description
id	String	Backend instance object ID
vpc_id	String	VPC channel ID
status	Integer	Status of the backend instance object
instance_name	String	Cloud server name
instance_id	String	Cloud server ID
host	String	Cloud server IP address

Parameter	Type	Description
weight	Integer	Cloud server weight The larger the weight is, the more requests are forwarded to the cloud server. Range: 1–100
create_time	Timestamp	Time when the cloud server is added to the VPC channel

Example response:

```
{
  "total": 2,
  "size": 2,
  "vpc_instances": [
    {
      "instance_id": "instance02",
      "instance_name": "instance_name02",
      "host": "127.0.0.2",
      "weight": 10,
      "id": "680e42fab429447ca23b9623107523d9",
      "vpc_id": "c3e6a7d85d9e47be89dfcc3cd37405d7",
      "status": 1,
      "create_time": "2018-07-27T12:42:32Z"
    },
    {
      "instance_id": "instance01",
      "instance_name": "instance_name01",
      "host": "127.0.0.1",
      "weight": 10,
      "id": "c3bc73605a8b400793363c87574fbad7",
      "vpc_id": "c3e6a7d85d9e47be89dfcc3cd37405d7",
      "status": 1,
      "create_time": "2018-07-27T12:30:48Z"
    }
  ]
}
```

## Status Codes

**Table 5-527** Status codes

Status Code	Description
200	OK
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Server Internal Error

## 5.19 Querying Metrics

### 5.19.1 Querying API Calls Within a Period

#### Function

This API is used to query the number of times an API is called during a period. The query can be based on 1 minute, 1 hour, or 1 day.

- If the time range is within one hour, the server returns data of the latest N minutes, with the number of API calls collected every minute.
- If the time range is within one day, the server returns data of the latest N hours (or N + 1 hours if N is not an integer), with the number of API calls collected every hour. For example, if the time range is within 2 to 3 hours, data of the latest 2 + 1 hours will be returned.
- If the time range is longer than one day, the server returns data of the latest N days (or N + 1 days if N is not an integer), with the number of API calls collected every day.

#### NOTE

For security purposes, clear your operation records, including but not limited to records in the `~/.bash_history` and `/var/log/messages` directories (if any), after running the `curl` command on the server to query information.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-528** HTTP/HTTPS request method and URI

Request Method	URI
GET	<code>/v1.0/apigw/statistics/api/latest?api_id=[api_id]&amp;duration=[duration]</code>

#### Request

**Table 5-529** Parameter description of statistic data

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID

Parameter	Mandatory	Type	Description
duration	Yes	String	Time range (unit: <b>h</b> or <b>m</b> ). For example, <b>1h</b> refers to the latest 1 hour and <b>1m</b> refers to the latest 1 minute.

## Response

**Table 5-530** Parameter description

Parameter	Type	Description	Operation Type
code	String	Response code	R
msg	String	Response message	R
start_time	Long	Timestamp (UTC) of the start time	R
end_time	Long	Timestamp (UTC) of the end time	R
list	Structure	Statistic data	R

**Table 5-531** Parameter description of statistic data

Parameter	Type	Description	Operation Type
cycle	String	Interval (reserved)	R
api_id	String	API ID	R
current_minute	Long	Timestamp (UTC) of API access	R
group_id	String	API group ID	R
provider	String	API provider	R
req_count	Integer	Total number of requests	R
max_latency	Integer	Maximum latency	R
avg_latency	Double	Average latency	R
max_backend_latency	Integer	Maximum backend latency	R

Parameter	Type	Description	Operation Type
avg_backend_latency	Double	Average backend latency	R
max_inner_latency	Integer	Maximum gateway latency	R
avg_inner_latency	Double	Average gateway latency	R
output_throughput	Integer	Downstream throughput (bytes)	R
input_throughput	Integer	Upstream throughput (bytes)	R
req_count4xx	Integer	Total number of 4xx response codes	R
req_count5xx	Integer	Total number of 5xx response codes	R
req_count2xx	Integer	Total number of 2xx response codes	R
req_count_error	Integer	Number of errors	R
register_time	String	Recording time (yyy-MM-dd HH:mm:ss)	R
req_time	String	API request time (yyy-MM-dd HH:mm:ss)	R
status	Integer	Status (reserved)	R

Example response:

```
{
  "code": "APIG.0000",
  "msg": "",
  "start_time": 1524735000,
  "end_time": 1524735000,
  "list": [
    {
      "api_id": "ae12b59fef2e4c6b8e01d44e98b738c0",
      "current_minute": 1524735000,
      "group_id": "26463e4b2445415eabb55b2414012989",
      "provider": "d4ef919b31bd43d3927c5d46c71b68c4",
      "req_count": 45,
      "max_latency": 59,
      "avg_latency": 2.53,
      "max_backend_latency": 0,
      "avg_backend_latency": 0,
      "max_inner_latency": 59,
      "avg_inner_latency": 2.53,
      "output_throughput": 31815,
      "input_throughput": 334474,
    }
  ]
}
```

```
"req_count4xx":0,
"req_count5xx":0,
"req_count2xx":45,
"req_count_error":0,
"register_time":"2018-04-26 17:30:48",
"req_time":"2018-04-26 17:30:00",
"status":1
}
]
}
```

## Status Codes

**Table 5-532** Status codes

Status Code	Description
200	Query Success

## 5.19.2 Querying API Calls Under an API Group in the Last One Hour

### Function

This API is used to query the number of times APIs are called within a period by API group ID. The query is based on 1 minute. If the time range is within one hour, the server returns the number of API calls made every minute.

#### NOTE

For security purposes, clear your operation records, including but not limited to records in the `~/.bash_history` and `/var/log/messages` directories (if any), after running the `curl` command on the server to query information.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-533** HTTP/HTTPS request method and URI

Request Method	URI
GET	<code>/v1.0/apigw/statistics/group/latest?group_id=[group_id]</code>

## Request

**Table 5-534** Parameter description

Parameter	Mandatory	Type	Description
group_id	Yes	String	API group ID

## Response

**Table 5-535** Parameter description

Parameter	Type	Description	Operation Type
code	String	Response code	R
msg	String	Response message	R
start_time	Long	Timestamp (UTC) of the start time	R
end_time	Long	Timestamp (UTC) of the end time	R
list	Structure	Statistic data	R

**Table 5-536** Parameter description of statistic data

Parameter	Type	Description	Operation Type
group_id	String	API group ID	R
current_minute	Long	Timestamp (UTC)	R
provider	String	API provider	R
req_count	Integer	Total number of requests	R
max_latency	Integer	Maximum latency (ms)	R
avg_latency	Double	Average latency (ms)	R
output_throughput	Integer	Downstream throughput (bytes)	R



Parameter	Type	Description	Operation Type
input_throughput	Integer	Upstream throughput (bytes)	R
req_count4xx	Integer	Total number of 4xx response codes	R
req_count5xx	Integer	Total number of 5xx response codes	R
req_count2xx	Integer	Total number of 2xx response codes	R
req_count_error	Integer	Number of errors	R
register_time	String	Recording time (yyyy-MM-dd HH:mm:ss)	R
req_time	String	Request time (yyyy-MM-dd HH:mm:ss)	R

Example response:

```
{
  "code": "000000",
  "msg": "",
  "list": [{
    "group_id": "d7b52683-341b-4234-8261-66b4cfbfbd5",
    "current_minute": 1516849440,
    "provider": "205fa874817a4dcfae9222a3be4725e8",
    "req_count": 1981,
    "max_latency": 199,
    "avg_latency": 98.17,
    "output_throughput": 694483,
    "input_throughput": 694483,
    "req_count4xx": 669,
    "req_count5xx": 312,
    "req_count2xx": 327,
    "req_count_error": 981,
    "register_time": "2018-01-25 11:04:09",
    "req_time": "2018-01-25 11:04:00"
  }],
  "start_time": 1516845900,
  "end_time": 1516849440
}
```

## Status Codes

**Table 5-537** Status codes

Status Code	Description
200	Query Success

## 5.20 OpenAPI

### 5.20.1 Exporting All APIs in an API Group

#### Function

This API is used to export definitions of APIs in a specified API group.

The basic, full, or extended Swagger definitions of APIs belonging to the API group and published in a specified environment will be imported.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-538** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/openapi? env_id={0}&group_id={1}&define={2}&version={3}&type={4}

#### Request

**Table 5-539** Parameter description

Parameter	Mandatory	Type	Description
env_id/env	Yes	String	ID of the environment where APIs in a specified group have been published. Both <b>env_id</b> (recommended) and <b>env</b> can indicate an environment ID. If the two parameters are available, the value of <b>env_id</b> takes the precedence.
group_id/group	Yes	String	API group ID. Both <b>group_id</b> (recommended) and <b>group</b> can indicate a group ID. If the two parameters are available, the value of <b>group_id</b> takes the precedence.

Parameter	Mandatory	Type	Description
define	No	String	Definition scope of the APIs to be exported: <ul style="list-style-type: none"> <li>• <b>base</b>: basic definition</li> <li>• <b>full</b>: full definition</li> <li>• <b>all</b>: extended definition</li> </ul> The default value is <b>base</b> .
version	No	String	Version of the APIs after exporting. The default value is the current date and time.
type	No	String	Format for exporting API definitions. The value can be <b>json</b> or <b>yaml</b> . The default value is <b>json</b> .

## Response

**Table 5-540** Parameter description

Parameter	Mandatory	Type	Description
swagger	Yes	String	The value is fixed at <b>2.0</b> .
info	Yes	Object	See <a href="#">Table 5-541</a> .
host	Yes	String	Subdomain name bound to the API group
paths	Yes	Object	See <a href="#">parameter description of paths</a> .
responses	Yes	Object	Common response, which can be referenced in <b>{method}</b> . For details, see <a href="#">Table 5-546</a> .
securityDefinitions	Yes	Object	Security authentication mode definition. For details, see <a href="#">Table 5-550</a> .
x-apigateway-access-controls	No	Object	Access control information. For details, see <a href="#">parameter description of x-apigateway-access-controls</a> .
x-apigateway-ratelimits	No	Object	Request throttling information. For details, see <a href="#">parameter description of x-apigateway-ratelimits</a> .

**Table 5-541** Parameter description of info

Parameter	Mandatory	Type	Description
title	Yes	String	API group name
version	Yes	String	Version number. You can specify a version number or use the current date and time by default.
description	No	String	Description of the API group

**Table 5-542** Parameter description of paths

Parameter	Mandatory	Type	Description
uri	Yes	Object	API access address. For details, see <a href="#">Table 5-543</a> .

**Table 5-543** Parameter description of uri

Parameter	Mandatory	Type	Description
method	Yes	Object	API access method. For details, see <a href="#">Table 5-544</a> .

**Table 5-544** Parameter description of method

Parameter	Mandatory	Type	Description
operationId	Yes	String	API name
description	No	String	API description
schemes	Yes	Object	API request protocol. HTTP and HTTPS are supported.
tags	No	Object	API tags
parameters	No	Object	Request parameter definitions. For details, see <a href="#">frontend parameter description</a> .
responses	Yes	Object	Response definition. For details, see <a href="#">Table 5-546</a> .
security	No	Object	Security authentication mode. For details, see <a href="#">parameter description of security</a> .

Parameter	Mandatory	Type	Description
x-apigateway-access-control	No	Object	Access control policy bound to the API
x-apigateway-backend	No	Object	Backend information. For details, see <a href="#">parameter description of x-apigateway-backend</a> .
x-apigateway-backend-policies	No	Object	Backend policy information. For details, see <a href="#">parameter description of x-apigateway-backend-policies</a> .
x-apigateway-cors	No	Boolean	Indicates whether CORS is supported.
x-apigateway-match-mode	No	String	Route matching mode
x-apigateway-ratelimit	No	String	Name of the request throttling policy bound to the API
x-apigateway-request-type	No	String	API type

**Table 5-545** Frontend parameter description

Parameter	Mandatory	Type	Description
maximum	No	Float	Maximum value of a number type parameter
minimum	No	Float	Minimum value of a number type parameter
maxLength	No	Integer	Maximum length of a string type parameter
minLength	No	Integer	Minimum length of a string type parameter
pattern	No	String	Regular expression of the parameter value
type	No	String	Parameter type
default	No	String	Default value
description	No	String	Parameter description
name	No	String	Parameter name
in	No	String	Parameter location, which can be <b>path</b> , <b>header</b> , <b>query</b> , <b>formData</b> , or <b>body</b>

Parameter	Mandatory	Type	Description
required	No	Boolean	Indicates whether the parameter is required. The parameter is required when its location is <b>path</b> .

**Table 5-546** Parameter description of responses

Parameter	Mandatory	Type	Description
default	No	Object	Default response, which will be used when no status codes are defined
status_code	No	Object	Response status code. For details, see <a href="#">Table 5-548</a> .
x-apigateway-result-failure-sample	No	String	Example response for a failed request
x-apigateway-result-normal-sample	No	String	Example response for a successful request

**Table 5-547** Parameter description of security

Parameter	Mandatory	Type	Description
apig-auth-type	No	Object	Security authentication mode. This parameter is a null array. Options: <ul style="list-style-type: none"><li>• <b>apig-auth-app</b>: App authentication</li><li>• <b>apig-auth-iam</b>: IAM authentication</li><li>• Null: No authentication required</li></ul>

**Table 5-548** Parameter description of status\_code

Parameter	Mandatory	Type	Description
description	No	String	Response description
schema	No	Object	Response body. For details, see <a href="#">Table 5-549</a> .

**Table 5-549** Parameter description of schema

Parameter	Mandatory	Type	Description
description	No	String	Response body
type	No	String	Body type, which can be <b>FORM</b> or <b>STREAM</b>

**Table 5-550** Parameter description of securityDefinitions

Parameter	Mandatory	Type	Description
name	Yes	Object	Security authentication mode. For details, see <a href="#">Table 5-551</a> .

**Table 5-551** Parameter description of name

Parameter	Mandatory	Type	Description
type	Yes	String	Authentication type. apiKey is supported.
name	Yes	String	Name of apiKey
in	Yes	String	Location of apiKey
x-apigateway-auth-type	Yes	String	Authentication type extended based on apiKey. Authentication types AppSigv1, IAM, and IAM_NONE are supported.

**Table 5-552** Parameter description of x-apigateway-backend

Parameter	Mandatory	Type	Description
type	Yes	String	Backend type. The options include <b>HTTP</b> , <b>HTTP-VPC</b> , <b>FUNCTION</b> , and <b>MOCK</b> .
parameters	No	Object	Backend parameters. For details, see <a href="#">backend parameter description</a> .

Parameter	Mandatory	Type	Description
backend_definition	Yes	Object	<p>Backend definition</p> <p>The following backend definitions are supported:</p> <ul style="list-style-type: none"> <li>• <b>httpEndpoints</b>: See <a href="#">parameter description of backend httpEndpoints</a>.</li> <li>• <b>httpVpcEndpoints</b>: See <a href="#">parameter description of backend httpVpcEndpoints</a>.</li> <li>• <b>functionEndpoints</b>: See <a href="#">parameter description of backend functionEndpoints</a>.</li> <li>• <b>mockEndpoints</b>: See <a href="#">parameter description of backend mockEndpoints</a>.</li> </ul>

**Table 5-553** Parameter description of x-apigateway-backend-policies

Parameter	Mandatory	Type	Description
type	Yes	String	Backend type. The options include <b>HTTP</b> , <b>HTTP-VPC</b> , <b>FUNCTION</b> , and <b>MOCK</b> .
name	Yes	String	Backend policy name
parameters	No	Object	Backend parameters. For details, see <a href="#">backend parameter description</a> .
backend_definition	Yes	Object	<p>Backend definition</p> <p>The following backend definitions are supported:</p> <ul style="list-style-type: none"> <li>• <b>httpEndpoints</b>: See <a href="#">parameter description of backend httpEndpoints</a>.</li> <li>• <b>httpVpcEndpoints</b>: See <a href="#">parameter description of backend httpVpcEndpoints</a>.</li> <li>• <b>functionEndpoints</b>: See <a href="#">parameter description of backend functionEndpoints</a>.</li> <li>• <b>mockEndpoints</b>: See <a href="#">parameter description of backend mockEndpoints</a>.</li> </ul>



Parameter	Mandatory	Type	Description
conditions	Yes	Object	Policy conditions. For details, see <a href="#">parameter description of conditions</a> .
effectMode	Yes	String	Effective mode of the backend policy. The options include <b>ANY</b> and <b>ALL</b> .

**Table 5-554** Backend parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name, which consists of a maximum of 32 bytes, starting with a letter. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.  The names of header parameters are not case-sensitive.
value	Yes	String	Parameter value, which is a parameter name if the parameter comes from a request
in	Yes	String	Parameter location, which can be <b>header</b> , <b>query</b> , or <b>path</b>
origin	Yes	String	Parameter mapping source. The options include <b>REQUEST</b> and <b>CONSTANT</b> .
description	No	String	Parameter meaning

**Table 5-555** Parameter description of backend httpEndpoints

Parameter	Mandatory	Type	Description
address	Yes	String	Backend service address. The format is <i>&lt;Domain name or IP address&gt;.[Port number]</i>
scheme	Yes	String	Backend request protocol. HTTP and HTTPS are supported.
method	Yes	String	Backend request method. The options include <b>GET</b> , <b>POST</b> , <b>PUT</b> , <b>DELETE</b> , <b>HEAD</b> , <b>OPTIONS</b> , <b>PATCH</b> , and <b>ANY</b> .

Parameter	Mandatory	Type	Description
path	Yes	String	Backend request path, which can contain variables.
timeout	No	Integer	Backend request timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
description	No	String	Backend description

**Table 5-556** Parameter description of backend httpVpcEndpoints

Parameter	Mandatory	Type	Description
name	Yes	Array	VPC channel name
scheme	Yes	String	Backend request protocol. HTTP and HTTPS are supported.
method	Yes	String	Backend request method. The options include <b>GET, POST, PUT, DELETE, HEAD, OPTIONS, PATCH, and ANY</b> .
path	Yes	String	Backend request path, which can contain variables.
timeout	No	Integer	Backend request timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
host	No	String	VPC channel proxy host
description	No	String	Backend description

**Table 5-557** Parameter description of backend functionEndpoints

Parameter	Mandatory	Type	Description
function-urn	Yes	String	Function URN
version	Yes	String	Function version
invocation-type	Yes	String	Function invocation type. The value can be <b>async</b> or <b>sync</b> .
timeout	No	Integer	Function timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .

Parameter	Mandatory	Type	Description
description	No	String	Backend description

**Table 5-558** Parameter description of backend mockEndpoints

Parameter	Mandatory	Type	Description
result-content	Yes	String	Mock response
description	No	String	Backend description

**Table 5-559** Parameter description of conditions

Parameter	Mandatory	Type	Description
type	Yes	String	Policy condition type. The options include <b>equal</b> , <b>enum</b> , and <b>pattern</b> .
value	Yes	String	Policy condition value
origin	Yes	String	Policy condition source. The options include <b>source</b> and <b>request</b> .
parameter	No	String	Input parameter name if the <b>origin</b> parameter is set to <b>request</b> .

**Table 5-560** Parameter description of x-apigateway-access-controls

Parameter	Mandatory	Type	Description
acl_name	No	Object	Access control policy. For details, see <a href="#">parameter description of acl_name</a> .

**Table 5-561** Parameter description of acl\_name

Parameter	Mandatory	Type	Description
acl-type	Yes	String	Access control effect. The options include <b>PERMIT</b> and <b>DENY</b> .
entity-type	Yes	String	Access control object. Only IP addresses and accounts are supported.

Parameter	Mandatory	Type	Description
value	Yes	String	Access control values, which are separated with commas (,).

**Table 5-562** Parameter description of x-apigateway-ratelimits

Parameter	Mandatory	Type	Description
throttle_name	No	Object	Request throttling policy. For details, see <a href="#">parameter description of throttle_name</a> .

**Table 5-563** Parameter description of throttle\_name

Parameter	Mandatory	Type	Description
api-limit	Yes	Integer	Maximum number of times an API can be called
user-limit	No	Integer	Number of times the API can be called by a user
app-limit	No	Integer	Number of times the API can be called by an app
ip-limit	No	Integer	Number of times the API can be called by an IP address
interval	Yes	Integer	Throttling period
unit	Yes	String	Throttling unit, which can be <b>SECOND</b> , <b>MINUTE</b> , <b>HOURL</b> , or <b>DAY</b>
shared	No	Boolean	Whether to share the throttling limits among APIs
special	No	Object	Excluded request throttling configurations. For details, see <a href="#">parameter description of special</a> .

**Table 5-564** Parameter description of special

Parameter	Mandatory	Type	Description
type	Yes	String	Excluded request throttling type, which can be <b>APP</b> or <b>USER</b>

Parameter	Mandatory	Type	Description
limit	Yes	Integer	Access limit
instance	Yes	String	Excluded app or user

Example response:

```
{
  "swagger": "2.0",
  "info": {
    "description": "api group test",
    "title": "APIGroup_test",
    "version": "2019-09-12-17:38:10"
  },
  "host": "6b075335476a4943bf70c3db1343c912.apigw.example.com",
  "paths": {
    "/test/{path}": {
      "get": {
        "security": [
          {
            "apig-auth-app": []
          }
        ],
        "description": "api test",
        "schemes": [
          "https"
        ],
        "operationId": "API_test",
        "parameters": [
          {
            "type": "string",
            "description": "header parameter",
            "name": "header",
            "in": "header",
            "required": true
          },
          {
            "type": "string",
            "description": "path parameter",
            "name": "path",
            "in": "path",
            "required": true
          },
          {
            "type": "number",
            "default": "123",
            "description": "query parameter",
            "name": "query",
            "in": "query"
          }
        ],
        "responses": {
          "default": {
            "$ref": "#/responses/default"
          },
          "x-apigateway-result-failure-sample": "",
          "x-apigateway-result-normal-sample": "success"
        },
        "x-apigateway-backend": {
          "httpEndpoints": {
            "address": "1.1.1.1:443",
            "description": "",
            "method": "GET",

```

```
    "path": "/test/{path}",
    "scheme": "https",
    "timeout": 5000
  },
  "parameters": [
    {
      "description": "",
      "in": "HEADER",
      "name": "header",
      "origin": "REQUEST",
      "value": "header"
    },
    {
      "description": "",
      "in": "PATH",
      "name": "path",
      "origin": "REQUEST",
      "value": "path"
    },
    {
      "description": "",
      "in": "QUERY",
      "name": "query",
      "origin": "REQUEST",
      "value": "query"
    }
  ],
  "type": "HTTP"
},
"x-apigateway-backend-policies": [
  {
    "conditions": [
      {
        "origin": "param",
        "parameter": "path",
        "type": "exact",
        "value": "path"
      },
      {
        "origin": "source",
        "parameter": "",
        "type": "",
        "value": "1.0.0.0/8"
      }
    ],
    "effectMode": "ANY",
    "httpVpcEndpoints": {
      "method": "POST",
      "name": "VPC_n9ct",
      "path": "/",
      "scheme": "HTTPS",
      "timeout": 5000
    },
    "name": "policy_test",
    "type": "HTTP-VPC"
  }
],
"x-apigateway-cors": false,
"x-apigateway-match-mode": "NORMAL",
"x-apigateway-request-type": "public"
}
},
"responses": {
  "default": {
    "description": "response example"
  }
},
"securityDefinitions": {
```

```

"apig-auth-app": {
  "type": "apiKey",
  "name": "Authorization",
  "in": "header",
  "x-apigateway-auth-type": "AppSigv1"
},
"apig-auth-iam": {
  "type": "apiKey",
  "name": "unused",
  "in": "header",
  "x-apigateway-auth-type": "IAM"
}
}

```

## Status Codes

**Table 5-565** Status codes

Status Code	Description
200	OK
400	bad request
401	unauthorized
403	forbidden
500	server internal error

## 5.20.2 Exporting Multiple APIs

### Function

This API is used to export the basic, full, or extended Swagger definition of specified APIs by their IDs.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-566**

Request Method	URI
POST	/v1.0/apigw/openapi/apis? env_id={0}&define={2}&version={3}&type={4}

The following table lists the parameter in the URI.

**Table 5-567** Parameter description

Parameter	Mandatory	Type	Description
env_id/env	Yes	String	ID of the environment where APIs in a specified group have been published. Both <b>env_id</b> (recommended) and <b>env</b> can indicate an environment ID. If the two parameters are available, the value of <b>env_id</b> takes the precedence.
define	No	String	Definition scope of the APIs to be exported: <ul style="list-style-type: none"> <li>• <b>base</b>: basic definition</li> <li>• <b>full</b>: full definition</li> <li>• <b>all</b>: extended definition</li> </ul> The default value is <b>base</b> .
version	No	String	Version of the APIs after exporting. The default value is the current date and time.
type	No	String	Format for exporting API definitions. The value can be <b>json</b> or <b>yaml</b> . The default value is <b>json</b> .

## Request

**Table 5-568** Parameter description

Location	Mandatory	Type	Description
body	Yes	String Array	IDs of the APIs to be exported

Example request:

```
["81efcfd94b8747a0b21e8c04144a4e8c","7addcd00cfab433984b1d8bf2fe08aaa"]
```



## Response

**Table 5-569** Parameter description

Parameter	Mandatory	Type	Description
swagger	Yes	String	The value is fixed at <b>2.0</b> .
info	Yes	Object	For details, see <a href="#">Table 5-570</a> .
host	Yes	String	Subdomain name bound to the API group
paths	Yes	Object	See <a href="#">parameter description of paths</a> .
responses	Yes	Object	Common response, which can be referenced in <b>{method}</b> . For details, see <a href="#">Table 5-575</a> .
securityDefinitions	Yes	Object	Security authentication mode definition. For details, see <a href="#">Table 5-579</a> .
x-apigateway-access-controls	No	Object	Access control information. For details, see <a href="#">parameter description of x-apigateway-access-controls</a> .
x-apigateway-ratelimits	No	Object	Request throttling information. For details, see <a href="#">parameter description of x-apigateway-ratelimits</a> .

**Table 5-570** Parameter description of info

Parameter	Mandatory	Type	Description
title	Yes	String	API group name
version	Yes	String	Version number. You can specify a version number or use the current date and time by default.
description	No	String	Description of the API group

**Table 5-571** Parameter description of paths

Parameter	Mandatory	Type	Description
uri	Yes	Object	API access address. For details, see <a href="#">Table 5-572</a> .

**Table 5-572** Parameter description of uri

Parameter	Mandatory	Type	Description
method	Yes	Object	API access method. For details, see <a href="#">Table 5-573</a> .

**Table 5-573** Parameter description of method

Parameter	Mandatory	Type	Description
operationId	Yes	String	API name
description	No	String	API description
schemes	Yes	Object	API request protocol. HTTP and HTTPS are supported.
tags	No	Object	API tags
parameters	No	Object	Request parameter definitions. For details, see <a href="#">frontend parameter description</a> .
responses	Yes	Object	Response definition. For details, see <a href="#">Table 5-575</a> .
security	No	Object	Security authentication mode. For details, see <a href="#">parameter description of security</a> .
x-apigateway-access-control	No	Object	Access control policy bound to the API
x-apigateway-backend	No	Object	Backend information. For details, see <a href="#">parameter description of x-apigateway-backend</a> .
x-apigateway-backend-policies	No	Object	Backend policy information. For details, see <a href="#">parameter description of x-apigateway-backend-policies</a> .
x-apigateway-cors	No	Boolean	Indicates whether CORS is supported.
x-apigateway-match-mode	No	String	Route matching mode
x-apigateway-ratelimit	No	String	Name of the request throttling policy bound to the API
x-apigateway-request-type	No	String	API type

**Table 5-574** Frontend parameter description

Parameter	Mandatory	Type	Description
maximum	No	Float	Maximum value of a number type parameter
minimum	No	Float	Minimum value of a number type parameter
maxLength	No	Integer	Maximum length of a string type parameter
minLength	No	Integer	Minimum length of a string type parameter
pattern	No	String	Regular expression of the parameter value
type	No	String	Type
default	No	String	Default value
description	No	String	Parameter description
name	No	String	Parameter name
in	No	String	Parameter location, which can be <b>path</b> , <b>header</b> , <b>query</b> , <b>formData</b> , or <b>body</b>
required	No	Boolean	Whether the parameter is required. The parameter is required when its location is <b>path</b> .

**Table 5-575** Parameter description of responses

Parameter	Mandatory	Type	Description
default	No	Object	Default response, which will be used when no status codes are defined
status_code	No	Object	Response status code. For details, see <a href="#">Table 5-577</a> .
x-apigateway-result-failure-sample	No	String	Example response for a failed request
x-apigateway-result-normal-sample	No	String	Example response for a successful request

**Table 5-576** Parameter description of security

Parameter	Mandatory	Type	Description
apig-auth-type	No	Object	Security authentication mode. This parameter is a null array. Options: <ul style="list-style-type: none"> <li>• <b>apig-auth-app</b>: App authentication</li> <li>• <b>apig-auth-iam</b>: IAM authentication</li> <li>• Null: No authentication required</li> </ul>

**Table 5-577** Parameter description of status code

Parameter	Mandatory	Type	Description
description	No	String	Response description
schema	No	Object	Response body. For details, see <a href="#">Table 5-578</a> .

**Table 5-578** Parameter description of schema

Parameter	Mandatory	Type	Description
description	No	String	Body description
type	No	String	Body type, which can be <b>FORM</b> or <b>STREAM</b>

**Table 5-579** Parameter description of securityDefinitions

Parameter	Mandatory	Type	Description
name	Yes	Object	Security authentication mode. For details, see <a href="#">Table 5-580</a> .

**Table 5-580** Parameter description of name

Parameter	Mandatory	Type	Description
type	Yes	String	Authentication type. apiKey is supported.

Parameter	Mandatory	Type	Description
name	Yes	String	Name of apiKey
in	Yes	String	Location of apiKey
x-apigateway-auth-type	Yes	String	Authentication type extended based on apiKey. Authentication types AppSigv1, IAM, and IAM_NONE are supported.

**Table 5-581** Parameter description of x-apigateway-backend

Parameter	Mandatory	Type	Description
type	Yes	String	Backend type. The options include <b>HTTP</b> , <b>HTTP-VPC</b> , <b>FUNCTION</b> , and <b>MOCK</b> .
parameters	No	Object	Backend parameters. For details, see <a href="#">backend parameter description</a> .
backend_definition	Yes	Object	Backend definition The following backend definitions are supported: <ul style="list-style-type: none"> <li>• <b>httpEndpoints</b>: See <a href="#">parameter description of backend httpEndpoints</a>.</li> <li>• <b>httpVpcEndpoints</b>: See <a href="#">parameter description of backend httpVpcEndpoints</a>.</li> <li>• <b>functionEndpoints</b>: See <a href="#">parameter description of backend functionEndpoints</a>.</li> <li>• <b>mockEndpoints</b>: See <a href="#">parameter description of backend mockEndpoints</a>.</li> </ul>

**Table 5-582** Parameter description of x-apigateway-backend-policies

Parameter	Mandatory	Type	Description
type	Yes	String	Backend type. The options include <b>HTTP</b> , <b>HTTP-VPC</b> , <b>FUNCTION</b> , and <b>MOCK</b> .
name	Yes	String	Backend policy name

Parameter	Mandatory	Type	Description
parameters	No	Object	Backend parameters. For details, see <a href="#">backend parameter description</a> .
backend_definition	Yes	Object	Backend definition The following backend definitions are supported: <ul style="list-style-type: none"> <li>• <b>httpEndpoints</b>: See <a href="#">parameter description of backend httpEndpoints</a>.</li> <li>• <b>httpVpcEndpoints</b>: See <a href="#">parameter description of backend httpVpcEndpoints</a>.</li> <li>• <b>functionEndpoints</b>: See <a href="#">parameter description of backend functionEndpoints</a>.</li> <li>• <b>mockEndpoints</b>: See <a href="#">parameter description of backend mockEndpoints</a>.</li> </ul>
conditions	Yes	Object	Policy conditions. For details, see <a href="#">parameter description of conditions</a> .
effectMode	Yes	String	Effective mode of the backend policy. The options include <b>ANY</b> and <b>ALL</b> .

**Table 5-583** Backend parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name, which consists of a maximum of 32 bytes, starting with a letter. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.  The names of header parameters are not case-sensitive.
value	Yes	String	Parameter value, which is a parameter name if the parameter comes from a request
in	Yes	String	Parameter location, which can be <b>header</b> , <b>query</b> , or <b>path</b>
origin	Yes	String	Parameter mapping source. The options include <b>REQUEST</b> and <b>CONSTANT</b> .

Parameter	Mandatory	Type	Description
description	No	String	Parameter meaning

**Table 5-584** Parameter description of backend httpEndpoints

Parameter	Mandatory	Type	Description
address	Yes	String	Backend service address. The format is <i>&lt;Domain name or IP address&gt;:[Port number]</i>
scheme	Yes	String	Backend request protocol. HTTP and HTTPS are supported.
method	Yes	String	Backend request method. The options include <b>GET, POST, PUT, DELETE, HEAD, OPTIONS, PATCH, and ANY.</b>
path	Yes	String	Backend request path, which can contain variables.
timeout	No	Integer	Backend request timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
description	No	String	Backend description

**Table 5-585** Parameter description of backend httpVpcEndpoints

Parameter	Mandatory	Type	Description
name	Yes	Array	VPC channel name
scheme	Yes	String	Backend request protocol. HTTP and HTTPS are supported.
method	Yes	String	Backend request method. The options include <b>GET, POST, PUT, DELETE, HEAD, OPTIONS, PATCH, and ANY.</b>
path	Yes	String	Backend request path, which can contain variables.
timeout	No	Integer	Backend request timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
host	No	String	VPC channel proxy host

Parameter	Mandatory	Type	Description
description	No	String	Backend description

**Table 5-586** Parameter description of backend functionEndpoints

Parameter	Mandatory	Type	Description
function-urn	Yes	String	Function URN
version	Yes	String	Function version
invocation-type	Yes	String	Function invocation type. The value can be <b>async</b> or <b>sync</b> .
timeout	No	Integer	Function timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
description	No	String	Backend description

**Table 5-587** Parameter description of backend mockEndpoints

Parameter	Mandatory	Type	Description
result-content	Yes	String	Mock response
description	No	String	Backend description

**Table 5-588** Parameter description of conditions

Parameter	Mandatory	Type	Description
type	Yes	String	Policy condition type. The options include <b>equal</b> , <b>enum</b> , and <b>pattern</b> .
value	Yes	String	Policy condition value
origin	Yes	String	Policy condition source. The options include <b>source</b> and <b>request</b> .
parameter	No	String	Input parameter name if the <b>origin</b> parameter is set to <b>request</b> .



**Table 5-589** Parameter description of x-apigateway-access-controls

Parameter	Mandatory	Type	Description
acl_name	No	Object	Access control policy. For details, see <a href="#">parameter description of acl_name</a> .

**Table 5-590** Parameter description of acl\_name

Parameter	Mandatory	Type	Description
acl-type	Yes	String	Access control effect. The options include <b>PERMIT</b> and <b>DENY</b> .
entity-type	Yes	String	Access control object. Only IP addresses and accounts are supported.
value	Yes	String	Access control values, which are separated with commas (,).

**Table 5-591** Parameter description of x-apigateway-ratelimits

Parameter	Mandatory	Type	Description
throttle_name	No	Object	Request throttling policy. For details, see <a href="#">parameter description of throttle_name</a> .

**Table 5-592** Parameter description of throttle\_name

Parameter	Mandatory	Type	Description
api-limit	Yes	Integer	Maximum number of times an API can be called
user-limit	No	Integer	Number of times the API can be called by a user
app-limit	No	Integer	Number of times the API can be called by an app
ip-limit	No	Integer	Number of times the API can be called by an IP address
interval	Yes	Integer	Throttling period

Parameter	Mandatory	Type	Description
unit	Yes	String	Throttling unit, which can be <b>SECOND</b> , <b>MINUTE</b> , <b>HOURL</b> , or <b>DAY</b>
shared	No	Boolean	Whether to share the throttling limits among APIs
special	No	Object	Excluded request throttling configurations. For details, see <a href="#">parameter description of special</a> .

**Table 5-593** Parameter description of special

Parameter	Mandatory	Type	Description
type	Yes	String	Excluded request throttling type, which can be <b>APP</b> or <b>USER</b>
limit	Yes	Integer	Access limit
instance	Yes	String	Excluded app or user

Example response:

```
{
  "swagger": "2.0",
  "info": {
    "description": "api group test",
    "title": "APIGroup_test",
    "version": "2019-09-12-17:38:10"
  },
  "host": "6b075335476a4943bf70c3db1343c912.apigw.example.com",
  "paths": {
    "/test/{path}": {
      "get": {
        "security": [
          {
            "apig-auth-app": []
          }
        ],
        "description": "api test",
        "schemes": [
          "https"
        ],
        "operationId": "API_test",
        "parameters": [
          {
            "type": "string",
            "description": "header parameter",
            "name": "header",
            "in": "header",
            "required": true
          },
          {
            "type": "string",
            "description": "path parameter",
```

```
        "name": "path",
        "in": "path",
        "required": true
    },
    {
        "type": "number",
        "default": "123",
        "description": "query parameter",
        "name": "query",
        "in": "query"
    }
],
"responses": {
    "default": {
        "$ref": "#/responses/default"
    },
    "x-apigateway-result-failure-sample": "",
    "x-apigateway-result-normal-sample": "success"
},
"x-apigateway-backend": {
    "httpEndpoints": {
        "address": "1.1.1.1:443",
        "description": "",
        "method": "GET",
        "path": "/test/{path}",
        "scheme": "https",
        "timeout": 5000
    },
    "parameters": [
        {
            "description": "",
            "in": "HEADER",
            "name": "header",
            "origin": "REQUEST",
            "value": "header"
        },
        {
            "description": "",
            "in": "PATH",
            "name": "path",
            "origin": "REQUEST",
            "value": "path"
        },
        {
            "description": "",
            "in": "QUERY",
            "name": "query",
            "origin": "REQUEST",
            "value": "query"
        }
    ],
    "type": "HTTP"
},
"x-apigateway-backend-policies": [
    {
        "conditions": [
            {
                "origin": "param",
                "parameter": "path",
                "type": "exact",
                "value": "path"
            },
            {
                "origin": "source",
                "parameter": "",
                "type": "",
                "value": "1.0.0.0/8"
            }
        ]
    }
],
```

```

        "effectMode": "ANY",
        "httpVpcEndpoints": {
            "method": "POST",
            "name": "VPC_n9ct",
            "path": "/",
            "scheme": "HTTPS",
            "timeout": 5000
        },
        "name": "policy_test",
        "type": "HTTP-VPC"
    }
],
"x-apigateway-cors": false,
"x-apigateway-match-mode": "NORMAL",
"x-apigateway-request-type": "public"
}
}
},
"responses": {
    "default": {
        "description": "response example"
    }
},
"securityDefinitions": {
    "apig-auth-app": {
        "type": "apiKey",
        "name": "Authorization",
        "in": "header",
        "x-apigateway-auth-type": "AppSigv1"
    },
    "apig-auth-iam": {
        "type": "apiKey",
        "name": "unused",
        "in": "header",
        "x-apigateway-auth-type": "IAM"
    }
}
}
}

```

## Status Codes

Table 5-594 Status codes

Status Code	Description
200	OK
400	bad request
401	unauthorized
403	forbidden
500	server internal error

### 5.20.3 Importing APIs to a New API Group

#### Function

This API is used to import Swagger APIs to a new API group. Swagger files in JSON or YAML format are supported.

## URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-595**

Request Method	URI
POST	/v1.0/apigw/openapi

The following table lists the parameter in the URI.

**Table 5-596** Parameter description

Parameter	Location	Mandatory	Type	Description
extend_mode	query	No	String	Extended definition import mode. The options include <b>merge</b> and <b>override</b> . If the extended definition conflicts with existing API definition, you can choose to retain or override the existing definition.

## Request

**Table 5-597** Parameter description

Parameter	Mandatory	Type	Description
swagger	Yes	String	The value is fixed at <b>2.0</b> .
info	Yes	Object	See <a href="#">Table 5-598</a> .
paths	Yes	Object	See <a href="#">parameter description of paths</a> .
responses	No	Object	Common response, which can be referenced in <b>{method}</b> . For details, see <a href="#">Table 5-603</a> .
securityDefinitions	Yes	Object	Security authentication mode definition. For details, see <a href="#">Table 5-607</a> .
x-apigateway-access-controls	No	Object	Access control information. For details, see <a href="#">parameter description of x-apigateway-access-controls</a> .

Parameter	Mandatory	Type	Description
x-apigateway-ratelimits	No	Object	Request throttling information. For details, see <a href="#">parameter description of x-apigateway-ratelimits</a> .

**Table 5-598** Parameter description of info

Parameter	Mandatory	Type	Description
title	Yes	String	API group name
version	No	String	Version number. You can specify a version number or use the current date and time by default.
description	No	String	Description of the API group

**Table 5-599** Parameter description of paths

Parameter	Mandatory	Type	Description
uri	Yes	Object	API access address. For details, see <a href="#">Table 5-600</a> .

**Table 5-600** Parameter description of uri

Parameter	Mandatory	Type	Description
method	Yes	Object	API access method. For details, see <a href="#">Table 5-601</a> .

**Table 5-601** Parameter description of method

Parameter	Mandatory	Type	Description
operationId	No	String	API name
description	No	String	API description
schemes	No	Object	API request protocol. HTTP and HTTPS are supported.

Parameter	Mandatory	Type	Description
tags	No	Object	API tags
parameters	No	Object	Request parameter definitions. For details, see <a href="#">frontend parameter description</a> .
responses	No	Object	Response definition. For details, see <a href="#">Table 5-603</a> .
security	No	Object	Security authentication mode. For details, see <a href="#">parameter description of security</a> .
x-apigateway-access-control	No	Object	Access control policy bound to the API
x-apigateway-backend	No	Object	Backend information. For details, see <a href="#">parameter description of x-apigateway-backend</a> .
x-apigateway-backend-policies	No	Object	Backend policy information. For details, see <a href="#">parameter description of x-apigateway-backend-policies</a> .
x-apigateway-cors	No	Boolean	Indicates whether CORS is supported.
x-apigateway-match-mode	No	String	Route matching mode
x-apigateway-ratelimit	No	String	Name of the request throttling policy bound to the API
x-apigateway-request-type	No	String	API type

**Table 5-602** Frontend parameter description

Parameter	Mandatory	Type	Description
maximum	No	Float	Maximum value of a number type parameter
minimum	No	Float	Minimum value of a number type parameter
maxLength	No	Integer	Maximum length of a string type parameter
minLength	No	Integer	Minimum length of a string type parameter
pattern	No	String	Regular expression of the parameter value

Parameter	Mandatory	Type	Description
type	No	String	Type
default	No	String	Default value
description	No	String	Parameter description
name	No	String	Parameter name
in	No	String	Parameter location, which can be <b>path</b> , <b>header</b> , <b>query</b> , <b>formData</b> , or <b>body</b>
required	No	Boolean	Whether the parameter is required. The parameter is required when its location is <b>path</b> .

**Table 5-603** Parameter description of responses

Parameter	Mandatory	Type	Description
default	No	Object	Default response, which will be used when no status codes are defined
status_code	No	Object	Response status code. For details, see <a href="#">Table 5-605</a> .
x-apigateway-result-failure-sample	No	String	Example response for a failed request
x-apigateway-result-normal-sample	No	String	Example response for a successful request

**Table 5-604** Parameter description of security

Parameter	Mandatory	Type	Description
apig-auth-type	No	Object	Security authentication mode. This parameter is a null array. Options: <ul style="list-style-type: none"> <li>• <b>apig-auth-app</b>: App authentication</li> <li>• <b>apig-auth-iam</b>: IAM authentication</li> <li>• Null: No authentication required</li> </ul>



**Table 5-605** Parameter description of status\_code

Parameter	Mandatory	Type	Description
description	No	String	Response description
schema	No	Object	Response body. For details, see <a href="#">Table 5-606</a> .

**Table 5-606** Parameter description of schema

Parameter	Mandatory	Type	Description
description	No	String	Body description
type	No	String	Body type, which can be <b>FORM</b> or <b>STREAM</b>

**Table 5-607** Parameter description of securityDefinitions

Parameter	Mandatory	Type	Description
name	Yes	Object	Security authentication mode. For details, see <a href="#">Table 5-608</a> .

**Table 5-608** Parameter description of name

Parameter	Mandatory	Type	Description
type	Yes	String	Authentication type. apiKey is supported.
name	Yes	String	Name of apiKey
in	Yes	String	Location of apiKey
x-apigateway-auth-type	Yes	String	Authentication type extended based on apiKey. Authentication types AppSigv1, IAM, and IAM_NONE are supported.

**Table 5-609** Parameter description of x-apigateway-backend

Parameter	Mandatory	Type	Description
type	Yes	String	Backend type. The options include <b>HTTP</b> , <b>HTTP-VPC</b> , <b>FUNCTION</b> , and <b>MOCK</b> .
parameters	No	Object	Backend parameters. For details, see <a href="#">backend parameter description</a> .
backend_definition	Yes	Object	Backend definition The following backend definitions are supported: <ul style="list-style-type: none"><li>• <b>httpEndpoints</b>: See <a href="#">parameter description of backend httpEndpoints</a>.</li><li>• <b>httpVpcEndpoints</b>: See <a href="#">parameter description of backend httpVpcEndpoints</a>.</li><li>• <b>functionEndpoints</b>: See <a href="#">parameter description of backend functionEndpoints</a>.</li><li>• <b>mockEndpoints</b>: See <a href="#">parameter description of backend mockEndpoints</a>.</li></ul>

**Table 5-610** Parameter description of x-apigateway-backend-policies

Parameter	Mandatory	Type	Description
type	Yes	String	Backend type. The options include <b>HTTP</b> , <b>HTTP-VPC</b> , <b>FUNCTION</b> , and <b>MOCK</b> .
name	No	String	Backend policy name
parameters	No	Object	Backend parameters. For details, see <a href="#">backend parameter description</a> .

Parameter	Mandatory	Type	Description
backend_definition	Yes	Object	Backend definition The following backend definitions are supported: <ul style="list-style-type: none"> <li>• <b>httpEndpoints</b>: See <a href="#">parameter description of backend httpEndpoints</a>.</li> <li>• <b>httpVpcEndpoints</b>: See <a href="#">parameter description of backend httpVpcEndpoints</a>.</li> <li>• <b>functionEndpoints</b>: See <a href="#">parameter description of backend functionEndpoints</a>.</li> <li>• <b>mockEndpoints</b>: See <a href="#">parameter description of backend mockEndpoints</a>.</li> </ul>
conditions	Yes	Object	Policy conditions. For details, see <a href="#">parameter description of conditions</a> .
effectMode	Yes	String	Effective mode of the backend policy. The options include <b>ANY</b> and <b>ALL</b> .

**Table 5-611** Backend parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name, which consists of a maximum of 32 bytes, starting with a letter. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.  The names of header parameters are not case-sensitive.
value	Yes	String	Parameter value, which is a parameter name if the parameter comes from a request
in	Yes	String	Parameter location, which can be <b>header</b> , <b>query</b> , or <b>path</b>
origin	Yes	String	Parameter mapping source. The options include <b>REQUEST</b> and <b>CONSTANT</b> .
description	No	String	Parameter meaning

**Table 5-612** Parameter description of backend httpEndpoints

Parameter	Mandatory	Type	Description
address	Yes	String	Backend service address. The format is <i>&lt;Domain name or IP address&gt;:[Port number]</i>
scheme	Yes	String	Backend request protocol. HTTP and HTTPS are supported.
method	Yes	String	Backend request method. The options include <b>GET, POST, PUT, DELETE, HEAD, OPTIONS, PATCH, and ANY.</b>
path	Yes	String	Backend request path, which can contain variables.
timeout	No	Integer	Backend request timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
description	No	String	Backend description

**Table 5-613** Parameter description of backend httpVpcEndpoints

Parameter	Mandatory	Type	Description
name	Yes	Array	VPC channel name
scheme	Yes	String	Backend request protocol. HTTP and HTTPS are supported.
method	Yes	String	Backend request method. The options include <b>GET, POST, PUT, DELETE, HEAD, OPTIONS, PATCH, and ANY.</b>
path	Yes	String	Backend request path, which can contain variables.
timeout	No	Integer	Backend request timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
host	No	String	VPC channel proxy host
description	No	String	Backend description

**Table 5-614** Parameter description of backend functionEndpoints

Parameter	Mandatory	Type	Description
function-urn	Yes	String	Function URN
version	Yes	String	Function version
invocation-type	Yes	String	Function invocation type. The value can be <b>async</b> or <b>sync</b> .
timeout	No	Integer	Function timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
description	No	String	Backend description

**Table 5-615** Parameter description of backend mockEndpoints

Parameter	Mandatory	Type	Description
result-content	Yes	String	Mock response
description	No	String	Backend description

**Table 5-616** Parameter description of conditions

Parameter	Mandatory	Type	Description
type	Yes	String	Policy condition type. The options include <b>equal</b> , <b>enum</b> , and <b>pattern</b> .
value	Yes	String	Policy condition value
origin	Yes	String	Policy condition source. The options include <b>source</b> and <b>request</b> .
parameter	No	String	Input parameter name if the <b>origin</b> parameter is set to <b>request</b> .

**Table 5-617** Parameter description of x-apigateway-access-controls

Parameter	Mandatory	Type	Description
acl_name	No	Object	Access control policy. For details, see <a href="#">parameter description of acl_name</a> .

**Table 5-618** Parameter description of `acl_name`

Parameter	Mandatory	Type	Description
<code>acl-type</code>	Yes	String	Access control effect. The options include <b>PERMIT</b> and <b>DENY</b> .
<code>entity-type</code>	Yes	String	Access control object. Only IP addresses and accounts are supported.
<code>value</code>	Yes	String	Access control values, which are separated with commas (,).

**Table 5-619** Parameter description of `x-apigateway-ratelimits`

Parameter	Mandatory	Type	Description
<code>throttle_name</code>	No	Object	Request throttling policy. For details, see <a href="#">parameter description of <code>throttle_name</code></a> .

**Table 5-620** Parameter description of `throttle_name`

Parameter	Mandatory	Type	Description
<code>api-limit</code>	Yes	Integer	Maximum number of times an API can be called
<code>user-limit</code>	No	Integer	Number of times the API can be called by a user
<code>app-limit</code>	No	Integer	Number of times the API can be called by an app
<code>ip-limit</code>	No	Integer	Number of times the API can be called by an IP address
<code>interval</code>	Yes	Integer	Throttling period
<code>unit</code>	Yes	String	Throttling unit, which can be <b>SECOND</b> , <b>MINUTE</b> , <b>HOUR</b> , or <b>DAY</b>
<code>shared</code>	No	Boolean	Whether to share the throttling limits among APIs
<code>special</code>	No	Object	Excluded request throttling configurations. For details, see <a href="#">parameter description of <code>special</code></a> .

**Table 5-621** Parameter description of special

Parameter	Mandatory	Type	Description
type	Yes	String	Excluded request throttling type, which can be <b>APP</b> or <b>USER</b>
limit	Yes	Integer	Access limit
instance	Yes	String	Excluded app or user

Example request:

```
{
  "swagger": "2.0",
  "info": {
    "description": "api group test",
    "title": "APIGroup_test",
    "version": "2019-09-12-17:38:10"
  },
  "paths": {
    "/test/{path}": {
      "get": {
        "security": [
          {
            "apig-auth-app": []
          }
        ],
        "description": "api test",
        "schemes": [
          "https"
        ],
        "operationId": "API_test",
        "parameters": [
          {
            "type": "string",
            "description": "header parameter",
            "name": "header",
            "in": "header",
            "required": true
          },
          {
            "type": "string",
            "description": "path parameter",
            "name": "path",
            "in": "path",
            "required": true
          },
          {
            "type": "number",
            "default": "123",
            "description": "query parameter",
            "name": "query",
            "in": "query"
          }
        ],
        "responses": {
          "default": {
            "$ref": "#/responses/default"
          },
          "x-apigateway-result-failure-sample": "",
          "x-apigateway-result-normal-sample": "success"
        }
      }
    }
  }
}
```

```
"x-apigateway-backend": {
  "httpEndpoints": {
    "address": "1.1.1.1:443",
    "description": "",
    "method": "GET",
    "path": "/test/{path}",
    "scheme": "https",
    "timeout": 5000
  },
  "parameters": [
    {
      "description": "",
      "in": "HEADER",
      "name": "header",
      "origin": "REQUEST",
      "value": "header"
    },
    {
      "description": "",
      "in": "PATH",
      "name": "path",
      "origin": "REQUEST",
      "value": "path"
    },
    {
      "description": "",
      "in": "QUERY",
      "name": "query",
      "origin": "REQUEST",
      "value": "query"
    }
  ],
  "type": "HTTP"
},
"x-apigateway-backend-policies": [
  {
    "conditions": [
      {
        "origin": "param",
        "parameter": "path",
        "type": "exact",
        "value": "path"
      },
      {
        "origin": "source",
        "parameter": "",
        "type": "",
        "value": "1.0.0.0/8"
      }
    ],
    "effectMode": "ANY",
    "httpVpcEndpoints": {
      "method": "POST",
      "name": "VPC_n9ct",
      "path": "/",
      "scheme": "HTTPS",
      "timeout": 5000
    },
    "name": "policy_test",
    "type": "HTTP-VPC"
  }
],
"x-apigateway-cors": false,
"x-apigateway-match-mode": "NORMAL",
"x-apigateway-request-type": "public"
}
},
"responses": {
```



```

"default": {
  "description": "response example"
},
"securityDefinitions": {
  "apig-auth-app": {
    "type": "apiKey",
    "name": "Authorization",
    "in": "header",
    "x-apigateway-auth-type": "AppSigv1"
  },
  "apig-auth-iam": {
    "type": "apiKey",
    "name": "unused",
    "in": "header",
    "x-apigateway-auth-type": "IAM"
  }
}
}

```

## Response

**Table 5-622** Parameter description

Parameter	Type	Description
group_id	String	API group ID
success	Array	Import success information
failure	Array	Import failure information

**Table 5-623** Parameter description of success

Parameter	Type	Description
id	String	ID of a successfully imported API
action	String	Import type. Options: <ul style="list-style-type: none"> <li><b>update</b>: Updates the APIs in an existing API group.</li> <li><b>create</b>: Creates APIs for a new API group.</li> </ul>
method	String	Request method
path	String	Request path

**Table 5-624** Parameter description of failure

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error message

Parameter	Type	Description
method	String	Request method
path	String	Request path

Example response:

```
{
  "group_id": "27aa2317e3514c5bb5aab5587a5e50ea",
  "success": [
    {
      "id": "aea39194d8db46408be0174b0bd15931",
      "action": "create",
      "method": "GET",
      "path": "/test01"
    }
  ],
  "failure": [
    {
      "error_code": "APIG.2011",
      "error_msg": "Parameter value does not match the rules,parameterName:backend_type",
      "method": "GET",
      "path": "/test02"
    }
  ]
}
```

## Status Codes

**Table 5-625** Status codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden
500	Server Internal Error

## 5.20.4 Importing APIs to an Existing API Group

### Function

This API is used to create or update APIs in an API group by importing Swagger definitions. Swagger files in JSON or YAML format are supported.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-626**

Request Method	URI
PUT	/v1.0/apigw/openapi?group_id={0}&mode={1}

The following table lists the parameters in the URI.

**Table 5-627** Parameter description

Parameter	Mandatory	Type	Description
group_id	Yes	String	API group ID
mode	Yes	String	Action to be taken if a conflict occurs. Options: <b>merge</b> and <b>override</b> . <ul style="list-style-type: none"> <li>• <b>merge</b>: Retains the original API.</li> <li>• <b>override</b>: Overwrites the existing API.</li> </ul>
extend_mode	No	String	Extended definition import mode. The options include <b>merge</b> and <b>override</b> . If the extended definition conflicts with existing API definition, you can choose to retain or override the existing definition.

## Request

**Table 5-628** Parameter description

Parameter	Mandatory	Type	Description
swagger	Yes	String	The value is fixed at <b>2.0</b> .
info	Yes	Object	See <a href="#">Table 5-629</a> .
paths	Yes	Object	See <a href="#">parameter description of paths</a> .
responses	No	Object	Common response, which can be referenced in <b>{method}</b> . For details, see <a href="#">Table 5-634</a> .
securityDefinitions	Yes	Object	Security authentication mode definition. For details, see <a href="#">Table 5-638</a> .

Parameter	Mandatory	Type	Description
x-apigateway-access-controls	No	Object	Access control information. For details, see <a href="#">parameter description of x-apigateway-access-controls</a> .
x-apigateway-ratelimits	No	Object	Request throttling information. For details, see <a href="#">parameter description of x-apigateway-ratelimits</a> .

**Table 5-629** Parameter description of info

Parameter	Mandatory	Type	Description
title	No	String	Name of an API group. This parameter does not take effect when the API group is imported to an existing group.
version	No	String	Version number. You can specify a version number or use the current date and time by default.
description	No	String	Description of the API group

**Table 5-630** Parameter description of paths

Parameter	Mandatory	Type	Description
uri	Yes	Object	API access address. For details, see <a href="#">Table 5-631</a> .

**Table 5-631** Parameter description of uri

Parameter	Mandatory	Type	Description
method	Yes	Object	API access method. For details, see <a href="#">Table 5-632</a> .

**Table 5-632** Parameter description of method

Parameter	Mandatory	Type	Description
operationId	No	String	API name
description	No	String	API description
schemes	No	Object	API request protocol. HTTP and HTTPS are supported.
tags	No	Object	API tags
parameters	No	Object	Request parameter definitions. For details, see <a href="#">frontend parameter description</a> .
responses	No	Object	Response definition. For details, see <a href="#">Table 5-634</a> .
security	No	Object	Security authentication mode. For details, see <a href="#">parameter description of security</a> .
x-apigateway-access-control	No	Object	Access control policy bound to the API
x-apigateway-backend	No	Object	Backend information. For details, see <a href="#">parameter description of x-apigateway-backend</a> .
x-apigateway-backend-policies	No	Object	Backend policy information. For details, see <a href="#">parameter description of x-apigateway-backend-policies</a> .
x-apigateway-cors	No	Boolean	Indicates whether CORS is supported.
x-apigateway-match-mode	No	String	Route matching mode
x-apigateway-ratelimit	No	String	Name of the request throttling policy bound to the API
x-apigateway-request-type	No	String	API type

**Table 5-633** Frontend parameter description

Parameter	Mandatory	Type	Description
maximum	No	Float	Maximum value of a number type parameter
minimum	No	Float	Minimum value of a number type parameter

Parameter	Mandatory	Type	Description
maxLength	No	Integer	Maximum length of a string type parameter
minLength	No	Integer	Minimum length of a string type parameter
pattern	No	String	Regular expression of the parameter value
type	No	String	Type
default	No	String	Default value
description	No	String	Parameter description
name	No	String	Parameter name
in	No	String	Parameter location, which can be <b>path</b> , <b>header</b> , <b>query</b> , <b>formData</b> , or <b>body</b>
required	No	Boolean	Whether the parameter is required. The parameter is required when its location is <b>path</b> .

**Table 5-634** Parameter description of responses

Parameter	Mandatory	Type	Description
default	No	Object	Default response, which will be used when no status codes are defined
status_code	No	Object	Response status code. For details, see <a href="#">Table 5-636</a> .
x-apigateway-result-failure-sample	No	String	Example response for a failed request
x-apigateway-result-normal-sample	No	String	Example response for a successful request

**Table 5-635** Parameter description of security

Parameter	Mandatory	Type	Description
apig-auth-type	No	Object	Security authentication mode. This parameter is a null array. Options: <ul style="list-style-type: none"> <li>• <b>apig-auth-app</b>: App authentication</li> <li>• <b>apig-auth-iam</b>: IAM authentication</li> <li>• Null: No authentication required</li> </ul>

**Table 5-636** Parameter description of status\_code

Parameter	Mandatory	Type	Description
description	No	String	Response description
schema	No	Object	Response body. For details, see <a href="#">Table 5-637</a> .

**Table 5-637** Parameter description of schema

Parameter	Mandatory	Type	Description
description	No	String	Body description
type	No	String	Body type, which can be <b>FORM</b> or <b>STREAM</b>

**Table 5-638** Parameter description of securityDefinitions

Parameter	Mandatory	Type	Description
name	Yes	Object	Security authentication mode. For details, see <a href="#">Table 5-639</a> .

**Table 5-639** Parameter description of name

Parameter	Mandatory	Type	Description
type	Yes	String	Authentication type. apiKey is supported.

Parameter	Mandatory	Type	Description
name	Yes	String	Name of apiKey
in	Yes	String	Location of apiKey
x-apigateway-auth-type	Yes	String	Authentication type extended based on apiKey. Authentication types AppSigv1, IAM, and IAM_NONE are supported.

**Table 5-640** Parameter description of x-apigateway-backend

Parameter	Mandatory	Type	Description
type	Yes	String	Backend type. The options include <b>HTTP</b> , <b>HTTP-VPC</b> , <b>FUNCTION</b> , and <b>MOCK</b> .
parameters	No	Object	Backend parameters. For details, see <a href="#">backend parameter description</a> .
backend_definition	Yes	Object	Backend definition The following backend definitions are supported: <ul style="list-style-type: none"> <li>• <b>httpEndpoints</b>: See <a href="#">parameter description of backend httpEndpoints</a>.</li> <li>• <b>httpVpcEndpoints</b>: See <a href="#">parameter description of backend httpVpcEndpoints</a>.</li> <li>• <b>functionEndpoints</b>: See <a href="#">parameter description of backend functionEndpoints</a>.</li> <li>• <b>mockEndpoints</b>: See <a href="#">parameter description of backend mockEndpoints</a>.</li> </ul>

**Table 5-641** Parameter description of x-apigateway-backend-policies

Parameter	Mandatory	Type	Description
type	Yes	String	Backend type. The options include <b>HTTP</b> , <b>HTTP-VPC</b> , <b>FUNCTION</b> , and <b>MOCK</b> .
name	No	String	Backend policy name



Parameter	Mandatory	Type	Description
parameters	No	Object	Backend parameters. For details, see <a href="#">backend parameter description</a> .
backend_definition	Yes	Object	Backend definition The following backend definitions are supported: <ul style="list-style-type: none"> <li>• <b>httpEndpoints</b>: See <a href="#">parameter description of backend httpEndpoints</a>.</li> <li>• <b>httpVpcEndpoints</b>: See <a href="#">parameter description of backend httpVpcEndpoints</a>.</li> <li>• <b>functionEndpoints</b>: See <a href="#">parameter description of backend functionEndpoints</a>.</li> <li>• <b>mockEndpoints</b>: See <a href="#">parameter description of backend mockEndpoints</a>.</li> </ul>
conditions	Yes	Object	Policy conditions. For details, see <a href="#">parameter description of conditions</a> .
effectMode	Yes	String	Effective mode of the backend policy. The options include <b>ANY</b> and <b>ALL</b> .

**Table 5-642** Backend parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name, which consists of a maximum of 32 bytes, starting with a letter. Only letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.  The names of header parameters are not case-sensitive.
value	Yes	String	Parameter value, which is a parameter name if the parameter comes from a request
in	Yes	String	Parameter location, which can be <b>header</b> , <b>query</b> , or <b>path</b>
origin	Yes	String	Parameter mapping source. The options include <b>REQUEST</b> and <b>CONSTANT</b> .

Parameter	Mandatory	Type	Description
description	No	String	Parameter meaning

**Table 5-643** Parameter description of backend httpEndpoints

Parameter	Mandatory	Type	Description
address	Yes	String	Backend service address. The format is <i>&lt;Domain name or IP address&gt;:[Port number]</i>
scheme	Yes	String	Backend request protocol. HTTP and HTTPS are supported.
method	Yes	String	Backend request method. The options include <b>GET, POST, PUT, DELETE, HEAD, OPTIONS, PATCH, and ANY.</b>
path	Yes	String	Backend request path, which can contain variables.
timeout	No	Integer	Backend request timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
description	No	String	Backend description

**Table 5-644** Parameter description of backend httpVpcEndpoints

Parameter	Mandatory	Type	Description
name	Yes	Array	VPC channel name
scheme	Yes	String	Backend request protocol. HTTP and HTTPS are supported.
method	Yes	String	Backend request method. The options include <b>GET, POST, PUT, DELETE, HEAD, OPTIONS, PATCH, and ANY.</b>
path	Yes	String	Backend request path, which can contain variables.
timeout	No	Integer	Backend request timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
host	No	String	VPC channel proxy host

Parameter	Mandatory	Type	Description
description	No	String	Backend description

**Table 5-645** Parameter description of backend functionEndpoints

Parameter	Mandatory	Type	Description
function-urn	Yes	String	Function URN
version	Yes	String	Function version
invocation-type	Yes	String	Function invocation type. The value can be <b>async</b> or <b>sync</b> .
timeout	No	Integer	Function timeout in milliseconds. The value ranges from 1 to 60,000, and the default value is <b>5000</b> .
description	No	String	Backend description

**Table 5-646** Parameter description of backend mockEndpoints

Parameter	Mandatory	Type	Description
result-content	Yes	String	Mock response
description	No	String	Backend description

**Table 5-647** Parameter description of conditions

Parameter	Mandatory	Type	Description
type	Yes	String	Policy condition type. The options include <b>equal</b> , <b>enum</b> , and <b>pattern</b> .
value	Yes	String	Policy condition value
origin	Yes	String	Policy condition source. The options include <b>source</b> and <b>request</b> .
parameter	No	String	Input parameter name if the <b>origin</b> parameter is set to <b>request</b> .

**Table 5-648** Parameter description of x-apigateway-access-controls

Parameter	Mandatory	Type	Description
acl_name	No	Object	Access control policy. For details, see <a href="#">parameter description of acl_name</a> .

**Table 5-649** Parameter description of acl\_name

Parameter	Mandatory	Type	Description
acl-type	Yes	String	Access control effect. The options include <b>PERMIT</b> and <b>DENY</b> .
entity-type	Yes	String	Access control object. Only IP addresses and accounts are supported.
value	Yes	String	Access control values, which are separated with commas (,).

**Table 5-650** Parameter description of x-apigateway-ratelimits

Parameter	Mandatory	Type	Description
throttle_name	No	Object	Request throttling policy. For details, see <a href="#">parameter description of throttle_name</a> .

**Table 5-651** Parameter description of throttle\_name

Parameter	Mandatory	Type	Description
api-limit	Yes	Integer	Maximum number of times an API can be called
user-limit	No	Integer	Number of times the API can be called by a user
app-limit	No	Integer	Number of times the API can be called by an app
ip-limit	No	Integer	Number of times the API can be called by an IP address
interval	Yes	Integer	Throttling period

Parameter	Mandatory	Type	Description
unit	Yes	String	Throttling unit, which can be <b>SECOND</b> , <b>MINUTE</b> , <b>HOUR</b> , or <b>DAY</b>
shared	No	Boolean	Whether to share the throttling limits among APIs
special	No	Object	Excluded request throttling configurations. For details, see <a href="#">parameter description of special</a> .

**Table 5-652** Parameter description of special

Parameter	Mandatory	Type	Description
type	Yes	String	Excluded request throttling type, which can be <b>APP</b> or <b>USER</b>
limit	Yes	Integer	Access limit
instance	Yes	String	Excluded app or user

Example request:

```
{
  "swagger": "2.0",
  "info": {
    "description": "api group test",
    "title": "APIGroup_test",
    "version": "2019-09-12-17:38:10"
  },
  "paths": {
    "/test/{path}": {
      "get": {
        "security": [
          {
            "apig-auth-app": []
          }
        ],
        "description": "api test",
        "schemes": [
          "https"
        ],
        "operationId": "API_test",
        "parameters": [
          {
            "type": "string",
            "description": "header parameter",
            "name": "header",
            "in": "header",
            "required": true
          },
          {
            "type": "string",
            "description": "path parameter",
```

```
        "name": "path",
        "in": "path",
        "required": true
    },
    {
        "type": "number",
        "default": "123",
        "description": "query parameter",
        "name": "query",
        "in": "query"
    }
],
"responses": {
    "default": {
        "$ref": "#/responses/default"
    },
    "x-apigateway-result-failure-sample": "",
    "x-apigateway-result-normal-sample": "success"
},
"x-apigateway-backend": {
    "httpEndpoints": {
        "address": "1.1.1.1:443",
        "description": "",
        "method": "GET",
        "path": "/test/{path}",
        "scheme": "https",
        "timeout": 5000
    },
    "parameters": [
        {
            "description": "",
            "in": "HEADER",
            "name": "header",
            "origin": "REQUEST",
            "value": "header"
        },
        {
            "description": "",
            "in": "PATH",
            "name": "path",
            "origin": "REQUEST",
            "value": "path"
        },
        {
            "description": "",
            "in": "QUERY",
            "name": "query",
            "origin": "REQUEST",
            "value": "query"
        }
    ],
    "type": "HTTP"
},
"x-apigateway-backend-policies": [
    {
        "conditions": [
            {
                "origin": "param",
                "parameter": "path",
                "type": "exact",
                "value": "path"
            },
            {
                "origin": "source",
                "parameter": "",
                "type": "",
                "value": "1.0.0.0/8"
            }
        ]
    }
],
```



Parameter	Type	Description
action	String	Import type. Options: <ul style="list-style-type: none"> <li>• <b>update</b>: Updates the APIs in an existing API group.</li> <li>• <b>create</b>: Creates APIs for a new API group.</li> </ul>
method	String	Request method
path	String	Request path

**Table 5-655** Parameter description of failure

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error message
method	String	Request method
path	String	Request path

Example response:

```
{
  "group_id": "27aa2317e3514c5bb5aab5587a5e50ea",
  "success": [
    {
      "id": "aea39194d8db46408be0174b0bd15931",
      "action": "create",
      "method": "GET",
      "path": "/test01"
    }
  ],
  "failure": [
    {
      "error_code": "APIG.2011",
      "error_msg": "Parameter value does not match the rules,parameterName:backend_type",
      "method": "GET",
      "path": "/test02"
    }
  ]
}
```

## Status Codes

**Table 5-656** Status codes

Status Code	Description
200	OK
400	Bad Request



Status Code	Description
403	Forbidden
500	Server Internal Error

## 5.21 Custom Authorizer Management

### 5.21.1 Creating a Custom Authorizer

#### Function

This API is used to create a custom authorizer.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-657** HTTP/HTTPS request method and URI

Request Method	URI
POST	/v1.0/apigw/authorizers

#### Request

**Table 5-658** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Name of a custom authorizer The name of a custom authorizer consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Yes	String	Type of the custom authorizer, which can be: <ul style="list-style-type: none"> <li>FRONTEND</li> <li>BACKEND</li> </ul>
authorizer_type	Yes	String	Value: <b>FUNC</b>

Parameter	Mandatory	Type	Description
authorizer_uri	Yes	String	Function URN
identities	No	List	Certification source
ttl	No	Integer	Cache duration
user_data	No	String	User data

**Table 5-659** Parameter description of identities

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name
location	Yes	String	Parameter location, which can be: <ul style="list-style-type: none"> <li>• HEADER</li> <li>• QUERY</li> </ul>

Example request:

```
{
  "name": "Authorizer_9dlh",
  "type": "FRONTEND",
  "authorizer_type": "FUNC",
  "authorizer_uri": "urn:fss:regionexample:dbb5762c88f045c6a1427a952bcae284:function:default:test111",
  "ttl": 10,
  "user_data": "aaaa",
  "identities": [
    {
      "name": "Authorization",
      "location": "HEADER"
    }
  ]
}
```

## Response

**Table 5-660** Parameter description

Parameter	Type	Description
id	String	ID of the custom authorizer
name	String	Name of the custom authorizer
type	String	Type of the custom authorizer, which can be: <ul style="list-style-type: none"> <li>• FRONTEND</li> <li>• BACKEND</li> </ul>

Parameter	Type	Description
authorizer_type	String	Value: <b>FUNC</b>
authorizer_uri	String	Function URN
identities	Array	Certification source
ttl	Integer	Cache duration
user_data	String	User data
create_time	Time	Time when the custom authorizer is created

**Table 5-661** Parameter description of identities

Parameter	Type	Description
name	String	Parameter name
location	String	Parameter location, which can be: <ul style="list-style-type: none"> <li>• HEADER</li> <li>• QUERY</li> </ul>

Example response:

```
{
  "name": "Authorizer_9dlh",
  "type": "FRONTEND",
  "authorizer_type": "FUNC",
  "authorizer_uri": "urn:fss:regionexample:dbb5762c88f045c6a1427a952bcae284:function:default:test111",
  "identities": [
    {
      "name": "Authorization",
      "location": "HEADER",
    }
  ],
  "ttl": 10,
  "user_data": "aaaa",
  "id": "7345e3fe4047491ebd8ecb0acd665a4c",
  "create_time": "2020-01-19T11:48:56.576611862Z"
}
```

## Status Codes

**Table 5-662** Status codes

Status Code	Description
201	Created
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
500	Server Internal Error

## 5.21.2 Modifying a Custom Authorizer

### Function

This API is used to modify a specified custom authorizer.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-663** HTTP/HTTPS request method and URI

Request Method	URI
PUT	/v1.0/apigw/authorizers/{id}

The following table lists the parameter in the URI.

**Table 5-664** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	ID of a custom authorizer

### Request

**Table 5-665** Parameter description

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the custom authorizer The name of a custom authorizer consists of 3–64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
type	Yes	String	Type of the custom authorizer, which can be: <ul style="list-style-type: none"> <li>• FRONTEND</li> <li>• BACKEND</li> </ul>
authorizer_type	Yes	String	Value: <b>FUNC</b>
authorizer_uri	Yes	String	Function URN
identities	No	List	Certification source
ttl	No	Integer	Cache duration
user_data	No	String	User data

**Table 5-666** Parameter description of identities

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name
location	Yes	String	Parameter location, which can be: <ul style="list-style-type: none"> <li>• HEADER</li> <li>• QUERY</li> </ul>

Example request:

```
{
  "name": "Authorizer_9dlh",
  "type": "FRONTEND",
  "authorizer_type": "FUNC",
  "authorizer_uri": "urn:fss:regionexample:dbb5762c88f045c6a1427a952bcae284:function:default:test111",
  "ttl": 10,
  "user_data": "aaaa",
  "identities": [
    {
      "name": "Authorization",
      "location": "HEADER"
    }
  ]
}
```

## Response

**Table 5-667** Parameter description

Parameter	Type	Description
id	String	ID of the custom authorizer
name	String	Name of the custom authorizer
type	String	Type of the custom authorizer, which can be: <ul style="list-style-type: none"><li>• FRONTEND</li><li>• BACKEND</li></ul>
authorizer_type	String	Value: <b>FUNC</b>
authorizer_uri	String	Function URN
identities	Array	Certification source
ttl	Integer	Cache duration
user_data	String	User data
create_time	Time	Time when the custom authorizer is created

**Table 5-668** Parameter description of identities

Parameter	Type	Description
name	String	Parameter name
location	String	Parameter location, which can be: <ul style="list-style-type: none"><li>• HEADER</li><li>• QUERY</li></ul>

Example response:

```
{
  "name": "Authorizer_9dlh",
  "type": "FRONTEND",
  "authorizer_type": "FUNC",
  "authorizer_uri": "urn:fss:regionexample:dbb5762c88f045c6a1427a952bcae284:function:default:test111",
  "identities": [
    {
      "name": "Authorization",
      "location": "HEADER",
    }
  ],
  "ttl": 10,
  "user_data": "aaaa",
  "id": "7345e3fe4047491ebd8ecb0acd665a4c",
  "create_time": "2020-01-19T11:48:56.576611862Z"
}
```

## Status Codes

**Table 5-669** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

### 5.21.3 Deleting a Custom Authorizer

#### Function

This API is used to delete a specified custom authorizer.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-670** HTTP/HTTPS request method and URI

Request Method	URI
DELETE	/v1.0/apigw/authorizers/{id}

The following table lists the parameter in the URI.

**Table 5-671** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	ID of a custom authorizer

#### Request

N/A

#### Response

N/A

## Status Codes

**Table 5-672** Status codes

Status Code	Description
204	No Content
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Server Internal Error

### 5.21.4 Querying Details of a Custom Authorizer

#### Function

This API is used to query the details of a specified custom authorizer.

#### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-673** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/authorizers/{id}

The following table lists the parameters in the URI.

**Table 5-674** Parameter description

Parameter	Mandatory	Type	Description
id	Yes	String	ID of a custom authorizer

#### Request

N/A



## Response

**Table 5-675** Parameter description

Parameter	Type	Description
id	String	ID of the custom authorizer
name	String	Name of the custom authorizer
type	String	Type of the custom authorizer, which can be: <ul style="list-style-type: none"> <li>FRONTEND</li> <li>BACKEND</li> </ul>
authorizer_type	String	Value: <b>FUNC</b>
authorizer_uri	String	Function URN
identities	Array	Certification source
ttl	Integer	Cache duration
user_data	String	User data
create_time	Time	Time when the custom authorizer is created

**Table 5-676** Parameter description of identities

Parameter	Type	Description
name	String	Parameter name
location	String	Parameter location, which can be: <ul style="list-style-type: none"> <li>HEADER</li> <li>QUERY</li> </ul>

Example response:

```
{
  "name": "Authorizer_9dlh",
  "type": "FRONTEND",
  "authorizer_type": "FUNC",
  "authorizer_uri": "urn:fss:regionexample:dbb5762c88f045c6a1427a952bcae284:function:default:test111",
  "identities": [
    {
      "name": "Authorization",
      "location": "HEADER",
    }
  ],
  "ttl": 10,
  "user_data": "aaaa",
  "id": "7345e3fe4047491ebd8ecb0acd665a4c",
  "create_time": "2020-01-19T11:48:56.576611862Z"
}
```

## Status Codes

**Table 5-677** Status codes

Status Code	Description
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
500	Server Internal Error

## 5.21.5 Querying a Custom Authorizer List

### Function

This API is used to query a list of custom authorizers that match specified conditions.

### URI

The following table lists the HTTP/HTTPS request method and URI of the API.

**Table 5-678** HTTP/HTTPS request method and URI

Request Method	URI
GET	/v1.0/apigw/authorizers[?page_size, page_no, id, name, type]

#### NOTE

- A combination of different query conditions can be added at the end of the URI by using question marks (?) and ampersands (&).
- Query conditions include: **id**, **name**, **type**, **page\_size**, and **page\_no**.

The following table lists the parameters in the URI.

**Table 5-679** Parameter description

Parameter	Mandatory	Type	Description
id	No	String	ID of a custom authorizer

Parameter	Mandatory	Type	Description
name	No	String	Name of the custom authorizer
type	No	String	Type of the custom authorizer
page_size	No	Integer	Number of records displayed on each page. The default value is <b>20</b> .
page_no	No	Integer	Page number. The default value is <b>1</b> .

## Request

N/A

## Response

**Table 5-680** Parameter description

Parameter	Type	Description
total	Integer	Number of custom authorizers that match the query conditions
size	Integer	Length of the returned custom authorizer list
authorizer_list	Array	Custom authorizer list

**Table 5-681** Parameter description of authorizer\_list

Parameter	Type	Description
id	String	ID of the custom authorizer
name	String	Name of the custom authorizer
type	String	Type of the custom authorizer, which can be: <ul style="list-style-type: none"> <li>• FRONTEND</li> <li>• BACKEND</li> </ul>
authorizer_type	String	Value: <b>FUNC</b>
authorizer_uri	String	Function URN

Parameter	Type	Description
identities	Array	Certification source
ttn	Integer	Cache duration
user_data	String	User data
create_time	Time	Time when the custom authorizer is created

**Table 5-682** Parameter description of identities

Parameter	Type	Description
name	String	Parameter name
location	String	Parameter location, which can be: <ul style="list-style-type: none"><li>• HEADER</li><li>• QUERY</li></ul>

Example response:

```
{
  "total":1,
  "size":1,
  "authorizer_list":[
    {
      "name":"Authorizer_9dlh",
      "type":"FRONTEND",
      "authorizer_type":"FUNC",
      "authorizer_uri":"urn:fss:regionexample:dbb5762c88f045c6a1427a952bcae284:function:default:test111",
      "identities":[
        {
          "name":"Authorization",
          "location":"HEADER",
        }
      ],
      "ttl":10,
      "user_data":"aaaa",
      "id":"7345e3fe4047491ebd8ecb0acd665a4c",
      "create_time":"2020-01-19T11:48:56Z"
    }
  ]
}
```

## Status Codes

**Table 5-683** Status codes

Status Code	Description
201	Created
400	Bad Request

Status Code	Description
401	Unauthorized
403	Forbidden
500	Server Internal Error

# 6 Permissions Policies and Supported Actions

---

This chapter describes fine-grained permissions management for your APIG.

## NOTE

- If your Huawei Cloud account does not require individual IAM users, skip this section.
- Only **dedicated** gateways support fine-grained permissions management.

By default, new IAM users do not have permissions assigned. You need to add a user to one or more groups, and attach permissions policies or roles (in JSON format) to these groups. Users inherit permissions from the groups to which they are added and can perform specified operations on cloud services based on the permissions. For more information about policy syntax and for example policies, see [Creating a User and Granting APIG Permissions](#).

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

## Supported Actions

Operations supported by policies are specific to APIs. The following are common concepts related to policies:

- **Permission:** A statement in a policy that allows or denies certain operations.
- **Action:** Specific operations that are allowed or denied.
- **API:** REST APIs that can be called by a user who has been granted specific permissions.
- **Authorization scope:** Type of projects in which policies can be used to grant permissions. A policy can be applied to IAM projects, enterprise projects, or both. Policies that contain actions for both IAM and enterprise projects can be used and take effect for both IAM and Enterprise Management. Policies that only contain actions for IAM projects can be used and only take effect for

IAM. For details, see [What Are the Differences Between IAM Projects and Enterprise Projects?](#)

APIG supports actions that can be defined in custom policies. Permissions must be obtained before calling APIs provided by APIG. For details on how to obtain permissions, visit the [Identity and Access Management help center](#).

**Table 6-1** Supported actions

Permissi on	API	Action	Dependenci es	IAM Proj ect	Enter prise Proj ect
Creating a dedicate d gateway	POST /v2/{project_id}/apigw/instances	apig:insta nces:creat e	-	√	√
Deleting a dedicate d gateway	DELETE /v2/{project_id}/apigw/instances/{instance_id}	apig:insta nces:delet e	-	√	√
Updating a dedicate d gateway	PUT /v2/{project_id}/apigw/instances/{instance_id}	apig:insta nces:upda te	-	√	√
Querying details of a dedicate d gateway	GET /v2/{project_id}/apigw/instances/{instance_id}	apig:insta nces:get	-	√	√
Querying dedicate d gateway s	GET /v2/{project_id}/apigw/instances	apig:insta nces:list	-	√	√
Querying domain names bound with a custom inbound port	GET /v2/{project_id}/apigw/instances/{instance_id}/custom-ingress-ports/{ingress_port_id}/domains	apig:insta nce:listCus tomIngres sPortDom ain	apig:groups: get apig:instance :listCustomIn gressPort apig:instance s:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying custom inbound ports of a gateway	GET /V2/{project_id}/apigw/instances/{instance_id}/custom-ingress-ports	apigw:instance:listCustomIngressPort	apigw:instance:get	√	√
Adding a custom inbound port	POST /V2/{project_id}/apigw/instances/{instance_id}/custom-ingress-ports	apigw:instance:addCustomIngressPort	apigw:instance:get	√	√
Deleting a custom inbound port	DELETE /V2/{project_id}/apigw/instances/{instance_id}/custom-ingress-ports/{ingress_port_id}	apigw:instance:deleteCustomIngressPort	apigw:instance:listCustomIngressPort apigw:instance:get	√	√
Querying gateways by tag	POST /V2/{project_id}/apigw/resource-instances/filter	apigw:instance:listByTags	-	√	x
Querying the number of gateways by tag	POST /V2/{project_id}/apigw/resource-instances/count	apigw:instance:getNumByTags	-	√	x
Querying tags of a gateway	GET /v2/{project_id}/apigw/instance-tags	apigw:instanceTags:list	-	√	x
Deleting tags of a gateway	POST /v2/{project_id}/apigw/instances/{instance_id}/instance-tags/action	apigw:instanceTags:delete	apigw:instance:get	√	√
Creating a gateway tag	POST /V2/{project_id}/apigw/instances/{instance_id}/instance-tags/action	apigw:instanceTags:create	apigw:instance:get	√	√
Creating an API group	POST /v2/{project_id}/apigw/instances/{instance_id}/api-groups	apigw:groups:create	apigw:instance:get	√	√



Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Deleting an API group	DELETE /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}	apig:groups:delete	apig:instances:get	√	√
Querying details of an API group	GET /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}	apig:groups:get	apig:instances:get	√	√
Querying API groups	GET /v2/{project_id}/apigw/instances/{instance_id}/api-groups	apig:groups:list	apig:instances:get	√	√
Updating an API group	PUT /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}	apig:groups:update	apig:instances:get	√	√
Binding a domain name to an API group	POST /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains	apig:domains:create	apig:instances:get apig:groups:get	√	√
Unbinding a domain name from an API group	DELETE /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}	apig:domains:delete	apig:instances:get apig:groups:get	√	√
Adding a certificate to a domain name	POST /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}/certificate	apig:domains:bindCertificate	apig:instances:get apig:groups:get apig:domains:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Deleting a certificate of a domain name	DELETE /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}/certificate/{certificate_id}	apig:domains:unbind Certificate	apig:instances:get apig:groups:get apig:domains:get	√	√
Querying details of a certificate bound to a domain name	GET /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}/certificate/{certificate_id}	apig:domains:getCertificate	apig:instances:get apig:groups:get apig:domains:get	√	√
Setting accessibility of a debugging domain name	PUT /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/sl-domain-access-settings	apig:domains:updateSLDomainSetting	apig:instances:get apig:groups:get	√	√
Creating an environment variable	POST /v2/{project_id}/apigw/instances/{instance_id}/env-variables	apig:variables:create	apig:instances:get apig:groups:get apig:envs:list	√	√
Deleting an environment variable	DELETE /v2/{project_id}/apigw/instances/{instance_id}/env-variables/{env_variable_id}	apig:variables:delete	apig:instances:get apig:groups:get apig:envs:list	√	√
Querying details of an environment variable	GET /v2/{project_id}/apigw/instances/{instance_id}/env-variables/{env_variable_id}	apig:variables:get	apig:instances:get apig:groups:get apig:envs:list	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying environment variables	GET /v2/{project_id}/apigw/instances/{instance_id}/env-variables	apig:variables:list	apig:instances:get apig:groups:get apig:envs:list	√	√
Creating an API	POST /v2/{project_id}/apigw/instances/{instance_id}/apis	apig:apis:create	apig:instances:get apig:groups:get	√	√
Deleting an API	DELETE /v2/{project_id}/apigw/instances/{instance_id}/apis/{api_id}	apig:apis:delete	apig:instances:get apig:groups:get	√	√
Publishing an API	POST /v2/{project_id}/apigw/instances/{instance_id}/apis/action	apig:apis:publish	apig:instances:get apig:groups:get apig:envs:list	√	√
Taking an API offline	POST /v2/{project_id}/apigw/instances/{instance_id}/apis/action	apig:apis:offline	apig:instances:get apig:groups:get apig:envs:list	√	√
Debugging an API	POST /v2/{project_id}/apigw/instances/{instance_id}/apis/debug/{api_id}	apig:apis:debug	apig:instances:get apig:groups:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Importing an API	POST /v2/{project_id}/apigw/instances/{instance_id}/openapi/import	apig:apis:import	apig:instances:get apig:apis:create apig:apis:bindAcls apig:apis:bindThrottles apig:groups:get apig:acls:create apig:throttles:create	√	√
Exporting an API	POST /v2/{project_id}/apigw/instances/{instance_id}/openapi/export	apig:apis:export	apig:instances:get apig:apis:list apig:apis:get apig:apis:listBindedThrottles apig:apis:listBindedAcls apig:groups:get apig:acls:get apig:throttles:get	√	√
Updating an API	PUT /v2/{project_id}/apigw/instances/{instance_id}/apis/{api_id}	apig:apis:update	apig:instances:get apig:groups:get	√	√
Authorizing access to an API	POST /v2/{project_id}/apigw/instances/{instance_id}/app-auths	apig:apis:grantAppAccess	apig:instances:get apig:apps:get apig:apis:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Canceling access authorization for an API	DELETE /v2/{project_id}/apigw/instances/{instance_id}/app-auths/{app_auth_id}	apig:apis:revokeAppAccess	apig:instances:get apig:apps:get apig:apis:get	√	√
Binding a signature key to an API	POST /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings	apig:apis:bindSigns	apig:instances:get apig:apis:get apig:signs:list	√	√
Unbinding a signature key from an API	DELETE /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings/{sign_bindings_id}	apig:apis:unbindSigns	apig:instances:get apig:apis:get apig:signs:list	√	√
Binding an access control policy to an API	POST /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings	apig:apis:bindAcls	apig:instances:get apig:apis:get apig:acls:get	√	√
Unbinding an access control policy from an API	DELETE /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings/{acl_bindings_id}	apig:apis:unbindAcls	apig:instances:get apig:apis:get apig:acls:get	√	√
Binding a request throttling policy to an API	POST /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings	apig:apis:bindThrottles	apig:instances:get apig:apis:get apig:throttles:get	√	√
Unbinding a request throttling policy from an API	DELETE /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings/{throttle_binding_id}	apig:apis:unbindThrottles	apig:instances:get apig:apis:get apig:throttles:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying details of an API	GET /v2/{project_id}/apigw/instances/{instance_id}/apis/{api_id}	apig:apis:get	apig:instances:get apig:groups:get	√	√
Querying APIs	GET /v2/{project_id}/apigw/instances/{instance_id}/apis	apig:apis:list	apig:instances:get apig:groups:get	√	√
Querying apps bound to an API	GET /v2/{project_id}/apigw/instances/{instance_id}/app-auths/binded-apps	apig:apis:listBindedApps	apig:instances:get apig:apis:get	√	√
Querying signature keys bound to an API	GET /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings/binded-signs	apig:apis:listBindedSigns	apig:instances:get apig:apis:get	√	√
Querying access control policies bound to an API	GET /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings/binded-acls	apig:apis:listBindedAcls	apig:instances:get apig:apis:get	√	√
Querying request throttling policies bound to an API	GET /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings/binded-throttles	apig:apis:listBindedThrottles	apig:instances:get apig:apis:get	√	√
Querying plug-ins bound with an API	GET /v2/{project_id}/apigw/instances/{instance_id}/apis/{api_id}/attached-plugins	apig:apis:listBindedPlugins	apig:instances:get apig:apis:get	√	√
Binding a plug-in to an API	POST /v2/{project_id}/apigw/instances/{instance_id}/apis/{api_id}/plugins/attach	apig:apis:bindPlugins	apig:instances:get apig:plugins:get apig:apis:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Unbinding an API's plug-ins	PUT /v2/{project_id}/apigw/instances/{instance_id}/plugins/{plugin_id}/detach	apig:apis:unbindPlugins	apig:instances:get apig:plugins:get apig:apis:get	√	√
Creating an environment	POST /v2/{project_id}/apigw/instances/{instance_id}/envs	apig:envs:create	apig:instances:get	√	√
Deleting an environment	DELETE /v2/{project_id}/apigw/instances/{instance_id}/envs/{env_id}	apig:envs:delete	apig:instances:get	√	√
Querying environments	GET /v2/{project_id}/apigw/instances/{instance_id}/envs	apig:envs:list	apig:instances:get	√	√
Updating an environment	PUT /v2/{project_id}/apigw/instances/{instance_id}/envs/{env_id}	apig:envs:update	apig:instances:get	√	√
Creating an app	POST /v2/{project_id}/apigw/instances/{instance_id}/apps	apig:apps:create	apig:instances:get	√	√
Deleting an app	DELETE /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}	apig:apps:delete	apig:instances:get	√	√
Querying details of an app	GET /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}	apig:apps:get	apig:instances:get	√	√
Querying apps	GET /v2/{project_id}/apigw/instances/{instance_id}/apps	apig:apps:list	apig:instances:get	√	√
Querying APIs bound with an app	GET /v2/{project_id}/apigw/instances/{instance_id}/app-auths/binded-apis	apig:apps:listBindedApis	apig:instances:get apig:apps:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying APIs not bound with an app	GET /v2/{project_id}/apigw/instances/{instance_id}/app-auths/unbound-apis	apig:apps:listUnboundApis	apig:instances:get apig:apps:get	√	√
Updating an application	PUT /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}	apig:apps:update	apig:instances:get	√	√
Creating a signature key	POST /v2/{project_id}/apigw/instances/{instance_id}/signs	apig:signs:create	apig:instances:get	√	√
Deleting a signature key	DELETE /v2/{project_id}/apigw/instances/{instance_id}/signs/{sign_id}	apig:signs:delete	apig:instances:get	√	√
Querying signature keys	GET /v2/{project_id}/apigw/instances/{instance_id}/signs	apig:signs:list	apig:instances:get	√	√
Querying APIs bound with a signature key	GET /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings/binded-apis	apig:signs:listBindedApis	apig:instances:get apig:signs:list	√	√
Querying APIs not bound with a signature key	GET /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings/unbound-apis	apig:signs:listUnboundApis	apig:instances:get apig:signs:list	√	√
Updating a signature key	PUT /v2/{project_id}/apigw/instances/{instance_id}/signs/{sign_id}	apig:signs:update	apig:instances:get	√	√
Creating an access control policy	POST /v2/{project_id}/apigw/instances/{instance_id}/acls	apig:acls:create	apig:instances:get	√	√



Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Deleting an access control policy	DELETE /v2/{project_id}/apigw/instances/{instance_id}/acls/{acl_id}	apig:acls:delete	apig:instances:get	√	√
Querying details of an access control policy	GET /v2/{project_id}/apigw/instances/{instance_id}/acls/{acl_id}	apig:acls:get	apig:instances:get	√	√
Querying access control policies	GET /v2/{project_id}/apigw/instances/{instance_id}/acls	apig:acls:list	apig:instances:get	√	√
Querying APIs bound with an access control policy	GET /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings/binded-apis	apig:acl:listBoundApis	apig:instances:get apig:acls:get	√	√
Querying APIs not bound with an access control policy	GET /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings/unbinded-apis	apig:acls:listUnbindedApis	apig:instances:get apig:acls:get	√	√
Updating an access control policy	PUT /v2/{project_id}/apigw/instances/{instance_id}/acls/{acl_id}	apig:acls:update	apig:instances:get	√	√
Creating a request throttling policy	POST /v2/{project_id}/apigw/instances/{instance_id}/throttles	apig:throttles:create	apig:instances:get	√	√
Deleting a request throttling policy	DELETE /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}	apig:throttles:delete	apig:instances:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying details of a request throttling policy	GET /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}	apig:specialThrottles:get	apig:instances:get	√	√
Querying request control policies	GET /v2/{project_id}/apigw/instances/{instance_id}/throttles	apig:throttles:list	apig:instances:get	√	√
Querying APIs bound with a request throttling policy	GET /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings/binded-apis	apig:throttles:listBindedApis	apig:instances:get apig:throttles:get	√	√
Querying APIs not bound with a request throttling policy	GET /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings/unbinded-apis	apig:throttles:listUnbindedApis	apig:instances:get apig:throttles:get	√	√
Updating a request throttling policy	PUT /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}	apig:throttles:update	apig:instances:get	√	√
Creating an excluded request throttling configuration	POST /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}/throttle-specials	apig:specialThrottles:create	apig:instances:get apig:throttles:get	√	√
Deleting an excluded request throttling configuration	DELETE /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}/throttle-specials/{strategy_id}	apig:specialThrottles:delete	apig:instances:get apig:throttles:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying excluded request throttling configurations	GET /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}/throttle-specials	apig:specialThrottles:get	apig:instances:get apig:throttles:get	√	√
Updating an excluded request throttling configuration	PUT /{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}/throttle-specials/{strategy_id}	apig:specialThrottles:update	apig:instances:get apig:throttles:get	√	√
Creating a load balance channel	POST /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels	apig:vpcChannels:create	apig:instances:get	√	√
Deleting a load balance channel	DELETE /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}	apig:vpcChannels:delete	apig:instances:get	√	√
Updating a load balance channel	PUT /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}	apig:vpcChannels:update	apig:instances:get	√	√
Adding a backend instance to a load balance channel	POST /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/members	apig:vpcChannels:addInstance	apig:instances:get apig:vpcChannels:get	√	√
Deleting a backend instance	DELETE /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/members/{member_id}	apig:vpcChannels:deleteInstance	apig:instances:get apig:vpcChannels:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying load balance channel details	GET /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}	apig:vpcChannels:get	apig:instances:get	√	√
Querying load balance channels	GET /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels	apig:vpcChannels:list	apig:instances:get	√	√
Updating a backend server group of a VPC channel	PUT /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/member-groups/{member_group_id}	apig:vpcChannels:updateMemberGroup	apig:instances:get apig:vpcChannels:get	√	√
Adding or updating a backend server group of a VPC channel	POST /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/member-groups	apig:vpcChannels:addOrUpdateMemberGroups	apig:instances:get apig:vpcChannels:get	√	√
Disabling backend servers	POST /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/members/batch-disable	apig:vpcChannels:batchEnableInstance	apig:instances:get apig:vpcChannels:get	√	√
Deleting a backend server group of a VPC channel	DELETE /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/member-groups/{member_group_id}	apig:vpcChannels:deleteMemberGroup	apig:instances:get apig:vpcChannels:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Enabling backend servers	POST /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/members/batch-enable	apig:vpcChannels:batchDisableInstance	apig:instances:get apig:vpcChannels:get	√	√
Creating a custom authorizer	POST /v2/{project_id}/apigw/instances/{instance_id}/authorizers	apig:authorizers:create	functiongraph:function:getConfig apig:instances:get	√	√
Deleting a custom authorizer	DELETE /v2/{project_id}/apigw/instances/{instance_id}/authorizers/{authorizer_id}	apig:authorizers:delete	apig:instances:get	√	√
Querying details of a custom authorizer	GET /v2/{project_id}/apigw/instances/{instance_id}/authorizers/{authorizer_id}	apig:authorizers:get	apig:instances:get	√	√
Querying custom authorizers	GET /v2/{project_id}/apigw/instances/{instance_id}/authorizers	apig:authorizers:list	apig:instances:get	√	√
Updating a custom authorizer	PUT /v2/{project_id}/apigw/instances/{instance_id}/authorizers/{authorizer_id}	apig:authorizers:update	apig:instances:get	√	√
Querying tags	GET /v2/{project_id}/apigw/instances/{instance_id}/tags	apig:tags:list	apig:instances:get	√	√
Querying gateway features	GET /v2/{project_id}/apigw/instances/{instance_id}/features	apig:features:list	apig:instances:get	√	√
Creating a gateway feature	POST /v2/{project_id}/apigw/instances/{instance_id}/features	apig:features:create	apig:instances:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Viewing monitoring data	GET /v2/{project_id}/apigw/instances/{instance_id}/metric-data	apig:metricData:get	apig:instances:get	√	√
Creating a gateway response	POST /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/gateway-responses	apig:gatewayResponses:create	apig:instances:get apig:groups:get	√	√
Querying details of a gateway response	GET /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/gateway-responses/{response_id}	apig:gatewayResponses:get	apig:instances:get apig:groups:get	√	√
Updating a gateway response	PUT /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/gateway-responses/{response_id}	apig:gatewayResponses:update	apig:instances:get apig:groups:get	√	√
Deleting a gateway response	DELETE /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/gateway-responses/{response_id}	apig:gatewayResponses:delete	apig:instances:get apig:groups:get	√	√
Querying a gateway response list	GET /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/gateway-responses	apig:gatewayResponses:list	apig:instances:get apig:groups:get	√	√
Creating an AppCode	POST /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}/app-codes	apig:appCodes:create	apig:instances:get apig:apps:get	√	√
Querying AppCodes of an app	GET /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}/app-codes	apig:appCodes:list	apig:instances:get apig:apps:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying AppCode details	GET /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}/app-codes/{app_code_id}	apig:appCodes:get	apig:instances:get apig:apps:get	√	√
Updating AppCodes of an app	PUT /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}/app-codes	apig:appCodes:update	apig:instances:get apig:apps:get	√	√
Deleting an AppCode	DELETE /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}/app-codes/{app_code_id}	apig:appCodes:delete	apig:instances:get apig:apps:get	√	√
Creating a plug-in	POST /v2/{project_id}/apigw/instances/{instance_id}/plugins	apig:plugins:create	apig:instances:get	√	√
Updating a plugin	PUT /v2/{project_id}/apigw/instances/{instance_id}/plugins/{plugin_id}	apig:plugins:update	apig:instances:get	√	√
Querying the plug-ins	GET /v2/{project_id}/apigw/instances/{instance_id}/plugins	apig:plugins:list	apig:instances:get	√	√
Querying APIs bound with a plug-in	GET /v2/{project_id}/apigw/instances/{instance_id}/plugins/{plugin_id}/attached-apis	apig:plugins:listBoundApis	apig:instances:get apig:plugins:get	√	√
Querying plug-ins	GET /v2/{project_id}/apigw/instances/{instance_id}/plugins/{plugin_id}	apig:plugins:get	apig:instances:get	√	√
Querying APIs not bound with a plug-in	GET /v2/{project_id}/apigw/instances/{instance_id}/plugins/{plugin_id}/attachable-apis	apig:plugins:listUnboundApis	apig:instances:get apig:plugins:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Deleting a plug-in	DELETE /v2/{project_id}/apigw/instances/{instance_id}/plugins/{plugin_id}	apig:plugins:delete	apig:instances:get	√	√
Querying SSL certificates	GET /v2/{project_id}/apigw/certificates	apig:certificate:list	-	√	√
Adding an SSL certificate	POST /v2/{project_id}/apigw/certificates	apig:certificate:create	apig:instances:get	√	Supported only when the parameter <b>instance_id</b> is carried in the request.
Deleting an SSL certificate	DELETE /v2/{project_id}/apigw/certificates/{certificate_id}	apig:certificate:delete	-	√	x
Querying details about an SSL certificate	GET /v2/{project_id}/apigw/certificates/{certificate_id}	apig:certificate:get	-	√	x



Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Modifying an SSL certificate	PUT /v2/{project_id}/apigw/certificates/{certificate_id}	apig:certificate:update	apig:instances:get	√	Supported only when the parameter <b>instance_id</b> is carried in the request.
Querying domain names of an SSL certificate	GET /v2/{project_id}/apigw/certificates/{certificate_id}/attached-domains	apig:certificate:listBoundDomain	-	√	x
Binding an SSL certificate to a domain name	POST /v2/{project_id}/apigw/certificates/{certificate_id}/domains/attach	apig:certificate:batchBindDomain	apig:certificate:get apig:groups:get	√	x
Unbinding an SSL certificate from a domain name	POST /v2/{project_id}/apigw/certificates/{certificate_id}/domains/detach	apig:certificate:batchUnbindDomain	apig:certificate:get apig:groups:get	√	x
Querying VPC endpoint connections	GET /v2/{project_id}/apigw/instances/{instance_id}/vpc-endpoint/connections	apig:instance:listVpcEndpoint	apig:instances:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Accepting or rejecting a VPC endpoint connection	POST /v2/{project_id}/apigw/instances/{instance_id}/vpc-endpoint/connections/action	apig:instance:acceptOrRejectVpcEndpointConnection	apig:instance:get	√	√
Querying the whitelist records of a gateway's VPC endpoint service	GET /v2/{project_id}/apigw/instances/{instance_id}/vpc-endpoint/permissions	apig:instance:listVpcEndpointPermission	apig:instance:get	√	√
Adding whitelist records for a VPC endpoint service	POST/v2/{project_id}/apigw/instances/{instance_id}/vpc-endpoint/permissions/batch-add	apig:instance:batchAddVpcEndpointPermission	apig:instance:get	√	√
Deleting whitelist records of a VPC endpoint service	POST/v2/{project_id}/apigw/instances/{instance_id}/vpc-endpoint/permissions/batch-delete	apig:instance:batchDeleteVpcEndpointPermission	apig:instance:get	√	√
Creating a parameter orchestration rule	POST /v2/{project_id}/apigw/instances/{instance_id}/orchestration	apig:orchestration:create	apig:instance:get	√	√
Querying orchestration rules	GET /v2/{project_id}/apigw/instances/{instance_id}/orchestration	apig:orchestration:list	apig:instance:get	√	√

Permission	API	Action	Dependencies	IAM Project	Enterprise Project
Querying rule details	GET /v2/{project_id}/apigw/instances/{instance_id}/orchestrations/{orchestration_id}	apig:orchestration:get	apig:instances:get	√	√
Updating an orchestration rule	PUT /v2/{project_id}/apigw/instances/{instance_id}/orchestrations/{orchestration_id}	apig:orchestration:update	apig:instances:get	√	√
Deleting an orchestration rule	DELETE /v2/{project_id}/apigw/instances/{instance_id}/orchestrations/{orchestration_id}	apig:orchestration:delete	apig:instances:get	√	√
Querying APIs to which an orchestration rule is bound	GET /v2/{project_id}/apigw/instances/{instance_id}/orchestrations/{orchestration_id}/attached-apis	apig:orchestration:listBoundApis	apig:instances:get	√	√

# 7 Appendix

## 7.1 Pagination Query

APIG supports pagination query of resource lists, such as an API list.

To perform a pagination query, add the following parameters to the URL:

- **page\_size**: number of records to be displayed on each page. If this parameter is not specified, the default value **20** is used. The maximum value is **500**.
- **page\_no**: page number for displaying query results.

Example:

```
GET /v1.0/apigw/apis?page_size=10&page_no=5
```

## 7.2 Result Filtering

APIG filters query results by object attribute when you query a resource list, such as an API list.

Example:

```
GET /v1.0/apigw/apis?id=xxxx
```

## 7.3 HTTP Status Codes

[Table 7-1](#) describes common status codes.

**Table 7-1** HTTP status codes

Status Code & Message	Description
200 OK	The request has been processed successfully.
204 No Content	The server successfully processed the request and is not returning any content.

Status Code & Message	Description
400 Bad Request	The server failed to process the request. Possible causes include: <ol style="list-style-type: none"><li>1. Malformed request syntax</li><li>2. Invalid request message framing</li></ol>
401 Unauthorized	The request requires user authentication. For example, the username and password are required.
403 Forbidden	The server understood the request, but is refusing to fulfill it.
404 Not Found	The server has not found anything matching the request URI.
405 Method Not Allowed	The method specified in the request line is not allowed for the resource identified by the request URI.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must first authenticate yourself with the proxy.
408 Request Timeout	The server timed out waiting for the request.
409 Conflict	The request could not be completed due to a conflict with the current state of the resource.
410 Gone	The requested resource is no longer available at the server and no forwarding address is known.
412 Precondition Failed	The server does not meet one of the preconditions that the requester put on the request.
500 Internal Server Error	The server encountered an unexpected condition which prevented it from fulfilling the request.
501 Not Implemented	The server does not support the functionality required to fulfill the request.
502 Bad Gateway	The server, while acting as a gateway or proxy, received an invalid response from the upstream server it accessed in attempting to fulfill the request.
503 Service Unavailable	The request could not be processed by the server because the server is being maintained or overloaded.
504 Gateway Timeout	The server was acting as a gateway or proxy and did not receive a timely response from the upstream server.

## 7.4 Error Codes

If an error code starting with APIGW is returned after you call an API, rectify the fault by referring to the instructions provided in [API Gateway Error Codes](#).

Status Code	Error Codes	Error Message	Description	Solution
204	APIG.0000	Successful	Successful	You do not need to take any actions.
400	APIC.7211	Parameter value does not match the rules	Parameter value does not match the rules	Modify the parameter value.
400	APIC.7230	The maintenance time window must be 4 hours.	The maintenance time window must be 4 hours.	Modify the maintenance time window to 4 hours.
400	APIC.7235	The maintenance time window must start or end with 2, 6, 10, 14, 18, or 22.	The maintenance time window must start or end with 2, 6, 10, 14, 18, or 22.	Modify the maintenance time window to start or end with 2, 6, 10, 14, 18, or 22.
400	APIC.7238	An AZ must be specified.	An AZ must be specified.	Specify an AZ when creating a gateway.
400	APIC.7239	Invalid IP address.	Invalid IP address.	Enter a valid IP address.
400	APIC.7241	An enterprise project ID must be specified if you are an enterprise user.	An enterprise project ID must be specified if you are an enterprise user.	Specify an enterprise project ID.
400	APIC.7242	Load balancing is not supported by this edition.	Load balancing is not supported by this edition.	Change the gateway edition.

Status Code	Error Codes	Error Message	Description	Solution
400	APIC.7243	Scale-up is not supported by this edition.	Scale-up is not supported by this edition.	Change the gateway edition.
400	APIC.7244	The bandwidth cannot be updated.	The bandwidth cannot be updated.	Do not perform this operation.
400	APIC.7254	IPv6 access not supported.	IPv6 access not supported.	Contact technical support.
400	APIC.7255	IPv6 not supported for the subnet used when creating the gateway or enabling IPv6 access.	IPv6 not supported for the subnet used when creating the gateway or enabling IPv6 access.	Use another subnet that supports IPv6.
400	APIC.7257	The custom inbound port is bound to a custom domain name.	The port is bound to another API group.	Delete or modify the domain name bound to the custom inbound port.
400	APIC.7258	Port already defined.	Port already defined.	Enter another port number.
400	APIC.7312	The AZ does not support IPv6.	The AZ does not support IPv6.	Use an AZ that supports IPv6.
400	APIC.7313	The bandwidth for IPv6 cannot be less than 5 MB.	The bandwidth for IPv6 cannot be less than 5 MB.	Increase the bandwidth
400	APIC.7500	The gateway name already exists.	The gateway name already exists.	Use another gateway name.
400	APIC.7503	Parameters az and azList cannot be used at the same time.	Parameters az and azList cannot be used at the same time.	Delete az or azList.

Status Code	Error Codes	Error Message	Description	Solution
400	APIC.7505	The gateway ID already exists.	The gateway ID already exists.	Change the gateway ID.
400	APIC.9206	Failed to create the gateway.	Failed to create the gateway.	If the resources are insufficient, expand the resources. If the network is abnormal, check the service network for connectivity.
400	APIC.9208	Failed to disable public outbound access.	Failed to disable public outbound access.	Contact technical support to view the logs.
400	APIC.9210	create cloud nat eip failed	create cloud nat eip failed	Contact technical support to view the background logs.
400	APIC.9211	update bandwidth size failed	update bandwidth size failed	Contact technical support.
400	APIC.9215	Failed to scale up the gateway.	Failed to scale up the gateway.	Contact technical support to view the background logs.
400	APIC.9216	Failed to enable public inbound access.	Failed to enable public inbound access.	Contact technical support to view the background logs.
400	APIC.9217	Failed to accept VPC peering connection or create route	Failed to accept VPC peering connection or create route	Connect technical support to view background logs.
400	APIC.9218	Create instance failed due to insufficient quota.	Create instance failed due to insufficient quota.	Increase the quota and try again.



Status Code	Error Codes	Error Message	Description	Solution
400	APIC.9219	Create instance failed due to insufficient resources.	Create instance failed due to insufficient resources.	Expand the resource capacity and try again.
400	APIC.9222	Lock gateway operation failed.	Lock gateway operation failed.	Contact technical support.
400	APIC.9223	Delete custom inbound port failed.	Delete custom inbound port failed.	Try again later or contact technical support.
400	APIC.9224	Add custom inbound port failed.	Add custom inbound port failed.	Try again later or contact technical support.
400	APIG.1119	No permissions to perform this operation.	No permissions to perform this operation.	Apply for the required permissions and try again.
400	APIG.1120	No permissions to create ELB channels.	No permissions to create ELB channels.	Ensure that the ELB channel belongs to your account. If you are an IAM user, apply for the required permissions.
400	APIG.1201	The resources belong to different tenants.	The resources belong to different tenants.	Ensure that the resources belong to the same tenant.
400	APIG.2000	Parameter error.	Parameter error.	Modify the request parameters based on the reasons stated in the API response.
400	APIG.2001	The request parameters must be specified.	The request parameters must be specified.	Set request parameters.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.2002	The parameter value is too small.	The parameter value is too small.	Modify the request parameter.
400	APIG.2003	The parameter value is too large.	The parameter value is too large.	Modify the request parameter.
400	APIG.2004	The parameter value is outside the allowable range.	The parameter value is outside the allowable range.	Modify the request parameter.
400	APIG.2005	The parameter is too short.	The parameter is too short.	Modify the request parameter.
400	APIG.2006	The parameter is too long.	The parameter is too long.	Modify the request parameter.
400	APIG.2007	Invalid length.	Invalid length.	Modify the request parameter.
400	APIG.2008	Only letters are allowed.	Only letters are allowed.	Modify the request parameter.
400	APIG.2009	Only digits are allowed.	Only digits are allowed.	Modify the request parameter.
400	APIG.2010	Only letters and digits are allowed.	Only letters and digits are allowed.	Modify the request parameter.
400	APIG.2011	Invalid parameter value.	Invalid parameter value.	Modify the request parameter.
400	APIG.2012	Invalid parameter value.	Invalid parameter value.	Modify the request parameter.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.2013	Only letters, digits, hyphens (-), and underscores (_) are allowed.	Only letters, digits, hyphens (-), and underscores (_) are allowed.	Modify the request parameter.
400	APIG.2014	Invalid email address.	Invalid email address.	Modify the request parameter.
400	APIG.2015	Invalid IP address.	Invalid IP address.	Modify the request parameter.
400	APIG.2016	The characters are not encoded using Base 64.	The characters are not encoded using Base 64.	Change the value of the request parameter to a Base 64-encoded character string.
400	APIG.2017	Invalid mobile number.	Invalid mobile number.	Modify the request parameter.
400	APIG.2018	Invalid telephone number.	Invalid telephone number.	Modify the request parameter.
400	APIG.2019	Invalid telephone or mobile number.	Invalid telephone or mobile number.	Modify the request parameter.
400	APIG.2020	Invalid postal code.	Invalid postal code.	Modify the request parameter.
400	APIG.2021	The URL domain is not included in the IP address whitelist.	The URL domain is not included in the IP address whitelist.	Modify the request parameter.
400	APIG.2022	The URL domain is included in the IP address blacklist.	The URL domain is included in the IP address blacklist.	Modify the request parameter.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.2023	URL domain CNAME resolution failed.	URL domain CNAME resolution failed.	Register the CNAME resolution record of the domain name.
400	APIG.2024	Invalid URL domain.	Invalid URL domain.	Use a correct domain name.
400	APIG.2025	Invalid port number.	Invalid port number.	Use a correct port number.
400	APIG.2026	The request path parameters are not defined.	The request path parameters are not defined.	Add the parameters contained in the request path to the request parameters.
400	APIG.2027	The backend path parameters are not defined.	The backend path parameters are not defined.	Add the parameters contained in the backend request path to the backend parameters.
400	APIG.2028	The request parameters mapped to the backend parameters are not defined.	The request parameters mapped to the backend parameters are not defined.	Map the backend parameters to the correct request parameters.
400	APIG.2029	The default certificate already exists.	The default certificate already exists.	Contact technical support.
400	APIG.2030	Bad request for debugging the API.	Bad request for debugging the API.	Set correct API debugging parameters.
400	APIG.2034	The domain name has not been filed. File it first.	The domain name has not been filed. File it first.	Complete ICP filing for the domain name.
400	APIG.2035	The ICP Filing System is busy. Please try again later.	The ICP Filing System is busy. Please try again later.	Contact technical support.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.2036	Only APIs that use custom authentication can have authorizer parameters.	Only APIs that use custom authentication can have authorizer parameters.	Delete unnecessary parameters.
400	APIG.2041	Invalid microservice.	Invalid microservice.	Change service_id to a valid microservice ID.
400	APIG.2042	Invalid engine.	Invalid engine.	Change engine_id to a valid microservice engine ID.
400	APIG.2044	Invalid title of info	Invalid Info.title	The Info.title must meet the documents
400	APIG.2045	Parse Servers error. The Servers must meet the documents	Servers field parsing error. Servers field is invalid	The Servers must meet the documents
400	APIG.2046	Incorrect custom authentication timeout.	Incorrect custom authentication timeout.	Modify the custom authentication timeout. It should be less than or equal to the function execution timeout and the V2 API timeout (600s).
400	APIG.2047	Incorrect number of retries for custom authentication.	Set the number of custom authentication retries to a value between 0 and 10.	Set the number of custom authentication retries to a value between 0 and 10.
400	APIG.2048	Incorrect Nacos configurations	Incorrect Nacos configurations	Correct the Nacos configurations.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.2049	The port is not in the defined custom inbound ports.	The port is not in the defined custom inbound ports.	Use the default HTTP/HTTPS port, or define a new port in the inbound rule.
400	APIG.2050	The combination of this domain name and port already exists.	The combination of this domain name and port already exists.	Specify another domain name or port number.
400	APIG.2051	A domain name cannot be bound with different certificates.	A domain name cannot be bound with different certificates.	Bind the same certificate.
400	APIG.2101	The certificate and private key do not match.	The certificate and private key do not match.	Use a certificate and private key that match each other.
400	APIG.2102	The certificate has expired.	The certificate has expired.	Use a valid certificate.
400	APIG.2103	The certificate domain name and the custom domain name do not match.	The certificate domain name and the custom domain name do not match.	Ensure that the domain name in the certificate is the same as the custom domain name.
400	APIG.2104	The certificate chain is not matched.	The certificate chain is not matched.	In a certificate chain, ensure that the server certificate is in the first place and followed by other certificates in sequence.
400	APIG.2105	Encrypted private keys are not supported.	Encrypted private keys are not supported.	Use unencrypted private keys.
400	APIG.2106	Invalid certificate or private key.	Invalid certificate or private key.	Use a correct certificate and private key.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.2108	Microservice unavailable.	Microservice unavailable.	Change service_id to the ID of an available microservice.
400	APIG.2109	Invalid certificate. SAN missing.	Invalid certificate. SAN missing.	Generate a new certificate that contains a SAN.
400	APIG.3073	The IP address or IP address/CIDR mask does not exist.	The IP address or IP address/CIDR mask does not exist.	Check the IP address or IP address/CIDR mask.
400	APIG.3148	Invalid certificate. Add one that expires before January 19, 2038 03:14:07 UTC.	Invalid certificate. Add one that expires before January 19, 2038 03:14:07 UTC.	Invalid certificate. Add one that expires before January 19, 2038 03:14:07 UTC.
400	APIG.3153	The number of custom GeolPs exceeds the limit.	The number of custom GeolPs exceeds the limit.	Delete unnecessary custom GeolPs.
400	APIG.3201	The API group name already exists.	The API group name already exists.	Use another name.
400	APIG.3202	The API name already exists.	The API name already exists.	Use another name.
400	APIG.3203	The app name already exists.	The app name already exists.	Use another name.
400	APIG.3204	The request throttling policy name already exists.	The request throttling policy name already exists.	Use another name.
400	APIG.3205	The environment name already exists.	The environment name already exists.	Use another name.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.3206	The access control policy name already exists.	The access control policy name already exists.	Use another name.
400	APIG.3207	The signature key name already exists.	The signature key name already exists.	Use another name.
400	APIG.3208	The VPC channel name already exists.	The VPC channel name already exists.	Use another name.
400	APIG.3209	The parameter name already exists.	The parameter name already exists.	Use another name.
400	APIG.3210	The backend policy name already exists.	The backend policy name already exists.	Use another name.
400	APIG.3211	The authorizer name already exists.	The authorizer name already exists.	Use another name.
400	APIG.3212	The identity source name already exists.	The identity source name already exists.	Use another name.
400	APIG.3213	The tag name already exists.	The tag name already exists.	Use another name.
400	APIG.3216	The response name already exists.	The response name already exists.	Use another name.
400	APIG.3301	The API already exists.	The API already exists.	Change the request method and URL of the API.
400	APIG.3302	The excluded configuration already exists.	The excluded configuration already exists.	Use another name.
400	APIG.3303	The environment variable already exists.	The environment variable already exists.	Use another name.



Status Code	Error Codes	Error Message	Description	Solution
400	APIG.3304	The purchasing order already exists.	The purchasing order already exists.	Contact technical support.
400	APIG.3305	The URL domain name already exists.	The URL domain name already exists.	Contact technical support.
400	APIG.3306	The IP address already exists.	The IP address already exists.	Contact technical support.
400	APIG.3308	The excluded request throttling configuration already exists.	The excluded request throttling configuration already exists.	Contact technical support.
400	APIG.3309	The operation has already been performed.	The operation has already been performed.	Contact technical support.
400	APIG.3310	The AppKey already exists.	The AppKey already exists.	Use another AppKey.
400	APIG.3316	The API authorization record already exists.	The API authorization record already exists.	Use another API or app.
400	APIG.3330	VPC already bound to a microservice.	VPC already bound to a microservice.	Change vpc_channel_id to another ID not bound to any microservice.
400	APIG.3331	The orchestration rule name already exists.	The orchestration rule name already exists.	Use a unique rule name.
400	APIG.3332	The IP address or IP address/CIDR mask already exists.	The IP address or IP address/CIDR mask already exists.	Check whether the IP address or IP address/CIDR mask is unique.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.3600	JSON or YAML format error.	JSON or YAML format error.	Check whether the file to be imported is in correct YAML or JSON format.
400	APIG.3601	The Swagger file version must be 2.0.	The Swagger file version must be 2.0.	Ensure that the Swagger file version is 2.0.
400	APIG.3602	Syntax error in the Swagger file.	Syntax error in the Swagger file.	Check for syntax errors in the Swagger file.
400	APIG.3603	The Swagger file content is too long.	The Swagger file content is too long.	Reduce the size of the Swagger file.
400	APIG.3608	The API Designer does not support API modification.	The API Designer does not support API modification.	Contact technical support.
400	APIG.3609	The input file is empty.	The input file is empty.	Use a file that is not empty.
400	APIG.3710	The VPC channel is being used by another third_auth plugin	The VPC channel is being used by another third_auth plugin	Unbind the third-party plug-in from the load balance channel, and then delete the load balance channel.
400	APIG.3715	A domain name can only be bound with CA certificates of the same algorithm type.	A domain name can only be bound with CA certificates of the same algorithm type.	Unbind the existing CA certificates and try again.
400	APIG.3717	Two-way TLS authentication not supported for HTTP or GRPC backend requests.	Two-way TLS authentication not supported for HTTP or GRPC backend requests.	Disable two-way TLS authentication first.

Status Code	Error Codes	Error Message	Description	Solution
401	APIC.7100	Token missing. Log in again or try again later.	Token missing. Log in again or try again later.	Provide a token.
401	APIC.7101	Token expired. Try again later.	Token expired. Try again later.	Obtain a new token.
401	APIC.7102	Incorrect token or token resolution failure	Incorrect token or token resolution failure	Contact technical support to check the token encryption/ decryption setting.
401	APIC.7103	Token contains no project information.	Token contains no project information.	Specify project information when obtaining a token.
401	APIC.7105	Token contains no user information.	Token contains no user information.	Specify user information when obtaining a token.
401	APIC.7107	Token contains no role information.	Token contains no role information.	Specify role information when obtaining a token.
401	APIG.1000	Token missing. Log in again or try again later.	Token missing. Log in again or try again later.	Provide a token.
401	APIG.1001	Session expired. Please try again later.	Session expired. Please try again later.	Obtain another token and try again.
401	APIG.1002	Incorrect token or token resolution failed.	Incorrect token or token resolution failed..	Use a correct token.
401	APIG.1003	Token contains no project information.	Token contains no project information.	Use a token containing project information.

Status Code	Error Codes	Error Message	Description	Solution
401	APIG.1005	No permissions to request this method	No permissions to request this method	Use a token with the required permissions.
401	APIG.1007	Token contains no domain information.	Token contains no domain information.	Contact technical support.
401	APIG.1008	Invalid domain.	Invalid domain.	Contact technical support.
401	APIG.1009	Token contains no user information.	Token contains no user information.	Use a token containing user information.
401	APIG.1010	PDP server connection failed.	PDP server connection failed.	Contact technical support.
401	APIG.1011	You can request resources only after you complete real-name authentication.	You can request resources only after you complete real-name authentication.	Perform real-name authentication for your account and try again.
401	APIG.1012	Your account balance is insufficient. Top up your account.	Your account balance is insufficient. Top up your account.	Top up your account.
401	APIG.1013	Your account has been frozen. Some functions become unavailable. To unfreeze your account, contact customer service.	Your account has been frozen. Some functions become unavailable. To unfreeze your account, contact customer service.	Restore your account and try again.

Status Code	Error Codes	Error Message	Description	Solution
403	APIC.7106	Operation restricted. Check at My Account.	Operation restricted. Check at My Account.	Use a token with the required permissions.
403	APIC.7108	Access denied because your account is frozen.	Access denied because your account is frozen.	Unfreeze your account first.
403	APIC.7109	Access denied because your account is suspended.	Access denied because your account is suspended.	Restore your account first.
403	APIC.7110	Your account only has read permissions and can only send GET requests.	Your account only has read permissions and can only send GET requests.	Contact the account administrator to grant you administrator or fine-grained permissions.
403	APIC.7111	The requested resource does not belong to your account.	The requested resource does not belong to your account.	Use a correct token.
403	APIC.7118	User domain does not match.	User domain does not match.	Check the domain info.
403	APIC.7130	No permissions to access gateways in other projects.	No permissions to access gateways in other projects.	Specify the correct project ID.
403	APIC.7134	No permissions to access this enterprise project.	No permissions to access this enterprise project.	Use an enterprise project that you have permissions to access.
403	APIC.7300	You do not have permission to perform action {x} on resource {x}.	You do not have permission to perform action {x} on resource {x}.	Check your permissions.

Status Code	Error Codes	Error Message	Description	Solution
403	APIC.7400	Maximum number of gateways reached.	Maximum number of gateways reached.	Contact technical support to increase the gateway quota.
403	APIC.7402	The number of tags exceeds the maximum allowed limit.	The number of tags exceeds the maximum allowed limit.	Delete unnecessary tags.
403	APIC.7403	The number of custom inbound ports has reached the maximum.	The number of custom inbound ports has reached the maximum.	Increase the quota for custom inbound ports.
403	APIG.1020	Insufficient permissions.	Insufficient permissions.	Grant the read and write permissions to the user.
403	APIG.1101	No permissions to perform operations on this API group.	No permissions to perform operations on this API group.	Ensure that the API group belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1102	No permissions to perform operations on this API.	No permissions to perform operations on this API.	Ensure that the API belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1103	No permissions to perform operations on this environment.	No permissions to perform operations on this environment.	Ensure that the environment belongs to your account. If you are an IAM user, apply for the required permissions.

Status Code	Error Codes	Error Message	Description	Solution
403	APIG.1104	No permissions to perform operations on this app.	No permissions to perform operations on this app.	Ensure that the app belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1105	No permissions to perform operations on this request throttling policy.	No permissions to perform operations on this request throttling policy.	Ensure that the request throttling policy belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1106	No permissions to perform operations on this access control policy.	No permissions to perform operations on this access control policy.	Ensure that the access control policy belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1107	No permissions to perform operations on this configuration.	No permissions to perform operations on this configuration.	Contact technical support.
403	APIG.1108	No permissions to perform operations on this excluded configuration.	No permissions to perform operations on this excluded configuration.	Contact technical support.
403	APIG.1109	No permissions to perform operations on this app authorization record.	No permissions to perform operations on this app authorization record.	Ensure that the app authorization information belongs to your account. If you are an IAM user, apply for the required permissions.

Status Code	Error Codes	Error Message	Description	Solution
403	APIG.1110	No permissions to perform operations on this environment variable.	No permissions to perform operations on this environment variable.	Ensure that the environment variable belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1111	No permissions to perform operations on this subscription record.	No permissions to perform operations on this subscription record.	Ensure that the subscription belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1112	No permissions to perform operations on this signature key.	No permissions to perform operations on this signature key.	Ensure that the signature key belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1113	No permissions to perform operations on this VPC channel.	No permissions to perform operations on this VPC channel.	Ensure that the VPC channel belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1115	No permissions to perform operations on this certificate.	No permissions to perform operations on this certificate.	Ensure that the certificate belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1116	No permissions to perform operations on this on-sale API.	No permissions to perform operations on this on-sale API.	Ensure that the API belongs to your account. If you are an IAM user, apply for the required permissions.



Status Code	Error Codes	Error Message	Description	Solution
403	APIG.1136	No permissions to perform operations on this instance.	No permissions to perform operations on this instance.	Contact technical support.
403	APIG.1137	No permissions to perform operations on this authorizer.	No permissions to perform operations on this authorizer.	Ensure that the custom authorizer belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1140	No permissions to perform operations on this feature.	No permissions to perform operations on this feature.	Ensure that the feature belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1200	No permissions to perform operations on this API Swagger file.	No permissions to perform operations on this API Swagger file.	Ensure that the Swagger file belongs to your account. If you are an IAM user, apply for the required permissions.
403	APIG.1301	No permissions to perform operations on this domain	No permissions to perform operations on this domain	The domain to be operated must be under your own account.
403	APIG.3100	The number of resources exceeds the maximum allowed limit.	The number of resources exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3101	The number of API groups exceeds the maximum allowed limit.	The number of API groups exceeds the maximum allowed limit.	Contact technical support to increase the quota.

Status Code	Error Codes	Error Message	Description	Solution
403	APIG.3102	The number of APIs exceeds the maximum allowed limit.	The number of APIs exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3103	The number of apps exceeds the maximum allowed limit.	The number of apps exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3104	The number of environments exceeds the maximum allowed limit.	The number of environments exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3105	The number of signature keys exceeds the maximum allowed limit.	The number of signature keys exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3106	The number of variables exceeds the maximum allowed limit.	The number of variables exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3107	The number of request throttling policies exceeds the maximum allowed limit.	The number of request throttling policies exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3108	The number of domain names exceeds the maximum allowed limit.	The number of domain names exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3109	The number of VPC channels exceeds the maximum allowed limit.	The number of VPC channels exceeds the maximum allowed limit.	Contact technical support to increase the quota.

Status Code	Error Codes	Error Message	Description	Solution
403	APIG.3110	The number of cloud servers in the VPC channel exceeds the maximum allowed limit.	The number of cloud servers in the VPC channel exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3111	The number of parameters in req_params exceeds the maximum allowed limit.	The number of parameters in req_params exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3112	The number of access control policies exceeds the maximum allowed limit.	The number of access control policies exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3113	The number of API backend policies exceeds the maximum allowed limit.	The number of API backend policies exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3114	The number of policy conditions exceeds the maximum allowed limit.	The number of policy conditions exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3116	The number of authorizers exceeds the maximum allowed limit.	The number of authorizers exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3117	The number of identity sources exceeds the maximum allowed limit.	The number of identity sources exceeds the maximum allowed limit.	Contact technical support to increase the quota.

Status Code	Error Codes	Error Message	Description	Solution
403	APIG.3125	The number of APIs in the API group exceeds the maximum allowed limit.	The number of APIs in the API group exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3127	The number of APIs has reached the upper limit. A maximum of xxx APIs can be imported at a time.	The number of APIs has reached the upper limit. A maximum of xxx APIs can be imported at a time.	Reduce the number of APIs to import.
403	APIG.3131	The number of AppCodes exceeds the maximum allowed limit.	The number of AppCodes exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3132	The number of Swagger APIs in the API group exceeds the maximum allowed limit.	The number of Swagger APIs in the API group exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3133	The number of API tags exceeds the maximum allowed limit.	The number of API tags exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3136	The number of responses exceeds the maximum allowed limit.	The number of responses exceeds the maximum allowed limit.	Contact technical support to increase the quota.
403	APIG.3150	The number of orchestration rules exceeds the maximum.	The number of orchestration rules exceeds the maximum.	Contact technical support to increase the quota of orchestration rules.

Status Code	Error Codes	Error Message	Description	Solution
403	APIG.3151	The number of orchestration rules bound to the API exceeds the maximum.	The number of orchestration rules bound to the API exceeds the maximum.	Contact technical support to increase the quota of orchestration rules that can be bound to the API.
403	APIG.3411	The APIs belong to different tenants.	The APIs belong to different tenants.	This operation is not allowed.
403	APIG.3412	The API provider has been frozen.	The API provider has been frozen.	Contact technical support.
403	APIG.3414	The VPC channel is already being used by another API.	The VPC channel is already being used by another API.	Delete the API associated with the VPC channel and then delete the VPC channel.
403	APIG.3415	The API group cannot be deleted because it contains APIs.	The API group cannot be deleted because it contains APIs.	Delete the APIs in the API group and then delete the API group.
403	APIG.3416	The API cannot be deleted because it has been published.	The API cannot be deleted because it has been published.	Take the API offline and then delete it.
403	APIG.3418	The environment contains published APIs.	The environment contains published APIs.	This operation is not allowed.
403	APIG.3420	The API group is no longer available on the marketplace.	The API group is no longer available on the marketplace.	Check whether the API group has been listed on the marketplace.

Status Code	Error Codes	Error Message	Description	Solution
403	APIG.3447	The access control policy cannot be deleted because it has been bound to APIs.	The access control policy cannot be deleted because it has been bound to APIs.	Delete the APIs bound with the access control policy and then delete the access control policy.
403	APIG.3451	The request throttling policy cannot be deleted because it has been bound to APIs.	The request throttling policy cannot be deleted because it has been bound to APIs.	Delete the APIs bound with the request throttling policy and then delete the request throttling policy.
403	APIG.3471	The operation cannot be performed on this type of VPC channel.	The operation cannot be performed on this type of VPC channel.	This operation is not allowed.
403	APIG.3472	The load balancer is already being used by another VPC channel.	The load balancer is already being used by another VPC channel.	Unbind the load balancer from the VPC channel.
403	APIG.3473	The load balancer has already been bound to another endpoint service.	The load balancer has already been bound to another endpoint service.	This operation is not allowed.
403	APIG.3474	The API group ID in the URL does not match the API group to which the URL domain has been bound.	The API group ID in the URL does not match the API group to which the URL domain has been bound.	Change the API group specified in the URL to the API group associated with the domain name.
404	APIC.7301	Instance spec not found	Instance spec not found	Use a valid instance spec.

Status Code	Error Codes	Error Message	Description	Solution
404	APIC.7302	Instance not found	Instance not found	Check whether the instance exists, and use a valid instance ID.
404	APIC.7307	The security group does not exist in the VPC.	The security group does not exist in the VPC.	Use an existing security group.
404	APIC.7310	The region does not have any AZs.	The region does not have any AZs.	Use another region.
404	APIC.7311	The NAT EIP does not exist in the VPC.	The NAT EIP does not exist in the VPC.	Use an existing NAT EIP.
404	APIC.7314	The VPC Endpoint of the gateway does not exist.	The VPC Endpoint of the gateway does not exist.	Contact technical support to check the VPC Endpoint.
404	APIG.3001	The API group does not exist	The API group does not exist	Check whether the API group exists.
404	APIG.3002	The API does not exist.	The API does not exist.	Check whether the API exists.
404	APIG.3003	The environment does not exist.	The environment does not exist.	Check whether the environment exists.
404	APIG.3004	The app does not exist.	The app does not exist.	Check whether the app exists.
404	APIG.3005	The request throttling policy does not exist.	The request throttling policy does not exist.	Check whether the request throttling policy exists.
404	APIG.3006	The access control policy does not exist.	The access control policy does not exist.	Check whether the access control policy exists.
404	APIG.3007	The configuration does not exist.	The configuration does not exist.	Check whether the configuration exists.

Status Code	Error Codes	Error Message	Description	Solution
404	APIG.3008	The excluded configuration does not exist.	The excluded configuration does not exist.	Check whether the excluded configuration exists.
404	APIG.3009	The app authorization record does not exist.	The app authorization record does not exist.	Check whether the app authorization record exists.
404	APIG.3010	The access control policy binding record does not exist.	The access control policy binding record does not exist.	Check whether the access control policy binding record exists.
404	APIG.3011	The environment variable does not exist.	The environment variable does not exist.	Check whether the environment variable exists.
404	APIG.3012	The request throttling policy binding record does not exist.	The request throttling policy binding record does not exist.	Check whether the request throttling policy binding record exists.
404	APIG.3013	The excluded request throttling configuration does not exist.	The excluded request throttling configuration does not exist.	Check whether the excluded request throttling configuration exists.
404	APIG.3014	The pre-subscription record does not exist.	The pre-subscription record does not exist.	Check whether the purchasing record exists.
404	APIG.3015	The API publication record does not exist.	The API publication record does not exist.	Check whether the API publication record exists.
404	APIG.3016	The API group listing information does not exist.	The API group listing information does not exist.	Check whether the API group has been listed on the marketplace.



Status Code	Error Codes	Error Message	Description	Solution
404	APIG.3017	The signature key does not exist.	The signature key does not exist.	Check whether the signature key exists.
404	APIG.3018	The signature key binding record does not exist.	The signature key binding record does not exist.	Check whether the signature key binding record exists.
404	APIG.3019	The function URN does not exist.	The function URN does not exist.	Check whether the function URN exists.
404	APIG.3020	The URL domain does not exist.	The URL domain does not exist.	Check whether the domain name exists.
404	APIG.3021	The SSL certificate does not exist.	The SSL certificate does not exist.	Check whether the SSL certificate exists.
404	APIG.3022	The API version does not exist.	The API version does not exist.	Check whether the API version exists.
404	APIG.3023	The VPC channel does not exist.	The VPC channel does not exist.	Check whether the VPC channel exists.
404	APIG.3024	The cloud server does not exist.	The cloud server does not exist.	Check whether the cloud server exists in the VPC channel.
404	APIG.3025	The certificate does not exist.	The certificate does not exist.	Check whether the certificate exists.
404	APIG.3030	The instance does not exist.	The instance does not exist.	Check whether the instance exists.
404	APIG.3072	The specified task does not exist	The specified task does not exist	The specified task does not exist
404	APIG.3081	The authorizer does not exist.	The authorizer does not exist.	Check whether the custom authorizer exists.

Status Code	Error Codes	Error Message	Description	Solution
404	APIG.3082	The AppCode does not exist.	The AppCode does not exist.	Check whether the AppCode exists.
404	APIG.3087	The feature configuration does not exist.	The feature configuration does not exist.	Check whether the feature configuration exists.
404	APIG.3090	The API Swagger file does not exist.	The API Swagger file does not exist.	Check whether the Swagger file exists.
404	APIG.3092	The ECS does not exist.	The ECS does not exist.	The ECS has already been deleted, or the ECS ID is incorrect.
404	APIG.3094	Instance task does not exist.	Instance task does not exist.	Instance task is deleted or task ID is invalid.
404	APIG.3095	The orchestrations does not exist	The orchestrations does not exist	Check whether the orchestration rule corresponding to orchestration_id in the request parameter exists.
404	APIG.3097	The binding record of this SSL certificate and domain name does not exist.	The binding record of this SSL certificate and domain name does not exist.	Check whether the binding record exists.
409	APIC.7701	Instance status conflict.	Instance status conflict.	Try again after the gateway upgrade is complete.
409	APIC.7707	Scaling up to the same specifications is not allowed.	Scaling up to the same specifications is not allowed.	Scale up to other specifications.

Status Code	Error Codes	Error Message	Description	Solution
409	APIC.7709	Public network access is enabled for the gateway.	Public network access is enabled for the gateway.	Disable public network access and try again.
409	APIC.7710	ELB is available only when the instance is in the Available state.	ELB is available only when the instance is in the Available state.	Contact technical support to restore the gateway status to Running, and try again.
409	APIC.7711	Public inbound access is enabled for the instance	Public inbound access is enabled for the instance.	Disable public inbound access and try again.
409	APIC.7712	The gateway operation has already been locked.	The gateway operation has already been locked.	Pay the order.
409	APIG.1149	No permission for this instance task.	No permission for this instance task.	Use a token of the correct project.
409	APIG.3491	The default response cannot be deleted.	The default response cannot be deleted.	This operation is not allowed.
409	APIG.3492	The default response name cannot be modified.	The default response name cannot be modified.	This operation is not allowed.
409	APIG.3707	Only published APIs can be bound with plug-ins.	Only published APIs can be bound with plug-ins.	Publish the API and try again.
409	APIG.3708	The key usage of the certificate does not match	The key usage of the certificate does not match	Use matched key usage

Status Code	Error Codes	Error Message	Description	Solution
409	APIG.3709	The signature algorithm of the certificate does not match	The signature algorithm of the certificate does not match	Change signature algorithm type
409	APIG.3711	A configuration parameter can be modified only once per minute.	A configuration parameter can be modified only once per minute.	Try again after 1 minute.
409	APIG.3712	User domain does not match.	User domain does not match.	Check the domain info.
409	APIG.3716	The orchestration rule is currently in use by another API.	The orchestration rule is currently in use by another API.	Unbind the orchestration rule from the API.
409	APIG.3718	An instance task is currently being processed.	An instance task is currently being processed.	Start a new task after the current one is complete.
409	APIG.3719	The load balance channel is referenced by another load balance channel and cannot be deleted.	The load balance channel is referenced by another load balance channel and cannot be deleted.	Delete the referencing load balance channel first.
412	APIG.3458	The feature is not supported by the current instance.	The feature is not supported by the current instance.	Contact technical support.
412	APIG.3713	orchestration_mapped_param cannot be modified.	orchestration_mapped_param cannot be modified.	Do not modify orchestration_mapped_param.

Status Code	Error Codes	Error Message	Description	Solution
412	APIG.3714	The backend request protocol does not support SM cryptographic algorithms.	The backend request protocol does not support SM cryptographic algorithms.	Change the protocol to HTTPS.
500	APIC.7253	Internal configuration error.	Internal configuration error.	Check the internal configuration.
500	APIC.9000	Failed to request internal service	Failed to request internal service	Contact technical support to view the background logs.
500	APIC.9005	Order creation failed.	Order creation failed.	Contact technical support to view background logs related to CBC.
500	APIC.9007	Failed to access VPCEP	Failed to access VPCEP	Contact technical support to view logs related to VPCEP.
500	APIC.9100	Failed to access the database.	Failed to access the database.	Contact technical support to view background logs related to the database.
500	APIC.9200	Failed to query AZ information.	Failed to query AZ information.	Contact technical support to view the background logs.
500	APIC.9204	Failed to bind the EIP.	Failed to bind the EIP.	Contact technical support to view the background logs.
500	APIC.9209	Failed to access EPS.	Failed to access EPS.	Contact technical support to view logs related to EPS.

Status Code	Error Codes	Error Message	Description	Solution
500	APIC.9999	System error. Contact technical support.	System error. Contact technical support.	Contact technical support to view background logs of the management plane and locate the fault.
500	APIG.1029	PDP5 cannot be connected.	PDP5 cannot be connected.	Check the PDP5 connection.
500	APIG.3500	Failed to synchronize data to etcd.	Failed to synchronize data to etcd.	Contact technical support.
500	APIG.9002	Invalid function URN.	Invalid function URN.	Use a valid function URN.
500	APIG.9003	Statistics Center request failed.	Statistics Center request failed.	Contact technical support.
500	APIG.9004	IAM request failed.	IAM request failed.	Contact technical support.
500	APIG.9005	VPC request failed.	VPC request failed.	Contact technical support.
500	APIG.9006	DNS request failed.	DNS request failed.	Contact technical support.
500	APIG.9007	ELB request failed.	ELB request failed.	Contact technical support.
500	APIG.9008	Too many requests. Try again later.	Too many requests. Try again later.	Please try again later.
500	APIG.9013	Synchronize CCMS data failed	Synchronize CCMS data failed	Contact technical support.
500	APIG.9999	Internal Server Error	Internal Server Error	Contact technical support.

## 7.5 Supported Features

The following table lists the features that are supported by **dedicated gateways**.

 NOTE

If the gateway you use does not have specific features, [submit a service ticket](#) to upgrade your gateway.

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
lts	Reporting of Shubao access logs	Yes	{"name": "lts", "enable": true, "config": {"group_id": "\", \"topic_id\": \"\", \"log_group\": \"\", \"log_stream\": \"\"}}"	group_id	Log group ID.	-	-
				topic_id	Log stream ID.		
				log_group	Name of a log group.		
				log_stream	Name of a log stream.		
gateway_responses	Custom gateway responses	No	-	-	-	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
ratelimit	Request throttling limit configuration	Yes	<pre>{"name": "ratelimit", "enable": true, "config": {"api_limits": 500}}</pre>	api_limits	Default request throttling value applied to all APIs. Set this parameter properly to meet service requirements. A small value may constantly throttle your services.	200 calls per second	1–1,000,000 calls per second
request_body_size	Configuration of the maximum request body size	Yes	<pre>{"name": "request_body_size", "enable": true, "config": "104857600"}</pre>	request_body_size	Maximum size of the body allowed in an API request.	12 MB	1–9536 MB
backend_timeout	Maximum backend timeout configuration	Yes	<pre>{"name": "backend_timeout", "enable": true, "config": {"max_timeout": 500}}</pre>	max_timeout	Maximum timeout for APIG to request a backend service.	60,000 ms	1–600,000 ms



Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
app_token	app_token authentication	Yes	{"name": "app_token", "enable": true, "config": {"enable": "on", "app_token_expire_time": 3600, "app_token_uri": "/v1/apigw/oauth2/token", "refresh_token_expire_time": 7200}}	enable	Whether to enable this feature.	Off	On/Off
				app_token_expire_time	Validity period of the access token.	3600s	1-72,000s
				refresh_token_expire_time	Validity period of the refresh token.	7200s	1-72,000s
				app_token_uri	URI used for obtaining the token.	/v1/apigw/oauth2/token	-
				app_token_key	Token encryption key.	-	-
app_api_key	app_api_key authentication	Yes	{"name": "app_api_key", "enable": true, "config": "on"}	-	-	Off	On/Off
app_basic	app_basic authentication	Yes	{"name": "app_basic", "enable": true, "config": "on"}	-	-	Off	On/Off

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
app_secret	app_secret authentication	Yes	{"name": "app_secret", "enable": true, "config": "on"}	-	-	Off	On/Off
app_jwt	app_jwt authentication	Yes	{"name": "app_jwt", "enable": true, "config": {"enable": "on", "auth_header": "Authorization"}}	enable	Whether to enable app_jwt authentication.	Off	On/Off
				auth_header	app_jwt authentication header.	Authorization	-
public_key	Public_key backend signatures	Yes	{"name": "public_key", "enable": true, "config": {"enable": "on", "public_key_uri_prefix": "/apigw/authoradv/v2/public-key/"}}	enable	Whether to enable public_key authentication.	Off	On/Off
				public_key_uri_prefix	URI prefix used for obtaining the public key.	/apigw/authoradv/v2/public-key/	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
backend_token_allow	Allowing tenants to transparently transmit tokens to the backend	Yes	<pre>{"name": "backend_token_allow", "enable": true, "config": [{"backend_token_allow_users": [{"user_name": ""}]}]}</pre>	backend_token_allow_users	Regular expression for transparently transmitting the token to the common tenant whitelist of the tenant to match the domain name of the common tenant.	-	-
sign_basic	Basic signature keys	No	-	-	-	-	-
multi_auth	Two-factor authentication	No	-	-	-	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
backend_client_certificate	Backend two-way authentication	Yes	{"name": "backend_client_certificate", "enable": true, "config": {"enable": "on", "ca": "\\", "content": "\\", \"key\": \"\"}}	enable	Whether to enable this feature.	Off	On/Off
				ca	CA file of two-way authentication.	-	-
				content	Two-way authentication file.	-	-
				key	Private key of two-way authentication.	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
ssl_ciphers	HTTP S cipher suites	Yes	<pre>{   "name": "ssl_ciphers",   "enable": true,   "config": "config" }</pre> <pre>{   "\ssl_ciphers\": [     "\ECDHE-ECDSA-AES256-GCM-SHA384"   ] }</pre>	ssl_ciphers	Encryption and decryption suites supported. The <b>ssl_ciphers</b> parameter cannot be left blank and can contain only the options in the default value.	-	ECDHE-ECDSA-AES256-GCM-SHA384, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-ECDSA-AES128-GCM-SHA256, ECDHE-RSA-AES128-GCM-SHA256, ECDHE-ECDSA-AES256-SHA384, ECDHE-RSA-AES256-SHA384, ECDHE-ECDSA-AES128-SHA256, ECDHE-RSA-AES128-SHA256
route	Custom routes	No	-	-	-	-	-
cors	Plugins	No	-	-	-	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
real_ip_from_xff	<b>X-Forwarded-For</b> header for identifying IP addresses during access control and request throttling	Yes	<pre>{   "name": "real_ip_from_xff",   "enable": true,   "config": {     "enable": "on",     "xff_index": -1   } }</pre>	enable	Whether to enable this feature.	Off	On/Off

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
				xff_index	Sequence number of an IP address in the <b>X-Forwarded-For</b> header. The value of this parameter can be <b>0</b> or a positive or negative number. If the value is <b>0</b> or a positive number, the IP address of the corresponding index is obtained from the <b>X-Forwarded-For</b> header. If the value is a negative number, the IP address in reverse index order is obtained from the	-1	Valid Int32 value

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
					<p><b>X-Forwarded-For</b> header. For example, assume that the <b>X-Forwarded-For</b> header of a request received by API gateway contains three IP addresses: IP1, IP2, and IP3. If the value of <b>xff_index</b> is <b>0</b>, IP1 is obtained. If the value of <b>xff_index</b> is <b>1</b>, IP2 is obtained. If the value of <b>xff_index</b> is <b>-1</b>, IP3 is obtained.</p>		



Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
app_route	IP address access	Yes	{"name": "app_route", "enable": true, "config": "on"}	-	-	Off	On/Off
vpc_name_modifiable	Load balance channel name modification	Yes	{"name": "vpc_name_modifiable", "enable": true, "config": "on"}	-	-	on	On/Off
default_group_host_trustlist	Access to the DEFAULT group from IP addresses that are not inbound access addresses of the current gateway	Yes	{"name": "default_group_host_trustlist", "enable": true, "config": "{ \"enable\": \"on\", \"hosts\": [\"123.2.2\", \"202.2.2\"]}"}	enable	Whether to enable this feature.	-	On/Off
				hosts	IP addresses that are not inbound access addresses of the current gateway.	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
throttle_strategy	Request throttling	Yes	{"name": "throttle_strategy", "enable": true, "config": {"enable": "on", "strategy": "local"}}	enable	Whether to enable this feature.	Off	On/Off
				strategy	Request throttling mode.	-	cluster/local
custom_log	Printing custom request headers, query strings, and cookies in logs	Yes	{"name": "custom_log", "enable": true, "config": {"custom_logs": [{"location": "header", "name": "a1234"}]}}	custom_logs	Custom logs.	-	Max. 10 items.
				location	Location.		header/query/cookie
				name	Name.		-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
real_ip_header_getter	Using a custom header to obtain source IP addresses	Yes	{"name": "real_ip_header_getter", "enable": true, "config": {"enable": "on"}, "header_getter": "header:testIP"}}	enable	Whether to enable this feature.	Off	On/Off
				header_getter	Custom header for obtaining source IP addresses.	-	-
policy_cookie_param	Using cookies in backend policy conditions	Yes	{"name": "policy_cookie_param", "enable": true, "config": "on"}	-	-	Off	On/Off
app_quota	Client quotas	No	-	-	-	-	-
app_acl	Request throttling policies	No	-	-	-	-	-
set_resp_headers	Response header management plugins	No	-	-	-	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
vpc_backup	Primary/Standby VPC channels	No	-	-	-	-	-
sign_aes	AES signature keys	No	-	-	-	-	-
kafka_log	Adding, deleting, modifying, and querying Kafka log push plugins	No	-	-	-	-	-
backend_retry_count	Backend retry configuration	No	-	-	-	-	-
policy_sys_param	Using system parameters in backend policy conditions	No	-	-	-	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
breaker	Circuit breakers	No	-	-	-	-	-
content_type_configurable	Returning request parameter type (Content-Type) when querying APIs	No	-	-	-	-	-
rate_limit_plugin	Request throttling plugins	No	-	-	-	-	-
breakerv2	Circuit breakers for degrading services in case of overload	No	-	-	-	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
sm_cipher_type	Encrypting local sensitive data with commercial cryptographic algorithms	No	-	-	-	-	-
rate_limit_algorithm	Request throttling algorithm switch over	No	-	-	-	-	-
gzip	Response compression using gzip	Yes	{ "name": "gzip", "config": : { "comp_level": 6, "enable": true }	comp_level	gzip compression level (1 to 9). The higher the level, the more compressed but takes a longer time.	6	1-9

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
sse_strategy	SSE transmission	Yes	{ "name": "sse_strategy", "enable": true, "config": "on" }	-	-	Off	On/Off
authorizer_context_support_num_bool	Whether the value of the key-value pair in the context returned for custom authentication can be a number or Boolean value.	No	-	-	-	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
custom_auth_header	Custom authentication headers for app authentication and signature key policies.	Yes	1: { "name": "custom_auth_header", "enable": true, "config": {"app_auth_header": "\: \"app-header \", "backend_sign_header": "\: \"back-header \", "header": "\"}" }	app_auth_header	Used to specify the signature information for app authentication in the request header.	-	Leave this parameter blank, or enter 3 to 64 letters, digits, hyphens (-), and underscores (_), and start with a letter. Do not start with <b>x-apig-</b> or <b>x-sdk-</b> , and do not use <b>x-stage</b> or <b>authorization</b> . The value is case-insensitive.
				backend_sign_header	Used to specify the signature information of signature key policies (Basic, Auth, HMAC) to pass to the backend.	-	



Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
request_custom_config	Configuring client request parameters	Yes	<pre>{   "name": "request_custom_config" ,   "enable": true,   "config" :   {"http2\":"on \", \"client_body_timeou t\":"10}"} }</pre>	http2	Whether to enable HTTP/2.	on	On/Off
				client_body_timeout	Client request body timeout.	8s	1-60s
gateway_responses_support_header	Custom group response supports custom header.	No	-	-	-	-	-
api_uri_no_escape	Unescaping request parameters of the request path in the API.	Yes	<pre>{"name": "api_uri_no_escape", "enable": true, "config": ""}</pre>	enable	Whether to enable this feature.	false	true/false

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
ip_control	Access control	Yes	{"enable": true, "name": "ip_control", "config": {"control_type": "white", "white_ip_list": "\\", "black_ip_list": "\\"}}	control_type	Control type.	black	black/white
				white_ip_list	IP address whitelist.	-	-
				black_ip_list	IP address blacklist.	-	-

## 7.6 Obtaining a Project ID

### Calling an API

You can also call the API used to [query project information](#) to obtain a project ID.

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 on API calling authentication, see [Authentication](#).

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

```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "xx-north-4",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
      },
      "id": "a4a5d4098fb4474fa22cd05f897d6b99",
    }
  ]
}
```

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

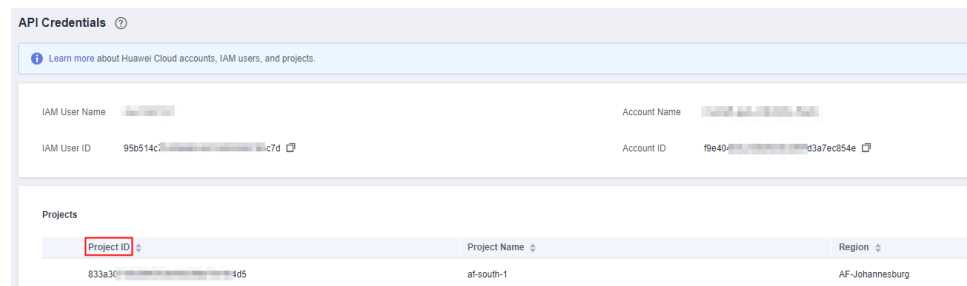
## Obtaining a Project ID on the Console

A project ID needs to be specified in the URLs of some APIs. Therefore, you need to obtain a project ID before calling such APIs. To obtain a project ID, perform the following operations:

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

On the **API Credentials** page, view project IDs in the project list.

**Figure 7-1** Viewing project IDs



If there are multiple projects in one region, expand **Region** and view subproject IDs in the **Project ID** column.

## 7.7 Obtaining an Account Name and Account ID

An account name and account ID are required for some URLs when an API is called. To obtain an account name and account ID, perform the following operations:

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

View the account name and account ID.

# 8 Change History

**Table 8-1** Change history

Released On	Description
2024-06-26	<ul style="list-style-type: none"><li>• Added descriptions about orchestration rule management APIs.</li><li>• Added descriptions about gateway custom inbound port management APIs.</li></ul>
2024-01-19	<ul style="list-style-type: none"><li>• Added the API for querying the supported features of a gateway.</li><li>• Added the API for setting accessibility of a debugging domain name.</li><li>• Added the API for managing asynchronous tasks.</li></ul>
2023-09-12	<ul style="list-style-type: none"><li>• Added the API for modifying a variable.</li><li>• Added the API for verifying the definition of an API.</li><li>• Modified descriptions of the API for creating a pay-per-use gateway.</li><li>• Added the API for modifying the specifications of a pay-per-use gateway.</li><li>• Added the API for querying constraints of a gateway.</li><li>• Added the API for querying quotas of a credential.</li><li>• Added the API for configuring access control settings of an app.</li><li>• Added the API for querying access control details of an app.</li><li>• Added the API for deleting access control settings of an app.</li><li>• Added credential quota management APIs.</li></ul>

Released On	Description
2022-12-13	<ul style="list-style-type: none"><li>• Added the API for querying tags of all gateways in a project.</li><li>• Added the API for querying tags of a gateway.</li><li>• Added the API for adding or deleting tags of a gateway.</li></ul>
2022-12-02	<ul style="list-style-type: none"><li>• Added the API for enabling backend servers.</li><li>• Added the API for disabling backend servers.</li><li>• Added the API for modifying VPC channel health checks.</li><li>• Added the API for adding or updating a backend server group of a VPC channel.</li><li>• Added the API for querying backend server groups of a VPC channel.</li><li>• Added the API for viewing details about a backend server group of a VPC channel.</li><li>• Added the API for deleting a backend server group of a VPC channel.</li><li>• Added the API for updating a backend server group of a VPC channel.</li></ul>
2022-11-16	Added descriptions about plug-in management APIs.
2022-11-01	Added descriptions about microservice center management APIs.
2022-11-09	Added descriptions about SSL certificate management APIs.
2021-06-15	Added dedicated gateway APIs.
2019-03-08	Added descriptions about domain name management APIs.
2018-11-19	This issue is the first official release.