

# API Gateway

# API Reference

**Issue** 01  
**Date** 2023-04-06



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# Contents

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<b>1 Before You Start.....</b>	<b>1</b>
1.1 Overview.....	1
1.2 API Calling.....	1
1.3 Endpoints.....	1
1.4 Constraints.....	1
1.5 Concepts.....	1
<b>2 Calling APIs.....</b>	<b>3</b>
2.1 Making an API Request.....	3
2.2 Authentication.....	5
2.3 Response.....	7
<b>3 Dedicated Gateway APIs (V2).....</b>	<b>8</b>
3.1 API Group Management.....	8
3.1.1 Creating an API Group.....	8
3.1.2 Modifying an API Group.....	14
3.1.3 Deleting an API Group.....	20
3.1.4 Querying API Group Details.....	23
3.1.5 Querying API Groups.....	28
3.2 Environment Management.....	35
3.2.1 Creating an Environment.....	35
3.2.2 Modifying an Environment.....	38
3.2.3 Deleting an Environment.....	42
3.2.4 Querying Environments.....	45
3.3 Environment Variable Management.....	49
3.3.1 Creating a Variable.....	49
3.3.2 Deleting a Variable.....	54
3.3.3 Querying Variable Details.....	57
3.3.4 Querying Environment Variables.....	61
3.4 Request Throttling Policy Management.....	65
3.4.1 Creating a Request Throttling Policy.....	65
3.4.2 Modifying a Request Throttling Policy.....	72
3.4.3 Deleting a Request Throttling Policy.....	80
3.4.4 Querying Request Throttling Policies.....	83

3.4.5 Querying Details of a Request Throttling Policy.....	89
3.5 API Management.....	93
3.5.1 Registering an API.....	94
3.5.2 Modifying an API.....	139
3.5.3 Deleting an API.....	183
3.5.4 Publishing an API or Taking an API Offline.....	185
3.5.5 Querying API Details.....	190
3.5.6 Querying APIs.....	213
3.5.7 Debugging an API.....	228
3.5.8 Publishing APIs or Taking APIs Offline.....	235
3.5.9 Querying Historical Versions of an API.....	239
3.5.10 Switching the Version of an API.....	244
3.5.11 Querying the Runtime Definition of an API.....	248
3.5.12 Querying API Version Details.....	257
3.5.13 Taking an API Version Offline.....	281
3.6 Signature Key Management.....	284
3.6.1 Creating a Signature Key.....	284
3.6.2 Modifying a Signature Key.....	293
3.6.3 Deleting a Signature Key.....	302
3.6.4 Querying Signature Keys.....	305
3.7 Binding/Unbinding Signature Keys.....	311
3.7.1 Binding a Signature Key.....	311
3.7.2 Unbinding a Signature Key.....	318
3.7.3 Querying Signature Keys Bound to an API.....	321
3.7.4 Querying APIs Not Bound with a Signature Key.....	328
3.7.5 Querying APIs Bound with a Signature Key.....	333
3.8 Binding/Unbinding Request Throttling Policies.....	338
3.8.1 Binding a Request Throttling Policy.....	338
3.8.2 Unbinding a Request Throttling Policy.....	342
3.8.3 Querying APIs Bound with a Request Throttling Policy.....	345
3.8.4 Querying APIs Not Bound with a Request Throttling Policy.....	351
3.8.5 Querying Request Throttling Policies Bound to an API.....	356
3.8.6 Unbinding Request Throttling Policies.....	363
3.9 Excluded Request Throttling Configuration.....	366
3.9.1 Creating an Excluded Request Throttling Configuration.....	367
3.9.2 Modifying an Excluded Request Throttling Configuration.....	371
3.9.3 Deleting an Excluded Request Throttling Configuration.....	375
3.9.4 Querying Excluded Request Throttling Configurations.....	378
3.10 App Authorization Management.....	383
3.10.1 Authorizing Apps.....	383
3.10.2 Canceling Authorization.....	389
3.10.3 Querying APIs Bound with an App.....	392

3.10.4 Querying APIs Not Bound with an App.....	398
3.10.5 Querying Apps Bound to an API.....	403
3.11 Resource Query.....	409
3.11.1 Querying API Quantities.....	409
3.11.2 Querying API Group Quantities.....	413
3.11.3 Querying App Quantities.....	416
3.12 App Management.....	419
3.12.1 Creating an App.....	420
3.12.2 Modifying an App.....	424
3.12.3 Deleting an App.....	429
3.12.4 Resetting the AppSecret of an App.....	433
3.12.5 Verifying an App.....	437
3.12.6 Querying App Details.....	441
3.12.7 Querying Apps.....	445
3.12.8 Creating an AppCode.....	451
3.12.9 Generating an AppCode.....	455
3.12.10 Deleting an AppCode.....	459
3.12.11 Querying AppCode Details.....	462
3.12.12 Querying AppCodes of an App.....	466
3.13 Domain Name Management.....	470
3.13.1 Binding a Domain Name.....	471
3.13.2 Adding a Certificate to a Domain Name.....	475
3.13.3 Modifying a Domain Name.....	481
3.13.4 Unbinding a Domain Name.....	486
3.13.5 Deleting the Certificate Bound to a Domain Name.....	489
3.13.6 Querying Details of the Certificate Bound to a Domain Name.....	492
3.14 Access Control Policy Management.....	497
3.14.1 Creating an Access Control Policy.....	497
3.14.2 Modifying an Access Control Policy.....	502
3.14.3 Deleting an Access Control Policy.....	506
3.14.4 Deleting Multiple Access Control Policies.....	509
3.14.5 Querying Details of an Access Control Policy.....	514
3.14.6 Querying Access Control Policies.....	517
3.15 Binding/Unbinding Access Control Policies.....	522
3.15.1 Binding an Access Control Policy to an API.....	522
3.15.2 Unbinding an Access Control Policy.....	526
3.15.3 Unbinding Access Control Policies.....	530
3.15.4 Querying APIs Bound with an Access Control Policy.....	534
3.15.5 Querying APIs Not Bound with an Access Control Policy.....	539
3.15.6 Querying Access Control Policies Bound to an API.....	544
3.16 Custom Authorizer Management.....	549
3.16.1 Creating a Custom Authorizer.....	549

3.16.2 Modifying a Custom Authorizer.....	556
3.16.3 Deleting a Custom Authorizer.....	562
3.16.4 Querying Custom Authorizer Details.....	565
3.16.5 Querying Custom Authorizers.....	570
3.17 API Import and Export.....	576
3.17.1 Exporting APIs.....	577
3.17.2 Importing APIs.....	581
3.18 VPC Channel Management.....	588
3.18.1 Creating a VPC Channel.....	588
3.18.2 Updating a VPC Channel.....	607
3.18.3 Deleting a VPC Channel.....	627
3.18.4 Querying VPC Channel Details.....	630
3.18.5 Querying VPC Channels.....	644
3.18.6 Adding or Updating Backend Instances.....	654
3.18.7 Querying Backend Servers of a VPC Channel.....	662
3.18.8 Updating Backend Instances.....	668
3.18.9 Removing a Backend Server.....	676
3.19 Monitoring Information Query.....	679
3.19.1 Querying API Calls Within a Period.....	679
3.19.2 Querying API Calls Under an API Group in the Last One Hour.....	685
3.20 Group Response Management.....	690
3.20.1 Creating a Group Response.....	690
3.20.2 Querying Group Response Details.....	698
3.20.3 Modifying a Group Response.....	704
3.20.4 Deleting a Group Response.....	711
3.20.5 Querying the Response of an Error Type.....	714
3.20.6 Modifying the Response of an Error Type.....	718
3.20.7 Deleting the Response of an Error Type.....	723
3.20.8 Querying Group Responses.....	727
3.21 Tag Management.....	732
3.21.1 Querying Tags.....	732
3.22 Gateway Feature Management.....	736
3.22.1 Configuring a Feature for a Gateway.....	736
3.22.2 Querying Gateway Features.....	748
3.23 Configuration Management.....	755
3.23.1 Querying Resource Configurations of a Gateway.....	755
3.23.2 Querying Gateway Configurations.....	765
3.24 Gateway Management.....	769
3.24.1 Creating a Dedicated Gateway.....	769
3.24.2 Querying Dedicated Gateway Details.....	779
3.24.3 Updating a Dedicated Gateway.....	792
3.24.4 Querying the Creation Progress of a Dedicated Gateway.....	806

3.24.5 Updating or Binding an EIP to a Dedicated Gateway.....	811
3.24.6 Unbinding the EIP of a Dedicated Gateway.....	815
3.24.7 Enabling Public Access for a Dedicated Gateway.....	817
3.24.8 Updating the Outbound Access Bandwidth of a Dedicated Gateway.....	821
3.24.9 Disabling Public Access for a Dedicated Gateway.....	824
3.24.10 Querying AZs.....	827
3.24.11 Querying Dedicated Gateways.....	831
3.24.12 Deleting a Dedicated Gateway.....	843
<b>4 Permissions Policies and Supported Actions.....</b>	<b>846</b>
<b>5 Appendix.....</b>	<b>856</b>
5.1 Pagination Query.....	856
5.2 Result Filtering.....	856
5.3 HTTP Status Codes.....	856
5.4 Error Codes.....	858
5.5 Supported Features.....	878
5.6 Obtaining a Project ID.....	886
5.7 Obtaining an Account Name and Account ID.....	886
<b>6 Change History.....</b>	<b>888</b>

# 1 Before You Start

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## 1.1 Overview

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.

If you plan to access APIG through APIs, ensure that you are familiar with APIG concepts. For details, see the *User Guide*.

## 1.2 API Calling

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

## 1.3 Endpoints

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

## 1.4 Constraints

- The number of APIG resources that you can create is determined by your quota. To increase your quota, contact technical support.
- For more constraints, see API description.

## 1.5 Concepts

- Account  
An account is created upon successful registration with the cloud system. 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

An IAM user is created using an account to use cloud services. Each IAM 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 account name, username, and password will be required for API authentication.

- Region

Regions are defined by their geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), and Object Storage Service (OBS), are shared within the same region. There are universal regions and dedicated regions. A universal region serves all tenants, while a dedicated region serves specific tenants.

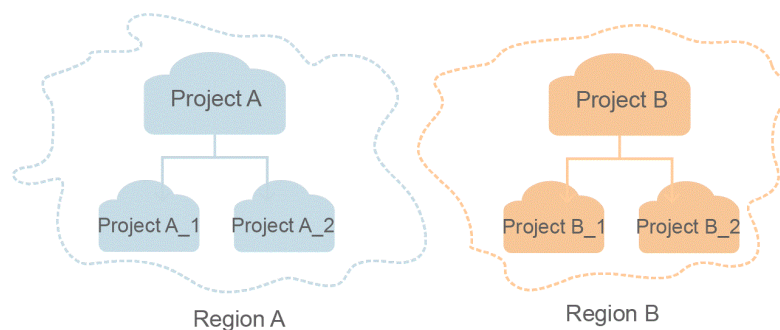
- AZ

AZs are physically isolated locations in a region, but are interconnected through an internal network for enhanced application availability.

- Project

Projects group and isolate resources (including compute, storage, and network resources) across physical regions. A default project is provided for each region, and subprojects can be created under each default project. Users can be granted permissions to access all resources in a specific project. For more refined access control, create subprojects under a project. Users can then be assigned permissions to access only specific resources in the subprojects.

**Figure 1-1** Project isolating model



# 2 Calling APIs

## 2.1 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.

**Table 2-1** URI parameters

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from <a href="#">Endpoints</a> .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the <b>resource-path</b> of the API used to create an API group is <code>/v2/{project_id}/apigw/instances/{instance_id}/api-groups</code> . <code>{project_id}</code> indicates a <b>project ID</b> and <code>{instance_id}</code> indicates a gateway ID. The two IDs can be obtained from the gateway information on the APIG console.

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

For example, to create an API group in a region, combine the parameters in the URI. *apig\_endpoint* indicates the endpoint of APIG.

```
https://{apig_endpoint}/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 Methods

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 (dedicated gateways), the request method is POST. The request is as follows:

```
POST https://{apig_endpoint}/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-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.

 **NOTE**

In addition to supporting token-based authentication, APIs also support authentication using access key ID/secret access key (AK/SK). During AK/SK-based authentication, an SDK is used to sign the request, and the **Authorization** (signature information) and **X-Sdk-Date** (time when the request is sent) header fields are automatically added to the request.

For more information, see [AK/SK-based Authentication](#).

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

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

## Request Body

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

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

In the case of the API used to create an API group (dedicated gateways), the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *name* (API group name) and *remark* (API group description) with the actual values.

```
POST https://{apig_endpoint}/v2/{project_id}/v2/{project_id}/apigw/instances/{instance_id}/api-groups
Content-Type: application/json
X-Auth-Token: xxxx
{
  "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.

## 2.2 Authentication

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

- Token-based authentication: Requests are authenticated using a token.
- 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

### NOTE

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

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API.

**Making an API Request** describes the process of calling the API used to create an API group (dedicated gateways). 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_endpoint}/v2/{project_id}/apigw/instances/{instance_id}/api-groups
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

## AK/SK-based Authentication

### NOTE

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.

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.

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 the *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.
-

## 2.3 Response

### Status Code

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

A status code is a group of digits, ranging from 1xx to 5xx. It indicates the status of a request. For more information, see [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**.

### (Optional) 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": "abcdef...",
  "name": "APIGroup_test",
  "remark": "api group remark",
  .....
}
```

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.

# 3 Dedicated Gateway APIs (V2)

---

## 3.1 API Group Management

### 3.1.1 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.

#### URI

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

**Table 3-1** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-2** 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 3-3** 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. This parameter is not supported currently.

## Response Parameters

**Status code: 201**



**Table 3-4** 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> Enumeration values: <ul style="list-style-type: none"> <li>1</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>
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.
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. This parameter 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 3-5** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TLSv1.1</b></li> <li>• <b>TLSv1.2</b></li> </ul>
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>

**Status code: 400****Table 3-6** Response body parameters

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

**Status code: 401****Table 3-7** Response body parameters

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

**Status code: 403****Table 3-8** Response body parameters

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

**Status code: 500****Table 3-9** Response body parameters

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

## Example Requests

```
{
  "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
}
```

### 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](#).

### 3.1.2 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.

#### URI

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

**Table 3-10** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-11** 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 3-12** 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 3-13** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>1</b></li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.

Parameter	Type	Description
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>
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.
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.
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. This parameter 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 3-14** 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>TLSv1.1</b></li><li>• <b>TLSv1.2</b></li></ul>
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>

**Status code: 400****Table 3-15** Response body parameters

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

**Status code: 401**



**Table 3-16** Response body parameters

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

**Status code: 403****Table 3-17** Response body parameters

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

**Status code: 404****Table 3-18** Response body parameters

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

**Status code: 500****Table 3-19** Response body parameters

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

## Example Requests

```
{  
  "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
}
```

**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](#).

### 3.1.3 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. This operation will also delete all resources associated with the API group, including independent domain names and SSL certificates. It will unbind the external domain names from the subdomain name based on the CNAME resolution mode.

#### URI

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

**Table 3-20** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-21** 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 3-22** Response body parameters

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

### Status code: 403

**Table 3-23** Response body parameters

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

### Status code: 404

**Table 3-24** Response body parameters

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

### Status code: 500

**Table 3-25** 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: 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](#).

### 3.1.4 Querying API Group Details

#### Function

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

#### URI

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

**Table 3-26** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-27** 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 3-28** 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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</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>
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.
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.

Parameter	Type	Description
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. This parameter 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 3-29** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TLSv1.1</b></li> <li>• <b>TLSv1.2</b></li> </ul>



Parameter	Type	Description
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>

**Status code: 400****Table 3-30** Response body parameters

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

**Status code: 401****Table 3-31** Response body parameters

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

**Status code: 403****Table 3-32** Response body parameters

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

**Status code: 404**

**Table 3-33** Response body parameters

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

**Status code: 500**

**Table 3-34** 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
}
```

**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](#).**3.1.5 Querying API Groups****Function**

This API is used to query API groups.

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

## URI

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

**Table 3-35** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-36** 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 3-37 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 3-38 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 3-39 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> Enumeration values: <ul style="list-style-type: none"><li>1</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.

Parameter	Type	Description
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>
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.
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.
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. This parameter 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 3-40** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TLSv1.1</b></li> <li>• <b>TLSv1.2</b></li> </ul>
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>

**Status code: 400**

**Table 3-41** Response body parameters

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

**Status code: 401**

**Table 3-42** Response body parameters

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

**Status code: 403**

**Table 3-43** Response body parameters

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

**Status code: 500**

**Table 3-44** 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
  }, {
```



```

"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
} ]
}

```

**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](#).

## 3.2 Environment Management

### 3.2.1 Creating an Environment

#### Function

API providers can publish an API in different environments, such as the development, testing, 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 testing environment, and v1.2 in the development environment. APIG provides environment management, enabling you to access APIG in different scenarios at minimal cost.

#### URI

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

**Table 3-45** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

#### Request Parameters

**Table 3-46** 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 3-47** 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: 201**

**Table 3-48** 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 3-49** Response body parameters

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

**Status code: 401**

**Table 3-50** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403****Table 3-51** Response body parameters

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

**Status code: 500****Table 3-52** Response body parameters

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

## Example Requests

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

## Example Responses

**Status code: 201**

Created

```
{
  "create_time" : "2020-07-31T06:41:43.511347628Z",
  "name" : "DEV",
  "remark" : "Development environment",
  "env_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](#).

## 3.2.2 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.

### URI

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

**Table 3-53** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-54** 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 3-55** 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 3-56** 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 3-57** Response body parameters

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

**Status code: 401****Table 3-58** Response body parameters

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

**Status code: 403****Table 3-59** Response body parameters

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

**Status code: 404**

**Table 3-60** Response body parameters

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

**Status code: 500**

**Table 3-61** Response body parameters

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

## Example Requests

```
{
  "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](#).

## 3.2.3 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.

### URI

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

**Table 3-62** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-63** 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 3-64** Response body parameters

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

**Status code: 403**

**Table 3-65** Response body parameters

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

**Status code: 404**

**Table 3-66** Response body parameters

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

**Status code: 500**

**Table 3-67** 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](#).

## 3.2.4 Querying Environments

### Function

This API is used to query environments.

### URI

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

**Table 3-68** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-69** 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 3-70** 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 3-71** 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
envs	Array of <a href="#">EnvInfo</a> objects	Environment list.

**Table 3-72** EnvInfo

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

**Status code: 400**

**Table 3-73** Response body parameters

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

**Status code: 401**

**Table 3-74** Response body parameters

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

**Status code: 403**

**Table 3-75** Response body parameters

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

**Status code: 500**

**Table 3-76** 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](#).

## 3.3 Environment Variable Management

### 3.3.1 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.

## URI

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

**Table 3-77** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-78** 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 3-79** 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.

Parameter	Mandatory	Type	Description
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 3-80 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 3-81** Response body parameters

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

**Status code: 401**

**Table 3-82** Response body parameters

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

**Status code: 403**

**Table 3-83** Response body parameters

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

**Status code: 404**

**Table 3-84** Response body parameters

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

**Status code: 500**

**Table 3-85** Response body parameters

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

## Example Requests

```
{
  "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](#).

### 3.3.2 Deleting a Variable

#### Function

This API is used to delete an environment variable.

#### URI

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

**Table 3-86** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-87** 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 3-88** Response body parameters

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

**Status code: 403**

**Table 3-89** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 3-90** Response body parameters

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

**Status code: 500**

**Table 3-91** 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](#).

### 3.3.3 Querying Variable Details

#### Function

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

#### URI

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

**Table 3-92** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.



Parameter	Mandatory	Type	Description
env_variable_id	Yes	String	Environment variable ID.

## Request Parameters

**Table 3-93** 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 3-94** 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: 401****Table 3-95** Response body parameters

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

**Status code: 403****Table 3-96** Response body parameters

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

**Status code: 404****Table 3-97** Response body parameters

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

**Status code: 500****Table 3-98** 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](#).

## 3.3.4 Querying Environment Variables

### Function

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

### URI

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

**Table 3-99** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-100** 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.

Parameter	Mandatory	Type	Description
env_id	No	String	Environment ID.
variable_name	No	String	Variable name.
precise_search	No	String	Parameter name (name) for exact matching.

## Request Parameters

**Table 3-101** 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 3-102** 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 3-103** EnvVariableInfo

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

Parameter	Type	Description
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 3-104** Response body parameters

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

**Status code: 401****Table 3-105** Response body parameters

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

**Status code: 403**

**Table 3-106** Response body parameters

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

**Status code: 500**

**Table 3-107** 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](#).

## 3.4 Request Throttling Policy Management

### 3.4.1 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.

#### URI

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



**Table 3-108** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-109** 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 3-110** Request body parameters

Parameter	Mandatory	Type	Description
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 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.

Parameter	Mandatory	Type	Description
time_unit	Yes	String	Time unit for limiting the number of API calls. Enumeration values: <ul style="list-style-type: none"> <li>• <b>SECOND</b></li> <li>• <b>MINUTE</b></li> <li>• <b>HOUR</b></li> <li>• <b>DAY</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
enable_adaptive_control	No	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>• <b>TRUE</b></li> <li>• <b>FALSE</b></li> </ul> Currently, this parameter is not supported.

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: 201

Table 3-111 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.

Parameter	Type	Description
time_unit	String	Time unit for limiting the number of API calls. Enumeration values: <ul style="list-style-type: none"> <li>● <b>SECOND</b></li> <li>● <b>MINUTE</b></li> <li>● <b>HOUR</b></li> <li>● <b>DAY</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>● <b>1</b></li> <li>● <b>2</b></li> </ul>
enable_adaptive_control	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>● <b>TRUE</b></li> <li>● <b>FALSE</b></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> Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li></ul>
create_time	String	Creation time.

**Status code: 400****Table 3-112** Response body parameters

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

**Status code: 401****Table 3-113** Response body parameters

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

**Status code: 403**

**Table 3-114** Response body parameters

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

**Status code: 500**

**Table 3-115** Response body parameters

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

## Example Requests

```
{
  "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](#).

## 3.4.2 Modifying a Request Throttling Policy

### Function

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

## URI

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

**Table 3-116** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-117** 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 3-118** Request body parameters

Parameter	Mandatory	Type	Description
app_calls	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.



Parameter	Mandatory	Type	Description
time_unit	Yes	String	Time unit for limiting the number of API calls. Enumeration values: <ul style="list-style-type: none"> <li>• <b>SECOND</b></li> <li>• <b>MINUTE</b></li> <li>• <b>HOUR</b></li> <li>• <b>DAY</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
enable_adaptive_control	No	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>• <b>TRUE</b></li> <li>• <b>FALSE</b></li> </ul> Currently, this parameter is not supported.

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 3-119** 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.

Parameter	Type	Description
time_unit	String	Time unit for limiting the number of API calls. Enumeration values: <ul style="list-style-type: none"> <li>● <b>SECOND</b></li> <li>● <b>MINUTE</b></li> <li>● <b>HOUR</b></li> <li>● <b>DAY</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>● <b>1</b></li> <li>● <b>2</b></li> </ul>
enable_adaptive_control	String	Indicates whether to enable dynamic request throttling. <ul style="list-style-type: none"> <li>● <b>TRUE</b></li> <li>● <b>FALSE</b></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> Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li></ul>
create_time	String	Creation time.

**Status code: 400****Table 3-120** Response body parameters

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

**Status code: 401****Table 3-121** Response body parameters

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

**Status code: 403**

**Table 3-122** Response body parameters

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

**Status code: 404****Table 3-123** Response body parameters

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

**Status code: 500****Table 3-124** Response body parameters

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

## Example Requests

```
{
  "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

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

## Error Codes

See [Error Codes](#).

### 3.4.3 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.

#### URI

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

**Table 3-125** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-126** 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 3-127** Response body parameters

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

### Status code: 403

**Table 3-128** Response body parameters

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

### Status code: 404

**Table 3-129** Response body parameters

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

### Status code: 500



**Table 3-130** 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

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 3.4.4 Querying Request Throttling Policies

#### Function

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

#### URI

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

**Table 3-131** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-132** 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	Request throttling policy ID.
name	No	String	Request throttling policy name.
precise_search	No	String	Parameter name (name) for exact matching.

## Request Parameters

**Table 3-133** 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 3-134** 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 <b>ThrottlesInfo</b> objects	Request throttling policy list.

**Table 3-135** 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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>SECOND</b></li> <li>• <b>MINUTE</b></li> <li>• <b>HOURL</b></li> <li>• <b>DAY</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
create_time	String	Creation time.

**Status code: 400**

**Table 3-136** Response body parameters

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

**Status code: 401**

**Table 3-137** Response body parameters

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

**Status code: 403**

**Table 3-138** Response body parameters

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

**Status code: 500**

**Table 3-139** 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
400	Bad Request
401	Unauthorized
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.4.5 Querying Details of a Request Throttling Policy

### Function

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

### URI

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

**Table 3-140** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-141** 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 3-142** 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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>SECOND</b></li> <li>• <b>MINUTE</b></li> <li>• <b>HOURL</b></li> <li>• <b>DAY</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
create_time	String	Creation time.

**Status code: 401**

**Table 3-143** Response body parameters

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

**Status code: 403**

**Table 3-144** Response body parameters

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

**Status code: 404**

**Table 3-145** Response body parameters

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

**Status code: 500**

**Table 3-146** 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](#).

## 3.5 API Management

## 3.5.1 Registering an API

### Function

This API is used to create an API. 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 three backend types: HTTP/HTTPS web, FunctionGraph, and Mock.

### URI

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

**Table 3-147** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 3-148** 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.

**Table 3-149** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	API name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
type	Yes	Integer	API type. <ul style="list-style-type: none"> <li>1: public API</li> <li>2: private API</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>1</li> <li>2</li> </ul>
version	No	String	API version. Maximum: <b>16</b>
req_protocol	Yes	String	Request protocol. <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: <b>HTTPS</b> Enumeration values: <ul style="list-style-type: none"> <li>HTTP</li> <li>HTTPS</li> <li>BOTH</li> </ul>
req_method	Yes	String	Request method. Enumeration values: <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. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.> The value must comply with URI specifications.
auth_type	Yes	String	API authentication mode. <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>APP</b></li> <li>• <b>IAM</b></li> <li>• <b>AUTHORIZER</b></li> </ul>
auth_opt	No	<b>AuthOpt</b> 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>
match_mode	No	String	Route matching mode. <ul style="list-style-type: none"> <li>• SWA: prefix match</li> <li>• NORMAL: exact match.</li> </ul> The default value is NORMAL. Enumeration values: <ul style="list-style-type: none"> <li>• <b>SWA</b></li> <li>• <b>NORMAL</b></li> </ul>

Parameter	Mandatory	Type	Description
backend_type	Yes	String	Backend type. <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend</li> <li>• MOCK: Mock backend</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>FUNCTION</b></li> <li>• <b>MOCK</b></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. The value cannot exceed 20,480 characters.
result_failure_sample	No	String	Example response for a failed request. The value cannot exceed 20,480 characters.
authorizer_id	No	String	ID of the frontend custom authorizer.
tags	No	Array of strings	Tags. The value can contain only letters, digits, and underscores (_), and must start with a letter. You can enter multiple tags and separate them with commas (,). 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.



Parameter	Mandatory	Type	Description
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: <ul style="list-style-type: none"> <li>• application/json</li> <li>• application/xml</li> <li>• multipart/form-date</li> <li>• text/plain</li> </ul> Currently, this parameter is not supported. Enumeration values: <ul style="list-style-type: none"> <li>• <b>application/json</b></li> <li>• <b>application/xml</b></li> <li>• <b>multipart/form-date</b></li> <li>• <b>text/plain</b></li> </ul>
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.
backend_params	No	Array of <a href="#">BackendParamBase</a> objects	Backend parameters.
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.

Parameter	Mandatory	Type	Description
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 3-150** 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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li><b>DISABLE</b></li> <li><b>HEADER</b></li> </ul>

**Table 3-151** 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 3-152** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>async</b></li> <li>• <b>sync</b></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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>V1</b></li> <li>• <b>V2</b></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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: <b>1</b>
authorizer_id	No	String	Backend custom authorizer ID.

**Table 3-153** 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. Enumeration values: <ul style="list-style-type: none"><li>• <b>STRING</b></li><li>• <b>NUMBER</b></li></ul>
location	Yes	String	Parameter location. Enumeration values: <ul style="list-style-type: none"><li>• <b>PATH</b></li><li>• <b>QUERY</b></li><li>• <b>HEADER</b></li></ul>
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. Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li><li>• <b>2</b></li></ul>
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 Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li><li>• <b>2</b></li></ul>
remark	No	String	Description. It cannot exceed 255 characters.

Parameter	Mandatory	Type	Description
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.
pass_through	No	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>

**Table 3-154** 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> Enumeration values: <ul style="list-style-type: none"> <li>• ALL</li> <li>• ANY</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.
conditions	Yes	Array of <b>ApiConditionBase</b> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.

**Table 3-155** ApiPolicyFunctionCreate

Parameter	Mandatory	Type	Description
function_urn	Yes	String	Function URN.
invocation_type	Yes	String	Invocation mode. <ul style="list-style-type: none"> <li>• <b>async</b>: asynchronous</li> <li>• <b>sync</b>: synchronous</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>async</b></li> <li>• <b>sync</b></li> </ul>
network_type	Yes	String	Function network architecture. <ul style="list-style-type: none"> <li>• <b>V1</b>: non-VPC</li> <li>• <b>V2</b>: VPC</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>V1</b></li> <li>• <b>V2</b></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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: <b>1</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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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.
conditions	Yes	Array of <b>ApiConditionBase</b> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.

**Table 3-156** BackendApiCreate

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

Parameter	Mandatory	Type	Description
url_domain	No	String	Backend service address. It can consist 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. Enumeration values: <ul style="list-style-type: none"><li>• HTTP</li><li>• HTTPS</li></ul>
remark	No	String	Description. It cannot exceed 255 characters.
req_method	Yes	String	Request method. Enumeration values: <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>
version	No	String	Web backend version, which can contain a maximum of 16 characters.



Parameter	Mandatory	Type	Description
req_uri	Yes	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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. > The value must comply with URI specifications.
timeout	Yes	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	No	Boolean	Indicates whether to enable two-way authentication.
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. Default: -1
vpc_channel_info	No	<a href="#">ApiBackendVpcReq</a> object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.

Parameter	Mandatory	Type	Description
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> Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li></ul>

**Table 3-157** ApiPolicyHttpCreate

Parameter	Mandatory	Type	Description
url_domain	No	String	Endpoint of the policy backend.It can consist 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. The value can be HTTP or HTTPS. Enumeration values: <ul style="list-style-type: none"><li>• HTTP</li><li>• HTTPS</li></ul>

Parameter	Mandatory	Type	Description
req_method	Yes	String	Request method. Options: GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, ANY. Enumeration values: <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. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. <i>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.</i> > The value must comply with URI specifications.
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. Default: <b>-1</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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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.
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>

**Table 3-158** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>REQUEST</b></li> <li>• <b>CONSTANT</b></li> <li>• <b>SYSTEM</b></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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>PATH</b></li> <li>• <b>QUERY</b></li> <li>• <b>HEADER</b></li> </ul>

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 3-159** ApiConditionBase

Parameter	Mandatory	Type	Description
req_param_name	No	String	Input parameter name. This parameter is required if the policy type is param.
condition_type	No	String	<p>Policy condition.</p> <ul style="list-style-type: none"> <li>● exact: exact match</li> <li>● enum: enumeration</li> <li>● pattern: regular expression</li> </ul> <p>This parameter is required if the policy type is param.</p> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>● <b>exact</b></li> <li>● <b>enum</b></li> <li>● <b>pattern</b></li> </ul>

Parameter	Mandatory	Type	Description
condition_origin	Yes	String	Policy type. <ul style="list-style-type: none"> <li>param: input parameter</li> <li>source: source IP address</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>param</li> <li>source</li> </ul>
condition_value	Yes	String	Condition value.

**Table 3-160** 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 3-161** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Integer	API type. <ul style="list-style-type: none"> <li>1: public API</li> <li>2: private API</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>1</li> <li>2</li> </ul>
version	String	API version. Maximum: <b>16</b>



Parameter	Type	Description
req_protocol	String	Request protocol. <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: <b>HTTPS</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> <li>• <b>BOTH</b></li> </ul>
req_method	String	Request method. <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>POST</b></li> <li>• <b>PUT</b></li> <li>• <b>DELETE</b></li> <li>• <b>HEAD</b></li> <li>• <b>PATCH</b></li> <li>• <b>OPTIONS</b></li> <li>• <b>ANY</b></li> </ul>
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.> The value must comply with 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>APP</b></li> <li>• <b>IAM</b></li> <li>• <b>AUTHORIZER</b></li> </ul>

Parameter	Type	Description
auth_opt	<a href="#">AuthOpt</a> 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> Enumeration values: <ul style="list-style-type: none"> <li><b>true</b></li> <li><b>false</b></li> </ul>
match_mode	String	Route matching mode. <ul style="list-style-type: none"> <li>SWA: prefix match</li> <li>NORMAL: exact match.</li> </ul> The default value is NORMAL. Enumeration values: <ul style="list-style-type: none"> <li><b>SWA</b></li> <li><b>NORMAL</b></li> </ul>
backend_type	String	Backend type. <ul style="list-style-type: none"> <li>HTTP: web backend</li> <li>FUNCTION: FunctionGraph backend</li> <li>MOCK: Mock backend</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li><b>HTTP</b></li> <li><b>FUNCTION</b></li> <li><b>MOCK</b></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. The value cannot exceed 20,480 characters.
result_failure_sample	String	Example response for a failed request. The value cannot exceed 20,480 characters.
authorizer_id	String	ID of the frontend custom authorizer.

Parameter	Type	Description
tags	Array of strings	Tags. The value can contain only letters, digits, and underscores (_), and must start with a letter. You can enter multiple tags and separate them with commas (,). 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: <ul style="list-style-type: none"> <li>• application/json</li> <li>• application/xml</li> <li>• multipart/form-date</li> <li>• text/plain</li> </ul> Currently, this parameter is not supported. Enumeration values: <ul style="list-style-type: none"> <li>• <b>application/json</b></li> <li>• <b>application/xml</b></li> <li>• <b>multipart/form-date</b></li> <li>• <b>text/plain</b></li> </ul>
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.

Parameter	Type	Description
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 ( ).
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.

Parameter	Type	Description
policy_functions	Array of <a href="#">ApiPolicyFunctionResp</a> objects	FunctionGraph backend policies.
policy_mocks	Array of <a href="#">ApiPolicyMockResp</a> objects	Mock backend policies.
policy_https	Array of <a href="#">ApiPolicyHttpResp</a> objects	Web backend policies.

**Table 3-162** 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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>DISABLE</b></li> <li>• <b>HEADER</b></li> </ul>

**Table 3-163** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.

Parameter	Type	Description
url_domain	String	Backend service address.It can consist 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. Enumeration values: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
remark	String	Description. It cannot exceed 255 characters.
req_method	String	Request method. Enumeration values: <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>
version	String	Web backend version, which can contain a maximum of 16 characters.
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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.> The value must comply with URI specifications.

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: <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. Default: <b>-1</b>
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 3-164** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>1</b></li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.

Parameter	Type	Description
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>
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.

**Table 3-165** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TLSv1.1</b></li> <li>• <b>TLSv1.2</b></li> </ul>
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>

**Table 3-166** 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>async</b></li><li>• <b>sync</b></li></ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"><li>• V1: non-VPC</li><li>• V2: VPC</li></ul> Enumeration values: <ul style="list-style-type: none"><li>• <b>V1</b></li><li>• <b>V2</b></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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: <b>1</b>
authorizer_id	String	Backend custom authorizer ID.

Parameter	Type	Description
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 3-167** 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 3-168** 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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>STRING</b></li> <li>• <b>NUMBER</b></li> </ul>

Parameter	Type	Description
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"> <li>• <b>PATH</b></li> <li>• <b>QUERY</b></li> <li>• <b>HEADER</b></li> </ul>
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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
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: <b>2</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
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.

Parameter	Type	Description
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 Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
id	String	Parameter ID.

**Table 3-169** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>async</b></li> <li>• <b>sync</b></li> </ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>V1</b></li> <li>• <b>V2</b></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.

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: <b>1</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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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 3-170** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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 3-171** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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	Endpoint of the policy backend.It can consist 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. The value can be HTTP or HTTPS. Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> </ul>
req_method	String	Request method. Options: GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, ANY. Enumeration values: <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>POST</b></li> <li>• <b>PUT</b></li> <li>• <b>DELETE</b></li> <li>• <b>HEAD</b></li> <li>• <b>PATCH</b></li> <li>• <b>OPTIONS</b></li> <li>• <b>ANY</b></li> </ul>
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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.> The value must comply with URI specifications.

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: <b>1</b>
retry_count	String	Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10. Default: <b>-1</b>
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 3-172** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>REQUEST</b></li> <li><b>CONSTANT</b></li> <li><b>SYSTEM</b></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.



Parameter	Type	Description
location	String	Parameter location. The value can be PATH, QUERY, or HEADER. Enumeration values: <ul style="list-style-type: none"><li>• <b>PATH</b></li><li>• <b>QUERY</b></li><li>• <b>HEADER</b></li></ul>

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 3-173** CconditionResp

Parameter	Type	Description
req_param_name	String	Input parameter name. This parameter is required if the policy type is param.
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 if the policy type is param. Enumeration values: <ul style="list-style-type: none"> <li><b>exact</b></li> <li><b>enum</b></li> <li><b>pattern</b></li> </ul>
condition_origin	String	Policy type. <ul style="list-style-type: none"> <li>param: input parameter</li> <li>source: source IP address</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li><b>param</b></li> <li><b>source</b></li> </ul>
condition_value	String	Condition value.
id	String	ID.
req_param_id	String	Input parameter ID.
req_param_location	String	Input parameter location.

**Table 3-174** 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.

**Status code: 400****Table 3-175** Response body parameters

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

**Status code: 401****Table 3-176** Response body parameters

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

**Status code: 403****Table 3-177** Response body parameters

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

**Status code: 404**

**Table 3-178** Response body parameters

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

**Status code: 500**

**Table 3-179** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
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": "100.95.189.156:12346",
    "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 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" : "100.95.189.156:12346",  
    "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" : "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 3

```
{
  "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](#).

## 3.5.2 Modifying an API

### Function

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

## URI

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

**Table 3-180** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-181** 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 3-182** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	API name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Yes	Integer	API type. <ul style="list-style-type: none"><li>• 1: public API</li><li>• 2: private API</li></ul> Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li></ul>

Parameter	Mandatory	Type	Description
version	No	String	API version. Maximum: <b>16</b>
req_protocol	Yes	String	Request protocol. <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: <b>HTTPS</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> <li>• <b>BOTH</b></li> </ul>
req_method	Yes	String	Request method. Enumeration values: <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>POST</b></li> <li>• <b>PUT</b></li> <li>• <b>DELETE</b></li> <li>• <b>HEAD</b></li> <li>• <b>PATCH</b></li> <li>• <b>OPTIONS</b></li> <li>• <b>ANY</b></li> </ul>
req_uri	Yes	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.> The value must comply with URI specifications.

Parameter	Mandatory	Type	Description
auth_type	Yes	String	API authentication mode. <ul style="list-style-type: none"> <li>• NONE</li> <li>• APP</li> <li>• IAM</li> <li>• AUTHORIZER</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>APP</b></li> <li>• <b>IAM</b></li> <li>• <b>AUTHORIZER</b></li> </ul>
auth_opt	No	<b>AuthOpt</b> 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>
match_mode	No	String	Route matching mode. <ul style="list-style-type: none"> <li>• SWA: prefix match</li> <li>• NORMAL: exact match.</li> </ul> The default value is NORMAL. Enumeration values: <ul style="list-style-type: none"> <li>• <b>SWA</b></li> <li>• <b>NORMAL</b></li> </ul>
backend_type	Yes	String	Backend type. <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend</li> <li>• MOCK: Mock backend</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>FUNCTION</b></li> <li>• <b>MOCK</b></li> </ul>
remark	No	String	API description. It cannot exceed 255 characters.

Parameter	Mandatory	Type	Description
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. The value cannot exceed 20,480 characters.
result_failure_sample	No	String	Example response for a failed request. The value cannot exceed 20,480 characters.
authorizer_id	No	String	ID of the frontend custom authorizer.
tags	No	Array of strings	Tags. The value can contain only letters, digits, and underscores (_), and must start with a letter. You can enter multiple tags and separate them with commas (,). 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.

Parameter	Mandatory	Type	Description
content_type	No	String	Request content type: <ul style="list-style-type: none"> <li>• application/json</li> <li>• application/xml</li> <li>• multipart/form-date</li> <li>• text/plain</li> </ul> Currently, this parameter is not supported. Enumeration values: <ul style="list-style-type: none"> <li>• <b>application/json</b></li> <li>• <b>application/xml</b></li> <li>• <b>multipart/form-date</b></li> <li>• <b>text/plain</b></li> </ul>
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.
backend_params	No	Array of <a href="#">BackendParamBase</a> objects	Backend parameters.
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 3-183** 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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li><b>DISABLE</b></li> <li><b>HEADER</b></li> </ul>

**Table 3-184** 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 3-185** ApiFuncCreate

Parameter	Mandatory	Type	Description
function_urn	Yes	String	Function URN.
remark	No	String	Description. It cannot exceed 255 characters.



Parameter	Mandatory	Type	Description
invocation_type	Yes	String	Invocation mode. <ul style="list-style-type: none"> <li>• async: asynchronous</li> <li>• sync: synchronous</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>async</b></li> <li>• <b>sync</b></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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>V1</b></li> <li>• <b>V2</b></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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: <b>1</b>
authorizer_id	No	String	Backend custom authorizer ID.

**Table 3-186** 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. Enumeration values: <ul style="list-style-type: none"><li>• <b>STRING</b></li><li>• <b>NUMBER</b></li></ul>
location	Yes	String	Parameter location. Enumeration values: <ul style="list-style-type: none"><li>• <b>PATH</b></li><li>• <b>QUERY</b></li><li>• <b>HEADER</b></li></ul>
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. Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li><li>• <b>2</b></li></ul>
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 Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li><li>• <b>2</b></li></ul>
remark	No	String	Description. It cannot exceed 255 characters.

Parameter	Mandatory	Type	Description
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.
pass_through	No	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>

**Table 3-187** 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> Enumeration values: <ul style="list-style-type: none"> <li>• ALL</li> <li>• ANY</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.
conditions	Yes	Array of <b>ApiConditionBase</b> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.

**Table 3-188** ApiPolicyFunctionCreate

Parameter	Mandatory	Type	Description
function_urn	Yes	String	Function URN.
invocation_type	Yes	String	Invocation mode. <ul style="list-style-type: none"> <li>• <b>async</b>: asynchronous</li> <li>• <b>sync</b>: synchronous</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>async</b></li> <li>• <b>sync</b></li> </ul>
network_type	Yes	String	Function network architecture. <ul style="list-style-type: none"> <li>• <b>V1</b>: non-VPC</li> <li>• <b>V2</b>: VPC</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>V1</b></li> <li>• <b>V2</b></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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: <b>1</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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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.
conditions	Yes	Array of <b>ApiConditionBase</b> objects	Policy conditions.
authorizer_id	No	String	Backend custom authorizer ID.

**Table 3-189** BackendApiCreate

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

Parameter	Mandatory	Type	Description
url_domain	No	String	Backend service address. It can consist 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. Enumeration values: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
remark	No	String	Description. It cannot exceed 255 characters.
req_method	Yes	String	Request method. Enumeration values: <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>
version	No	String	Web backend version, which can contain a maximum of 16 characters.

Parameter	Mandatory	Type	Description
req_uri	Yes	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. <i>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.</i> > The value must comply with URI specifications.
timeout	Yes	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	No	Boolean	Indicates whether to enable two-way authentication.
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. Default: <b>-1</b>
vpc_channel_info	No	<b>ApiBackendVpcReq</b> object	VPC channel details. This parameter is required if vpc_channel_status is set to 1.

Parameter	Mandatory	Type	Description
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> Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li></ul>

**Table 3-190** ApiPolicyHttpCreate

Parameter	Mandatory	Type	Description
url_domain	No	String	Endpoint of the policy backend. It can consist 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. The value can be HTTP or HTTPS. Enumeration values: <ul style="list-style-type: none"><li>• HTTP</li><li>• HTTPS</li></ul>



Parameter	Mandatory	Type	Description
req_method	Yes	String	Request method. Options: GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, ANY. Enumeration values: <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. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. <i>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.&gt; The value must comply with URI specifications.</i>
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. Default: <b>-1</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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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.
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>

**Table 3-191** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>REQUEST</b></li> <li>• <b>CONSTANT</b></li> <li>• <b>SYSTEM</b></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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>PATH</b></li> <li>• <b>QUERY</b></li> <li>• <b>HEADER</b></li> </ul>

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 3-192** ApiConditionBase

Parameter	Mandatory	Type	Description
req_param_name	No	String	Input parameter name. This parameter is required if the policy type is param.
condition_type	No	String	<p>Policy condition.</p> <ul style="list-style-type: none"> <li>exact: exact match</li> <li>enum: enumeration</li> <li>pattern: regular expression</li> </ul> <p>This parameter is required if the policy type is param.</p> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li><b>exact</b></li> <li><b>enum</b></li> <li><b>pattern</b></li> </ul>

Parameter	Mandatory	Type	Description
condition_origin	Yes	String	Policy type. <ul style="list-style-type: none"> <li>param: input parameter</li> <li>source: source IP address</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>param</li> <li>source</li> </ul>
condition_value	Yes	String	Condition value.

**Table 3-193** 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 3-194** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Integer	API type. <ul style="list-style-type: none"> <li>1: public API</li> <li>2: private API</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>1</li> <li>2</li> </ul>
version	String	API version. Maximum: <b>16</b>

Parameter	Type	Description
req_protocol	String	Request protocol. <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: <b>HTTPS</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> <li>• <b>BOTH</b></li> </ul>
req_method	String	Request method. <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>POST</b></li> <li>• <b>PUT</b></li> <li>• <b>DELETE</b></li> <li>• <b>HEAD</b></li> <li>• <b>PATCH</b></li> <li>• <b>OPTIONS</b></li> <li>• <b>ANY</b></li> </ul>
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.> The value must comply with 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>APP</b></li> <li>• <b>IAM</b></li> <li>• <b>AUTHORIZER</b></li> </ul>

Parameter	Type	Description
auth_opt	<a href="#">AuthOpt</a> 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> Enumeration values: <ul style="list-style-type: none"> <li><b>true</b></li> <li><b>false</b></li> </ul>
match_mode	String	Route matching mode. <ul style="list-style-type: none"> <li>SWA: prefix match</li> <li>NORMAL: exact match.</li> </ul> The default value is NORMAL. Enumeration values: <ul style="list-style-type: none"> <li><b>SWA</b></li> <li><b>NORMAL</b></li> </ul>
backend_type	String	Backend type. <ul style="list-style-type: none"> <li>HTTP: web backend</li> <li>FUNCTION: FunctionGraph backend</li> <li>MOCK: Mock backend</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li><b>HTTP</b></li> <li><b>FUNCTION</b></li> <li><b>MOCK</b></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. The value cannot exceed 20,480 characters.
result_failure_sample	String	Example response for a failed request. The value cannot exceed 20,480 characters.
authorizer_id	String	ID of the frontend custom authorizer.



Parameter	Type	Description
tags	Array of strings	Tags. The value can contain only letters, digits, and underscores (_), and must start with a letter. You can enter multiple tags and separate them with commas (,). 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: <ul style="list-style-type: none"> <li>• application/json</li> <li>• application/xml</li> <li>• multipart/form-date</li> <li>• text/plain</li> </ul> Currently, this parameter is not supported. Enumeration values: <ul style="list-style-type: none"> <li>• <b>application/json</b></li> <li>• <b>application/xml</b></li> <li>• <b>multipart/form-date</b></li> <li>• <b>text/plain</b></li> </ul>
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.

Parameter	Type	Description
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 ( ).
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.

Parameter	Type	Description
policy_functions	Array of <a href="#">ApiPolicyFunctionResp</a> objects	FunctionGraph backend policies.
policy_mock	Array of <a href="#">ApiPolicyMockResp</a> objects	Mock backend policies.
policy_https	Array of <a href="#">ApiPolicyHttpResp</a> objects	Web backend policies.

**Table 3-195** 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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>DISABLE</b></li> <li>• <b>HEADER</b></li> </ul>

**Table 3-196** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.

Parameter	Type	Description
url_domain	String	Backend service address. It can consist 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. Enumeration values: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
remark	String	Description. It cannot exceed 255 characters.
req_method	String	Request method. Enumeration values: <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>
version	String	Web backend version, which can contain a maximum of 16 characters.
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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. > The value must comply with URI specifications.

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: <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. Default: <b>-1</b>
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 3-197** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>1</b></li> </ul>
sl_domain	String	Subdomain name that APIG automatically allocates to the API group.
register_time	String	Creation time.

Parameter	Type	Description
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>
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.

**Table 3-198** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TLSv1.1</b></li> <li>• <b>TLSv1.2</b></li> </ul>
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>

**Table 3-199** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>async</b></li> <li>• <b>sync</b></li> </ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>V1</b></li> <li>• <b>V2</b></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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: <b>1</b>
authorizer_id	String	Backend custom authorizer ID.

Parameter	Type	Description
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 3-200** 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 3-201** 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. Enumeration values: <ul style="list-style-type: none"><li>• <b>STRING</b></li><li>• <b>NUMBER</b></li></ul>



Parameter	Type	Description
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"> <li>• <b>PATH</b></li> <li>• <b>QUERY</b></li> <li>• <b>HEADER</b></li> </ul>
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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
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: <b>2</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
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.

Parameter	Type	Description
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 Enumeration values: <ul style="list-style-type: none"> <li>1</li> <li>2</li> </ul>
id	String	Parameter ID.

**Table 3-202** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>async</b></li> <li><b>sync</b></li> </ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>V1: non-VPC</li> <li>V2: VPC</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li><b>V1</b></li> <li><b>V2</b></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.

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: <b>1</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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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 3-203** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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 3-204** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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	Endpoint of the policy backend.It can consist 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. The value can be HTTP or HTTPS. Enumeration values: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
req_method	String	Request method. Options: GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, ANY. Enumeration values: <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	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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.> The value must comply with URI specifications.

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: <b>1</b>
retry_count	String	Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10. Default: <b>-1</b>
vpc_channel_info	<a href="#">VpcInfo</a> 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 3-205** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>REQUEST</b></li> <li><b>CONSTANT</b></li> <li><b>SYSTEM</b></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.

Parameter	Type	Description
location	String	Parameter location. The value can be PATH, QUERY, or HEADER. Enumeration values: <ul style="list-style-type: none"><li>• PATH</li><li>• QUERY</li><li>• HEADER</li></ul>

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 3-206** ConditionResp

Parameter	Type	Description
req_param_name	String	Input parameter name. This parameter is required if the policy type is param.
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 if the policy type is param. Enumeration values: <ul style="list-style-type: none"> <li><b>exact</b></li> <li><b>enum</b></li> <li><b>pattern</b></li> </ul>
condition_origin	String	Policy type. <ul style="list-style-type: none"> <li>param: input parameter</li> <li>source: source IP address</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li><b>param</b></li> <li><b>source</b></li> </ul>
condition_value	String	Condition value.
id	String	ID.
req_param_id	String	Input parameter ID.
req_param_location	String	Input parameter location.

**Table 3-207** 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.

**Status code: 400****Table 3-208** Response body parameters

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

**Status code: 401****Table 3-209** Response body parameters

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

**Status code: 403****Table 3-210** Response body parameters

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

**Status code: 404**

**Table 3-211** Response body parameters

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

**Status code: 500**

**Table 3-212** Response body parameters

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

## Example Requests

```
{
  "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.appld",
    "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": "216ddda836e74d528f364ff589d9dd21"
  } ]
}
```

### 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](#).

## 3.5.3 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.

### URI

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

**Table 3-213** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-214** 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 3-215** Response body parameters

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

**Status code: 403**

**Table 3-216** Response body parameters

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

**Status code: 404**

**Table 3-217** Response body parameters

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

**Status code: 500**

**Table 3-218** 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: 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](#).

### 3.5.4 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.



## URI

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

**Table 3-219** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-220** 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 3-221** 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>online</b></li><li>• <b>offline</b></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.

Parameter	Mandatory	Type	Description
remark	No	String	Description about the publishing. It cannot exceed 255 characters.

## Response Parameters

**Status code: 201**

**Table 3-222** 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 3-223** Response body parameters

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

**Status code: 401**

**Table 3-224** Response body parameters

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

**Status code: 403****Table 3-225** Response body parameters

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

**Status code: 404****Table 3-226** Response body parameters

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

**Status code: 500****Table 3-227** Response body parameters

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

**Example Requests**

```
{
  "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
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.5.5 Querying API Details

### Function

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

### URI

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

**Table 3-228** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-229** 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 3-230** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Integer	API type. <ul style="list-style-type: none"> <li>• 1: public API</li> <li>• 2: private API</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
version	String	API version. Maximum: <b>16</b>
req_protocol	String	Request protocol. <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: <b>HTTPS</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> <li>• <b>BOTH</b></li> </ul>
req_method	String	Request method. Enumeration values: <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>POST</b></li> <li>• <b>PUT</b></li> <li>• <b>DELETE</b></li> <li>• <b>HEAD</b></li> <li>• <b>PATCH</b></li> <li>• <b>OPTIONS</b></li> <li>• <b>ANY</b></li> </ul>

Parameter	Type	Description
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.> The value must comply with 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>NONE</b></li><li>• <b>APP</b></li><li>• <b>IAM</b></li><li>• <b>AUTHORIZER</b></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> Enumeration values: <ul style="list-style-type: none"><li>• <b>true</b></li><li>• <b>false</b></li></ul>
match_mode	String	Route matching mode. <ul style="list-style-type: none"><li>• SWA: prefix match</li><li>• NORMAL: exact match.</li></ul> The default value is NORMAL. Enumeration values: <ul style="list-style-type: none"><li>• <b>SWA</b></li><li>• <b>NORMAL</b></li></ul>

Parameter	Type	Description
backend_type	String	Backend type. <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend</li> <li>• MOCK: Mock backend</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>FUNCTION</b></li> <li>• <b>MOCK</b></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. The value cannot exceed 20,480 characters.
result_failure_sample	String	Example response for a failed request. The value cannot exceed 20,480 characters.
authorizer_id	String	ID of the frontend custom authorizer.
tags	Array of strings	Tags. The value can contain only letters, digits, and underscores (_), and must start with a letter. You can enter multiple tags and separate them with commas (,). 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.



Parameter	Type	Description
content_type	String	Request content type: <ul style="list-style-type: none"> <li>• application/json</li> <li>• application/xml</li> <li>• multipart/form-date</li> <li>• text/plain</li> </ul> Currently, this parameter is not supported. Enumeration values: <ul style="list-style-type: none"> <li>• <b>application/json</b></li> <li>• <b>application/xml</b></li> <li>• <b>multipart/form-date</b></li> <li>• <b>text/plain</b></li> </ul>
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 ( ).

Parameter	Type	Description
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 3-231** 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>• <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> <p>Default: <b>DISABLE</b></p> <p>Enumeration values:</p> <ul style="list-style-type: none"><li>• <b>DISABLE</b></li><li>• <b>HEADER</b></li></ul>

**Table 3-232** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	<p>Backend service address. It can consist 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.</p>
req_protocol	String	<p>Request protocol.</p> <p>Enumeration values:</p> <ul style="list-style-type: none"><li>• <b>HTTP</b></li><li>• <b>HTTPS</b></li></ul>
remark	String	Description. It cannot exceed 255 characters.

Parameter	Type	Description
req_method	String	Request method. Enumeration values: <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>
version	String	Web backend version, which can contain a maximum of 16 characters.
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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.> The value must comply with URI specifications.
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. Default: -1
id	String	ID.
status	Integer	Backend service status. <ul style="list-style-type: none"> <li>• 1: valid</li> </ul>

Parameter	Type	Description
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 3-233** 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> Enumeration values: <ul style="list-style-type: none"> <li>1</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>
url_domains	Array of UrlDomain objects	Independent domain names bound to the API group.

**Table 3-234** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TLSv1.1</b></li> <li>• <b>TLSv1.2</b></li> </ul>
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>

**Table 3-235** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>async</b></li> <li>• <b>sync</b></li> </ul>

Parameter	Type	Description
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>V1</b></li> <li>• <b>V2</b></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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: <b>1</b>
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 3-236** 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.

Parameter	Type	Description
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 3-237** 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. Enumeration values: <ul style="list-style-type: none"><li>• <b>STRING</b></li><li>• <b>NUMBER</b></li></ul>
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"><li>• <b>PATH</b></li><li>• <b>QUERY</b></li><li>• <b>HEADER</b></li></ul>
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. Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li><li>• <b>2</b></li></ul>



Parameter	Type	Description
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 Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
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 Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
id	String	Parameter ID.

**Table 3-238** ApiPolicyFunctionResp

Parameter	Type	Description
function_urn	String	Function URN.

Parameter	Type	Description
invocation_type	String	Invocation mode. <ul style="list-style-type: none"> <li>• async: asynchronous</li> <li>• sync: synchronous</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>async</b></li> <li>• <b>sync</b></li> </ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>• V1: non-VPC</li> <li>• V2: VPC</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>V1</b></li> <li>• <b>V2</b></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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: <b>1</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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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 3-239** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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 3-240** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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. It can consist 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. The value can be HTTP or HTTPS. Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> </ul>

Parameter	Type	Description
req_method	String	Request method. Options: GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, ANY. Enumeration values: <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	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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.> The value must comply with URI specifications.
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>
retry_count	String	Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10. Default: <b>-1</b>
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 3-241** 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> Enumeration values: <ul style="list-style-type: none"><li>● <b>REQUEST</b></li><li>● <b>CONSTANT</b></li><li>● <b>SYSTEM</b></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. Enumeration values: <ul style="list-style-type: none"><li>● <b>PATH</b></li><li>● <b>QUERY</b></li><li>● <b>HEADER</b></li></ul>

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 3-242** ConditionResp

Parameter	Type	Description
req_param_name	String	Input parameter name. This parameter is required if the policy type is param.
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 if the policy type is param. Enumeration values: <ul style="list-style-type: none"><li>• <b>exact</b></li><li>• <b>enum</b></li><li>• <b>pattern</b></li></ul>
condition_origin	String	Policy type. <ul style="list-style-type: none"><li>• param: input parameter</li><li>• source: source IP address</li></ul> Enumeration values: <ul style="list-style-type: none"><li>• <b>param</b></li><li>• <b>source</b></li></ul>
condition_value	String	Condition value.
id	String	ID.
req_param_id	String	Input parameter ID.
req_param_location	String	Input parameter location.

**Table 3-243** 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.

**Status code: 401****Table 3-244** Response body parameters

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

**Status code: 403****Table 3-245** Response body parameters

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

**Status code: 404****Table 3-246** Response body parameters

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

**Status code: 500**

**Table 3-247** 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.appId",
"location": "HEADER",
"origin": "SYSTEM",
"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.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](#).

## 3.5.6 Querying APIs

### Function

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

### URI

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

**Table 3-248** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-249** 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.

Parameter	Mandatory	Type	Description
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.
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.

## Request Parameters

**Table 3-250** 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 3-251** 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 3-252** ApiInfoPerPage

Parameter	Type	Description
name	String	API name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Integer	API type. <ul style="list-style-type: none"> <li>• 1: public API</li> <li>• 2: private API</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
version	String	API version. Maximum: <b>16</b>
req_protocol	String	Request protocol. <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: <b>HTTPS</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> <li>• <b>BOTH</b></li> </ul>
req_method	String	Request method. Enumeration values: <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>POST</b></li> <li>• <b>PUT</b></li> <li>• <b>DELETE</b></li> <li>• <b>HEAD</b></li> <li>• <b>PATCH</b></li> <li>• <b>OPTIONS</b></li> <li>• <b>ANY</b></li> </ul>

Parameter	Type	Description
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.> The value must comply with 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>APP</b></li> <li>• <b>IAM</b></li> <li>• <b>AUTHORIZER</b></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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>
match_mode	String	Route matching mode. <ul style="list-style-type: none"> <li>• SWA: prefix match</li> <li>• NORMAL: exact match.</li> </ul> The default value is NORMAL. Enumeration values: <ul style="list-style-type: none"> <li>• <b>SWA</b></li> <li>• <b>NORMAL</b></li> </ul>

Parameter	Type	Description
backend_type	String	Backend type. <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend</li> <li>• MOCK: Mock backend</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>FUNCTION</b></li> <li>• <b>MOCK</b></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. The value cannot exceed 20,480 characters.
result_failure_sample	String	Example response for a failed request. The value cannot exceed 20,480 characters.
authorizer_id	String	ID of the frontend custom authorizer.
tags	Array of strings	Tags. The value can contain only letters, digits, and underscores (_), and must start with a letter. You can enter multiple tags and separate them with commas (,). 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.



Parameter	Type	Description
content_type	String	Request content type: <ul style="list-style-type: none"> <li>• application/json</li> <li>• application/xml</li> <li>• multipart/form-data</li> <li>• text/plain</li> </ul> Currently, this parameter is not supported. Enumeration values: <ul style="list-style-type: none"> <li>• <b>application/json</b></li> <li>• <b>application/xml</b></li> <li>• <b>multipart/form-data</b></li> <li>• <b>text/plain</b></li> </ul>
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 ( ).

Parameter	Type	Description
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 3-253** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>DISABLE</b></li> <li><b>HEADER</b></li> </ul>

**Table 3-254** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.

Parameter	Type	Description
url_domain	String	Backend service address.It can consist 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. Enumeration values: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
remark	String	Description. It cannot exceed 255 characters.
req_method	String	Request method. Enumeration values: <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>
version	String	Web backend version, which can contain a maximum of 16 characters.
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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.> The value must comply with URI specifications.

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. Default: -1
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 3-255** 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.

**Table 3-256** 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> Enumeration values: <ul style="list-style-type: none"><li>• 1</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>
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.

**Table 3-257** 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.

Parameter	Type	Description
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TLSv1.1</b></li> <li>• <b>TLSv1.2</b></li> </ul>
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>

**Table 3-258** 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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>STRING</b></li> <li>• <b>NUMBER</b></li> </ul>
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"> <li>• <b>PATH</b></li> <li>• <b>QUERY</b></li> <li>• <b>HEADER</b></li> </ul>
default_value	String	Default value.
sample_value	String	Example value.

Parameter	Type	Description
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. Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
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 Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
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.

Parameter	Type	Description
pass_through	Integer	Indicates whether to transparently transfer the parameter. 1: yes 2: no Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li></ul>
id	String	Parameter ID.

**Status code: 400****Table 3-259** Response body parameters

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

**Status code: 401****Table 3-260** Response body parameters

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

**Status code: 403****Table 3-261** Response body parameters

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

**Status code: 500**



**Table 3-262** 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](#).

## 3.5.7 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.

### URI

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

**Table 3-263** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-264** 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 3-265** Request body parameters

Parameter	Mandatory	Type	Description
body	No	String	Message body, with a maximum of 2,097,152 bytes.
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>

Parameter	Mandatory	Type	Description
method	Yes	String	API request method. Enumeration values: <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>
mode	Yes	String	Debugging mode: <ul style="list-style-type: none"> <li>• DEVELOPER: Debug the definitions of an API that has not been published.</li> <li>• CONSUMER: 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>
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.

Parameter	Mandatory	Type	Description
query	No	Map<String,Array<String>>	<p>Query strings, 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 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	<p>Request protocol.</p> <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.
domain	No	String	<p>Access domain name of the API. 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 3-266** Response body parameters

Parameter	Type	Description
request	String	Body of the debugging request.
response	String	Body of the debugging response, with a maximum 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 [TRUNCATED] will be added to the response body.
latency	Integer	Debugging duration in milliseconds.
log	String	Debugging logs.

### Status code: 400

**Table 3-267** Response body parameters

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

### Status code: 401

**Table 3-268** Response body parameters

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

### Status code: 403

**Table 3-269** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404****Table 3-270** Response body parameters

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

**Status code: 500****Table 3-271** Response body parameters

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

## Example Requests

```
{
  "mode" : "DEVELOPER",
  "scheme" : "HTTPS",
  "method" : "GET",
  "path" : "/test/mock"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "request" : "GET /test/mock HTTP/1.1\r\nHost: c77f5e81d9cb4424bf704ef2b0ac7600.apic.****.com\r\nUser-Agent: APIGatewayDebugClient/1.0\r\nX-Apig-Mode: debug\r\n\r\n",
  "response" : "HTTP/1.1 200 OK\r\nTransfer-Encoding: chunked\r\nConnection: keep-alive\r\nContent-Type: application/json\r\nDate: Mon, 03 Aug 2020 02:51:22 GMT\r\nServer: api-gateway\r\nX-Apig-Latency: 0\r\nX-Apig-Ratelimit-Api: remain:99,limit:100,time:1 minute\r\nX-Apig-Ratelimit-Api-Allenv: remain:14999,limit:15000,time:1 second\r\nX-Request-Id: d4ec6e33148bdeffe8f55b43472d1251\r\n\r\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](#).

## 3.5.8 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.

### URI

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

**Table 3-272** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-273** 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 3-274** 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 3-275** 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.
remark	No	String	Description of the publication. It cannot exceed 255 characters.

## Response Parameters

**Status code: 200**

**Table 3-276** 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 3-277** 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.

Parameter	Type	Description
version_id	String	API version currently in use.

**Table 3-278** 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.
error_code	String	Error code.
error_msg	String	Error message.

**Status code: 400**

**Table 3-279** Response body parameters

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

**Status code: 401**

**Table 3-280** Response body parameters

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

**Status code: 403**

**Table 3-281** Response body parameters

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

**Status code: 500**

**Table 3-282** Response body parameters

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

**Example Requests**

```
{
  "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](#).

## 3.5.9 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.

### URI

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

**Table 3-283** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.

Parameter	Mandatory	Type	Description
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 3-284** 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 3-285** 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 3-286 Response body parameters

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

Table 3-287 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> Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li></ul>

Status code: 400

Table 3-288 Response body parameters

Parameter	Type	Description
error_code	String	Error code.



Parameter	Type	Description
error_msg	String	Error message.

**Status code: 401****Table 3-289** Response body parameters

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

**Status code: 403****Table 3-290** Response body parameters

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

**Status code: 404****Table 3-291** Response body parameters

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

**Status code: 500****Table 3-292** 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](#).

## 3.5.10 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.

### URI

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

**Table 3-293** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

Parameter	Mandatory	Type	Description
api_id	Yes	String	API ID.

## Request Parameters

**Table 3-294** 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 3-295** Request body parameters

Parameter	Mandatory	Type	Description
version_id	No	String	API version ID.

## Response Parameters

**Status code: 200**

**Table 3-296** 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 3-297** Response body parameters

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

**Status code: 401****Table 3-298** Response body parameters

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

**Status code: 403****Table 3-299** Response body parameters

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

**Status code: 404****Table 3-300** Response body parameters

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

**Status code: 500****Table 3-301** Response body parameters

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

## Example Requests

```
{  
  "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](#).

### 3.5.11 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

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

**Table 3-302** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.

Parameter	Mandatory	Type	Description
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 3-303** Query Parameters

Parameter	Mandatory	Type	Description
env_id	No	String	ID of the environment in which the API is published.

## Request Parameters

**Table 3-304** 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 3-305** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) 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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
version	String	API version. Maximum: <b>16</b>
req_protocol	String	Request protocol. <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: <b>HTTPS</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> <li>• <b>BOTH</b></li> </ul>
req_method	String	Request method. Enumeration values: <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>POST</b></li> <li>• <b>PUT</b></li> <li>• <b>DELETE</b></li> <li>• <b>HEAD</b></li> <li>• <b>PATCH</b></li> <li>• <b>OPTIONS</b></li> <li>• <b>ANY</b></li> </ul>
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.> The value must comply with URI specifications.

Parameter	Type	Description
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>APP</b></li> <li>• <b>IAM</b></li> <li>• <b>AUTHORIZER</b></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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>
match_mode	String	Route matching mode. <ul style="list-style-type: none"> <li>• SWA: prefix match</li> <li>• NORMAL: exact match.</li> </ul> The default value is NORMAL. Enumeration values: <ul style="list-style-type: none"> <li>• <b>SWA</b></li> <li>• <b>NORMAL</b></li> </ul>
backend_type	String	Backend type. <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend</li> <li>• MOCK: Mock backend</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>FUNCTION</b></li> <li>• <b>MOCK</b></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. The value cannot exceed 20,480 characters.
result_failure_sample	String	Example response for a failed request. The value cannot exceed 20,480 characters.
authorizer_id	String	ID of the frontend custom authorizer.
tags	Array of strings	Tags. The value can contain only letters, digits, and underscores (_), and must start with a letter. You can enter multiple tags and separate them with commas (,). 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: <ul style="list-style-type: none"> <li>• application/json</li> <li>• application/xml</li> <li>• multipart/form-date</li> <li>• text/plain</li> </ul> Currently, this parameter is not supported. Enumeration values: <ul style="list-style-type: none"> <li>• <b>application/json</b></li> <li>• <b>application/xml</b></li> <li>• <b>multipart/form-date</b></li> <li>• <b>text/plain</b></li> </ul>
id	String	API ID.
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	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 3-306** 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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li><b>DISABLE</b></li> <li><b>HEADER</b></li> </ul>

**Table 3-307** ReqParam

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

Parameter	Type	Description
type	String	Parameter type. Enumeration values: <ul style="list-style-type: none"> <li>● <b>STRING</b></li> <li>● <b>NUMBER</b></li> </ul>
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"> <li>● <b>PATH</b></li> <li>● <b>QUERY</b></li> <li>● <b>HEADER</b></li> </ul>
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. Enumeration values: <ul style="list-style-type: none"> <li>● <b>1</b></li> <li>● <b>2</b></li> </ul>
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: <b>2</b> Enumeration values: <ul style="list-style-type: none"> <li>● <b>1</b></li> <li>● <b>2</b></li> </ul>
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.

Parameter	Type	Description
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 Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li></ul>
id	String	Parameter ID.

**Status code: 401****Table 3-308** Response body parameters

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

**Status code: 403****Table 3-309** Response body parameters

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

**Status code: 404****Table 3-310** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 3-311** 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](#).

## 3.5.12 Querying API Version Details

### Function

This API is used to query the details of a specified API version.

### URI

```
GET /v2/{project_id}/apigw/instances/{instance_id}/apis/versions/{version_id}
```



**Table 3-312** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-313** 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 3-314** Response body parameters

Parameter	Type	Description
name	String	API name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores (_) are allowed.
type	Integer	API type. <ul style="list-style-type: none"> <li>1: public API</li> <li>2: private API</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>1</li> <li>2</li> </ul>

Parameter	Type	Description
version	String	API version. Maximum: <b>16</b>
req_protocol	String	Request protocol. <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: <b>HTTPS</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> <li>• <b>BOTH</b></li> </ul>
req_method	String	Request method. Enumeration values: <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>POST</b></li> <li>• <b>PUT</b></li> <li>• <b>DELETE</b></li> <li>• <b>HEAD</b></li> <li>• <b>PATCH</b></li> <li>• <b>OPTIONS</b></li> <li>• <b>ANY</b></li> </ul>
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), are allowed. It can contain a maximum of 512 characters and must comply with URI specifications.> The value must comply with URI specifications.

Parameter	Type	Description
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>APP</b></li> <li>• <b>IAM</b></li> <li>• <b>AUTHORIZER</b></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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>true</b></li> <li>• <b>false</b></li> </ul>
match_mode	String	Route matching mode. <ul style="list-style-type: none"> <li>• SWA: prefix match</li> <li>• NORMAL: exact match.</li> </ul> The default value is NORMAL. Enumeration values: <ul style="list-style-type: none"> <li>• <b>SWA</b></li> <li>• <b>NORMAL</b></li> </ul>
backend_type	String	Backend type. <ul style="list-style-type: none"> <li>• HTTP: web backend</li> <li>• FUNCTION: FunctionGraph backend</li> <li>• MOCK: Mock backend</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>HTTP</b></li> <li>• <b>FUNCTION</b></li> <li>• <b>MOCK</b></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. The value cannot exceed 20,480 characters.
result_failure_sample	String	Example response for a failed request. The value cannot exceed 20,480 characters.
authorizer_id	String	ID of the frontend custom authorizer.
tags	Array of strings	Tags. The value can contain only letters, digits, and underscores (_), and must start with a letter. You can enter multiple tags and separate them with commas (,). 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: <ul style="list-style-type: none"> <li>• application/json</li> <li>• application/xml</li> <li>• multipart/form-date</li> <li>• text/plain</li> </ul> Currently, this parameter is not supported. Enumeration values: <ul style="list-style-type: none"> <li>• <b>application/json</b></li> <li>• <b>application/xml</b></li> <li>• <b>multipart/form-date</b></li> <li>• <b>text/plain</b></li> </ul>
id	String	API ID.

Parameter	Type	Description
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	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.

Parameter	Type	Description
mock_info	<a href="#">ApiMock</a> object	Mock backend details.
req_params	Array of <a href="#">ReqParam</a> objects	Request parameters.
backend_params	Array of <a href="#">BackendParam</a> objects	Backend parameters.
policy_functions	Array of <a href="#">ApiPolicyFunctionResp</a> objects	FunctionGraph backend policies.
policy_mocks	Array of <a href="#">ApiPolicyMockResp</a> objects	Mock backend policies.
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 3-315** 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> <p>Enumeration values:</p> <ul style="list-style-type: none"><li>● <b>DISABLE</b></li><li>● <b>HEADER</b></li></ul>

**Table 3-316** BackendApi

Parameter	Type	Description
authorizer_id	String	Backend custom authorizer ID.
url_domain	String	Backend service address.It can consist 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. Enumeration values: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
remark	String	Description. It cannot exceed 255 characters.
req_method	String	Request method. Enumeration values: <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>
version	String	Web backend version, which can contain a maximum of 16 characters.

Parameter	Type	Description
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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.> The value must comply with URI specifications.
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. Default: <b>-1</b>
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 3-317** 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> Enumeration values: <ul style="list-style-type: none"> <li>1</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>
url_domains	Array of <a href="#">UrlDomain</a> objects	Independent domain names bound to the API group.

**Table 3-318** 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.

Parameter	Type	Description
min_ssl_version	String	Minimum SSL version. TLS 1.1 and TLS 1.2 are supported. Default: <b>TLSv1.1</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TLSv1.1</b></li> <li>• <b>TLSv1.2</b></li> </ul>
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>

**Table 3-319** 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>• <b>async</b>: asynchronous</li> <li>• <b>sync</b>: synchronous</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>async</b></li> <li>• <b>sync</b></li> </ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>• <b>V1</b>: non-VPC</li> <li>• <b>V2</b>: VPC</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>V1</b></li> <li>• <b>V2</b></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>

Parameter	Type	Description
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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: 1
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 3-320** 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 3-321** 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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>STRING</b></li> <li>• <b>NUMBER</b></li> </ul>
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"> <li>• <b>PATH</b></li> <li>• <b>QUERY</b></li> <li>• <b>HEADER</b></li> </ul>
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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
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 Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
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.

Parameter	Type	Description
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 Enumeration values: <ul style="list-style-type: none"> <li>1</li> <li>2</li> </ul>
id	String	Parameter ID.

**Table 3-322** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>async</b></li> <li><b>sync</b></li> </ul>
network_type	String	Function network architecture. <ul style="list-style-type: none"> <li>V1: non-VPC</li> <li>V2: VPC</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li><b>V1</b></li> <li><b>V2</b></li> </ul>

Parameter	Type	Description
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. You can set the maximum timeout using the backend_timeout configuration item. The maximum value is 600,000. Unit: ms. Minimum: <b>1</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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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 3-323** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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.
result_content	String	Response.

**Table 3-324** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ALL</b></li> <li>• <b>ANY</b></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>

Parameter	Type	Description
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. It can consist 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. The value can be HTTP or HTTPS. Enumeration values: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
req_method	String	Request method. Options: GET, POST, PUT, DELETE, HEAD, PATCH, OPTIONS, ANY. Enumeration values: <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	Type	Description
req_uri	String	Request address. It can contain request parameters enclosed with brackets ({}). For example, /getUserInfo/{userId}. Special characters, such as asterisks (*), percent signs (%), hyphens (-), and underscores (_), 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.> The value must comply with URI specifications.
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
retry_count	String	Number of retry attempts to request the backend service. The default value is -1. The value ranges from -1 to 10. Default: -1
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 3-325** 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> Enumeration values: <ul style="list-style-type: none"> <li>REQUEST</li> <li>CONSTANT</li> <li>SYSTEM</li> </ul>

Parameter	Type	Description
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. Enumeration values: <ul style="list-style-type: none"><li>● <b>PATH</b></li><li>● <b>QUERY</b></li><li>● <b>HEADER</b></li></ul>

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 3-326** CconditionResp

Parameter	Type	Description
req_param_name	String	Input parameter name. This parameter is required if the policy type is param.
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 if the policy type is param. Enumeration values: <ul style="list-style-type: none"> <li><b>exact</b></li> <li><b>enum</b></li> <li><b>pattern</b></li> </ul>
condition_origin	String	Policy type. <ul style="list-style-type: none"> <li>param: input parameter</li> <li>source: source IP address</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li><b>param</b></li> <li><b>source</b></li> </ul>
condition_value	String	Condition value.
id	String	ID.
req_param_id	String	Input parameter ID.
req_param_location	String	Input parameter location.

**Table 3-327** 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.

**Status code: 401****Table 3-328** Response body parameters

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

**Status code: 403****Table 3-329** Response body parameters

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

**Status code: 404****Table 3-330** Response body parameters

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

**Status code: 500**

**Table 3-331** 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.appId",
"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.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

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

## Error Codes

See [Error Codes](#).

### 3.5.13 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.

#### URI

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

**Table 3-332** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-333** 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 3-334** Response body parameters

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

### Status code: 403

**Table 3-335** Response body parameters

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

### Status code: 404

**Table 3-336** Response body parameters

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

### Status code: 500

**Table 3-337** 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

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 3.6 Signature Key Management

## 3.6.1 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.

### URI

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

**Table 3-338** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-339** 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.

**Table 3-340** 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</li><li>• basic</li><li>• public_key</li><li>• aes</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> <p>Enumeration values:</p> <ul style="list-style-type: none"><li>• <b>hmac</b></li><li>• <b>basic</b></li><li>• <b>public_key</b></li><li>• <b>aes</b></li></ul>

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 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>
sign_algorithm	No	String	<p>Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used.</p> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>aes-128-cfb</b></li> <li>• <b>aes-256-cfb</b></li> </ul>

## Response Parameters

Status code: 201

**Table 3-341** 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</li> <li>• basic</li> <li>• public_key</li> <li>• aes</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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>hmac</b></li> <li>• <b>basic</b></li> <li>• <b>public_key</b></li> <li>• <b>aes</b></li> </ul>



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_algorithm	String	Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used. Enumeration values: <ul style="list-style-type: none"><li>• <b>aes-128-cfb</b></li><li>• <b>aes-256-cfb</b></li></ul>
update_time	String	Update time.
create_time	String	Creation time.
id	String	Signature key ID.

**Status code: 400****Table 3-342** Response body parameters

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

**Status code: 401****Table 3-343** Response body parameters

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

**Status code: 403****Table 3-344** Response body parameters

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

**Status code: 500**

**Table 3-345** Response body parameters

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

## Example Requests

```
{
  "name" : "signature_demo",
  "sign_key" : "signkeysignkey",
  "sign_secret" : "signsecretsignsecretsecretsecret"
}
```

## Example Responses

### Status code: 201

Created

```
{
  "sign_secret" : "signsecretsecretsecretsecret",
  "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: 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](#).

## 3.6.2 Modifying a Signature Key

### Function

This API is used to modify the information about a signature key.

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/signs/{sign\_id}

**Table 3-346** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-347** 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 3-348** 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</li> <li>• basic</li> <li>• public_key</li> <li>• aes</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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>hmac</b></li> <li>• <b>basic</b></li> <li>• <b>public_key</b></li> <li>• <b>aes</b></li> </ul>

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 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>
sign_algorithm	No	String	<p>Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used.</p> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>aes-128-cfb</b></li> <li>• <b>aes-256-cfb</b></li> </ul>

## Response Parameters

Status code: 200



**Table 3-349** 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</li> <li>● basic</li> <li>● public_key</li> <li>● aes</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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>● <b>hmac</b></li> <li>● <b>basic</b></li> <li>● <b>public_key</b></li> <li>● <b>aes</b></li> </ul>

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_algorithm	String	Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used. Enumeration values: <ul style="list-style-type: none"> <li>• <b>aes-128-cfb</b></li> <li>• <b>aes-256-cfb</b></li> </ul>
update_time	String	Update time.
create_time	String	Creation time.
id	String	Signature key ID.

**Status code: 400**

**Table 3-350** Response body parameters

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

**Status code: 401**

**Table 3-351** Response body parameters

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

**Status code: 403**

**Table 3-352** Response body parameters

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

**Status code: 404**

**Table 3-353** Response body parameters

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

**Status code: 500**

**Table 3-354** Response body parameters

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

## Example Requests

```
{
  "name" : "signature_demo"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "sign_secret" : "dc02fc5f30714d6bb21888389419e2b3",
  "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: 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](#).

### 3.6.3 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.

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/signs/{sign\_id}

**Table 3-355** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-356** 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 3-357** Response body parameters

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

**Status code: 403**

**Table 3-358** Response body parameters

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

**Status code: 404**

**Table 3-359** Response body parameters

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

**Status code: 500**

**Table 3-360** 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
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.6.4 Querying Signature Keys

## Function

This API is used to query all the signature keys.

## URI

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

**Table 3-361** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.



**Table 3-362** 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	Signature key ID.
name	No	String	Signature key name.
precise_search	No	String	Parameter name (name) for exact matching.

## Request Parameters

**Table 3-363** 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 3-364** 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.
signs	Array of <b>SignatureWithBindNum</b> objects	Signature key list.

**Table 3-365** 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</li> <li>• basic</li> <li>• public_key</li> <li>• aes</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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>hmac</b></li> <li>• <b>basic</b></li> <li>• <b>public_key</b></li> <li>• <b>aes</b></li> </ul>

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_algorithm	String	Signature algorithm. Specify a signature algorithm only when using an AES signature key. By default, no algorithm is used. Enumeration values: <ul style="list-style-type: none"><li>• <b>aes-128-cfb</b></li><li>• <b>aes-256-cfb</b></li></ul>
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 3-366** Response body parameters

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

**Status code: 401****Table 3-367** Response body parameters

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

**Status code: 403****Table 3-368** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 3-369** 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" : "signsecretsignsecret",
    "update_time" : "2018-02-07T02:00:27.964766Z",
    "create_time" : "2018-02-06T12:17:36Z",
    "name" : "signature_demo",
    "id" : "0b0e8f456b8742218af75f945307173c",
    "sign_key" : "signkey",
    "sign_type" : "hmac",
    "bind_num" : 0,
    "ldapi_bind_num" : 0
  }, {
    "sign_secret" : "9ce16b029034464898ee33540c42e16a",
    "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](#).

## 3.7 Binding/Unbinding Signature Keys

### 3.7.1 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.

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings

**Table 3-370** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-371** 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 3-372** 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 3-373** Response body parameters

Parameter	Type	Description
bindings	Array of <a href="#">SignApiBindingInfo</a> objects	APIs bound to the signature key.

**Table 3-374** 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.



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</li> <li>• basic</li> <li>• public_key</li> <li>• aes</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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>hmac</b></li> <li>• <b>basic</b></li> <li>• <b>public_key</b></li> <li>• <b>aes</b></li> </ul>

**Status code: 400**

**Table 3-375** Response body parameters

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

**Status code: 401**

**Table 3-376** Response body parameters

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

**Status code: 403****Table 3-377** Response body parameters

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

**Status code: 404****Table 3-378** Response body parameters

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

**Status code: 500****Table 3-379** Response body parameters

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

## Example Requests

```
{  
  "sign_id" : "0b0e8f456b8742218af75f945307173c",  
  "publish_ids" : [ "40e7162dc6b94bbbb1a60d2a24b1b0c" ]  
}
```

## Example Responses

**Status code: 201**

### Created

```
{
  "bindings": [ {
    "api_id": "5f918d104dc84480a75166ba99efff21",
    "sign_secret": "dc02fc5f30714d6bb21888389419e2b3",
    "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
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 3.7.2 Unbinding a Signature Key

#### Function

This API is used to unbind a signature key from an API.

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings/{sign\_bindings\_id}

**Table 3-380** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-381** 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 3-382** Response body parameters

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

### Status code: 401

**Table 3-383** Response body parameters

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

### Status code: 403

**Table 3-384** Response body parameters

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

### Status code: 404

**Table 3-385** Response body parameters

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

**Status code: 500**

**Table 3-386** 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](#).

**3.7.3 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.

**URI**

GET /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings/binded-signs

**Table 3-387** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.



**Table 3-388** 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 3-389** 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 3-390** 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 3-391** 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.

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</li><li>• basic</li><li>• public_key</li><li>• aes</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> <p>Enumeration values:</p> <ul style="list-style-type: none"><li>• <b>hmac</b></li><li>• <b>basic</b></li><li>• <b>public_key</b></li><li>• <b>aes</b></li></ul>

**Status code: 400****Table 3-392** Response body parameters

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

**Status code: 401**

**Table 3-393** Response body parameters

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

**Status code: 403****Table 3-394** Response body parameters

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

**Status code: 404****Table 3-395** Response body parameters

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

**Status code: 500****Table 3-396** 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_id" : "0b0e8f456b8742218af75f945307173c",  
  "sign_name" : "signature_demo",  
  "sign_key" : "a071a20d460a4f639a636c3d7e3d8163",  
  "sign_secret" : "dc02fc5f30714d6bb21888389419e2b3",  
  "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](#).

### 3.7.4 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.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings/unbinded-apis

**Table 3-397** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-398** 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.

## Request Parameters

**Table 3-399** 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 3-400** 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>ApiForSign</b> objects	API list.

**Table 3-401** ApiForSign

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.
type	Integer	API type.
signature_name	String	Name of the signature key bound to the API.

**Status code: 400****Table 3-402** Response body parameters

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

**Status code: 401**

**Table 3-403** Response body parameters

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

**Status code: 403**

**Table 3-404** Response body parameters

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

**Status code: 404**

**Table 3-405** Response body parameters

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

**Status code: 500**

**Table 3-406** 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](#).

### 3.7.5 Querying APIs Bound with a Signature Key

#### Function

This API is used to query the APIs to which a signature key has been bound.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/sign-bindings/binded-apis

**Table 3-407** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-408** 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.

## Request Parameters

**Table 3-409** 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 3-410** 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 3-411** 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.
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.

**Status code: 400**

**Table 3-412** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 401****Table 3-413** Response body parameters

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

**Status code: 403****Table 3-414** Response body parameters

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

**Status code: 404****Table 3-415** Response body parameters

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

**Status code: 500****Table 3-416** 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": "40e7162dc6b94bbbbb1a60d2a24b1b0c"
  } ]
}
```

**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](#).

# 3.8 Binding/Unbinding Request Throttling Policies

## 3.8.1 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.

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings

**Table 3-417** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-418** 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 3-419** 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 3-420** Response body parameters

Parameter	Type	Description
throttle_appl s	Array of <b>ThrottleApiBinding</b> objects	Request throttling policy binding records.

**Table 3-421** 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. Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li><li>• 3</li></ul>
strategy_id	String	Request throttling policy ID.
apply_time	String	Binding time.
id	String	Binding record ID.

**Status code: 401****Table 3-422** Response body parameters

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

**Status code: 403****Table 3-423** Response body parameters

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

**Status code: 404**

**Table 3-424** Response body parameters

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

**Status code: 500****Table 3-425** Response body parameters

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

## Example Requests

```
{
  "publish_ids" : [ "40e7162dc6b94bbbb1a60d2a24b1b0c" ],
  "strategy_id" : "3437448ad06f4e0c91a224183116e965"
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "throttle_applys" : [ {
    "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](#).

## 3.8.2 Unbinding a Request Throttling Policy

### Function

This API is used to unbind a request throttling policy from an API.

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings/{throttle\_binding\_id}

**Table 3-426** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.

Parameter	Mandatory	Type	Description
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 3-427** 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 3-428** Response body parameters

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

**Status code: 401**

**Table 3-429** Response body parameters

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

**Status code: 403**

**Table 3-430** Response body parameters

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

**Status code: 404****Table 3-431** Response body parameters

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

**Status code: 500****Table 3-432** 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](#).

### 3.8.3 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.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings/binded-apis



**Table 3-433** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-434** 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 3-435** 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 3-436** 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 3-437** 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.

Parameter	Type	Description
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.

**Status code: 400****Table 3-438** Response body parameters

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

**Status code: 401****Table 3-439** Response body parameters

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

**Status code: 403****Table 3-440** Response body parameters

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

**Status code: 404**

**Table 3-441** Response body parameters

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

**Status code: 500**

**Table 3-442** 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](#).

## 3.8.4 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.

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/throttle-bindings/unbound-apis

**Table 3-443** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-444** 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.

Parameter	Mandatory	Type	Description
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 3-445** 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 3-446** 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 3-447** 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.

Parameter	Type	Description
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.

**Status code: 400****Table 3-448** Response body parameters

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

**Status code: 401****Table 3-449** Response body parameters

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

**Status code: 403**



**Table 3-450** Response body parameters

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

**Status code: 404**

**Table 3-451** Response body parameters

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

**Status code: 500**

**Table 3-452** 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

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

## Error Codes

See [Error Codes](#).

### 3.8.5 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.

#### URI

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

**Table 3-453** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-454** 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.
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 3-455** 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 3-456** 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 <b>ThrottleForApi</b> objects	Request throttling policy list.

**Table 3-457** ThrottleForApi

Parameter	Type	Description
app_calls	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. Enumeration values: <ul style="list-style-type: none"> <li>● <b>SECOND</b></li> <li>● <b>MINUTE</b></li> <li>● <b>HOURL</b></li> <li>● <b>DAY</b></li> </ul>
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.

Parameter	Type	Description
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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>
create_time	String	Creation time.

Parameter	Type	Description
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 3-458** Response body parameters

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

**Status code: 401****Table 3-459** Response body parameters

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

**Status code: 403****Table 3-460** Response body parameters

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

**Status code: 404****Table 3-461** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 3-462** 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; IP address: 600 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](#).

## 3.8.6 Unbinding Request Throttling Policies

### Function

This API is used to unbind request throttling policies from APIs.

### URI

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

**Table 3-463** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-464** Query Parameters

Parameter	Mandatory	Type	Description
action	Yes	String	The value must be delete.

### Request Parameters

**Table 3-465** 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 3-466** 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 3-467** 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 3-468** 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 3-469** Response body parameters

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

**Status code: 401**

**Table 3-470** Response body parameters

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

**Status code: 403**

**Table 3-471** Response body parameters

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

**Status code: 500**

**Table 3-472** Response body parameters

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

## Example Requests

```
{
  "throttle_bindings" : [ "6a6a75b425df416cbdc7821da30be8d", "b11e5970f732440d47580647d57f" ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "failure" : [ {
    "bind_id" : "b11e5970f732440d47580647d57f",
    "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](#).

## 3.9 Excluded Request Throttling Configuration

## 3.9.1 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.

### URI

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

**Table 3-473** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-474** 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.

**Table 3-475** 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 excluded account ID.
object_type	Yes	String	Excluded object type. Enumeration values: <ul style="list-style-type: none"> <li>• APP</li> <li>• USER</li> </ul>

## Response Parameters

**Status code: 201**

**Table 3-476** 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 3-477** Response body parameters

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

**Status code: 401****Table 3-478** Response body parameters

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

**Status code: 403****Table 3-479** Response body parameters

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

**Status code: 404****Table 3-480** Response body parameters

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

**Status code: 500****Table 3-481** Response body parameters

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



## Example Requests

```
{
  "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](#).

## 3.9.2 Modifying an Excluded Request Throttling Configuration

### Function

This API is used to modify an excluded configuration of a request throttling policy.

### URI

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

**Table 3-482** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-483** 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 3-484** 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 3-485** 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 3-486** Response body parameters

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

**Status code: 401****Table 3-487** Response body parameters

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

**Status code: 403****Table 3-488** Response body parameters

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

**Status code: 404****Table 3-489** Response body parameters

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

**Status code: 500****Table 3-490** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

```
{  
  "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](#).

### 3.9.3 Deleting an Excluded Request Throttling Configuration

#### Function

This API is used to delete an excluded configuration of a request throttling policy.

#### URI

```
DELETE /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}/  
throttle-specials/{strategy_id}
```

**Table 3-491** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.

Parameter	Mandatory	Type	Description
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 3-492** 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 3-493** Response body parameters

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

**Status code: 401**

**Table 3-494** Response body parameters

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

**Status code: 403**

**Table 3-495** Response body parameters

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

**Status code: 404****Table 3-496** Response body parameters

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

**Status code: 500****Table 3-497** 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](#).

### 3.9.4 Querying Excluded Request Throttling Configurations

#### Function

This API is used to query all excluded configurations of a request throttling policy.

#### URI

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

**Table 3-498** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-499** 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 3-500** 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 3-501** 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 3-502** 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 3-503** Response body parameters

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

**Status code: 401****Table 3-504** Response body parameters

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

**Status code: 403****Table 3-505** Response body parameters

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

**Status code: 404****Table 3-506** Response body parameters

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

**Status code: 500**

**Table 3-507** 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](#).

# 3.10 App Authorization Management

## 3.10.1 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.

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths

**Table 3-508** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-509** 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 3-510** 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 3-511** Response body parameters

Parameter	Type	Description
auths	Array of <a href="#">ApiAuthRelations</a> objects	App authorization records.

**Table 3-512** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>PROVIDER</b></li> <li><b>CONSUMER</b></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. Enumeration values: <ul style="list-style-type: none"> <li><b>NORMAL</b></li> <li><b>GREEN</b></li> </ul>
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 3-513** AuthResult

Parameter	Type	Description
status	String	Authorization result. <ul style="list-style-type: none"><li>• SUCCESS</li><li>• SKIPPED</li><li>• FAILED</li></ul> Enumeration values: <ul style="list-style-type: none"><li>• <b>SUCCESS</b></li><li>• <b>SKIPPED</b></li><li>• <b>FAILED</b></li></ul>
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 3-514** Response body parameters

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

**Status code: 401****Table 3-515** Response body parameters

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

**Status code: 403**

**Table 3-516** Response body parameters

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

**Status code: 404**

**Table 3-517** Response body parameters

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

**Status code: 500**

**Table 3-518** Response body parameters

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

## Example Requests

```
{
  "env_id": "DEFAULT_ENVIRONMENT_RELEASE_ID",
  "app_ids": [ "356de8eb7a8742168586e5daf5339965" ],
  "api_ids": [ "5f918d104dc84480a75166ba99efff21" ]
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "auths": [ {
    "api_id": "5f918d104dc84480a75166ba99efff21",
    "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](#).

## 3.10.2 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.

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths/{app\_auth\_id}

**Table 3-519** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-520** 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 3-521** Response body parameters

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

**Status code: 401****Table 3-522** Response body parameters

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

**Status code: 403****Table 3-523** Response body parameters

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

**Status code: 404****Table 3-524** Response body parameters

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

**Status code: 500****Table 3-525** 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

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 3.10.3 Querying APIs Bound with an App

#### Function

This API is used to query the APIs to which a specified app has been bound.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths/binded-apis

**Table 3-526** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-527** 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.
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.

## Request Parameters

**Table 3-528** 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 3-529** 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.
auths	Array of <a href="#">ApiAuthInfo</a> objects	API list.

**Table 3-530** 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. Enumeration values: <ul style="list-style-type: none"><li>• <b>apig</b></li><li>• <b>roma</b></li></ul>
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.

Parameter	Type	Description
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. Enumeration values: <ul style="list-style-type: none"><li>• <b>NORMAL</b></li><li>• <b>GREEN</b></li></ul>
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.
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 3-531** Response body parameters

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

**Status code: 401****Table 3-532** Response body parameters

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

**Status code: 403**

**Table 3-533** Response body parameters

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

**Status code: 404**

**Table 3-534** Response body parameters

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

**Status code: 500**

**Table 3-535** 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": "40e7162dc6b94b5bbb1a60d2a24b1b0c"  
}]  
}
```

**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

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

## Error Codes

See [Error Codes](#).

### 3.10.4 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.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths/unbinded-apis

**Table 3-536** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-537** 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.

## Request Parameters

**Table 3-538** 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 3-539** 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
apis	Array of <a href="#">ApiOutline</a> objects	API list.

**Table 3-540** 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.

**Status code: 400****Table 3-541** Response body parameters

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

**Status code: 401****Table 3-542** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403**

**Table 3-543** Response body parameters

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

**Status code: 404**

**Table 3-544** Response body parameters

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

**Status code: 500**

**Table 3-545** 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](#).

### 3.10.5 Querying Apps Bound to an API

#### Function

This API is used to query the apps that have been bound to a specified API.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/app-auths/binded-apps

**Table 3-546** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-547** 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 3-548** 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.

## Response Parameters

Status code: **200**

**Table 3-549** 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 3-550** 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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>apig</b></li> <li>• <b>roma</b></li> </ul>
app_creator	String	Creator of the app. <ul style="list-style-type: none"> <li>• <b>USER</b>: The app is created by a tenant.</li> <li>• <b>MARKET</b>: The app is allocated by KooGallery. This value is not supported currently.</li> </ul>

Parameter	Type	Description
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. Enumeration values: <ul style="list-style-type: none"><li>• <b>NORMAL</b></li><li>• <b>GREEN</b></li></ul>
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.
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 3-551** Response body parameters

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

**Status code: 401**

**Table 3-552** Response body parameters

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

**Status code: 403****Table 3-553** Response body parameters

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

**Status code: 404****Table 3-554** Response body parameters

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

**Status code: 500****Table 3-555** 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](#).

# 3.11 Resource Query

## 3.11.1 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.

### URI

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

**Table 3-556** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.



## Request Parameters

**Table 3-557** 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 3-558** 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 3-559** Response body parameters

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

**Status code: 401**

**Table 3-560** Response body parameters

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

**Status code: 403**

**Table 3-561** Response body parameters

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

**Status code: 404**

**Table 3-562** Response body parameters

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

**Status code: 500**

**Table 3-563** 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](#).

## 3.11.2 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.

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/resources/outline/groups

**Table 3-564** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 3-565** 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 3-566** 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.

Parameter	Type	Description
onsell_nums	Integer	Number of API groups that have been listed on KooGallery.

**Status code: 400****Table 3-567** Response body parameters

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

**Status code: 401****Table 3-568** Response body parameters

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

**Status code: 403****Table 3-569** Response body parameters

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

**Status code: 404****Table 3-570** Response body parameters

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

**Status code: 500****Table 3-571** 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](#).

3.11.3 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.

URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/resources/outline/apps

Table 3-572 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-573** 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 3-574** 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 3-575** Response body parameters

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

**Status code: 401**

**Table 3-576** Response body parameters

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

**Status code: 403**



**Table 3-577** Response body parameters

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

**Status code: 404**

**Table 3-578** Response body parameters

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

**Status code: 500**

**Table 3-579** 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

```
{
  "authenticated_nums" : 7,
  "unauthenticated_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](#).

## 3.12 App Management

## 3.12.1 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.

### URI

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

**Table 3-580** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 3-581** 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 3-582** 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.

Parameter	Mandatory	Type	Description
remark	No	String	App description. It cannot exceed 255 characters.
app_key	No	String	AppKey. It can contain 8 to 64 characters, starting with a letter or digit. Only letters, digits, hyphens (-), and underscores (_) are allowed.
app_secret	No	String	AppSecret. It can contain 8 to 64 characters, starting with a letter or digit. Only letters, digits, and the following special characters are allowed: _-!@#\$\$%

## Response Parameters

Status code: 201

Table 3-583 Response body parameters

Parameter	Type	Description
id	String	ID.
name	String	Name.
remark	String	Description.
creator	String	<p>Creator of the app.</p> <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> <p>The value MARKET is currently not supported.</p> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>USER</b></li> <li>• <b>MARKET</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"><li>• 1</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. Enumeration values: <ul style="list-style-type: none"><li>• <b>apig</b></li><li>• <b>roma</b></li></ul>
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 3-584** Response body parameters

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

**Status code: 401****Table 3-585** Response body parameters

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

**Status code: 403**

**Table 3-586** Response body parameters

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

**Status code: 500****Table 3-587** Response body parameters

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

## Example Requests

```
{
  "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" : "416b6b2a1d394111b9bc1df0e6842ab8",
  "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](#).

## 3.12.2 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.

### URI

```
PUT /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}
```

**Table 3-588** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-589** 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 3-590** 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. It can contain 8 to 64 characters, starting with a letter or digit. Only letters, digits, hyphens (-), and underscores (_) are allowed.



Parameter	Mandatory	Type	Description
app_secret	No	String	AppSecret. It can contain 8 to 64 characters, starting with a letter or digit. Only letters, digits, and the following special characters are allowed: _-!@\$%

## Response Parameters

Status code: 201

Table 3-591 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. Enumeration values: <ul style="list-style-type: none"> <li>USER</li> <li>MARKET</li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>1</li> </ul>

Parameter	Type	Description
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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>apig</b></li> <li>• <b>roma</b></li> </ul>
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 3-592** Response body parameters

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

**Status code: 401**

**Table 3-593** Response body parameters

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

**Status code: 403**

**Table 3-594** Response body parameters

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

**Status code: 404****Table 3-595** Response body parameters

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

**Status code: 500****Table 3-596** Response body parameters

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

**Example Requests**

```
{
  "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" : "416b6b2a1d394111b9bc1df0e6842ab8",
  "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](#).

### 3.12.3 Deleting an App

#### Function

This API is used to delete an app.

Deleted apps cannot call APIs.

## URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}

**Table 3-597** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-598** 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 3-599** Response body parameters

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

**Status code: 401**

**Table 3-600** Response body parameters

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

**Status code: 403****Table 3-601** Response body parameters

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

**Status code: 404****Table 3-602** Response body parameters

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

**Status code: 500****Table 3-603** 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](#).

## 3.12.4 Resetting the AppSecret of an App

### Function

This API is used to reset the AppSecret of an app.

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/apps/secret/{app\_id}

**Table 3-604** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-605** 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 3-606** Request body parameters

Parameter	Mandatory	Type	Description
app_secret	No	String	An AppSecret consists of 8 to 64 characters, starting with a letter or digit. Only letters, digits, and special characters (_-!@#\$\$%) are allowed. To customize AppSecrets, ensure that AppSecret authentication has been enabled.

## Response Parameters

Status code: 200

**Table 3-607** 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. Enumeration values: <ul style="list-style-type: none"> <li>USER</li> <li>MARKET</li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>1</li> </ul>

Parameter	Type	Description
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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>apig</b></li> <li>• <b>roma</b></li> </ul>
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 3-608** Response body parameters

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

**Status code: 401**

**Table 3-609** Response body parameters

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

**Status code: 403**

**Table 3-610** Response body parameters

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

**Status code: 404****Table 3-611** Response body parameters

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

**Status code: 500****Table 3-612** Response body parameters

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

**Example Requests**

```
{
  "app_secret" : "1ff226f0d2b54ac48c2d298c52ba49a4"
}
```

**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" : "1ff226f0d2b54ac48c2d298c52ba49a4",
  "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
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 3.12.5 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.

## URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/validation/{app\_id}

**Table 3-613** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-614** 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 3-615** Response body parameters

Parameter	Type	Description
id	String	ID.
name	String	Name.
remark	String	Description.

**Status code: 400**

**Table 3-616** Response body parameters

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

**Status code: 401****Table 3-617** Response body parameters

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

**Status code: 403****Table 3-618** Response body parameters

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

**Status code: 404****Table 3-619** Response body parameters

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

**Status code: 500****Table 3-620** 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](#).

### 3.12.6 Querying App Details

#### Function

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

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}

**Table 3-621** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-622 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 3-623 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. Enumeration values: <ul style="list-style-type: none"><li>• <b>USER</b></li><li>• <b>MARKET</b></li></ul>
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> Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li></ul>

Parameter	Type	Description
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. Enumeration values: <ul style="list-style-type: none"><li>• <b>apig</b></li><li>• <b>roma</b></li></ul>
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 3-624** Response body parameters

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

**Status code: 401****Table 3-625** Response body parameters

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

**Status code: 403****Table 3-626** Response body parameters

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

**Status code: 404**

**Table 3-627** Response body parameters

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

**Status code: 500**

**Table 3-628** 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": "416b6b2a1d394111b9bc1df0e6842ab8",
  "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
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 3.12.7 Querying Apps

#### Function

This API is used to query apps.

#### URI

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

**Table 3-629** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-630** 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	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 3-631** 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 3-632** 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 3-633** AppInfoWithBindNum

Parameter	Type	Description
id	String	ID.
name	String	Name.
remark	String	Description.
creator	String	<p>Creator of the app.</p> <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> <p>The value MARKET is currently not supported.</p> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>USER</b></li> <li>• <b>MARKET</b></li> </ul>

Parameter	Type	Description
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>apig</b></li> <li>• <b>roma</b></li> </ul>
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.
bind_num	Integer	Number of bound APIs.

**Status code: 400**

**Table 3-634** Response body parameters

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

**Status code: 401**

**Table 3-635** Response body parameters

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

**Status code: 403**

**Table 3-636** Response body parameters

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

**Status code: 500**

**Table 3-637** 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": "416b6b2a1d394111b9bc1df0e6842ab8",
    "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" : "0a4e7035e81e424ab4c2c571980d5c6e",
"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](#).

## 3.12.8 Creating an AppCode

### Function

This API is used to create an AppCode for an app for simple authentication.

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes

**Table 3-638** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-639** 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 3-640** Request body parameters

Parameter	Mandatory	Type	Description
app_code	Yes	String	AppCode value. The value can contain 64 to 180 characters, starting with a letter, plus sign (+), or slash (/). Only letters and the following special characters are allowed: +_!@#\$/=

## Response Parameters

### Status code: 201

**Table 3-641** Response body parameters

Parameter	Type	Description
app_code	String	AppCode value. The value can contain 64 to 180 characters, starting with a letter, plus sign (+), or slash (/). Only letters and the following special characters are allowed: +_!@#\$/=
id	String	ID.
app_id	String	App ID.
create_time	String	Creation time.

### Status code: 400

**Table 3-642** Response body parameters

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

### Status code: 401

**Table 3-643** Response body parameters

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

**Status code: 403****Table 3-644** Response body parameters

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

**Status code: 404****Table 3-645** Response body parameters

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

**Status code: 500****Table 3-646** Response body parameters

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

## Example Requests

```
{
  "app_code" : "GjOD3g80AABuuFeEjpVQADBlAjBh3UzC7W
+gr4VJBB5BtJ4fdVOQoSvoji3gFxDUb5pWBz9wUcw9+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

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

## Error Codes

See [Error Codes](#).

### 3.12.9 Generating an AppCode

#### Function

This API is used to generate a random AppCode.

#### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes

**Table 3-647** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-648** 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: 201****Table 3-649** Response body parameters

Parameter	Type	Description
app_code	String	AppCode value. The value can contain 64 to 180 characters, starting with a letter, plus sign (+), or slash (/). Only letters and the following special characters are allowed: +_!@#\$\$%/=
id	String	ID.
app_id	String	App ID.
create_time	String	Creation time.

**Status code: 400****Table 3-650** Response body parameters

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

**Status code: 401**

**Table 3-651** Response body parameters

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

**Status code: 403****Table 3-652** Response body parameters

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

**Status code: 404****Table 3-653** Response body parameters

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

**Status code: 500****Table 3-654** 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](#).

### 3.12.10 Deleting an AppCode

#### Function

This API is used to delete an AppCode. Deleted AppCodes cannot be used for simple authentication.

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes/{app\_code\_id}

**Table 3-655** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-656** 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 3-657** Response body parameters

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

**Status code: 401**

**Table 3-658** Response body parameters

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

**Status code: 403**

**Table 3-659** Response body parameters

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

**Status code: 404**

**Table 3-660** Response body parameters

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

**Status code: 500**

**Table 3-661** 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](#).

**3.12.11 Querying AppCode Details**

**Function**

This API is used to create an AppCode for an app for simple authentication.

**URI**

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes/{app\_code\_id}

**Table 3-662** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

Parameter	Mandatory	Type	Description
app_id	Yes	String	App ID.
app_code_id	Yes	String	AppCode ID.

## Request Parameters

**Table 3-663** 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: 201**

**Table 3-664** Response body parameters

Parameter	Type	Description
app_code	String	AppCode value. The value can contain 64 to 180 characters, starting with a letter, plus sign (+), or slash (/). Only letters and the following special characters are allowed: +_!@#\$/=
id	String	ID.
app_id	String	App ID.
create_time	String	Creation time.

**Status code: 400**

**Table 3-665** Response body parameters

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

**Status code: 401****Table 3-666** Response body parameters

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

**Status code: 403****Table 3-667** Response body parameters

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

**Status code: 404****Table 3-668** Response body parameters

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

**Status code: 500****Table 3-669** 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



Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.12.12 Querying AppCodes of an App

### Function

This API is used to query the AppCodes of an app.

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/apps/{app\_id}/app-codes

**Table 3-670** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-671** 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 3-672** 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 3-673** 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 3-674** AppCodeBaseInfo

Parameter	Type	Description
app_code	String	AppCode value. The value can contain 64 to 180 characters, starting with a letter, plus sign (+), or slash (/). Only letters and the following special characters are allowed: +_!@#\$\$%/=
id	String	ID.
app_id	String	App ID.
create_time	String	Creation time.

**Status code: 400**

**Table 3-675** Response body parameters

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

**Status code: 401**

**Table 3-676** Response body parameters

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

**Status code: 403**

**Table 3-677** Response body parameters

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

**Status code: 404**

**Table 3-678** Response body parameters

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

**Status code: 500**

**Table 3-679** 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](#).

## 3.13 Domain Name Management

## 3.13.1 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.

### URI

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

**Table 3-680** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-681** 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 3-682** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TLSv1.1</b></li> <li>• <b>TLSv1.2</b></li> </ul>
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>
url_domain	Yes	String	Custom domain name. It can contain a maximum of 255 characters and must comply with domain name specifications.

## Response Parameters

**Status code: 201**

**Table 3-683** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> <li>• <b>3</b></li> <li>• <b>4</b></li> </ul>

Parameter	Type	Description
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>

**Status code: 400****Table 3-684** Response body parameters

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

**Status code: 401****Table 3-685** Response body parameters

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

**Status code: 403****Table 3-686** Response body parameters

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



**Status code: 404****Table 3-687** Response body parameters

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

**Status code: 500****Table 3-688** Response body parameters

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

## Example Requests

```
{
  "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](#).

**3.13.2 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.

This API is used to add a certificate to a specific domain name.

## URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/domains/{domain\_id}/certificate

**Table 3-689** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-690** 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 3-691** 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 3-692** 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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> <li>• 3</li> <li>• 4</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>
ssl_name	String	Certificate name.
ssl_id	String	Certificate ID.

Status code: 400

**Table 3-693** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 401****Table 3-694** Response body parameters

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

**Status code: 403****Table 3-695** Response body parameters

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

**Status code: 404****Table 3-696** Response body parameters

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

**Status code: 500****Table 3-697** Response body parameters

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

## Example Requests

```
{
  "name" : "cert_demo",
  "private_key" : ""-----BEGIN CERTIFICATE-----\
\nMIIEdCCAtigAwIBAgIRAKUYqTtQbsPhVauuteGD8kMwDQYJKoZIhvcNAQELBQAw\
\nGZMxHjAcBgNVBAAoTFW1rY2VydCBkZXZlbG9wbWVudCBDQTE0MDIGA1UECwwrQ0hJ\
\nTkFcbDAwNDk1MzA1QERFU0tUT1AtTDJURk9GSCAobGl1cnVpeHVIKTE7MDkGA1UE\
\nAwwybWtjZXJ0IENISU5BxGwwMDQ5NTMwNUBERVNLVE9QLUwYVEZPRkggKGxpdxJ1\
\naXh1ZSkwHhcNMTkwNjAxMDAwMDAwWhcNMTAwODA0MDc0MTE5WjBfMScwJQYDVQK\
\nEx5ta2NlcnQgZGV2ZWxvcG1lbnQgY2VydGlmaWNhdGUxNDAYBgNVBAsMK0NISU5B\
\nXGwwMDQ5NTMwNUBERVNLVE9QLUwYVEZPRkggKGxpdxJ1aXh1ZSkwGwEiMA0GCsQg\
\nSib3DQEBAQUAA4IBDwAwggEKAoIBAQDYvP9xH8ZY9iUf5A8hT8s/gTTEOa3nswW\
\njxxU58+dliwvzdioc+CaggMz/rjt3bt9jRilKvzkJryUxLNOe3JsdJogm0OSxc\n\nSJWOhdZd/vScImWajM5t3M/M7xgt1g813PNEVJ/\
\nuTaEwm6K3sAlqGJfjiU/ep6pb\n\n4S91c3VYLTfGF2ND5kTaysp69/\
\nmXl4IUDWn82n0TjB4BvoiYD9ORMcvBBGCBh\n\nnnU2x497Uyo0X/MkreoxLxLEO2s4/TZfpZ0Ezsi/\
\nyHwjTRQ0ut53IKbSZDoBf3HLE\n\nPw1Y4q2s4qjN6ImZmkYX+Qvx5MxdHCNsfPsDFTYX2rl+vCpqtDW/\
\nAgMBAAGcjBw\n\nnMA4GA1UdDwEB/wQEAwIFoDATBgNVHSUEDDAKBggrBgEFBQCcDATAMBGNVHRMBAf8E\
\nAjAAMB8GA1UdLwQYMBaAFEV9QNgV6FDCbMBol4uT/JL/8ZHjMBoGA1UdEQQTMBCG\
\nD3d3dy5jb21wYW55LmNvbTANBgkqhkiG9w0BAQsFAAOCAQEAYAXkrRUz20xEGBIE3\
\nncvGtePxERVm0cdU1fl7qoQRd8bg0KjwvCvFfJZoCWD41saZnXcfwn+1eAD6txWsv\
\nkqg784DeTltqC5tU6l6kpXyU1lkTm9U7/Qbb8QGB8GaRAP9VJTLfOzjieZrj/55L\
\nnyrSk84hvo6XSAehqaBUWQN1qr8MY9/P0sZ2H0S9uu3Ezu9r/jx849aYDKen4Zdf\n\nnxda1ixz\n\n6UYUQ05cveGKu+HmlW5V+sVVUfBCbr1FrUgaSbeZDnKdm6xlQZ70los\
\nnn4Ylrpdbl0r5x41es94PaLSZC9+UANL7fqGKpYlYU3YigUs3ed9Cn1f1Scl6V\
\nJgR5tyK0dAb1n5tJwM2FA0cu56L3h2h71Jxgs4mEvBlqy+h6wVOIboj4UzQRnm+t\
\n1Um4rYopw240iy40rTYqB3dcsA3y3KYcTzA+LCUOcnWcaZSFiL9kEKqCWljZs51A\
\nnuux1UisF8p/\
\nMNyZPoPYIBQnO+oN2GJ72kr12pmMJgEkag38\n\nn-----END CERTIFICATE-----\n",
  "cert_content" : ""-----BEGIN PRIVATE KEY-----\
\nMIIEvQIBADANBgkqhkiG9w0BAQEFAASCBKcwggSjAgEAAoIBAQDYvP9xH8ZY9iUf\
\n5A8hT8s/\
\nGTTTEOa3nswWjxxU58+dliwvzdioc+CaggMz/rjt3bt9jRilKvzkJr\n\nnyUxLNOe3JsdJogm0OSxcSJWOhdZd/\
\nvScImWajM5t3M/M7xgt1g813PNEVJ/uTaEw\n\nnm6K3sAlqGJfjiU/ep6pb\n\n4S91c3VYLTfGF2ND5kTaysp69/\
\nmXl4IUDWn82n0Tj\n\nnB4BvoiYD9ORMcvBBGCBh\n\nU2x497Uyo0X/MkreoxLxLEO2s4/TZfpZ0Ezsi/yHwjT\
\nRQ0ut53IKbSZDoBf3HLEPw1Y4q2s4qjN6ImZmkYX+Qvx5MxdHCNsfPsDFTYX2rl+\
\nnvCpqtDW/\
\nAgMBAAGcggEBAMJGvOiHp+qsUODCM5G/jcdR0Q2Bcd3b+Mkr61BslDyC\n\nn+iqiprXCh1g2JRse/\
\npvs6gUpsRFaHNWwhoGQAdRUCvRQTUjCd4JV0V6zLWQASgO1\
\nnepvN9vdQeUujhH7q6fCfGxHfSoF1QnuCfOhPnz6zaWNf+4kBzTIA74IG38vLD6\
\nnTccgvXNJRJEWMM\n\nAN6uCndEMkPG2VtCor9VdaN5iuBN9NsAxTGZu9wgrZzg1W0rVZ\n\nnC/Psh2U2gwXHBzsiygB3n08R\n\n7MSwulpsvUone2E4IT+VDURWllcVQZtT6SxuRt\n\nnpFEy7E/\
\nPFKV1VRvEvyGtZSSLkt0WxqHPENrj3LuW77kCgYEA4X+iRh6jTSMj1fHl\n\nn0qhCSFWXjp1B\n\ncajNs62N2kFcRkOtD5BvWihlDbuLaq/eYfErKET6Z8jnbRyQCJV\n\nn/ePqRIZ30gjTPR55X8ZXb\n\nhCfichK5LZah6HwyRL337FzejTxs3J7C1rVmYq/n\n\nnCjfa3bJQ6zUtxRO\n\nB2BlCGES9q0CgYEA9g4ByVyydao8ZEC9Qbn9Pzd/LsIbBOAG\n\nnPg7Ib0vwHyRv9oPHTc7dla+YBTfNVuFot2e/\
\nKKf0meZnM6OiW/r38zgwLMwzHHcs\n\nnryMNGgwwfSwmDXgrswkXu5lCuoc1+2s3GGNFkjg7lrfcHlEpVAN/\
\ntJTCmbvTMGo\n\nnHM+oJpPp5sCgYAopHx27ua37ZiuOt8VTMZFi0e5qJZPkoGwSymEayVT8RQ5YE8w\n\nn\n\nD7HG+9pw7CnEtVb19xi6w/cSL2e2ZFujToAB8xoyrZn+Qi5WGMWwBofb6DcbNcoy\
\nncUfVQy08PpEExOhHxHBKq0LSt/cwKkwWB2MnOhBjID4fmyNQ6QrM9syYMQKBGh+8\
\nnv9Kwq/kH\n\nrg1H8uKad2yvvUUUGCS6Mq40/drneoc+X8p5IMRXNnDwhEbah+rcjkm\
\nnxAewQfzPr04Qqk5EGQsMZx4sOHCTsf/uG3QlTQenrs2ZUF5u3wJCh+Yclbs3au/f\
\nnQZPqW1Dn0H9wtRrq4fUgdXnV/G+FreffKjSgNaP3AoGAT8wX6ZszA5HrIGSo4pi7\
\nnDnbMNUYe1cpcyoAi178YVklom6uGutliafngapViESKZ0Y8X/lyZU6ELclimqJPB\
\nnXD4nSD64YVvi\n\nTjzwLK61tEUuAnYlWrtXQORWPQ5tHGlhCZPrciO2QH5P9cxoU3Z\n\nnpGfmyACUF4Od9tdq4t4S9j4=\n\nn-----\
\nEND PRIVATE KEY-----\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](#).

### 3.13.3 Modifying a Domain Name

#### Function

This API is used to modify the configuration of a domain name bound to an API group.

#### URI

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

**Table 3-698** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-699** 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 3-700** 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>TLSv1.1</b></li><li>• <b>TLSv1.2</b></li></ul>
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>

## Response Parameters

Status code: 201

**Table 3-701** 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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> <li>• 3</li> <li>• 4</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>

**Status code: 400**

**Table 3-702** Response body parameters

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

**Status code: 401**

**Table 3-703** Response body parameters

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

**Status code: 403****Table 3-704** Response body parameters

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

**Status code: 404****Table 3-705** Response body parameters

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

**Status code: 500****Table 3-706** Response body parameters

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

**Example Requests**

```
{  
  "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](#).

### 3.13.4 Unbinding a Domain Name

#### Function

This API is used to unbind a custom domain name from an API group.

#### URI

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

**Table 3-707** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-708** 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 3-709** Response body parameters

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

**Status code: 401**

**Table 3-710** Response body parameters

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

**Status code: 403**

**Table 3-711** Response body parameters

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

**Status code: 404**

**Table 3-712** Response body parameters

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

**Status code: 500**

**Table 3-713** 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](#).

### 3.13.5 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.

#### URI

```
DELETE /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}/certificate/{certificate_id}
```

**Table 3-714** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-715** 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 3-716** Response body parameters

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

### Status code: 401

**Table 3-717** Response body parameters

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

### Status code: 403

**Table 3-718** Response body parameters

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

### Status code: 404

**Table 3-719** Response body parameters

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

**Status code: 500**

**Table 3-720** 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](#).

### 3.13.6 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.

#### URI

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

**Table 3-721** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.

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.
domain_id	Yes	String	Domain ID.
certificate_id	Yes	String	Certificate ID.

## Request Parameters

**Table 3-722** 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 3-723** 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> Enumeration values: <ul style="list-style-type: none"><li>● <b>global</b></li><li>● <b>instance</b></li></ul>

Parameter	Type	Description
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.
issuer	Array of strings	Certificate issuer.
signature_algorithm	String	Signature algorithm.

**Status code: 400**

**Table 3-724** Response body parameters

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

**Status code: 401****Table 3-725** Response body parameters

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

**Status code: 403****Table 3-726** Response body parameters

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

**Status code: 404****Table 3-727** Response body parameters

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

**Status code: 500****Table 3-728** 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](#).

# 3.14 Access Control Policy Management

## 3.14.1 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`).

### URI

POST `/v2/{project_id}/apigw/instances/{instance_id}/acls`

**Table 3-729** Path Parameters

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



## Request Parameters

**Table 3-730** 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 3-731** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>PERMIT</b></li> <li><b>DENY</b></li> </ul>
acl_value	Yes	String	One or more objects from which the access will be controlled. Separate multiple objects with commas.
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> Enumeration values: <ul style="list-style-type: none"> <li><b>IP</b></li> <li><b>DOMAIN</b></li> <li><b>DOMAIN_ID</b></li> </ul>

## Response Parameters

**Status code: 201**

**Table 3-732** 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 3-733** Response body parameters

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

**Status code: 401****Table 3-734** Response body parameters

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

**Status code: 403****Table 3-735** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 3-736** Response body parameters

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

**Status code: 500**

**Table 3-737** Response body parameters

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

## Example Requests

```
{
  "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](#).

## 3.14.2 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.

### URI

PUT `/v2/{project_id}/apigw/instances/{instance_id}/acls/{acl_id}`

**Table 3-738** Path Parameters

Parameter	Mandatory	Type	Description
<code>project_id</code>	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
<code>instance_id</code>	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
<code>acl_id</code>	Yes	String	Access control policy ID.

### Request Parameters

**Table 3-739** 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 3-740** Request body parameters

Parameter	Mandatory	Type	Description
<code>acl_name</code>	Yes	String	Access control policy name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, and underscores ( <code>_</code> ) are allowed.

Parameter	Mandatory	Type	Description
acl_type	Yes	String	Type. <ul style="list-style-type: none"> <li>PERMIT (whitelist)</li> <li>DENY (blacklist)</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li><b>PERMIT</b></li> <li><b>DENY</b></li> </ul>
acl_value	Yes	String	One or more objects from which the access will be controlled. Separate multiple objects with commas.
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> Enumeration values: <ul style="list-style-type: none"> <li><b>IP</b></li> <li><b>DOMAIN</b></li> <li><b>DOMAIN_ID</b></li> </ul>

## Response Parameters

Status code: 200

**Table 3-741** 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 3-742** Response body parameters

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

**Status code: 401****Table 3-743** Response body parameters

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

**Status code: 403****Table 3-744** Response body parameters

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

**Status code: 404****Table 3-745** Response body parameters

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

**Status code: 500****Table 3-746** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

## Example Requests

```
{
  "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](#).

**3.14.3 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.

**URI**

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/acls/{acl\_id}

**Table 3-747** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

Parameter	Mandatory	Type	Description
acl_id	Yes	String	Access control policy ID.

## Request Parameters

**Table 3-748** 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 3-749** Response body parameters

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

**Status code: 401**

**Table 3-750** Response body parameters

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

**Status code: 403**

**Table 3-751** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 3-752** Response body parameters

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

**Status code: 500**

**Table 3-753** 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](#).

### 3.14.4 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.

#### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/acls

**Table 3-754** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-755** Query Parameters

Parameter	Mandatory	Type	Description
action	Yes	String	The value must be delete.

## Request Parameters

**Table 3-756** 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 3-757** 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 3-758** 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 3-759** 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 3-760** Response body parameters

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

**Status code: 401****Table 3-761** Response body parameters

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

**Status code: 403**

**Table 3-762** Response body parameters

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

**Status code: 404**

**Table 3-763** Response body parameters

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

**Status code: 500**

**Table 3-764** Response body parameters

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

## Example Requests

```
{
  "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
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).



## 3.14.5 Querying Details of an Access Control Policy

### Function

This API is used to query the details of an access control policy.

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/acls/{acl\_id}

**Table 3-765** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-766** 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 3-767** Response body parameters

Parameter	Type	Description
acl_name	String	Name.

Parameter	Type	Description
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 3-768** Response body parameters

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

**Status code: 401****Table 3-769** Response body parameters

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

**Status code: 403****Table 3-770** Response body parameters

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

**Status code: 404**

**Table 3-771** Response body parameters

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

**Status code: 500**

**Table 3-772** 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
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 3.14.6 Querying Access Control Policies

#### Function

This API is used to query all the access control policies.

#### URI

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

**Table 3-773** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-774** 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	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 3-775** 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 3-776** 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 3-777** 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.

Parameter	Type	Description
update_time	String	Update time.

**Status code: 400****Table 3-778** Response body parameters

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

**Status code: 401****Table 3-779** Response body parameters

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

**Status code: 403****Table 3-780** Response body parameters

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

**Status code: 404****Table 3-781** Response body parameters

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

**Status code: 500**

**Table 3-782** 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
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.15 Binding/Unbinding Access Control Policies

### 3.15.1 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.

#### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings

**Table 3-783** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-784** 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 3-785** 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 3-786** Response body parameters

Parameter	Type	Description
acl_bindings	Array of <a href="#">AclApiBindingInfo</a> objects	Access control policy binding records.

**Table 3-787** 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 3-788** Response body parameters

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

**Status code: 401****Table 3-789** Response body parameters

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

**Status code: 403****Table 3-790** Response body parameters

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

**Status code: 404**

**Table 3-791** Response body parameters

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

**Status code: 500****Table 3-792** Response body parameters

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

## Example Requests

```
{
  "acl_id" : "7eb619ecf2a24943b099833cd24a01ba",
  "publish_ids" : [ "40e7162dc6b94b94b94b94b94b94b94b" ]
}
```

## 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](#).

### 3.15.2 Unbinding an Access Control Policy

#### Function

This API is used to unbind an access control policy from an API.

#### URI

```
DELETE /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings/  
{acl_bindings_id}
```

**Table 3-793** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.
acl_bindings_id	Yes	String	Binding record ID.

## Request Parameters

**Table 3-794** 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 3-795** Response body parameters

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

**Status code: 401**

**Table 3-796** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403**

**Table 3-797** Response body parameters

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

**Status code: 404**

**Table 3-798** Response body parameters

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

**Status code: 500**

**Table 3-799** 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](#).



### 3.15.3 Unbinding Access Control Policies

#### Function

This API is used to unbind multiple access control policies from APIs.

#### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings

**Table 3-800** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-801** Query Parameters

Parameter	Mandatory	Type	Description
action	Yes	String	The value must be delete.

#### Request Parameters

**Table 3-802** 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 3-803** 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 3-804** 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 3-805** 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 3-806** Response body parameters

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

**Status code: 401**

**Table 3-807** Response body parameters

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

**Status code: 403**

**Table 3-808** Response body parameters

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

**Status code: 404**

**Table 3-809** Response body parameters

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

**Status code: 500**

**Table 3-810** Response body parameters

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

**Example Requests**

```
{
  "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

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

## Error Codes

See [Error Codes](#).

### 3.15.4 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.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings/binded-apis

**Table 3-811** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-812** 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>
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.

## Request Parameters

**Table 3-813** 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 3-814** 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
apis	Array of <a href="#">AclBindApiInfo</a> objects	API list.

**Table 3-815** 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.

**Status code: 400****Table 3-816** Response body parameters

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

**Status code: 401****Table 3-817** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403**

**Table 3-818** Response body parameters

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

**Status code: 404**

**Table 3-819** Response body parameters

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

**Status code: 500**

**Table 3-820** 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" : "40e7162dc6b94b1a60d2a24b1b0c"  
}]  
}
```

**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](#).

### 3.15.5 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.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings/unbound-apis

**Table 3-821** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-822** 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.

## Request Parameters

**Table 3-823** 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 3-824** 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 3-825** 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.
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.

**Status code: 400****Table 3-826** Response body parameters

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

**Status code: 401****Table 3-827** Response body parameters

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

**Status code: 403****Table 3-828** Response body parameters

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

**Status code: 404****Table 3-829** Response body parameters

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

**Status code: 500****Table 3-830** 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](#).

### 3.15.6 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.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/acl-bindings/binded-acls

**Table 3-831** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-832** 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.
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 3-833** 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 3-834** 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="#">ApiBindAclInfo</a> objects	Access control policy list.

**Table 3-835** ApiBindAclInfo

Parameter	Type	Description
acl_id	String	Access control policy ID.
acl_name	String	Access control policy name.
entity_type	String	Object type. Enumeration values: <ul style="list-style-type: none"><li>• <b>IP</b></li><li>• <b>DOMAIN</b></li><li>• <b>DOMAIN_ID</b></li></ul>
acl_type	String	Access control type. <ul style="list-style-type: none"><li>• PERMIT: whitelist</li><li>• DENY: blacklist</li></ul> Enumeration values: <ul style="list-style-type: none"><li>• <b>PERMIT</b></li><li>• <b>DENY</b></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 3-836** Response body parameters

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

**Status code: 401****Table 3-837** Response body parameters

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

**Status code: 403****Table 3-838** Response body parameters

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

**Status code: 404****Table 3-839** Response body parameters

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

**Status code: 500****Table 3-840** 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:acl_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](#).

# 3.16 Custom Authorizer Management

## 3.16.1 Creating a Custom Authorizer

### Function

This API is used to create a custom authorizer.

### URI

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

**Table 3-841** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-842** 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 3-843** 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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>FRONTEND</b></li> <li>• <b>BACKEND</b></li> </ul>
authorizer_type	Yes	String	Value: FUNC. Enumeration values: <ul style="list-style-type: none"> <li>• <b>FUNC</b></li> </ul>
authorizer_uri	Yes	String	Function URN.
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.

Parameter	Mandatory	Type	Description
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 3-844** Identity

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name.
location	Yes	String	Parameter location. Enumeration values: <ul style="list-style-type: none"><li>• <b>HEADER</b></li><li>• <b>QUERY</b></li></ul>
validation	No	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

## Response Parameters

Status code: 201

**Table 3-845** 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.

Parameter	Type	Description
type	String	Custom authorizer type. <ul style="list-style-type: none"> <li>• FRONTEND</li> <li>• BACKEND</li> </ul> Modification is not allowed. Enumeration values: <ul style="list-style-type: none"> <li>• <b>FRONTEND</b></li> <li>• <b>BACKEND</b></li> </ul>
authorizer_type	String	Value: FUNC. Enumeration values: <ul style="list-style-type: none"> <li>• <b>FUNC</b></li> </ul>
authorizer_uri	String	Function URN.
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.
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 3-846** Identity

Parameter	Type	Description
name	String	Parameter name.
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"><li>• <b>HEADER</b></li><li>• <b>QUERY</b></li></ul>
validation	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

**Status code: 400****Table 3-847** Response body parameters

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

**Status code: 401****Table 3-848** Response body parameters

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

**Status code: 403****Table 3-849** Response body parameters

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

**Status code: 404**



**Table 3-850** Response body parameters

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

**Status code: 500**

**Table 3-851** Response body parameters

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

## Example Requests

```
{
  "name" : "Authorizer_demo",
  "type" : "FRONTEND",
  "authorizer_type" : "FUNC",
  "authorizer_uri" : "urn:fss:xx-xxx-4:106506b9a92342df9a5025fc12351cfc:function:defau:apigDemo_1592617458814",
  "authorizer_version" : "v1",
  "authorizer_alias_uri" : "urn:fss:xx-xxx-4:106506b9a92342df9a5025fc12351cfc:function:defau:apigDemo_1592617458814:v1",
  "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:defau:apigDemo_1592617458814",
  "authorizer_version" : "v1",
  "authorizer_alias_uri" : "urn:fss:xx-xxx-4:106506b9a92342df9a5025fc12351cfc:function:defau: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.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](#).

## 3.16.2 Modifying a Custom Authorizer

### Function

This API is used to modify a custom authorizer.

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/authorizers/{authorizer\_id}

**Table 3-852** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-853** 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 3-854** 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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>FRONTEND</b></li> <li>• <b>BACKEND</b></li> </ul>
authorizer_type	Yes	String	Value: FUNC. Enumeration values: <ul style="list-style-type: none"> <li>• <b>FUNC</b></li> </ul>
authorizer_uri	Yes	String	Function URN.
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 3-855** Identity

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name.
location	Yes	String	Parameter location. Enumeration values: <ul style="list-style-type: none"> <li>• <b>HEADER</b></li> <li>• <b>QUERY</b></li> </ul>
validation	No	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

## Response Parameters

Status code: 200

**Table 3-856** 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. Enumeration values: <ul style="list-style-type: none"> <li>• <b>FRONTEND</b></li> <li>• <b>BACKEND</b></li> </ul>
authorizer_type	String	Value: FUNC. Enumeration values: <ul style="list-style-type: none"> <li>• <b>FUNC</b></li> </ul>
authorizer_uri	String	Function URN.
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>

Parameter	Type	Description
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.
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 3-857** Identity

Parameter	Type	Description
name	String	Parameter name.
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"> <li>• <b>HEADER</b></li> <li>• <b>QUERY</b></li> </ul>
validation	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

**Status code: 401**

**Table 3-858** Response body parameters

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

**Status code: 403**

**Table 3-859** Response body parameters

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

**Status code: 404**

**Table 3-860** Response body parameters

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

**Status code: 500**

**Table 3-861** Response body parameters

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

## Example Requests

```
{
  "name" : "Authorizer_demo",
  "type" : "FRONTEND",
  "authorizer_type" : "FUNC",
  "authorizer_uri" : "urn:fss:xx-xxx:
106506b9a92342df9a5025fc12351cfc:function:defau:apigDemo_1592617458814",
  "authorizer_version" : "v1",
  "authorizer_alias_uri" : "urn:fss:xx-
xxx-4:106506b9a92342df9a5025fc12351cfc:function:defau:apigDemo_1592617458814:l1",
  "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:xxx-  
xxx-4:106506b9a92342df9a5025fc12351cfc:function:default:apigDemo_1592617458814",  
  "authorizer_version" : "v1",  
  "authorizer_alias_uri" : "urn:fss:xxx-  
xxx-4:106506b9a92342df9a5025fc12351cfc:function:default: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](#).

### 3.16.3 Deleting a Custom Authorizer

#### Function

This API is used to delete a custom authorizer.

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/authorizers/{authorizer\_id}

**Table 3-862** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-863** 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 3-864** Response body parameters

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

**Status code: 401**

**Table 3-865** Response body parameters

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

**Status code: 403**

**Table 3-866** Response body parameters

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

**Status code: 404**

**Table 3-867** Response body parameters

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

**Status code: 500****Table 3-868** 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
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).

### 3.16.4 Querying Custom Authorizer Details

**Function**

This API is used to query the details of a custom authorizer.

**URI**

GET /v2/{project\_id}/apigw/instances/{instance\_id}/authorizers/{authorizer\_id}

**Table 3-869** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

Parameter	Mandatory	Type	Description
authorizer_id	Yes	String	Custom authorizer ID.

## Request Parameters

**Table 3-870** 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 3-871** 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. Enumeration values: <ul style="list-style-type: none"><li>● <b>FRONTEND</b></li><li>● <b>BACKEND</b></li></ul>
authorizer_type	String	Value: FUNC. Enumeration values: <ul style="list-style-type: none"><li>● <b>FUNC</b></li></ul>
authorizer_uri	String	Function URN.

Parameter	Type	Description
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.
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 3-872** Identity

Parameter	Type	Description
name	String	Parameter name.
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"> <li>• <b>HEADER</b></li> <li>• <b>QUERY</b></li> </ul>
validation	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

**Status code: 400****Table 3-873** Response body parameters

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

**Status code: 401****Table 3-874** Response body parameters

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

**Status code: 403****Table 3-875** Response body parameters

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

**Status code: 404****Table 3-876** Response body parameters

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

**Status code: 500**

**Table 3-877** 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",
  "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](#).

### 3.16.5 Querying Custom Authorizers

**Function**

This API is used to query all the custom authorizers under a gateway.

**URI**

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

**Table 3-878** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-879** 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 3-880** 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 3-881** Response body parameters

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

**Table 3-882** 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. Enumeration values: <ul style="list-style-type: none"><li>● <b>FRONTEND</b></li><li>● <b>BACKEND</b></li></ul>

Parameter	Type	Description
authorizer_type	String	Value: FUNC. Enumeration values: <ul style="list-style-type: none"><li>• <b>FUNC</b></li></ul>
authorizer_uri	String	Function URN.
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.
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 3-883** Identity

Parameter	Type	Description
name	String	Parameter name.

Parameter	Type	Description
location	String	Parameter location. Enumeration values: <ul style="list-style-type: none"><li>• <b>HEADER</b></li><li>• <b>QUERY</b></li></ul>
validation	String	Parameter verification expression. The default value is null, indicating that no verification is performed.

**Status code: 400****Table 3-884** Response body parameters

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

**Status code: 401****Table 3-885** Response body parameters

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

**Status code: 403****Table 3-886** Response body parameters

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

**Status code: 404**

**Table 3-887** Response body parameters

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

**Status code: 500**

**Table 3-888** 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",
    "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](#).

**3.17 API Import and Export**

## 3.17.1 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 Developer Guide.

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/openapi/export

**Table 3-889** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-890** Query Parameters

Parameter	Mandatory	Type	Description
oas_version	No	String	Open API version. Default: <b>2.0</b> Enumeration values: <ul style="list-style-type: none"><li>• <b>2.0</b></li><li>• <b>3.0</b></li></ul>



## Request Parameters

**Table 3-891** 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 3-892** 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.
define	No	String	<p>Definition scope of the APIs to be exported:</p> <ul style="list-style-type: none"> <li>• <b>spec</b>: basic definitions, including only the frontend definitions.</li> <li>• <b>proxy</b>: full definitions, including the frontend and backend definitions.</li> <li>• <b>all</b>: extended definitions, including the frontend and backend definitions as well as request throttling policies, access control policies, and custom authorizers.</li> <li>• <b>dev</b>: development definitions, including the frontend and backend definitions of APIs that have not been published.</li> </ul> <p>Default: <b>spec</b></p> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>spec</b></li> <li>• <b>proxy</b></li> <li>• <b>all</b></li> <li>• <b>dev</b></li> </ul>

Parameter	Mandatory	Type	Description
type	No	String	Format for exporting API definitions. Default: <b>json</b> Enumeration values: <ul style="list-style-type: none"><li>• <b>json</b></li><li>• <b>yaml</b></li><li>• <b>yml</b></li></ul>
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: 400

Table 3-893 Response body parameters

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

Status code: 401

Table 3-894 Response body parameters

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

Status code: 403

Table 3-895 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 3-896** Response body parameters

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

**Status code: 500**

**Table 3-897** Response body parameters

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

## Example Requests

```
{
  "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
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.17.2 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, see section "Importing and Exporting APIs: Extended Definition" in the Developer Guide.

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/openapi/import

**Table 3-898** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-899** 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 3-900** 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.

Parameter	Mandatory	Type	Description
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> Enumeration values: <ul style="list-style-type: none"><li><b>merge</b></li><li><b>override</b></li></ul>
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>
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> Enumeration values: <ul style="list-style-type: none"><li><b>merge</b></li><li><b>override</b></li></ul>
file_name	Yes	File	Request body in JSON or YAML format for importing APIs.

## Response Parameters

Status code: 200

**Table 3-901** 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 3-902** Success

Parameter	Type	Description
path	String	API request path.
method	String	API request method.
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>update</b></li> <li>• <b>create</b></li> </ul>
id	String	ID of a successfully imported API.

**Table 3-903** 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 3-904** Swagger

Parameter	Type	Description
id	String	Swagger file No.
result	String	Import result description.

**Table 3-905** Ignore

Parameter	Type	Description
method	String	API request method.
path	String	API request path.

**Status code: 400****Table 3-906** Response body parameters

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

**Status code: 401****Table 3-907** Response body parameters

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

**Status code: 403****Table 3-908** Response body parameters

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



**Status code: 404****Table 3-909** Response body parameters

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

**Status code: 500****Table 3-910** Response body parameters

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

**Example Requests**

```
{
  "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" : "412488ba965041f9838a5266a5f8e574",
  "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](#).

## 3.18 VPC Channel Management

### 3.18.1 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.

#### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels

**Table 3-911** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

#### Request Parameters

**Table 3-912** 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 3-913** 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 (-), and underscores (_) 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> <li>• <b>3</b></li> <li>• <b>4</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ip</b></li> <li>• <b>ecs</b></li> </ul>
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> Default: <b>2</b> Enumeration values: <ul style="list-style-type: none"> <li>• <b>2</b></li> <li>• <b>3</b></li> </ul>

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>
member_groups	No	Array of <b>MemberGroupCreate</b> objects	Backend server groups of the VPC channel.
members	No	Array of <b>MemberInfo</b> objects	Backend instances of the VPC channel.
vpc_health_config	No	<b>VpcHealthConfig</b> object	Health check details.
microservice_info	No	<b>MicroServiceCreate</b> object	Microservice details.

**Table 3-914** MemberGroupCreate

Parameter	Mandatory	Type	Description
member_group_name	Yes	String	Name of the backend server group of the VPC channel.
member_group_remark	No	String	Description of the backend server group.
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>

Parameter	Mandatory	Type	Description
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.

**Table 3-915** 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 3-916** 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>64</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 function, the backend service serves as a standby node. It 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li><li>• <b>2</b></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 3-917** 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>TCP</b></li><li>• <b>HTTP</b></li><li>• <b>HTTPS</b></li></ul>



Parameter	Mandatory	Type	Description
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>HEAD</b></li> </ul>
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>
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>2</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>2</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>5</b> Maximum: <b>300</b>

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. This parameter is required if protocol is set to http.</li> </ul>
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 gateway 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></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>2</b> Maximum: <b>30</b>

**Table 3-918** MicroServiceCreate

Parameter	Mandatory	Type	Description
service_type	No	String	Microservice type. <ul style="list-style-type: none"><li>• CSE: CSE microservice registration center.</li><li>• CCE: Cloud Container Engine (CCE).</li></ul> Enumeration values: <ul style="list-style-type: none"><li>• <b>CSE</b></li><li>• <b>CCE</b></li></ul>
cse_info	No	<a href="#">MicroServiceInfoCSEBase</a> object	CSE microservice details. This parameter is required if service_type is set to CSE.
cce_info	No	<a href="#">MicroServiceInfoCCEBase</a> object	CCE workload details. This parameter is required if service_type is set to CCE.

**Table 3-919** 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 3-920** MicroServiceInfoCCEBase

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	CCE cluster ID. Maximum: <b>64</b>
namespace	Yes	String	Namespace. Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
workload_type	Yes	String	Workload type. <ul style="list-style-type: none"><li>• deployment</li><li>• statefulset</li><li>• daemonset</li></ul> Enumeration values: <ul style="list-style-type: none"><li>• <b>deployment</b></li><li>• <b>statefulset</b></li><li>• <b>daemonset</b></li></ul>
app_name	Yes	String	App name. Maximum: <b>64</b>

## Response Parameters

Status code: 201

**Table 3-921** 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 (-), and underscores (_) 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li><li>• <b>2</b></li><li>• <b>3</b></li><li>• <b>4</b></li></ul>

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> Enumeration values: <ul style="list-style-type: none"> <li><b>ip</b></li> <li><b>ecs</b></li> </ul>
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> Default: <b>2</b> Enumeration values: <ul style="list-style-type: none"> <li><b>2</b></li> <li><b>3</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li><b>1</b></li> <li><b>2</b></li> </ul>
member_groups	Array of <b>MemberGroupInfo</b> objects	Backend server groups.
microservice_info	<b>MicroServiceInfo</b> object	Microservice information.

**Table 3-922** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the backend server group of the VPC channel.
member_group_remark	String	Description of the backend server group.
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.
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 3-923** 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 3-924** MicroServiceInfo

Parameter	Type	Description
id	String	Microservice ID.
instance_id	String	Gateway ID.
service_type	String	Microservice type. <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: Cloud Container Engine (CCE).</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>CSE</b></li> <li>• <b>CCE</b></li> </ul>
cse_info	<b>MicroServiceInfoCSE</b> object	CSE microservice details.
cce_info	<b>MicroServiceInfoCCE</b> object	CCE microservice details.
update_time	String	Microservice update time.
create_time	String	Microservice creation time.

**Table 3-925** 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 3-926** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>deployment</b></li> <li>• <b>statefulset</b></li> <li>• <b>daemonset</b></li> </ul>
app_name	String	App name. Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Status code: 400**



**Table 3-927** Response body parameters

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

**Status code: 401****Table 3-928** Response body parameters

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

**Status code: 403****Table 3-929** Response body parameters

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

**Status code: 404****Table 3-930** Response body parameters

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

**Status code: 500****Table 3-931** 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](#).

## 3.18.2 Updating a VPC Channel

### Function

This API is used to update the parameters of a 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.

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}

**Table 3-932** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-933** 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 3-934** 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 (-), and underscores (_) 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li><li>• <b>2</b></li><li>• <b>3</b></li><li>• <b>4</b></li></ul>

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> Enumeration values: <ul style="list-style-type: none"> <li><b>ip</b></li> <li><b>ecs</b></li> </ul>
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> Default: <b>2</b> Enumeration values: <ul style="list-style-type: none"> <li><b>2</b></li> <li><b>3</b></li> </ul>
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>
member_groups	No	Array of <b>MemberGroupCreate</b> objects	Backend server groups of the VPC channel.
members	No	Array of <b>MemberInfo</b> objects	Backend instances of the VPC channel.
vpc_health_config	No	<b>VpcHealthConfig</b> object	Health check details.
microservice_info	No	<b>MicroServiceCreate</b> object	Microservice details.



**Table 3-935** MemberGroupCreate

Parameter	Mandatory	Type	Description
member_group_name	Yes	String	Name of the backend server group of the VPC channel.
member_group_remark	No	String	Description of the backend server group.
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>

Parameter	Mandatory	Type	Description
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.

**Table 3-936** 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 3-937** MemberInfo

Parameter	Mandatory	Type	Description
host	No	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>64</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	<p>Indicates whether the backend service is a standby node.</p> <p>After you enable this function, the backend service serves as a standby node. It 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	Backend server group name. The server group facilitates backend service address modification.
status	No	Integer	<p>Backend server status.</p> <ul style="list-style-type: none"> <li>• 1: available</li> <li>• 2: unavailable</li> </ul> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
port	No	Integer	<p>Backend server port.</p> <p>Minimum: <b>0</b></p> <p>Maximum: <b>65535</b></p>
ecs_id	No	String	<p>Backend server ID.</p> <p>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 (_).</p> <p>Maximum: <b>255</b></p>

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>

**Table 3-938** 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>TCP</b></li><li>• <b>HTTP</b></li><li>• <b>HTTPS</b></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> Enumeration values: <ul style="list-style-type: none"><li>• <b>GET</b></li><li>• <b>HEAD</b></li></ul>

Parameter	Mandatory	Type	Description
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>
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>2</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>2</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>5</b> Maximum: <b>300</b>

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. This parameter is required if protocol is set to http.</li></ul>
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 gateway 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>1</b></li><li>• <b>2</b></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>2</b> Maximum: <b>30</b>

**Table 3-939** MicroServiceCreate

Parameter	Mandatory	Type	Description
service_type	No	String	Microservice type. <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: Cloud Container Engine (CCE).</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>CSE</b></li> <li>• <b>CCE</b></li> </ul>
cse_info	No	<a href="#">MicroServiceInfoCSEBase</a> object	CSE microservice details. This parameter is required if service_type is set to CSE.
cce_info	No	<a href="#">MicroServiceInfoCCEBase</a> object	CCE workload details. This parameter is required if service_type is set to CCE.

**Table 3-940** 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 3-941** MicroServiceInfoCCEBase

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	CCE cluster ID. Maximum: <b>64</b>
namespace	Yes	String	Namespace. Maximum: <b>64</b>

Parameter	Mandatory	Type	Description
workload_type	Yes	String	Workload type. <ul style="list-style-type: none"> <li>• deployment</li> <li>• statefulset</li> <li>• daemonset</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>deployment</b></li> <li>• <b>statefulset</b></li> <li>• <b>daemonset</b></li> </ul>
app_name	Yes	String	App name. Maximum: <b>64</b>

## Response Parameters

Status code: 200

**Table 3-942** 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 (-), and underscores (_) 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> <li>• <b>3</b></li> <li>• <b>4</b></li> </ul>



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> Enumeration values: <ul style="list-style-type: none"> <li><b>ip</b></li> <li><b>ecs</b></li> </ul>
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> Default: <b>2</b> Enumeration values: <ul style="list-style-type: none"> <li><b>2</b></li> <li><b>3</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li><b>1</b></li> <li><b>2</b></li> </ul>
member_groups	Array of <b>MemberGroupInfo</b> objects	Backend server groups.
microservice_info	<b>MicroServiceInfo</b> object	Microservice information.

**Table 3-943** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the backend server group of the VPC channel.
member_group_remark	String	Description of the backend server group.
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.
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 3-944** 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 3-945** MicroServiceInfo

Parameter	Type	Description
id	String	Microservice ID.
instance_id	String	Gateway ID.
service_type	String	Microservice type. <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: Cloud Container Engine (CCE).</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>CSE</b></li> <li>• <b>CCE</b></li> </ul>
cse_info	<b>MicroServiceInfoCSE</b> object	CSE microservice details.
cce_info	<b>MicroServiceInfoCCE</b> object	CCE microservice details.
update_time	String	Microservice update time.
create_time	String	Microservice creation time.

**Table 3-946** 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 3-947** 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>deployment</b></li><li>• <b>statefulset</b></li><li>• <b>daemonset</b></li></ul>
app_name	String	App name. Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Status code: 400**

**Table 3-948** Response body parameters

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

**Status code: 401****Table 3-949** Response body parameters

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

**Status code: 403****Table 3-950** Response body parameters

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

**Status code: 404****Table 3-951** Response body parameters

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

**Status code: 500****Table 3-952** 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](#).

### 3.18.3 Deleting a VPC Channel

#### Function

This API is used to delete a VPC channel.

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/  
{vpc\_channel\_id}

**Table 3-953** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-954** 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 3-955** Response body parameters

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

**Status code: 401****Table 3-956** Response body parameters

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

**Status code: 403****Table 3-957** Response body parameters

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

**Status code: 404****Table 3-958** Response body parameters

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

**Status code: 500****Table 3-959** 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](#).

### 3.18.4 Querying VPC Channel Details

#### Function

This API is used to query the details of a VPC channel.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}

**Table 3-960** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-961** 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 3-962** 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 (-), and underscores (_) 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 Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> <li>• 3</li> <li>• 4</li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>ip</b></li> <li>• <b>ecs</b></li> </ul>
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> Default: 2 Enumeration values: <ul style="list-style-type: none"> <li>• 2</li> <li>• 3</li> </ul>

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> Enumeration values: <ul style="list-style-type: none"> <li>1</li> <li>2</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 3-963** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the backend server group of the VPC channel.
member_group_remark	String	Description of the backend server group.

Parameter	Type	Description
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.
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 3-964** 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 3-965** MicroServiceInfo

Parameter	Type	Description
id	String	Microservice ID.
instance_id	String	Gateway ID.
service_type	String	Microservice type. <ul style="list-style-type: none"> <li>• CSE: CSE microservice registration center.</li> <li>• CCE: Cloud Container Engine (CCE).</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>CSE</b></li> <li>• <b>CCE</b></li> </ul>
cse_info	<b>MicroServiceInfoCSE</b> object	CSE microservice details.
cce_info	<b>MicroServiceInfoCCE</b> object	CCE microservice details.
update_time	String	Microservice update time.
create_time	String	Microservice creation time.

**Table 3-966** 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 3-967** 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> Enumeration values: <ul style="list-style-type: none"><li>• <b>deployment</b></li><li>• <b>statefulset</b></li><li>• <b>daemonset</b></li></ul>
app_name	String	App name. Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Table 3-968** VpcMemberInfo

Parameter	Type	Description
host	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>64</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 function, the backend service serves as a standby node. It 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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</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>

Parameter	Type	Description
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 server 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.

**Table 3-969** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>TCP</b></li> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>GET</b></li> <li>• <b>HEAD</b></li> </ul>

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>2</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>2</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>5</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. This parameter is required if protocol is set to http.</li> </ul>
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 gateway 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> Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</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: 2 Maximum: 30
vpc_channel_id	String	VPC channel ID.
id	String	Health check ID.
create_time	String	Creation time.

**Status code: 400****Table 3-970** Response body parameters

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

**Status code: 401****Table 3-971** Response body parameters

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

**Status code: 403**

**Table 3-972** Response body parameters

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

**Status code: 404**

**Table 3-973** Response body parameters

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

**Status code: 500**

**Table 3-974** 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" : ""
}, {
"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" : ""
}],
"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](#).

## 3.18.5 Querying VPC Channels

### Function

This API is used to query the VPC channels under a gateway.

### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels

**Table 3-975** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-976** 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.

## Request Parameters

**Table 3-977** 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 3-978** 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 <b>VpcChannelInfo</b> objects	VPC channel list.

**Table 3-979** VpcChannelInfo

Parameter	Type	Description
name	String	VPC channel name. It can contain 3 to 64 characters, starting with a letter. Only letters, digits, hyphens (-), and underscores (_) 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 Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</li><li>• 3</li><li>• 4</li></ul>

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> Enumeration values: <ul style="list-style-type: none"> <li><b>ip</b></li> <li><b>ecs</b></li> </ul>
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> Default: <b>2</b> Enumeration values: <ul style="list-style-type: none"> <li><b>2</b></li> <li><b>3</b></li> </ul>
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> Enumeration values: <ul style="list-style-type: none"> <li><b>1</b></li> <li><b>2</b></li> </ul>
member_groups	Array of <b>MemberGroupInfo</b> objects	Backend server groups.
microservice_info	<b>MicroServiceInfo</b> object	Microservice information.

**Table 3-980** MemberGroupInfo

Parameter	Type	Description
member_group_name	String	Name of the backend server group of the VPC channel.
member_group_remark	String	Description of the backend server group.
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.
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 3-981** 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 3-982** MicroServiceInfo

Parameter	Type	Description
id	String	Microservice ID.
instance_id	String	Gateway ID.
service_type	String	Microservice type. <ul style="list-style-type: none"><li>• CSE: CSE microservice registration center.</li><li>• CCE: Cloud Container Engine (CCE).</li></ul> Enumeration values: <ul style="list-style-type: none"><li>• <b>CSE</b></li><li>• <b>CCE</b></li></ul>
cse_info	<b>MicroServiceInfoCSE</b> object	CSE microservice details.
cce_info	<b>MicroServiceInfoCCE</b> object	CCE microservice details.
update_time	String	Microservice update time.
create_time	String	Microservice creation time.



**Table 3-983** 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 3-984** 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>deployment</b></li> <li>• <b>statefulset</b></li> <li>• <b>daemonset</b></li> </ul>
app_name	String	App name. Maximum: <b>64</b>
cluster_name	String	CCE cluster name.

**Status code: 400**

**Table 3-985** Response body parameters

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

**Status code: 401****Table 3-986** Response body parameters

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

**Status code: 403****Table 3-987** Response body parameters

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

**Status code: 404****Table 3-988** Response body parameters

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

**Status code: 500****Table 3-989** 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

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

## Error Codes

See [Error Codes](#).

### 3.18.6 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.

#### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/members

**Table 3-990** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-991** 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 3-992** Request body parameters

Parameter	Mandatory	Type	Description
members	Yes	Array of <a href="#">MemberInfo</a> objects	Backend server list.

**Table 3-993** MemberInfo

Parameter	Mandatory	Type	Description
host	No	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>64</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	<p>Indicates whether the backend service is a standby node.</p> <p>After you enable this function, the backend service serves as a standby node. It 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	Backend server group name. The server group facilitates backend service address modification.
status	No	Integer	<p>Backend server status.</p> <ul style="list-style-type: none"> <li>• 1: available</li> <li>• 2: unavailable</li> </ul> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
port	No	Integer	<p>Backend server port.</p> <p>Minimum: <b>0</b></p> <p>Maximum: <b>65535</b></p>
ecs_id	No	String	<p>Backend server ID.</p> <p>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 (_).</p> <p>Maximum: <b>255</b></p>

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 3-994 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 3-995 VpcMemberInfo

Parameter	Type	Description
host	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>64</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 function, the backend service serves as a standby node. It 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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</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 server ID.
vpc_channel_id	String	VPC channel ID.
create_time	String	Time when the backend server is added to the VPC channel.

Parameter	Type	Description
member_group_id	String	Backend server group ID.

**Status code: 400****Table 3-996** Response body parameters

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

**Status code: 401****Table 3-997** Response body parameters

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

**Status code: 403****Table 3-998** Response body parameters

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

**Status code: 404****Table 3-999** Response body parameters

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

**Status code: 500****Table 3-1000** 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"
}, {
"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"
}]
}
```

**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](#).

### 3.18.7 Querying Backend Servers of a VPC Channel

#### Function

This API is used to query the backend instances of a specified VPC channel.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/members

**Table 3-1001** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-1002** 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 3-1003** 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.

## Response Parameters

Status code: 200

**Table 3-1004** 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 3-1005** VpcMemberInfo

Parameter	Type	Description
host	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>64</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 function, the backend service serves as a standby node. It 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> Enumeration values: <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</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 server 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.

**Status code: 400**

**Table 3-1006** Response body parameters

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

**Status code: 401**



**Table 3-1007** Response body parameters

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

**Status code: 403**

**Table 3-1008** Response body parameters

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

**Status code: 404**

**Table 3-1009** Response body parameters

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

**Status code: 500**

**Table 3-1010** 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" : ""
}, {
  "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" : ""
} ]
}
```

**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](#).

## 3.18.8 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.

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/vpc-channels/{vpc\_channel\_id}/members

**Table 3-1011** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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.

## Request Parameters

**Table 3-1012** 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 3-1013** Request body parameters

Parameter	Mandatory	Type	Description
members	No	Array of <a href="#">MemberInfo</a> 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 3-1014** MemberInfo

Parameter	Mandatory	Type	Description
host	No	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>64</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 function, the backend service serves as a standby node. It 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>1</b></li> <li>• <b>2</b></li> </ul>
port	No	Integer	Backend server port. Minimum: <b>0</b> Maximum: <b>65535</b>

Parameter	Mandatory	Type	Description
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 3-1015** 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 3-1016** VpcMemberInfo

Parameter	Type	Description
host	String	Backend server address. This parameter is required when the member type is IP address. Maximum: <b>64</b>

Parameter	Type	Description
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 function, the backend service serves as a standby node. It 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> Enumeration values: <ul style="list-style-type: none"><li>• 1</li><li>• 2</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>

Parameter	Type	Description
id	String	Backend server 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.

**Status code: 400****Table 3-1017** Response body parameters

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

**Status code: 401****Table 3-1018** Response body parameters

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

**Status code: 403****Table 3-1019** Response body parameters

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

**Status code: 404**



**Table 3-1020** Response body parameters

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

**Status code: 500**

**Table 3-1021** 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-9ae3-4983ddf6a9d",
    "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" : "631b551cdda40478ef720163a9412ed"
}]
}
```

- 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" : "631b551cdda40478ef720163a9412ed"
}
}]
}
```

**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](#).

### 3.18.9 Removing a Backend Server

#### Function

This API is used to delete a backend instance from a specified VPC channel.

#### URI

```
DELETE /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/  
{vpc_channel_id}/members/{member_id}
```

**Table 3-1022** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-1023** 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 3-1024** Response body parameters

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

### Status code: 401

**Table 3-1025** Response body parameters

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

### Status code: 403

**Table 3-1026** Response body parameters

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

### Status code: 404

**Table 3-1027** Response body parameters

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

**Status code: 500****Table 3-1028** 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
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).

## 3.19 Monitoring Information Query

### 3.19.1 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.

**URI**GET `/v2/{project_id}/apigw/instances/{instance_id}/statistics/api/latest`

**Table 3-1029** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-1030** 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 3-1031** 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 3-1032** Response body parameters

Parameter	Type	Description
code	String	Response code.
msg	String	Response message.

Parameter	Type	Description
start_time	Long	Timestamp (UTC) of the start time.
end_time	Long	Timestamp (UTC) of the end time.
list	Array of <a href="#">StatisticsAPI</a> objects	Statistic data.

**Table 3-1033** 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.



Parameter	Type	Description
cycle	String	Statistical period. Enumeration values: <ul style="list-style-type: none"><li>• MINUTE</li><li>• HOUR</li><li>• DAY</li></ul>
api_id	String	API ID.
group_id	String	API group ID.
provider	String	API provider.
req_time	String	Request time.
register_time	String	Recording time.
status	Integer	Status.

**Status code: 400****Table 3-1034** Response body parameters

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

**Status code: 401****Table 3-1035** Response body parameters

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

**Status code: 403****Table 3-1036** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 3-1037** Response body parameters

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

**Status code: 500**

**Table 3-1038** 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

Status Code	Description
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.19.2 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.

### URI

GET `/v2/{project_id}/apigw/instances/{instance_id}/statistics/group/latest`

**Table 3-1039** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-1040** Query Parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	API group ID.

## Request Parameters

**Table 3-1041** 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 3-1042** 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 3-1043** 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.

Parameter	Type	Description
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.
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 3-1044** Response body parameters

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

**Status code: 401****Table 3-1045** Response body parameters

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

**Status code: 403**

**Table 3-1046** Response body parameters

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

**Status code: 404**

**Table 3-1047** Response body parameters

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

**Status code: 500**

**Table 3-1048** 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
403	Forbidden
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 3.20 Group Response Management

## 3.20.1 Creating a Group Response

### Function

This API is used to create a response for an API group.

### URI

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

**Table 3-1049** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-1050** 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 3-1051** Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	Response name.

Parameter	Mandatory	Type	Description
responses	No	Map<String,ResponseInfo>	<p>Response type definition, which includes a key and value. Options of the 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: There has been a custom authorizer error.</li> <li>• AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>• BACKEND_UNAVAILABLE: The backend service is unavailable.</li> <li>• BACKEND_TIMEOUT: Communication with the backend service 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: The request parameters are incorrect.</li> <li>• DEFAULT_4XX: Another 4XX error occurred.</li> <li>• DEFAULT_5XX: Another 5XX error occurred.</li> </ul> <p>Each error type is in JSON format.</p>

**Table 3-1052** ResponseInfo

Parameter	Mandatory	Type	Description
status	No	Integer	HTTP status code of the response.
body	No	String	Response body template.

## Response Parameters

Status code: 201

**Table 3-1053** Response body parameters

Parameter	Type	Description
name	String	Response name.
responses	Map<String,ResponseInfo>	Response type definition, which includes a key and value. Options of the key: <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: There has been a custom authorizer error.</li> <li>● AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>● BACKEND_UNAVAILABLE: The backend service is unavailable.</li> <li>● BACKEND_TIMEOUT: Communication with the backend service 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: The request parameters are incorrect.</li> <li>● DEFAULT_4XX: Another 4XX error occurred.</li> <li>● DEFAULT_5XX: Another 5XX error occurred.</li> </ul> Each error type is in JSON format.
id	String	Response ID.

Parameter	Type	Description
default	Boolean	Indicates whether the group response is the default response.
create_time	String	Creation time.
update_time	String	Update time.

**Table 3-1054** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response.
body	String	Response body template.
default	Boolean	Indicates whether the response is the default response.

**Status code: 400****Table 3-1055** Response body parameters

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

**Status code: 401****Table 3-1056** Response body parameters

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

**Status code: 403****Table 3-1057** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 3-1058** Response body parameters

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

**Status code: 500**

**Table 3-1059** Response body parameters

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

## Example Requests

```
{
  "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\\":\\"$context.requestId\\"}",
      "default" : true,
      "status" : 500
    },
    "AUTHORIZER_IDENTITIES_FAILURE" : {
      "body" : "{\\"error_code\\":\\"$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
}
}
```

**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



Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.20.2 Querying Group Response Details

### Function

This API is used to query the details of a response defined for an API group.

### URI

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

**Table 3-1060** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-1061** 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: 200

**Table 3-1062** Response body parameters

Parameter	Type	Description
name	String	Response name.
responses	Map<String,ResponseInfo>	<p>Response type definition, which includes a key and value. Options of the 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: There has been a custom authorizer error.</li> <li>● AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>● BACKEND_UNAVAILABLE: The backend service is unavailable.</li> <li>● BACKEND_TIMEOUT: Communication with the backend service 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: The request parameters are incorrect.</li> <li>● DEFAULT_4XX: Another 4XX error occurred.</li> <li>● DEFAULT_5XX: Another 5XX error occurred.</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.
create_time	String	Creation time.
update_time	String	Update time.

**Table 3-1063** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response.
body	String	Response body template.
default	Boolean	Indicates whether the response is the default response.

**Status code: 400**

**Table 3-1064** Response body parameters

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

**Status code: 401**

**Table 3-1065** Response body parameters

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

**Status code: 403**

**Table 3-1066** Response body parameters

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

**Status code: 404**

**Table 3-1067** Response body parameters

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

**Status code: 500**

**Table 3-1068** 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
}
}
```

### 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](#).

## 3.20.3 Modifying a Group Response

### Function

This API is used to modify a response of an API group.

### URI

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

**Table 3-1069** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-1070** 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 3-1071** Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	Response name.

Parameter	Mandatory	Type	Description
responses	No	Map<String,ResponseInfo>	<p>Response type definition, which includes a key and value. Options of the 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: There has been a custom authorizer error.</li> <li>• AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>• BACKEND_UNAVAILABLE: The backend service is unavailable.</li> <li>• BACKEND_TIMEOUT: Communication with the backend service 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: The request parameters are incorrect.</li> <li>• DEFAULT_4XX: Another 4XX error occurred.</li> <li>• DEFAULT_5XX: Another 5XX error occurred.</li> </ul> <p>Each error type is in JSON format.</p>



**Table 3-1072** ResponseInfo

Parameter	Mandatory	Type	Description
status	No	Integer	HTTP status code of the response.
body	No	String	Response body template.

## Response Parameters

Status code: 200

**Table 3-1073** Response body parameters

Parameter	Type	Description
name	String	Response name.
responses	Map<String, ResponseInfo>	Response type definition, which includes a key and value. Options of the key: <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: There has been a custom authorizer error.</li> <li>● AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>● BACKEND_UNAVAILABLE: The backend service is unavailable.</li> <li>● BACKEND_TIMEOUT: Communication with the backend service 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: The request parameters are incorrect.</li> <li>● DEFAULT_4XX: Another 4XX error occurred.</li> <li>● DEFAULT_5XX: Another 5XX error occurred.</li> </ul> Each error type is in JSON format.
id	String	Response ID.

Parameter	Type	Description
default	Boolean	Indicates whether the group response is the default response.
create_time	String	Creation time.
update_time	String	Update time.

**Table 3-1074** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response.
body	String	Response body template.
default	Boolean	Indicates whether the response is the default response.

**Status code: 400****Table 3-1075** Response body parameters

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

**Status code: 401****Table 3-1076** Response body parameters

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

**Status code: 403****Table 3-1077** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404**

**Table 3-1078** Response body parameters

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

**Status code: 500**

**Table 3-1079** Response body parameters

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

## Example Requests

```
{
  "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\\":\\"$context.requestId\\"}",
      "default" : true,
      "status" : 500
    },
    "AUTHORIZER_IDENTITIES_FAILURE" : {
      "body" : "{\\"error_code\\":\\"$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
}
}
```

**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

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.20.4 Deleting a Group Response

### Function

This API is used to delete a group response of an API group.

### URI

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

**Table 3-1080** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-1081** 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 3-1082** Response body parameters

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

### Status code: 401

**Table 3-1083** Response body parameters

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

### Status code: 403

**Table 3-1084** Response body parameters

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

### Status code: 404

**Table 3-1085** Response body parameters

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

### Status code: 500

**Table 3-1086** 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](#).

### 3.20.5 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.

#### URI

GET /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/gateway-responses/{response\_id}/{response\_type}

**Table 3-1087** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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.</p> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• AUTH_FAILURE</li> <li>• AUTH_HEADER_MISSING</li> <li>• AUTHORIZER_FAILURE</li> <li>• AUTHORIZER_CONF_FAILURE</li> <li>• AUTHORIZER_IDENTITY_FAILURE</li> <li>• BACKEND_UNAVAILABLE</li> <li>• BACKEND_TIMEOUT</li> <li>• THROTTLED</li> <li>• UNAUTHORIZED</li> <li>• ACCESS_DENIED</li> <li>• NOT_FOUND</li> <li>• REQUEST_PARAMETERS_FAILURE</li> <li>• DEFAULT_4XX</li> <li>• DEFAULT_5XX</li> </ul>

## Request Parameters

**Table 3-1088** 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 3-1089** Response body parameters

Parameter	Type	Description
{User defined key}	Map<String,ResponseInfoResp>	OK

**Table 3-1090** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response.
body	String	Response body template.
default	Boolean	Indicates whether the response is the default response.

**Status code: 400****Table 3-1091** Response body parameters

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

**Status code: 401****Table 3-1092** Response body parameters

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

**Status code: 403****Table 3-1093** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 404****Table 3-1094** Response body parameters

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

**Status code: 500****Table 3-1095** 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](#).

### 3.20.6 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.

## URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/gateway-responses/{response\_id}/{response\_type}

**Table 3-1096** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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.
response_type	Yes	String	Error type. Enumeration values: <ul style="list-style-type: none"><li>• <b>AUTH_FAILURE</b></li><li>• <b>AUTH_HEADER_MISSING</b></li><li>• <b>AUTHORIZER_FAILURE</b></li><li>• <b>AUTHORIZER_CONF_FAILURE</b></li><li>• <b>AUTHORIZER_IDENTITY_FAILURE</b></li><li>• <b>BACKEND_UNAVAILABLE</b></li><li>• <b>BACKEND_TIMEOUT</b></li><li>• <b>THROTTLED</b></li><li>• <b>UNAUTHORIZED</b></li><li>• <b>ACCESS_DENIED</b></li><li>• <b>NOT_FOUND</b></li><li>• <b>REQUEST_PARAMETERS_FAILURE</b></li><li>• <b>DEFAULT_4XX</b></li><li>• <b>DEFAULT_5XX</b></li></ul>

## Request Parameters

**Table 3-1097** 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 3-1098** Request body parameters

Parameter	Mandatory	Type	Description
status	No	Integer	HTTP status code of the response.
body	No	String	Response body template.

## Response Parameters

**Status code: 200**

**Table 3-1099** Response body parameters

Parameter	Type	Description
{User defined key}	Map<String,ResponseInfoResp>	OK

**Table 3-1100** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response.
body	String	Response body template.
default	Boolean	Indicates whether the response is the default response.

**Status code: 400**

**Table 3-1101** Response body parameters

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

**Status code: 401****Table 3-1102** Response body parameters

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

**Status code: 403****Table 3-1103** Response body parameters

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

**Status code: 404****Table 3-1104** Response body parameters

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

**Status code: 500****Table 3-1105** Response body parameters

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



## Example Requests

```
{
  "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](#).

### 3.20.7 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.

#### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/api-groups/{group\_id}/gateway-responses/{response\_id}/{response\_type}

**Table 3-1106** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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	Error type. Enumeration values: <ul style="list-style-type: none"><li>• AUTH_FAILURE</li><li>• AUTH_HEADER_MISSING</li><li>• AUTHORIZER_FAILURE</li><li>• AUTHORIZER_CONF_FAILURE</li><li>• AUTHORIZER_IDENTITY_FAILURE</li><li>• BACKEND_UNAVAILABLE</li><li>• BACKEND_TIMEOUT</li><li>• THROTTLED</li><li>• UNAUTHORIZED</li><li>• ACCESS_DENIED</li><li>• NOT_FOUND</li><li>• REQUEST_PARAMETERS_FAILURE</li><li>• DEFAULT_4XX</li><li>• DEFAULT_5XX</li></ul>

## Request Parameters

Table 3-1107 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 3-1108 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 401****Table 3-1109** Response body parameters

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

**Status code: 403****Table 3-1110** Response body parameters

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

**Status code: 404****Table 3-1111** Response body parameters

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

**Status code: 500****Table 3-1112** 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](#).

## 3.20.8 Querying Group Responses

### Function

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

### URI

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

**Table 3-1113** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
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 3-1114** 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 3-1115** 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 3-1116** 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 <a href="#">ResponsesInfo</a> objects	Response list.

**Table 3-1117** ResponsesInfo

Parameter	Type	Description
name	String	Response name.

Parameter	Type	Description
responses	Map<String,ResponseInfoResp>	Response type definition, which includes a key and value. Options of the key: <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: There has been a custom authorizer error.</li> <li>● AUTHORIZER_IDENTITY_FAILURE: The identity source of the custom authorizer is invalid.</li> <li>● BACKEND_UNAVAILABLE: The backend service is unavailable.</li> <li>● BACKEND_TIMEOUT: Communication with the backend service 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: The request parameters are incorrect.</li> <li>● DEFAULT_4XX: Another 4XX error occurred.</li> <li>● DEFAULT_5XX: Another 5XX error occurred.</li> </ul> Each error type is in JSON format.
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 3-1118** ResponseInfoResp

Parameter	Type	Description
status	Integer	HTTP status code of the response.
body	String	Response body template.



Parameter	Type	Description
default	Boolean	Indicates whether the response is the default response.

**Status code: 400****Table 3-1119** Response body parameters

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

**Status code: 401****Table 3-1120** Response body parameters

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

**Status code: 403****Table 3-1121** Response body parameters

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

**Status code: 404****Table 3-1122** Response body parameters

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

**Status code: 500****Table 3-1123** 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](#).

## 3.21 Tag Management

### 3.21.1 Querying Tags

#### Function

This API is used to query tags of a gateway.

#### URI

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

**Table 3-1124** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-1125** 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 3-1126** 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 3-1127** 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 3-1128** Response body parameters

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

**Status code: 401**

**Table 3-1129** Response body parameters

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

**Status code: 403**

**Table 3-1130** Response body parameters

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

**Status code: 404**

**Table 3-1131** Response body parameters

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

**Status code: 500**

**Table 3-1132** 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](#).

## 3.22 Gateway Feature Management

### 3.22.1 Configuring a Feature for a Gateway

#### Function

This API is used to configure a feature for a gateway.

The following table lists the supported features and configuration examples.

Feature Name	Feature Description	Configuration Example	Parameter Name	Parameter Description	Default Value	Value Range
lts	Reporting of Shubao access logs	<pre>{"name": "lts", "enable": true, "config": "{ \"group_id\": \"\", \"topic_id\": \"\", \"log_group\": \"\", \"log_stream\": \"\" }"}</pre>	(1) group_id (2) topic_id (3) log_group (4) log_stream	(1) Log group ID. (2) Log stream ID. (3) Log group name. (4) Log stream name.	-	-
ratelimit	Request throttling limit configuration	<pre>{"name": "ratelimit", "enable": true, "config": "{ \"api_limits\": 500 }"}</pre>	api_limits	Default request throttling limit for APIs. Set this parameter properly to meet your service requirements. A small value may constantly throttle your services.	200 calls/second	1-1,000,000 calls/second
request_body_size	Configuration of the maximum request body size	<pre>{"name": "request_body_size", "enable": true, "config": "104857600"}</pre>	request_body_size	The maximum body size allowed for a request.	12 MB	1-9536 MB



Feature Name	Feature Description	Configuration Example	Parameter Name	Parameter Description	Default Value	Value Range
backend_timeout	Maximum backend timeout configuration	<code>{"name": "backend_timeout", "enable": true, "config": {"max_timeout": 500}}</code>	max_timeout	Maximum timeout allowed for API Gateway to request the backend service.	60,000 ms	1–600,000 ms
app_token	app_token authentication	<code>{"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}}</code>	(1) enable (2) app_token_expire_time (3) refresh_token_expire_time (4) app_token_uri (5) app_token_key	(1) Whether to enable this feature. (2) Access token validity period. (3) Refresh token validity period. (4) URI for obtaining a token. (5) Token encryption key.	(1) off (2) 3600s (3) 7200s (4) /v1/apigw/oauth2/token	(1) on/off (2) 1–72,000s (3) 1–72,000s
app_api_key	app_api_key authentication	<code>{"name": "app_api_key", "enable": true, "config": "on"}</code>	-	-	off	on/off

Feature Name	Feature Description	Configuration Example	Parameter Name	Parameter Description	Default Value	Value Range
app_basic	app_basic authentication	<code>{"name": "app_basic", "enable": true, "config": "on"}</code>	-	-	off	on/off
app_secret	app_secret authentication	<code>{"name": "app_secret", "enable": true, "config": "on"}</code>	-	-	off	on/off
app_jwt	app_jwt authentication	<code>{"name": "app_jwt", "enable": true, "config": "{\"enable\": \"on\", \"auth_header\": \"Authorization\"}"}</code>	(1) enable (2) auth_header	(1) Whether to enable app_jwt authentication. (2) app_jwt authentication header.	(1) off (2) Authorization	(1) on/off
public_key	public_key backend signatures	<code>{"name": "public_key", "enable": true, "config": "{\"enable\": \"on\", \"public_key_uri_prefix\": \"/apigw/authadv/v2/public-key/\"}"}</code>	(1) enable (2) public_key_uri_prefix	(1) Whether to enable app_jwt authentication. (2) URI prefix used for obtaining the public key.	(1) off (2) /apigw/authadv/v2/public-key/	(1) on/off

Feature Name	Feature Description	Configuration Example	Parameter Name	Parameter Description	Default Value	Value Range
backend_token_allow	Allowing tenants to transparently transmit tokens to the backend	<pre>{   "name": "backend_token_allow",   "enable": true,   "config": {     "backend_token_allow_users": [       "user_name"     ]   } }</pre>	backend_token_allow_users	Whitelist of tenants allowed to transparently transmit tokens to the backend. The value is a regular expression of domain names.	-	-
backend_client_certificate	Backend two-way authentication	<pre>{   "name": "backend_client_certificate",   "enable": true,   "config": {     "enable": "on",     "ca": "",     "content": "",     "key": ""   } }</pre>	(1) enable (2) ca (3) content (4) key	(1) Whether to enable this feature. (2) CA file of two-way authentication. (3) Two-way authentication file. (4) Private key of two-way authentication.	(1) off	(1) on/off



Feature Name	Feature Description	Configuration Example	Parameter Name	Parameter Description	Default Value	Value Range
real_ip_forward_xff	Whether to use the X-Forwarded-For header to specify source IP addresses for access control and request throttling.	<pre>{"name": "real_ip_forward_xff", "enable": true, "config": {"enable": "on", "xff_index": 1}}</pre>	(1) enable (2) xff_index	(1) Whether to enable this feature. (2) Index of the source IP address in the X-Forwarded-For header. (Negative numbers are allowed and -1 is the last index.)	(1) off (2) -1	(1) on/off (2) Valid Int32 value
app_route	Whether to allow IP address access.	<pre>{"name": "app_route", "enable": true, "config": "on"}</pre>	-	-	off	on/off
vpc_name_modifiable	Load balance channel name modification	<pre>{"name": "vpc_name_modifiable", "enable": true, "config": "on"}</pre>	-	-	on	on/off

Feature Name	Feature Description	Configuration Example	Parameter Name	Parameter Description	Default Value	Value Range
default_group_host_trustlist	Access to the DEFAULT group from IP addresses that are not inbound access addresses of the current gateway	<pre>{"name": "default_group_host_trustlist", "enable": true, "config": [{"enable": "on"}, {"hosts": [{"123.2.2"}, {"202.2.2"}]}</pre>	(1) enable (2) hosts	(1) Whether to enable this feature. (2) IP addresses that are not inbound access addresses of the current gateway.	-	(1) on/off
throttle_strategy	Whether to enable request throttling.	<pre>{"name": "throttle_strategy", "enable": true, "config": [{"enable": "on"}, {"strategy": "local"}]}</pre>	(1) enable (2) strategy	(1) Whether to enable this feature. (2) Request throttling mode.	(1) off	(1) on/off (2) cluster/local
custom_log	Whether to print custom request headers, query strings, and cookies in logs.	<pre>{"name": "custom_log", "enable": true, "config": [{"custom_logs": [{"location": "header"}, {"name": "a1234"}]}]}</pre>	(1) custom_logs (2) location (3) name	(1) Custom logs. (2) Location. (3) Name.	-	(1) Max. 10 items. (2) header/query/cookie

Feature Name	Feature Description	Configuration Example	Parameter Name	Parameter Description	Default Value	Value Range
real_ip_header_getter	Whether to use a custom header to obtain source IP addresses.	<pre>{"name": "real_ip_header_getter", "enable": true, "config": {"enable": "on", "header_getter": "header: testIP \\"}}</pre>	(1) enable (2) header_getter	(1) Whether to enable this feature. (2) Custom header for obtaining source IP addresses.	(1) off	(1) on/off
policy_cookie_param	Whether to support cookies in backend policy conditions.	<pre>{"name": "policy_cookie_param", "enable": true, "config": "on"}</pre>	-	-	off	on/off

## URI

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

**Table 3-1133** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-1134** 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 3-1135** 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 3-1136** 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 3-1137** Response body parameters

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

**Status code: 401****Table 3-1138** Response body parameters

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

**Status code: 403****Table 3-1139** Response body parameters

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

**Status code: 404****Table 3-1140** Response body parameters

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

**Status code: 500****Table 3-1141** Response body parameters

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

## Example Requests

```
{
  "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](#).

## 3.22.2 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.

The following table lists the supported gateway features.

Feature Name	Description	Configurable
lts	Reporting of Shubao access logs	Yes
gateway_responses	Custom gateway responses	No
ratelimit	Request throttling limit configuration	Yes
request_body_size	Configuration of the maximum request body size	Yes
backend_timeout	Maximum backend timeout configuration	Yes
app_token	app_token authentication	Yes
app_api_key	app_api_key authentication	Yes

Feature Name	Description	Configurable
app_basic	app_basic authentication	Yes
app_secret	app_secret authentication	Yes
app_jwt	app_jwt authentication	Yes
public_key	public_key backend signatures	Yes
backend_token_allow	Allowing tenants to transparently transmit tokens to the backend	Yes
sign_basic	Basic signature keys	No
multi_auth	Two-factor authentication	No
backend_client_certificate	Backend two-way authentication	Yes
ssl_ciphers	HTTPS cipher suites	Yes
route	Custom routes	No
cors	Plug-ins	No
real_ip_from_xff	Using the X-Forwarded-For header to specify source IP addresses for access control and request throttling	Yes
app_route	IP address access	Yes
vpc_name_modifiable	Load balance channel name modification	Yes
default_group_host_trust_list	Access to the DEFAULT group from IP addresses that are not inbound access addresses of the current gateway	Yes
throttle_strategy	Request throttling algorithm policies	Yes
custom_log	Printing custom request headers, query strings, and cookies in logs	Yes
real_ip_header_getter	Using a custom header to obtain source IP addresses	Yes

Feature Name	Description	Configurable
policy_cookie_param	Using cookies in backend policy conditions	Yes
app_quota	Client quotas	No
app_acl	Request throttling policies	No
set_resp_headers	Response header management plug-ins	No
vpc_backup	Primary/Standby VPC channels	No
sign_aes	AES signature keys	No
kafka_log	Adding, deleting, modifying, and querying Kafka log push plug-ins	No
backend_retry_count	Backend retry configuration	No
policy_sys_param	Using system parameters in backend policy conditions	No
breaker	Circuit breakers	No
content_type_configurable	Returning request parameter type (Content-Type) when querying APIs	No
rate_limit_plugin	Request throttling plug-ins	No
breakerv2	Circuit breakers for degrading services in case of overload	No
sm_cipher_type	Encrypting local sensitive data with commercial cryptographic algorithms	No
rate_limit_algorithm	Request throttling algorithm switchover	No

## URI

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

**Table 3-1142** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-1143** 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 3-1144** 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 3-1145** 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 3-1146** 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 3-1147** Response body parameters

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

**Status code: 401**

**Table 3-1148** Response body parameters

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

**Status code: 403****Table 3-1149** Response body parameters

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

**Status code: 404****Table 3-1150** Response body parameters

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

**Status code: 500****Table 3-1151** 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

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

## Error Codes

See [Error Codes](#).

# 3.23 Configuration Management

## 3.23.1 Querying Resource Configurations of a Gateway

### Function

This API is used to query the resource configurations and usage of a gateway.

### URI

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

**Table 3-1152** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

**Table 3-1153** 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 3-1154** 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 3-1155** 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 3-1156** Config

Parameter	Type	Description
config_id	String	Quota ID.

Parameter	Type	Description
config_name	String	<p>Quota name.</p> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• API_NUM_LIMIT</li> <li>• APP_NUM_LIMIT</li> <li>• APIGROUP_NUM_LIMIT</li> <li>• ENVIRONMENT_NUM_LIMIT</li> <li>• VARIABLE_NUM_LIMIT</li> <li>• SIGN_NUM_LIMIT</li> <li>• THROTTLE_NUM_LIMIT</li> <li>• APIGROUP_DOMAIN_NUM_LIMIT</li> <li>• API_VERSION_NUM_LIMIT</li> <li>• VPC_NUM_LIMIT</li> <li>• VPC_INSTANCE_NUM_LIMIT</li> <li>• API_PARAM_NUM_LIMIT</li> <li>• API_USER_CALL_LIMIT</li> <li>• ACL_NUM_LIMIT</li> <li>• APP_THROTTLE_LIMIT</li> <li>• USER_THROTTLE_LIMIT</li> <li>• API_NUM_LIMIT_PER_GROUP</li> <li>• API_POLICY_NUM_LIMIT</li> <li>• API_CONDITION_NUM_LIMIT</li> <li>• SL_DOMAIN_CALL_LIMIT</li> <li>• ELB_SWITCH</li> <li>• AUTHORIZER_NUM_LIMIT</li> <li>• AUTHORIZER_IDENTITY_NUM_LIMIT</li> <li>• APP_CODE_NUM_LIMIT</li> <li>• REGION_MANAGER_WHITELIST_SERVICES</li> <li>• API_SWAGGER_NUM_LIMIT</li> <li>• API_TAG_NUM_LIMIT</li> <li>• LTS_SWITCH</li> <li>• APP_KEY_SECRET_SWITCH</li> <li>• RESPONSE_NUM_LIMIT</li> <li>• CONFIG_NUM_LIMIT_PER_APP</li> <li>• BACKEND_TOKEN_ALLOW_SWITCH</li> <li>• APP_TOKEN_SWITCH</li> <li>• API_DESIGNER_SWITCH</li> <li>• APP_API_KEY_SWITCH</li> <li>• APP_BASIC_SWITCH</li> <li>• APP_JWT_SWITCH</li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>• APP_ROUTE_SWITCH</li> <li>• PUBLIC_KEY_SWITCH</li> <li>• APP_SECRET_SWITCH</li> <li>• CASCADE_SWITCH</li> <li>• IS_INIT_API_PATH_HASH</li> </ul>
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 3-1157** Response body parameters

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

**Status code: 401****Table 3-1158** Response body parameters

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

**Status code: 403**

**Table 3-1159** Response body parameters

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

**Status code: 404**

**Table 3-1160** Response body parameters

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

**Status code: 500**

**Table 3-1161** 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](#).

### 3.23.2 Querying Gateway Configurations

#### Function

This API is used to query the gateway configurations.

#### URI

GET /v2/{project\_id}/apigw/instance/configs

**Table 3-1162** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.

**Table 3-1163** 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 3-1164** 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 3-1165** 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 <a href="#">InstanceConfig</a> objects	Quota list.

**Table 3-1166** InstanceConfig

Parameter	Type	Description
config_id	String	Quota ID.
config_name	String	Quota name. Enumeration values: <ul style="list-style-type: none"><li>• <b>INSTANCE_NUM_LIMIT</b></li></ul>
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	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 3-1167** Response body parameters

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

**Status code: 401****Table 3-1168** Response body parameters

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

**Status code: 403****Table 3-1169** Response body parameters

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

**Status code: 500****Table 3-1170** 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

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

## Error Codes

See [Error Codes](#).

# 3.24 Gateway Management

## 3.24.1 Creating a Dedicated Gateway

### Function

This API is used to create a dedicated gateway.

### URI

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

**Table 3-1171** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.

### Request Parameters

**Table 3-1172** 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.



**Table 3-1173** Request body parameters

Parameter	Mandatory	Type	Description
description	No	String	Gateway description.
maintain_begin	No	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, O&amp;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).</p>
maintain_end	No	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, O&amp;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).</p>
instance_name	Yes	String	Gateway name. 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.

Parameter	Mandatory	Type	Description
spec_id	Yes	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> Enumeration values: <ul style="list-style-type: none"><li>• <b>BASIC</b></li><li>• <b>PROFESSIONAL</b></li><li>• <b>ENTERPRISE</b></li><li>• <b>PLATINUM</b></li><li>• <b>BASIC_IPV6</b></li><li>• <b>PROFESSIONAL_IPV6</b></li><li>• <b>ENTERPRISE_IPV6</b></li><li>• <b>PLATINUM_IPV6</b></li></ul>
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 if you are using 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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li><b>bandwidth</b></li> <li><b>traffic</b></li> </ul>
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	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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>lvs</b></li> <li>• <b>elb</b></li> </ul>
tags	No	Array of <a href="#">TmsKeyValue</a> objects	Tags. A maximum of 20 tags can be created for a gateway.
vpcep_service_name	No	String	Name of the VPC endpoint service. It can contain a maximum of 16 characters, including letters, digits, underscores (_), and hyphens (-). If this parameter is not specified, the system automatically generates a name in the "{region}.apig.{service_id}" format. If this parameter is specified, the system automatically generates a name in the "{region}. {vpcep_service_name}. {service_id}" format. After the gateway is created, you can modify this name on the Gateways > VPC Endpoints page.
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>

Parameter	Mandatory	Type	Description
ingress_bandwidth_charging_mode	No	String	<p>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.</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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li><b>bandwidth</b></li> <li><b>traffic</b></li> </ul>

**Table 3-1174** TmsKeyValue

Parameter	Mandatory	Type	Description
key	No	String	<p>Key.</p> <p>Include UTF-8 letters, digits, spaces, or special characters (._:/=+-@).</p> <p>Do not start with <code>_sys_</code> because it is a system label.</p> <p>Minimum: <b>1</b></p> <p>Maximum: <b>128</b></p>
value	No	String	<p>Value.</p> <p>You can enter letters, digits, and spaces or other special characters (._:/=+-@) in UTF-8 format.</p> <p>Minimum: <b>0</b></p> <p>Maximum: <b>255</b></p>

## Response Parameters

Status code: 202

**Table 3-1175** 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 3-1176** Response body parameters

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

**Status code: 401**

**Table 3-1177** Response body parameters

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

**Status code: 403**

**Table 3-1178** Response body parameters

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

**Status code: 404**

**Table 3-1179** Response body parameters

Parameter	Type	Description
error_code	String	Error code.



Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 3-1180** Response body parameters

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

## Example Requests

```
{
  "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](#).

### 3.24.2 Querying Dedicated Gateway Details

#### Function

This API is used to query the details of a dedicated gateway.

#### URI

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

**Table 3-1181** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-1182** 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 3-1183** 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>Gateway status.</p> <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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>● <b>Creating</b></li> <li>● <b>CreateSuccess</b></li> <li>● <b>CreateFail</b></li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>• <b>Initing</b></li> <li>• <b>Registering</b></li> <li>• <b>Running</b></li> <li>• <b>InitingFailed</b></li> <li>• <b>RegisterFailed</b></li> <li>• <b>Installing</b></li> <li>• <b>InstallFailed</b></li> <li>• <b>Updating</b></li> <li>• <b>UpdateFailed</b></li> <li>• <b>Rollbacking</b></li> <li>• <b>RollbackSuccess</b></li> <li>• <b>RollbackFailed</b></li> <li>• <b>Deleting</b></li> <li>• <b>DeleteFailed</b></li> <li>• <b>Unregistering</b></li> <li>• <b>UnRegisterFailed</b></li> <li>• <b>CreateTimeout</b></li> <li>• <b>InitTimeout</b></li> <li>• <b>RegisterTimeout</b></li> <li>• <b>InstallTimeout</b></li> <li>• <b>UpdateTimeout</b></li> <li>• <b>RollbackTimeout</b></li> <li>• <b>DeleteTimeout</b></li> <li>• <b>UnregisterTimeout</b></li> <li>• <b>Starting</b></li> <li>• <b>Freezing</b></li> <li>• <b>Frozen</b></li> <li>• <b>Restarting</b></li> <li>• <b>RestartFail</b></li> <li>• <b>Unhealthy</b></li> <li>• <b>RestartTimeout</b></li> </ul>

Parameter	Type	Description
instance_statuses	Integer	<p>Gateway status ID.</p> <ul style="list-style-type: none"> <li>● 1: Creating</li> <li>● 2: Created</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 timeout</li> <li>● 28: Initialization timeout</li> <li>● 29: Registration timeout</li> <li>● 30: Installation timeout</li> <li>● 31: Upgrade timeout</li> <li>● 32: Rollback timeout</li> <li>● 33: Deletion timeout</li> <li>● 34: Deregistration timeout</li> <li>● 35: Starting</li> <li>● 36: Freezing</li> <li>● 37: Frozen</li> <li>● 38: Restarting</li> <li>● 39: Restarting failed</li> <li>● 40: Abnormal</li> <li>● 41: Restarting timeout</li> </ul> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>● 1</li> <li>● 2</li> <li>● 3</li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>• 4</li> <li>• 5</li> <li>• 6</li> <li>• 7</li> <li>• 8</li> <li>• 10</li> <li>• 11</li> <li>• 12</li> <li>• 13</li> <li>• 20</li> <li>• 21</li> <li>• 22</li> <li>• 23</li> <li>• 24</li> <li>• 25</li> <li>• 26</li> <li>• 27</li> <li>• 28</li> <li>• 29</li> <li>• 30</li> <li>• 31</li> <li>• 32</li> <li>• 33</li> <li>• 34</li> <li>• 35</li> <li>• 36</li> <li>• 37</li> <li>• 38</li> <li>• 39</li> <li>• 40</li> <li>• 41</li> </ul>
type	String	Gateway type. The default value is apig.

Parameter	Type	Description
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>BASIC</b></li> <li>• <b>PROFESSIONAL</b></li> <li>• <b>ENTERPRISE</b></li> <li>• <b>PLATINUM</b></li> <li>• <b>BASIC_IPV6</b></li> <li>• <b>PROFESSIONAL_IPV6</b></li> <li>• <b>ENTERPRISE_IPV6</b></li> <li>• <b>PLATINUM_IPV6</b></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 if you are using 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>0</b></li> <li>• <b>1</b></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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>lvs</b></li> <li>• <b>elb</b></li> </ul>



Parameter	Type	Description
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>
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).

Parameter	Type	Description
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.
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.

Parameter	Type	Description
endpoint_service	<a href="#">EndpointService</a> object	VPC endpoint service details. This parameter will be deprecated. Use endpoint_services instead.
endpoint_services	Array of <a href="#">EndpointService</a> objects	VPC endpoint services.
node_ips	<a href="#">NodeIps</a> object	VPC endpoint ID.
publicips	Array of <a href="#">IpDetails</a> objects	Public inbound access addresses.
privateips	Array of <a href="#">IpDetails</a> objects	Private inbound access addresses.
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 3-1184** EndpointService

Parameter	Type	Description
service_name	String	VPC endpoint service name.
created_at	String	Creation time.

**Table 3-1185** NodeIps

Parameter	Type	Description
livedata	Array of strings	LiveData node IP addresses.
shubao	Array of strings	Shubao node IP addresses.

**Table 3-1186** IpDetails

Parameter	Type	Description
ip_address	String	IP address.
bandwidth_size	Integer	Bandwidth.

**Status code: 401****Table 3-1187** Response body parameters

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

**Status code: 403****Table 3-1188** Response body parameters

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

**Status code: 404****Table 3-1189** Response body parameters

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

**Status code: 500****Table 3-1190** 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

```
{
  "id": "8dfxxxxxxxxxxxxxxxxxxxxxxxx00p",
  "spec": "BASIC",
  "project_id": "78xxxxxxxxxxxxxxxxxxxxxxxxoi",
  "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": "100.95.159.18",
  "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": "100.95.156.198",
    "bandwidth_size": 5
  } ],
}
```

```
"privateips" : [ {
  "ip_address" : "100.95.156.198",
  "bandwidth_size" : 5
} ],
"ingress_bandwidth_charging_mode" : "traffic"
}
```

**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](#).

## 3.24.3 Updating a Dedicated Gateway

### Function

This API is used to update a dedicated gateway.

### URI

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

**Table 3-1191** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

### Request Parameters

**Table 3-1192** 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.

**Table 3-1193** Request body parameters

Parameter	Mandatory	Type	Description
description	No	String	Gateway description.

Parameter	Mandatory	Type	Description
maintain_begin	No	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, O&amp;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).</p>
maintain_end	No	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, O&amp;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).</p>
instance_name	No	String	<p>Gateway name.</p> <p>Minimum: <b>3</b></p> <p>Maximum: <b>64</b></p>



Parameter	Mandatory	Type	Description
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 the VPC endpoint service.</p> <p>It can contain a maximum of 16 characters, including letters, digits, underscores (_), and hyphens (-).</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>

## Response Parameters

Status code: 200

Table 3-1194 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	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> Enumeration values: <ul style="list-style-type: none"> <li>● <b>Creating</b></li> <li>● <b>CreateSuccess</b></li> <li>● <b>CreateFail</b></li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>• <b>Initing</b></li> <li>• <b>Registering</b></li> <li>• <b>Running</b></li> <li>• <b>InitingFailed</b></li> <li>• <b>RegisterFailed</b></li> <li>• <b>Installing</b></li> <li>• <b>InstallFailed</b></li> <li>• <b>Updating</b></li> <li>• <b>UpdateFailed</b></li> <li>• <b>Rollbacking</b></li> <li>• <b>RollbackSuccess</b></li> <li>• <b>RollbackFailed</b></li> <li>• <b>Deleting</b></li> <li>• <b>DeleteFailed</b></li> <li>• <b>Unregistering</b></li> <li>• <b>UnRegisterFailed</b></li> <li>• <b>CreateTimeout</b></li> <li>• <b>InitTimeout</b></li> <li>• <b>RegisterTimeout</b></li> <li>• <b>InstallTimeout</b></li> <li>• <b>UpdateTimeout</b></li> <li>• <b>RollbackTimeout</b></li> <li>• <b>DeleteTimeout</b></li> <li>• <b>UnregisterTimeout</b></li> <li>• <b>Starting</b></li> <li>• <b>Freezing</b></li> <li>• <b>Frozen</b></li> <li>• <b>Restarting</b></li> <li>• <b>RestartFail</b></li> <li>• <b>Unhealthy</b></li> <li>• <b>RestartTimeout</b></li> </ul>

Parameter	Type	Description
instance_statuses	Integer	<p>Gateway status ID.</p> <ul style="list-style-type: none"> <li>● 1: Creating</li> <li>● 2: Created</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 timeout</li> <li>● 28: Initialization timeout</li> <li>● 29: Registration timeout</li> <li>● 30: Installation timeout</li> <li>● 31: Upgrade timeout</li> <li>● 32: Rollback timeout</li> <li>● 33: Deletion timeout</li> <li>● 34: Deregistration timeout</li> <li>● 35: Starting</li> <li>● 36: Freezing</li> <li>● 37: Frozen</li> <li>● 38: Restarting</li> <li>● 39: Restarting failed</li> <li>● 40: Abnormal</li> <li>● 41: Restarting timeout</li> </ul> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>● 1</li> <li>● 2</li> <li>● 3</li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>• 4</li> <li>• 5</li> <li>• 6</li> <li>• 7</li> <li>• 8</li> <li>• 10</li> <li>• 11</li> <li>• 12</li> <li>• 13</li> <li>• 20</li> <li>• 21</li> <li>• 22</li> <li>• 23</li> <li>• 24</li> <li>• 25</li> <li>• 26</li> <li>• 27</li> <li>• 28</li> <li>• 29</li> <li>• 30</li> <li>• 31</li> <li>• 32</li> <li>• 33</li> <li>• 34</li> <li>• 35</li> <li>• 36</li> <li>• 37</li> <li>• 38</li> <li>• 39</li> <li>• 40</li> <li>• 41</li> </ul>
type	String	Gateway type. The default value is apig.

Parameter	Type	Description
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>BASIC</b></li> <li>• <b>PROFESSIONAL</b></li> <li>• <b>ENTERPRISE</b></li> <li>• <b>PLATINUM</b></li> <li>• <b>BASIC_IPV6</b></li> <li>• <b>PROFESSIONAL_IPV6</b></li> <li>• <b>ENTERPRISE_IPV6</b></li> <li>• <b>PLATINUM_IPV6</b></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 if you are using 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>0</b></li> <li>• <b>1</b></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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>lvs</b></li> <li>• <b>elb</b></li> </ul>

Parameter	Type	Description
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>
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).



Parameter	Type	Description
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.
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.

Parameter	Type	Description
endpoint_service	<a href="#">EndpointService</a> object	VPC endpoint service details. This parameter will be deprecated. Use endpoint_services instead.
endpoint_services	Array of <a href="#">EndpointService</a> objects	VPC endpoint services.
node_ips	<a href="#">NodeIps</a> object	VPC endpoint ID.
publicips	Array of <a href="#">IpDetails</a> objects	Public inbound access addresses.
privateips	Array of <a href="#">IpDetails</a> objects	Private inbound access addresses.
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 3-1195** EndpointService

Parameter	Type	Description
service_name	String	VPC endpoint service name.
created_at	String	Creation time.

**Table 3-1196** NodeIps

Parameter	Type	Description
livedata	Array of strings	LiveData node IP addresses.
shubao	Array of strings	Shubao node IP addresses.

**Table 3-1197** IpDetails

Parameter	Type	Description
ip_address	String	IP address.
bandwidth_size	Integer	Bandwidth.

**Status code: 400**

**Table 3-1198** Response body parameters

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

**Status code: 401**

**Table 3-1199** Response body parameters

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

**Status code: 403**

**Table 3-1200** Response body parameters

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

**Status code: 404**

**Table 3-1201** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 500**

**Table 3-1202** Response body parameters

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

## Example Requests

```
{
  "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",
  "eip_id" : "41f961ab-2bdd-4ca7-9b59-cfc4fce10c9",
  "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"
}
```

**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
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 3.24.4 Querying the Creation Progress of a Dedicated Gateway

#### Function

This API is used to query the creation progress of a dedicated gateway.

#### URI

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

**Table 3-1203** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-1204** 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 3-1205** Response body parameters

Parameter	Type	Description
progress	Integer	Gateway creation progress. Unit: % Enumeration values: <ul style="list-style-type: none"> <li>● 30</li> <li>● 50</li> <li>● 80</li> <li>● 90</li> <li>● 100</li> </ul>

Parameter	Type	Description
status	String	Gateway creation status. <ul style="list-style-type: none"> <li>• creating</li> <li>• success</li> <li>• failed</li> </ul> Enumeration values: <ul style="list-style-type: none"> <li>• <b>creating</b></li> <li>• <b>success</b></li> <li>• <b>failed</b></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 3-1206** Response body parameters

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

**Status code: 403**

**Table 3-1207** Response body parameters

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

**Status code: 404**

**Table 3-1208** Response body parameters

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

**Status code: 500**

**Table 3-1209** 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

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

## Error Codes

See [Error Codes](#).

### 3.24.5 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.

#### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/eip

**Table 3-1210** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-1211** 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 3-1212** Request body parameters

Parameter	Mandatory	Type	Description
eip_id	No	String	EIP ID.

## Response Parameters

**Status code: 200**

**Table 3-1213** 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 3-1214** Response body parameters

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

**Status code: 401**

**Table 3-1215** Response body parameters

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

**Status code: 403****Table 3-1216** Response body parameters

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

**Status code: 404****Table 3-1217** Response body parameters

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

**Status code: 500****Table 3-1218** Response body parameters

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

## Example Requests

```
{  
  "eip_id" : "85392b45-685c-4f77-b19a-14ad875b8190"  
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "eip_id" : "85392b45-685c-4f77-b19a-14ad875b8190",
  "eip_ip" : "100.95.155.221",
  "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
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 3.24.6 Unbinding the EIP of a Dedicated Gateway

### Function

This API is used to unbind the EIP of a dedicated gateway.

### URI

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/eip

**Table 3-1219** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-1220** 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: 401

**Table 3-1221** Response body parameters

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

**Status code: 403**

**Table 3-1222** Response body parameters

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

**Status code: 404**

**Table 3-1223** Response body parameters

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

**Status code: 500**

**Table 3-1224** 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](#).

## 3.24.7 Enabling Public Access for a Dedicated Gateway

### Function

This API is used to enable public access for a dedicated gateway.

### URI

POST /v2/{project\_id}/apigw/instances/{instance\_id}/nat-eip



**Table 3-1225** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-1226** 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 3-1227** 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> Enumeration values: <ul style="list-style-type: none"> <li><b>bandwidth</b></li> <li><b>traffic</b></li> </ul>

## Response Parameters

**Status code: 400**

**Table 3-1228** Response body parameters

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

**Status code: 401****Table 3-1229** Response body parameters

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

**Status code: 403****Table 3-1230** Response body parameters

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

**Status code: 404****Table 3-1231** Response body parameters

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

**Status code: 500****Table 3-1232** Response body parameters

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

## Example Requests

```
{
  "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

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

## Error Codes

See [Error Codes](#).

## 3.24.8 Updating the Outbound Access Bandwidth of a Dedicated Gateway

### Function

This API is used to update the outbound access bandwidth of a dedicated gateway.

### URI

PUT /v2/{project\_id}/apigw/instances/{instance\_id}/nat-eip

**Table 3-1233** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-1234** 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 3-1235** 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> Enumeration values: <ul style="list-style-type: none"><li><b>bandwidth</b></li><li><b>traffic</b></li></ul>

## Response Parameters

**Status code: 400**

**Table 3-1236** Response body parameters

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

**Status code: 401**

**Table 3-1237** Response body parameters

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

**Status code: 403**

**Table 3-1238** Response body parameters

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

**Status code: 404****Table 3-1239** Response body parameters

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

**Status code: 500****Table 3-1240** Response body parameters

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

## Example Requests

```
{
  "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
401	Unauthorized
403	Forbidden
404	Not Found
500	Internal Server Error

**Error Codes**See [Error Codes](#).**3.24.9 Disabling Public Access for a Dedicated Gateway****Function**

This API is used to disable public access for a dedicated gateway.

**URI**

DELETE /v2/{project\_id}/apigw/instances/{instance\_id}/nat-eip

**Table 3-1241** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

## Request Parameters

**Table 3-1242** 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 3-1243** Response body parameters

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

**Status code: 403**

**Table 3-1244** Response body parameters

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



**Status code: 404****Table 3-1245** Response body parameters

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

**Status code: 500****Table 3-1246** 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
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 3.24.10 Querying AZs

#### Function

This API is used to query AZs where you can buy gateways.

#### URI

GET /v2/{project\_id}/apigw/available-zones

**Table 3-1247** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.

## Request Parameters

**Table 3-1248** 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 3-1249** Response body parameters

Parameter	Type	Description
available_zones	Array of <a href="#">AvailableZone</a> objects	AZ list.

**Table 3-1250** 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 3-1251** LocalName

Parameter	Type	Description
en_us	String	AZ name.
zh_cn	String	AZ name.

**Status code: 401****Table 3-1252** Response body parameters

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

**Status code: 403****Table 3-1253** Response body parameters

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

**Status code: 500****Table 3-1254** 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
}
}, {
"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
}
}
}
]
}

```

**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

Status Code	Description
403	Forbidden
500	Internal Server Error

## Error Codes

See [Error Codes](#).

### 3.24.11 Querying Dedicated Gateways

#### Function

This API is used to query dedicated gateways.

#### URI

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

**Table 3-1255** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.

**Table 3-1256** 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>
instance_id	No	String	Gateway ID.
instance_name	No	String	Gateway name.

Parameter	Mandatory	Type	Description
status	No	String	<p>Gateway status.</p> <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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>• <b>Creating</b></li> <li>• <b>CreateSuccess</b></li> <li>• <b>CreateFail</b></li> </ul>



Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> <li>• <b>Initing</b></li> <li>• <b>Registering</b></li> <li>• <b>Running</b></li> <li>• <b>InitingFailed</b></li> <li>• <b>RegisterFailed</b></li> <li>• <b>Installing</b></li> <li>• <b>InstallFailed</b></li> <li>• <b>Updating</b></li> <li>• <b>UpdateFailed</b></li> <li>• <b>Rollbacking</b></li> <li>• <b>RollbackSuccess</b></li> <li>• <b>RollbackFailed</b></li> <li>• <b>Deleting</b></li> <li>• <b>DeleteFailed</b></li> <li>• <b>Unregistering</b></li> <li>• <b>UnRegisterFailed</b></li> <li>• <b>CreateTimeout</b></li> <li>• <b>InitTimeout</b></li> <li>• <b>RegisterTimeout</b></li> <li>• <b>InstallTimeout</b></li> <li>• <b>UpdateTimeout</b></li> <li>• <b>RollbackTimeout</b></li> <li>• <b>DeleteTimeout</b></li> <li>• <b>UnregisterTimeout</b></li> <li>• <b>Starting</b></li> <li>• <b>Freezing</b></li> <li>• <b>Frozen</b></li> <li>• <b>Restarting</b></li> <li>• <b>RestartFail</b></li> <li>• <b>Unhealthy</b></li> <li>• <b>RestartTimeout</b></li> </ul>

## Request Parameters

**Table 3-1257** 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 3-1258** 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 3-1259** 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>Gateway status.</p> <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> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>● <b>Creating</b></li> <li>● <b>CreateSuccess</b></li> <li>● <b>CreateFail</b></li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>• <b>Initing</b></li> <li>• <b>Registering</b></li> <li>• <b>Running</b></li> <li>• <b>InitingFailed</b></li> <li>• <b>RegisterFailed</b></li> <li>• <b>Installing</b></li> <li>• <b>InstallFailed</b></li> <li>• <b>Updating</b></li> <li>• <b>UpdateFailed</b></li> <li>• <b>Rollbacking</b></li> <li>• <b>RollbackSuccess</b></li> <li>• <b>RollbackFailed</b></li> <li>• <b>Deleting</b></li> <li>• <b>DeleteFailed</b></li> <li>• <b>Unregistering</b></li> <li>• <b>UnRegisterFailed</b></li> <li>• <b>CreateTimeout</b></li> <li>• <b>InitTimeout</b></li> <li>• <b>RegisterTimeout</b></li> <li>• <b>InstallTimeout</b></li> <li>• <b>UpdateTimeout</b></li> <li>• <b>RollbackTimeout</b></li> <li>• <b>DeleteTimeout</b></li> <li>• <b>UnregisterTimeout</b></li> <li>• <b>Starting</b></li> <li>• <b>Freezing</b></li> <li>• <b>Frozen</b></li> <li>• <b>Restarting</b></li> <li>• <b>RestartFail</b></li> <li>• <b>Unhealthy</b></li> <li>• <b>RestartTimeout</b></li> </ul>

Parameter	Type	Description
instance_statuses	Integer	<p>Gateway status ID.</p> <ul style="list-style-type: none"> <li>● 1: Creating</li> <li>● 2: Created</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 timeout</li> <li>● 28: Initialization timeout</li> <li>● 29: Registration timeout</li> <li>● 30: Installation timeout</li> <li>● 31: Upgrade timeout</li> <li>● 32: Rollback timeout</li> <li>● 33: Deletion timeout</li> <li>● 34: Deregistration timeout</li> <li>● 35: Starting</li> <li>● 36: Freezing</li> <li>● 37: Frozen</li> <li>● 38: Restarting</li> <li>● 39: Restarting failed</li> <li>● 40: Abnormal</li> <li>● 41: Restarting timeout</li> </ul> <p>Enumeration values:</p> <ul style="list-style-type: none"> <li>● 1</li> <li>● 2</li> <li>● 3</li> </ul>

Parameter	Type	Description
		<ul style="list-style-type: none"> <li>• 4</li> <li>• 5</li> <li>• 6</li> <li>• 7</li> <li>• 8</li> <li>• 10</li> <li>• 11</li> <li>• 12</li> <li>• 13</li> <li>• 20</li> <li>• 21</li> <li>• 22</li> <li>• 23</li> <li>• 24</li> <li>• 25</li> <li>• 26</li> <li>• 27</li> <li>• 28</li> <li>• 29</li> <li>• 30</li> <li>• 31</li> <li>• 32</li> <li>• 33</li> <li>• 34</li> <li>• 35</li> <li>• 36</li> <li>• 37</li> <li>• 38</li> <li>• 39</li> <li>• 40</li> <li>• 41</li> </ul>
type	String	Gateway type. The default value is apig.

Parameter	Type	Description
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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>BASIC</b></li> <li>• <b>PROFESSIONAL</b></li> <li>• <b>ENTERPRISE</b></li> <li>• <b>PLATINUM</b></li> <li>• <b>BASIC_IPV6</b></li> <li>• <b>PROFESSIONAL_IPV6</b></li> <li>• <b>ENTERPRISE_IPV6</b></li> <li>• <b>PLATINUM_IPV6</b></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 if you are using 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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>0</b></li> <li>• <b>1</b></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> Enumeration values: <ul style="list-style-type: none"> <li>• <b>lvs</b></li> <li>• <b>elb</b></li> </ul>

**Status code: 401**

**Table 3-1260** Response body parameters

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

**Status code: 403**

**Table 3-1261** Response body parameters

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

**Status code: 500**

**Table 3-1262** 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" : "100.95.155.221",
    "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" : "100.95.147.95",
    "enterprise_project_id" : "0",
    "id" : "2e2d613c64094a4a94ad38e7ca30adee",
    "instance_name" : "apig-autotest-apitest-nodelete",
    "instance_status" : 6,
    "project_id" : "73d69ae0cfcf460190522d06b60f05ad",
    "spec" : "PROFESSIONAL",
    "status" : "Running",
    "type" : "apig"
  }
}

```

**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](#).

### 3.24.12 Deleting a Dedicated Gateway

#### Function

This API is used to delete a dedicated gateway.

#### URI

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

**Table 3-1263** Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see "Appendix" > "Obtaining a Project ID" in this document.
instance_id	Yes	String	Gateway ID, which can be obtained from the gateway information on the APIG console.

#### Request Parameters

**Table 3-1264** 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 3-1265** Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

**Status code: 403**

**Table 3-1266** Response body parameters

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

**Status code: 404**

**Table 3-1267** Response body parameters

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

**Status code: 500**

**Table 3-1268** 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
404	Not Found
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 4 Permissions Policies and Supported Actions

---

This chapter describes fine-grained permissions management for your APIG.

## NOTE

If your account does not require individual IAM users, skip this section.

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.

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.

APIG supports actions that can be defined in custom policies. Permissions must be obtained before calling APIs provided by APIG.

**Table 4-1** Supported actions

Description	Action	API	IA M Pro jec t	Ent erp rise Pro jec t
Creating a dedicated gateway	apig:instance:create	POST /v2/{project_id}/apigw/instances	√	√
Deleting a dedicated gateway	apig:instance:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}	√	√
Updating a dedicated gateway	apig:instance:update	PUT /v2/{project_id}/apigw/instances/{instance_id}	√	√
Querying details of a dedicated gateway	apig:instance:get	GET /v2/{project_id}/apigw/instances/{instance_id}	√	√
Querying a dedicated gateway list	apig:instance:list	GET /v2/{project_id}/apigw/instances	√	√
Creating an API group	apig:groups:create	POST /v2/{project_id}/apigw/instances/{instance_id}/api-groups	√	√
Deleting an API group	apig:groups:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}	√	√
Querying details of an API group	apig:groups:get	GET /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}	√	√
Querying an API group list	apig:groups:list	GET /v2/{project_id}/apigw/instances/{instance_id}/api-groups	√	√
Binding a domain name to an API group	apig:domains:create	POST /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains	√	√

Description	Action	API	IAM Project	Enterprise Project
Deleting a domain name bound to an API group	apig:domains:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}	√	√
Adding a certificate to a domain name	apig:domains:bindCertificate	POST /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}/certificate	√	√
Deleting a certificate bound to a domain name	apig:domains:unbindCertificate	DELETE /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}/certificate/{certificate_id}	√	√
Querying details of a certificate bound to a domain name	apig:domains:getCertificate	GET /v2/{project_id}/apigw/instances/{instance_id}/api-groups/{group_id}/domains/{domain_id}/certificate/{certificate_id}	√	√
Creating an environment variable	apig:variables:create	POST /v2/{project_id}/apigw/instances/{instance_id}/env-variables	√	√
Deleting an environment variable	apig:variables:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/env-variables/{env_variable_id}	√	√
Querying details of an environment variable	apig:variables:get	GET /v2/{project_id}/apigw/instances/{instance_id}/env-variables/{env_variable_id}	√	√
Querying an environment variable list	apig:variables:list	GET /v2/{project_id}/apigw/instances/{instance_id}/env-variables	√	√

Descriptio n	Action	API	IA M Pro jec t	Ent erp rise Proj ect
Creating an API	apig:apis:create	POST /v2/{project_id}/apigw/instances/{instance_id}/apis	√	√
Deleting an API	apig:apis:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/apis/{api_id}	√	√
Publishing an API	apig:apis:publish	POST /v2/{project_id}/apigw/instances/{instance_id}/apis/action	√	√
Taking an API offline	apig:apis:offline	POST /v2/{project_id}/apigw/instances/{instance_id}/apis/action	√	√
Debugging an API	apig:apis:debug	POST /v2/{project_id}/apigw/instances/{instance_id}/apis/debug/{api_id}	√	√
Importing an API	apig:apis:import	POST /v2/{project_id}/apigw/instances/{instance_id}/openapi/import	√	√
Exporting an API	apig:apis:export	POST /v2/{project_id}/apigw/instances/{instance_id}/openapi/export	√	√
Authorizing an app to access an API	apig:apis:grantAppAccess	POST /v2/{project_id}/apigw/instances/{instance_id}/app-auths	√	√
Canceling the authorization of an app for accessing an API	apig:apis:revokeAppAccess	DELETE /v2/{project_id}/apigw/instances/{instance_id}/app-auths/{app_auth_id}	√	√
Binding a signature key to an API	apig:apis:bindSigns	POST /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings	√	√
Unbinding a signature key from an API	apig:apis:unbindSigns	DELETE /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings/{sign_bindings_id}	√	√



Description	Action	API	IA M Pro jec t	Ent erp rise Pro jec t
Binding an access control policy to an API	apig:apis:bindAcls	POST /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings	√	√
Unbinding an access control policy from an API	apig:apis:unbindAcls	DELETE /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings/{acl_bindings_id}	√	√
Binding a request throttling policy to an API	apig:apis:bindThrottles	POST /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings	√	√
Unbinding a request throttling policy from an API	apig:apis:unbindThrottles	DELETE /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings/{throttle_binding_id}	√	√
Querying details of an API	apig:apis:get	GET /v2/{project_id}/apigw/instances/{instance_id}/apis/{api_id}	√	√
Querying an API list	apig:apis:list	GET /v2/{project_id}/apigw/instances/{instance_id}/apis	√	√
Querying the list of apps bound to an API	apig:apis:listBindedApps	GET /v2/{project_id}/apigw/instances/{instance_id}/app-auths/binded-apps	√	√
Querying the list of signature keys bound to an API	apig:apis:listBindedSigns	GET /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings/binded-signs	√	√

Description	Action	API	IAM Project	Enterprise Project
Querying the list of access control policies bound to an API	apig:apis:listBindedAcls	GET /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings/binded-acls	√	√
Querying the list of request throttling policies bound to an API	apig:apis:listBindedTrottl	GET /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings/binded-throttles	√	√
Creating an environment	apig:envs:create	POST /v2/{project_id}/apigw/instances/{instance_id}/envs	√	√
Deleting an environment	apig:envs:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/envs/{env_id}	√	√
Querying an environment list	apig:envs:list	GET /v2/{project_id}/apigw/instances/{instance_id}/envs	√	√
Creating an app	apig:apps:create	POST /v2/{project_id}/apigw/instances/{instance_id}/apps	√	√
Deleting an app	apig:apps:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}	√	√
Querying details of an app	apig:apps:get	GET /v2/{project_id}/apigw/instances/{instance_id}/apps/{app_id}	√	√
Querying an app list	apig:apps:list	GET /v2/{project_id}/apigw/instances/{instance_id}/apps	√	√
Querying the list of APIs bound to an app	apig:apps:listBindedApis	GET /v2/{project_id}/apigw/instances/{instance_id}/app-auths/binded-apis	√	√

Descriptio n	Action	API	IA M Pro jec t	Ent erp rise Pro jec t
Querying the list of APIs not bound to an app	apig:apps:list UnbindedApis	GET /v2/{project_id}/apigw/instances/{instance_id}/app-auths/unbinded-apis	√	√
Creating a signature key	apig:signs:create	POST /v2/{project_id}/apigw/instances/{instance_id}/signs	√	√
Deleting a signature key	apig:signs:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/signs/{sign_id}	√	√
Querying a signature key list	apig:signs:list	GET /v2/{project_id}/apigw/instances/{instance_id}/signs	√	√
Querying the list of APIs bound to a signature key	apig:signs:list BindedApis	GET /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings/bind-ed-apis	√	√
Querying the list of APIs not bound to a signature key	apig:signs:list UnbindedApis	GET /v2/{project_id}/apigw/instances/{instance_id}/sign-bindings/unbind-ed-apis	√	√
Creating an access control policy	apig:acls:create	POST /v2/{project_id}/apigw/instances/{instance_id}/acls	√	√
Deleting an access control policy	apig:acls:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/acls/{acl_id}	√	√
Querying details of an access control policy	apig:acls:get	GET /v2/{project_id}/apigw/instances/{instance_id}/acls/{acl_id}	√	√

Description	Action	API	IAM Project	Enterprise Project
Querying an access control policy list	apig:acls:list	GET /v2/{project_id}/apigw/instances/{instance_id}/acls	√	√
Querying the list of APIs bound to an access control policy	apig:acls:listBindedApis	GET /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings/binded-apis	√	√
Querying the list of APIs not bound to an access control policy	apig:acls:listUnbindedApis	GET /v2/{project_id}/apigw/instances/{instance_id}/acl-bindings/unbinded-apis	√	√
Creating a request throttling policy	apig:throttles:create	POST /v2/{project_id}/apigw/instances/{instance_id}/throttles	√	√
Deleting a request throttling policy	apig:throttles:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}	√	√
Querying details of a request throttling policy	apig:throttles:get	GET /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}	√	√
Querying a request control policy list	apig:throttles:list	GET /v2/{project_id}/apigw/instances/{instance_id}/throttles	√	√
Querying the list of APIs bound to a request control policy	apig:throttles:listBindedApis	GET /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings/binded-apis	√	√

Description	Action	API	IAM Project	Enterprise Project
Querying the list of APIs not bound to a request control policy	apig:throttles:listUnbindedApis	GET /v2/{project_id}/apigw/instances/{instance_id}/throttle-bindings/unbinded-apis	√	√
Creating an excluded request throttling configuration	apig:specialThrottles:create	POST /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}/throttle-specials	√	√
Deleting an excluded request throttling configuration	apig:specialThrottles:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}/throttle-specials/{strategy_id}	√	√
Querying excluded request throttling configurations	apig:specialThrottles:get	GET /v2/{project_id}/apigw/instances/{instance_id}/throttles/{throttle_id}/throttle-specials	√	√
Creating a VPC channel	apig:vpcChannels:create	POST /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels	√	√
Deleting a VPC channel	apig:vpcChannels:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}	√	√
Updating a VPC channel	apig:vpcChannels:update	PUT /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}	√	√
Creating a backend instance	apig:vpcChannels:addInstance	POST /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/members	√	√

Description	Action	API	IAM Project	Enterprise Project
Deleting a backend instance	apig:vpcChannels:deleteInstance	DELETE /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}/members/{member_id}	√	√
Querying details of a VPC channel	apig:vpcs:get	GET /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels/{vpc_channel_id}	√	√
Querying a VPC channel list	apig:vpcs:list	GET /v2/{project_id}/apigw/instances/{instance_id}/vpc-channels	√	√
Creating a custom authorizer	apig:authorizers:create	POST /v2/{project_id}/apigw/instances/{instance_id}/authorizers	√	√
Deleting a custom authorizer	apig:authorizers:delete	DELETE /v2/{project_id}/apigw/instances/{instance_id}/authorizers/{authorizer_id}	√	√
Querying details of a custom authorizer	apig:authorizers:get	GET /v2/{project_id}/apigw/instances/{instance_id}/authorizers/{authorizer_id}	√	√
Query a custom authorizer list	apig:authorizers:list	GET /v2/{project_id}/apigw/instances/{instance_id}/authorizers	√	√
Querying a tag list	apig:tags:list	GET /v2/{project_id}/apigw/instances/{instance_id}/tags	√	√
Querying an instance feature list	apig:features:list	GET /v2/{project_id}/apigw/instances/{instance_id}/features	√	√
Creating an instance feature	apig:features:create	POST /v2/{project_id}/apigw/instances/{instance_id}/features	√	√

# 5 Appendix

## 5.1 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
```

## 5.2 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
```

## 5.3 HTTP Status Codes

[Table 5-1](#) describes common status codes.

**Table 5-1** 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 server is currently unable to handle the request due to a temporary overloading or maintenance of the server.
504 Gateway Timeout	The server was acting as a gateway or proxy and did not receive a timely response from the upstream server.



## 5.4 Error Codes

Status Code	Error Codes	Error Message	Description	Solution
204	APIG.0000	Successful	Successful	You do not need to take any actions.
400	APIG.1119	No permissions to perform operations on this method.	No permissions to perform operations on this method.	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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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 backend port number.	Invalid backend port number.	Use a correct port number.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.2026	The request path parameters do not match the request URI.	The request path parameters do not match the request URI.	Add the parameters contained in the request path to the request parameters.
400	APIG.2027	The backend path parameters do not match the backend URI.	The backend path parameters do not match the backend URI.	Add the parameters contained in the backend request path to the backend parameters.
400	APIG.2028	The backend parameters are not mapped to the request parameters.	The backend parameters are not mapped to the request parameters.	Change the source of backend parameters to the corresponding request parameters.
400	APIG.2029	The default certificate already exists.	The default certificate already exists.	Contact technical support for assistance.
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 for assistance.
400	APIG.2036	Only APIs with authorizer can have authorizer parameters	Only APIs with authorizer can have authorizer parameters	Delete unnecessary parameters.
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.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.2102	The certificate has expired.	The certificate has expired.	Use a valid certificate.
400	APIG.2103	The certificate common name does not match the domain name.	The certificate common name does not match the domain name.	Ensure that the domain name in the certificate is the same as a 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.
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 name already exists.	The identity name already exists.	Use another name.
400	APIG.3213	The API tag name already exists.	The API 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 for assistance.
400	APIG.3305	The URL domain name already exists.	The URL domain name already exists.	Contact technical support for assistance.
400	APIG.3306	The IP address already exists.	The IP address already exists.	Contact technical support for assistance.
400	APIG.3308	The excluded request throttling configuration already exists.	The excluded request throttling configuration already exists.	Contact technical support for assistance.
400	APIG.3309	The operation has already been performed	The operation has already been performed	Contact technical support for assistance.
400	APIG.3310	The app key already exist	The app key already exist	Use another AppKey.
400	APIG.3316	The api auth relation already exists	The api auth relation already exists	Use another API or app.
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	Can not edit Apis from Api Designer	Can not edit Apis from Api Designer	Contact technical support for assistance.

Status Code	Error Codes	Error Message	Description	Solution
400	APIG.3609	The input file is empty	The input file is empty	Use a file that is not empty.
401	APIG.1000	The token is missing.	The token is missing.	Access using a token.
401	APIG.1001	The token has expired.	The token has expired.	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	The token does not contain project information.	The token does not contain project information.	Use a token containing project information.
401	APIG.1005	No permissions to request this method.	No permissions to request this method.	Use a token that contains the required permissions.
401	APIG.1007	The domain information is missing.	The domain information is missing.	Contact technical support for assistance.
401	APIG.1008	Unknown domain.	Unknown domain.	Contact technical support for assistance.
401	APIG.1009	The token does not contain user information.	The token does not contain user information.	Use a token containing user information.
401	APIG.1010	PDP server connection failed.	PDP server connection failed.	Contact technical support for assistance.
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.



Status Code	Error Codes	Error Message	Description	Solution
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.
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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 for assistance.
403	APIG.1108	No permissions to perform operations on this excluded configuration.	No permissions to perform operations on this excluded configuration.	Contact technical support for assistance.
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
403	APIG.1136	no authority to operate instance	no authority to operate instance	Contact technical support for assistance.

Status Code	Error Codes	Error Message	Description	Solution
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 doc	No permissions to perform operations on this API swagger doc	Ensure that the Swagger file belongs to your account. If you are an IAM user, apply for the required permissions.
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
403	APIG.3110	The number of instances exceeds the maximum allowed limit.	The number of instances exceeds the maximum allowed limit.	Contact technical support to increase the quota.

Status Code	Error Codes	Error Message	Description	Solution
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 maximum number of API backend policies has been reached.	The maximum number of API backend policies has been reached.	Contact technical support to increase the quota.
403	APIG.3114	The maximum number of policy conditions has been reached.	The maximum number of policy conditions has been reached.	Contact technical support to increase the quota.
403	APIG.3116	The number of authorizer exceeds the maximum allowed limit	The number of authorizer exceeds the maximum allowed limit	Contact technical support to increase the quota.
403	APIG.3117	The number of identity exceeds the maximum allowed limit	The number of identity exceeds the maximum allowed limit	Contact technical support to increase the quota.
403	APIG.3125	The maximum number of APIs for one API group has been reached.	The maximum number of APIs for one API group has been reached.	Contact technical support to increase the quota.

Status Code	Error Codes	Error Message	Description	Solution
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 APP codes exceeds the maximum allowed limit	The number of APP codes exceeds the maximum allowed limit	Contact technical support to increase the quota.
403	APIG.3132	The number of API swaggers for one API group exceeds the maximum allowed limit	The number of API swaggers for one 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.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 for assistance.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
403	APIG.3447	The Acl Strategy has already binded to APIs.	The Acl Strategy has already binded to APIs.	Delete the APIs bound with the access control policy and then delete the access control policy.
403	APIG.3451	The Throttle Strategy has already binded to APIs.	The Throttle Strategy has already binded to APIs.	Delete the APIs bound with the request throttling policy and then delete the request throttling policy.
403	APIG.3471	No permissions to perform operations on this type of VPC channel.	No permissions to perform operations 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.



Status Code	Error Codes	Error Message	Description	Solution
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	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.
404	APIG.3008	The excluded configuration does not exist.	The excluded configuration does not exist.	Check whether the excluded configuration exists.

Status Code	Error Codes	Error Message	Description	Solution
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.
404	APIG.3017	The signature key does not exist.	The signature key does not exist.	Check whether the signature key exists.

Status Code	Error Codes	Error Message	Description	Solution
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 instance does not exist.	The instance 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.3081	Authorizer not found	Authorizer not found	Check whether the custom authorizer exists.
404	APIG.3082	The APP code does not exist	The APP code 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.

Status Code	Error Codes	Error Message	Description	Solution
404	APIG.3090	The Api swagger does not exist	The Api swagger does not exist	Check whether the Swagger file exists.
404	APIG.3092	The ECS does not exist	The ECS does not exist	The cloud server has already been deleted, or the server ID is incorrect.
409	APIG.3491	The default response can not be deleted.	The default response can not be deleted.	This operation is not allowed.
409	APIG.3492	The default response name can not be modified.	The default response name can not be modified.	This operation is not allowed.
412	APIG.3458	The feature is not supported by current instance	The feature is not supported by current instance	Contact technical support for assistance.
500	APIG.3500	Failed to synchronize data to etcd.	Failed to synchronize data to etcd.	Contact technical support for assistance.
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 for assistance.
500	APIG.9004	IAM request failed.	IAM request failed.	Contact technical support for assistance.
500	APIG.9005	VPC request failed.	VPC request failed.	Contact technical support for assistance.
500	APIG.9006	DNS request failed.	DNS request failed.	Contact technical support for assistance.
500	APIG.9007	ELB request failed.	ELB request failed.	Contact technical support for assistance.

Status Code	Error Codes	Error Message	Description	Solution
500	APIG.9008	Too many requests.	Too many requests.	Please try again later.
500	APIG.9999	System error.	System error.	Contact technical support for assistance.

## 5.5 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, contact technical support 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	Backend timeout configuration	Yes	<pre>{"name": "backend_timeout", "enable": true, "config": {"max_timeout": 500}}</pre>	max_timeout	Maximum timeout duration for APIC to access 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 app_token authentication.	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 app_jwt 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": [{"paas_apig_wx548366_01"}]}</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	-	-	-	-	-
backend_client_certificate	Backend two-way authentication	Yes	{"name": "backend_client_certificate", "enable": true, "config": [{"enable": "on", "ca": "\\", "content": "\"}]}	enable	Whether to enable this feature.	Off	On/Off
				ca	CA file of two-way authentication.	-	-
				content	Two-way authentication file.	-	-

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
			nt\": \\\", \"key\": \\\""}}	key	Private key of two-way authentication.	-	-
ssl_ciphers	HTTP S cipher suites	Yes	{\"name\": \"ssl_ciphers\", \"enable\": true, \"config\": \"config\": : {\"ssl_ciphers\": [\"ECDHE-ECDSA-AES256-GCM-SHA384\\\"]}}}	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
real_ip_from_xff	<b>X-Forwarded-For</b>	Yes	{\"name\": \"real_ip_from_xff	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
	header for identifying IP addresses during access control and request throttling		f", "enable": true, "config": {"enable": "on", "xff_index": -1}}	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	-1	Valid Int32 value

Feature Name	Feature Description	Configurable	Feature Configuration Example	Configuration Parameter	Parameter Description	Default Value	Value Range
					<p>from the <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>		

## 5.6 Obtaining a Project ID

### Calling an API

You can also obtain a project ID by calling the IAM API used to query project information.

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.

If there are multiple projects in one region, expand **Region** and view subproject IDs in the **Project ID** column.

## 5.7 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.

# 6 Change History

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