

# Simple Message Notification

## API Reference

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# 1 Before You Start

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## 1.1 Overview

Welcome to the *Simple Message Notification API Reference*. Simple Message Notification (SMN) is a reliable and flexible large-scale message notification service. It enables you to efficiently send messages to phone numbers, email addresses and HTTP/HTTPS servers and connect cloud services through notifications, reducing system complexity.

This document describes how to use application programming interfaces (APIs) to perform operations in SMN, such as creating, querying, deleting, and updating resources. For details about all supported operations, see [API Overview](#).

Before you use SMN by calling APIs, please get yourself familiar with basic SMN concepts. For details, see [Service Overview](#).

## 1.2 API Calling

SMN supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details, 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 Notes and Constraints

- The number of SMN resources you can create is determined by quota. To view or increase the quota, see [Quota Adjustment](#).
- For more details, see the constraints described in each API.

## 1.5 Concepts

- **Account**

An account is created upon successful registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity, which should not be used directly to perform routine management. For security purposes, create Identity and Access Management (IAM) users and grant them permissions for routine management.
- **User**

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

You can view the account ID and IAM user ID on the [My Credentials](#) page of the management console. API authentication requires information such as the account name, username, and password.
- **Region**

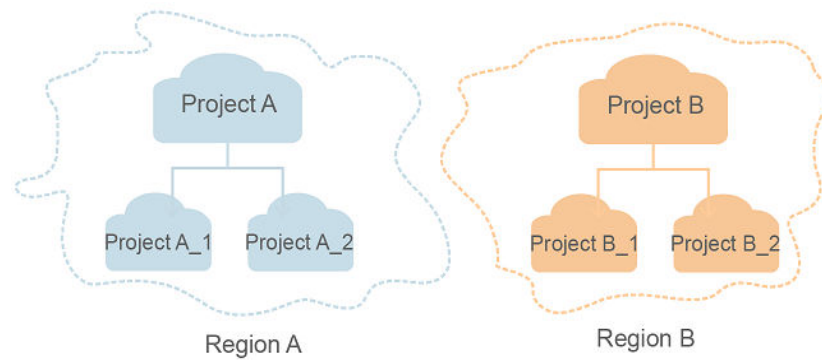
Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region.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

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

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

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

**Figure 1-1** Project isolation model



To view a project ID, go to the [My Credentials](#) page.

- Enterprise project

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

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

# 2 API Overview

By calling SMN APIs, you can use all functions provided by SMN, for example, creating a topic and adding a subscription.

**Table 2-1** API description

Category	Description
Topic operations	Create, modify, and delete topics.
Subscription operations	Query the subscription list, add and delete subscriptions.
Template operations	Create, modify, and delete message templates.
Message publishing	Publish messages in the different formats, including text, JSON, and message template.
Resource tag operations	Query resources by tag, add resource tags, and query tags.
Version querying	Query SMN API versions and information about the SMN API v2 version.
Application operations	Create, modify, and delete applications.
Application endpoint operations	Create, modify, and delete application endpoints.
Application message sending	Publish application messages and use a message structure to send messages.

# 3 Calling APIs

## 3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for **obtaining a user token** as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

### Request URI

A request URI is in the following format:

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

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

**Table 3-1** URI parameter description

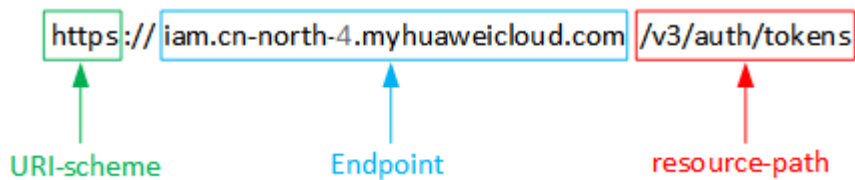
Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from <b>Regions and Endpoints</b> . For example, the endpoint of IAM in the <b>CN North-Beijing4</b> region is <b>iam.cn-north-4.myhuaweicloud.com</b> .
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 obtain a user token is <b>/v3/auth/tokens</b> .

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.

For example, to obtain an IAM token in the **CN North-Beijing4** region, obtain the endpoint of IAM (**iam.cn-north-4.myhuaweicloud.com**) for this region and the **resource-path** (**/v3/auth/tokens**) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

`https://iam.cn-north-4.myhuaweicloud.com/v3/auth/tokens`

**Figure 3-1** Example URI



**NOTE**

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

## Request Methods

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

**Table 3-2** HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.
DELETE	Requests the server to delete specified resources, for example, an object.
HEAD	Same as GET except that the server must return only the response header.

Method	Description
PATCH	Requests the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

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

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
```

## Request Header

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

Common request header fields are as follows.

**Table 3-3** Common request header fields

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

Parameter	Description	Mandatory	Example Value
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in <a href="#">Obtaining a Project ID</a> .	No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario.	e9993fc787d94b6c886cbaa340f9c0f4
X-Auth-Token	Specifies the user token. It is a response to the API for <a href="#">obtaining a user token</a> (This is the only API that does not require authentication). After the request is processed, the value of <b>X-Subject-Token</b> in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZ

#### NOTE

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

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

The 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.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

## (Optional) Request Body

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

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

In the case of the API used to [obtain a user token](#), the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*,

*domainname*, *\*\*\*\*\** (login password), and *xxxxxxxxxxxxxxxxxxxx* (project name) with the actual values. Obtain a project name from [Regions and Endpoints](#).

 **NOTE**

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

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

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

If all data required for the API request is available, you can send the request to call the API through [curl](#), [Postman](#), or coding. In the response to the API used to obtain a user token, **x-subject-token** is the desired user token. This token can then be used to authenticate the calling of other APIs.

## 3.2 Authentication

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

- Token authentication: Requests are authenticated using tokens.
- AK/SK authentication: Requests are encrypted using AK/SK pairs. AK/SK authentication is recommended because it is more secure than token authentication.

### Token Authentication

 **NOTE**

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

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

A cloud service can be deployed as either a project-level service or global service.

- For a project-level service, you need to obtain a project-level token. When you call the API, set **auth.scope** in the request body to **project**.
- For a global service, you need to obtain a global token. When you call the API, set **auth.scope** in the request body to **domain**.

IMS is a project-level service. When you call the API, set **auth.scope** in the request body to **project**.

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

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

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

## AK/SK Authentication

### NOTE

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

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

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

 NOTE

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

## 3.3 Response

### Status Code

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

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

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

### Response Header

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

[Figure 3-2](#) shows the response header fields for the API used to [obtain a user token](#). The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

**Figure 3-2** Header fields of the response to the request for obtaining a user token

```
connection → keep-alive
content-type → application/json
date → Tue, 12 Feb 2019 06:52:13 GMT
server → Web Server
strict-transport-security → max-age=31536000; includeSubdomains;
transfer-encoding → chunked
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5
x-subject-token → MIiYXQYJKoZIhvcNAQcCoIIYtjCCGEOCAQExDTALBglghkgBZQMEAgEwgharBgkqhkiG9w0BBwGgghacBIIWmHsidG9rZW4iOansiZXhwaXJlc19hdCI6IjwMTktMDItMTNUMC
fj3Kjs6YgKnpVNRbW2eZ5eb78SZ0kqjACgkqlqO1wi4JlGzrpd18LGXK5bdfq4lqHCYb8P4NaYONYejeAgz/VeFYtLWT1GSO0zxKZmlQHqJ82HBqHdglZO9fuEbL5dMhdavj+33wEI
xHRCE9I87o+k9-
j+CMZSEB7bUGd5Uj6eRASXl1jipPEGA270g1FruooL6jqglFKNPQuFSOU8+uSsttVwRtnfsC+qTp22Rkd5MCqFGQ8LcuUxC3a+9CMBnOintWW7oeRUUVhVpxk8pxiX1wTEboX-
RzT6MUbpvGw-oPNFYxjECKnoH3HRozv0vN--n5d6Nbxg==
x-xss-protection → 1; mode=block;
```

### (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 **obtain a user token**.

```
{
  "token": {
    "expires_at": "2019-02-13T06:52:13.855000Z",
    "methods": [
      "password"
    ],
    "catalog": [
      {
        "endpoints": [
          {
            "region_id": "az-01",
            .....

```

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

```
{
  "error_msg": "The format of message is error",
  "error_code": "AS.0001"
}
```

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

# 4 Getting Started

## Scenarios

This topic describes how to publish a message to a topic by calling APIs.

For details about how to call APIs, see [Calling APIs](#).

### NOTE

The token obtained from IAM is valid for only 24 hours. If you want to use one token for authentication, you can cache it to avoid frequently calling the IAM API.

## Involved APIs

To use token authentication, you need to obtain a token and add **X-Auth-Token** to the request header of API calls.

- IAM API to obtain a token
- SMN API to create a topic
- SMN API to add subscriptions
- SMN API to publish messages

## Procedure

1. Obtain the token by referring to [Authentication](#).
2. Send a request **POST** `https://{SMN_Endpoint}/v2/{project_id}/notifications/topics` to create a topic.

- a. Add **X-Auth-Token** to the request header.
- b. Specify the following parameters in the request body:

```
{
  "name": "test_topic_v2", //(Mandatory) Topic name
  "display_name": "test" //(Optional) Display name
}
```

If the request is successful, a request ID (**request\_id**) and topic URN (**topic\_urn**) are returned.

If the request fails, an error code and error message are returned. For details, see [Error Codes](#).

3. Send a request **POST** `https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/{topic_urn}/subscriptions` to add subscriptions.

Set **topic\_urn** based on the response in the previous step.

- a. Add **X-Auth-Token** to the request header.
- b. Specify the following parameters in the request body:

```
{
  "protocol": "email", //(Mandatory) Subscription protocol
  "endpoint": "xxx@xx.com", //(Mandatory) Email address
  "remark": "Subscription" //(Optional) Description
}
```

If the request is successful, a request ID (**request\_id**) and subscription URN (**subscription\_urn**) are returned.

If the request fails, an error code and error message are returned. For details, see [Error Codes](#).

 **NOTE**

You can add multiple subscriptions to a topic. For details, see [Adding a Subscription](#).

- c. The subscription endpoint receives a confirmation message, and you must confirm the subscription in the email.
4. Send a request **POST** [https://{SMN\\_Endpoint}/v2/{project\\_id}/notifications/topics/{topic\\_urn}/publish](https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/{topic_urn}/publish) to publish a message.

- a. Add **X-Auth-Token** to the request header.
- b. Specify the following parameters in the request body:

```
{
  "subject":"test message v2", //(Optional) Message subject, which is displayed in email messages
  "message": "Message test message v2." //(Mandatory) Message to be published
}
```

If the request is successful, a request ID (**request\_id**) and message ID (**message\_id**) are returned.

If the request fails, an error code and error message are returned. For details, see [Error Codes](#).

 **NOTE**

Only confirmed subscription endpoints can receive the message you publish.

# 5 APIs

---

## 5.1 Topic Operations

### 5.1.1 Creating a Topic

#### Function

This API is used to create a topic. Each user can create up to 3,000 topics. In the high-concurrent scenario, topics can still be created even if the total number of topics exceeds 3,000. The API is idempotent. It returns a successful result after creating a topic. If a topic of the same name already exists, the status code is 200. Otherwise, the status code is 201.

#### URI

POST /v2/{project\_id}/notifications/topics

**Table 5-1** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

## Request Parameters

**Table 5-2** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-3** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the topic name. Enter 1 to 255 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. The topic name must start with a letter or digit. Minimum length: 1 character Maximum length: 255 characters
display_name	Yes	String	Specifies the topic display name, which is presented as the name of the email sender in email messages. The display name cannot exceed 192 bytes. It is left blank by default. Minimum length: 1 byte Maximum length: 192 bytes
enterprise_project_id	No	String	(Optional) Specifies the enterprise project ID. It is required when the enterprise project function is enabled. Default value: <b>0</b>

## Response Parameters

**Status code: 201**

**Table 5-4** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
topic_urn	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .

**Status code: 400****Table 5-5** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-6** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-7** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-8** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Creating a topic

```
POST https://{SMN_Endpoint}/v2/{project_id}/notifications/topics
```

```
{  
  "name" : "test_topic_v2",  
  "display_name" : "testtest"  
}
```

## Example Responses

**Status code: 201**

OK

```
{  
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085",  
  "topic_urn" : "urn:smn:regionId:f96188c7ccaf4ffba0c9aa149ab2bd57:test_topic_v2"  
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.1.2 Updating a Topic

### Function

This API is used to update the topic display name.

### URI

PUT /v2/{project\_id}/notifications/topics/{topic\_urn}

**Table 5-9** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .

### Request Parameters

**Table 5-10** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of X-Subject-Token in the response header).

**Table 5-11** Request body parameters

Parameter	Mandatory	Type	Description
display_name	Yes	String	Specifies the topic display name, which is presented as the name of the email sender in email messages. The display name cannot exceed 192 bytes. Minimum length: 1 byte Maximum length: 192 bytes

## Response Parameters

**Status code: 200**

**Table 5-12** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-13** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-14** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-15** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-16** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Updating a Topic

```
PUT https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/  
urn:smn:regionId:f96188c7ccaf4ffba0c9aa149ab2bd57:test_topic_v2
```

```
{  
  "display_name" : "testtest222"  
}
```

## Example Responses

**Status code: 200**

OK

```
{  
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085"  
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.1.3 Querying Topics

### Function

This API is used to query topics by page. The topics are sorted by the creation time in descending order. You can specify **offset** and **limit**. If no topic has been created, an empty list is returned.

### URI

GET /v2/{project\_id}/notifications/topics

**Table 5-17** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

**Table 5-18** Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Specifies the offset. If the offset is an integer greater than 0 but less than the number of resources, all resources after this offset will be queried. The default offset is <b>0</b> . The default offset is <b>0</b> .
limit	No	Integer	Specifies the maximum number of records in each query. The number ranges from <b>1</b> to <b>100</b> and is generally <b>10</b> , <b>20</b> , or <b>50</b> , indicating the number of resources returned on each page. The default value is <b>100</b> . Default value: <b>100</b>
enterprise_project_id	No	String	Specifies the enterprise project ID. The default enterprise project ID is <b>0</b> . The default ID is <b>0</b>
name	No	String	Specifies the name of the topic to be searched for, which is fully matched.

Parameter	Mandatory	Type	Description
fuzzy_name	No	String	Specifies the name of the topic to be searched for, which is fuzzy match. startwith() is used for the fuzzy match.

## Request Parameters

Table 5-19 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

Status code: 200

Table 5-20 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
topic_count	Integer	Specifies the number of returned topics. No matter what you have set for <b>offset</b> and <b>limit</b> in the request, this API always returns the total number of topics in your account.
topics	Array of <a href="#">ListTopicsItem</a> objects	Specifies the topic structure array.

Table 5-21 ListTopicsItem

Parameter	Type	Description
topic_urn	String	Specifies the resource identifier of the topic, which is unique.
name	String	Specifies the topic name.

Parameter	Type	Description
display_name	String	Specifies the topic display name, which is presented as the name of the email sender in email messages.
push_policy	Integer	Specifies the message push policy. <b>0</b> indicates that the message sending fails and the message is cached in the queue. <b>1</b> indicates that the failed message is discarded.
enterprise_project_id	String	Specifies the enterprise project ID.

**Status code: 400****Table 5-22** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-23** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-24** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-25** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Querying topics

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/topics?offset=0&limit=100  
null
```

## Example Responses

**Status code: 200**

OK

```
{  
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085",  
  "topic_count" : 1,  
  "topics" : [ {  
    "topic_urn" : "urn:smn:regionId:8bad8a40e0f7462f8c1676e3f93a8183:test_topic_v2",  
    "display_name" : "testtest",  
    "name" : "test_topic_v1",  
    "push_policy" : 0,  
    "enterprise_project_id" : "0"  
  } ]  
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.1.4 Querying Details About a Topic

### Function

This API is used to query details about a topic.

### URI

GET /v2/{project\_id}/notifications/topics/{topic\_urn}

**Table 5-26** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .

### Request Parameters

**Table 5-27** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

### Response Parameters

**Status code: 200**

**Table 5-28** Response body parameters

Parameter	Type	Description
update_time	String	Specifies the time when the topic was updated. The UTC time is in YYYY-MM-DDTHH:MM:SSZ format.

Parameter	Type	Description
push_policy	Integer	Specifies the message push policy. <b>0</b> indicates that the message sending fails and the message is cached in the queue. <b>1</b> indicates that the failed message is discarded.
create_time	String	Specifies the time when the topic was created. The UTC time is in YYYY-MM-DDTHH:MM:SSZ format.
name	String	Specifies the topic name.
topic_urn	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .
display_name	String	Specifies the topic display name, which is presented as the name of the email sender in email messages.
request_id	String	Specifies the request ID, which is unique.
enterprise_project_id	String	Specifies the enterprise project ID.

**Status code: 400****Table 5-29** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-30** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-31** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-32** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Querying details about a topic

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/urn:smn:regionId:8bad8a40e0f7462f8c1676e3f93a8183:test_create_topic_v2
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "update_time" : "2016-08-01T02:16:38Z",
  "push_policy" : 0,
  "create_time" : "2016-08-01T02:16:38Z",
  "name" : "test_create_topic_v2",
  "topic_urn" : "urn:smn:regionId:8bad8a40e0f7462f8c1676e3f93a8183:test_create_topic_v2",
  "display_name" : "test create topic v2",
  "request_id" : "6837531fd3f54550927b930180a706bf",
  "enterprise_project_id" : "0"
}
```

## Status Codes

Status Code	Description
200	OK

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

## Error Codes

See [Error Codes](#).

## 5.1.5 Querying a Topic Policy

### Function

This API is used to query a topic policy.

### URI

GET /v2/{project\_id}/notifications/topics/{topic\_urn}/attributes

**Table 5-33** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .

**Table 5-34** Query parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the topic policy name. Only specified policy names are supported. For details, see <a href="#">Topic Attribute List</a> .

## Request Parameters

**Table 5-35** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of X-Subject-Token in the response header).

## Response Parameters

Status code: 200

**Table 5-36** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
attributes	<b>TopicAttribute</b> object	Specifies the attribute key-value pair. <b>access_policy</b> : topic access policy <b>introduction</b> : description of a topic

**Table 5-37** TopicAttribute

Parameter	Type	Description
Version	String	Specifies the policy specification version. Only 2016-09-07 is supported.
Id	String	Specifies the policy ID, which uniquely identifies a policy. The policy ID must be specified.
Statement	Array of <b>Statement</b> objects	You can use statements to configure a topic policy. Each topic policy may contain one or more statements. You can use statements to grant topic operation permissions to other users or cloud services.

**Table 5-38** Statement

Parameter	Type	Description
Sid	String	Specifies the statement ID. The statement ID must be unique, for example, <b>statement01</b> or <b>statement02</b> .
Effect	String	Specifies the statement effect. The value can be <b>Allow</b> or <b>Deny</b> .
Principal	String	Specifies the object the statement applies to. Valid values are: <ul style="list-style-type: none"> <li>• <b>CSP</b> indicates cloud users.</li> <li>• <b>Service</b> indicates cloud services.</li> </ul> Either <b>Principal</b> or <b>NotPrincipal</b> must be configured. <ul style="list-style-type: none"> <li>• If you enter <b>CSP</b>, you must specify user information in the following format: urn:csp:iam::domainId:root. You need to obtain the domain ID of each user you specify.</li> <li>• If you enter <b>Service</b>, you must specify the cloud service names in lower case.</li> </ul>
NotPrincipal	String	Specifies the object the statement does not apply to. Valid values are: <ul style="list-style-type: none"> <li>• <b>CSP</b> indicates cloud users.</li> <li>• <b>Service</b> indicates cloud services.</li> </ul> Either <b>Principal</b> or <b>NotPrincipal</b> must be configured. <ul style="list-style-type: none"> <li>• If you enter <b>CSP</b>, you must specify user information in the following format: urn:csp:iam::domainId:root. You need to obtain the domain ID of each user you specify.</li> <li>• If you enter <b>Service</b>, you must specify the cloud service names in lower case.</li> </ul>

Parameter	Type	Description
Action	String	<p>Specifies the allowed statement action.</p> <p>You can use a wildcard character to configure a type of actions, for example, <b>SMN:Update*</b> and <b>SMN&gt;Delete*</b>. If you only enter a wildcard character (*) in a statement, all supported actions are configured.</p> <p>Either <b>Action</b> or <b>NotAction</b> must be configured.</p> <p>The following actions are supported:</p> <ul style="list-style-type: none"> <li>● <b>SMN:UpdateTopic</b></li> <li>● <b>SMN&gt;DeleteTopic</b></li> <li>● <b>SMN:QueryTopicDetail</b></li> <li>● <b>SMN:ListTopicAttributes</b></li> <li>● <b>SMN:UpdateTopicAttribute</b></li> <li>● <b>SMN&gt;DeleteTopicAttributes</b></li> <li>● <b>SMN&gt;DeleteTopicAttributeByName</b></li> <li>● <b>SMN:ListSubscriptionsByTopic</b></li> <li>● <b>SMN:Subscribe</b></li> <li>● <b>SMN:Unsubscribe</b></li> <li>● <b>SMN:Publish</b></li> </ul>
NotAction	String	<p>Specifies the statement action that is not allowed.</p> <p>You can use a wildcard character to configure a type of actions, for example, <b>SMN:Update*</b> and <b>SMN&gt;Delete*</b>. If you only enter a wildcard character (*) in a statement, all supported actions are configured.</p> <p>Either <b>Action</b> or <b>NotAction</b> must be configured.</p> <p>The following actions are supported:</p> <p><b>SMN:UpdateTopic</b>  <b>SMN&gt;DeleteTopic</b>  <b>SMN:QueryTopicDetail</b>  <b>SMN:ListTopicAttributes</b>  <b>SMN:UpdateTopicAttribute</b>  <b>SMN&gt;DeleteTopicAttributes</b>  <b>SMN&gt;DeleteTopicAttributeByName</b>  <b>SMN:ListSubscriptionsByTopic</b>  <b>SMN:Subscribe</b>  <b>SMN:Unsubscribe</b>  <b>SMN:Publish</b></p>

Parameter	Type	Description
Resource	String	Specifies the topic the statement applies to. Either <b>Resource</b> or <b>NotResource</b> must be configured. You need to enter a topic URN.
NotResource	String	Specifies the topic the statement does not apply to. Either <b>Resource</b> or <b>NotResource</b> must be configured. You need to enter a topic URN.

**Status code: 400****Table 5-39** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-40** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-41** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-42** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

### Example Requests

Querying a Topic Policy

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/urn:smn:regionId:8bad8a40e0f7462f8c1676e3f93a8183:test_create_topic_v2/attributes?name=access_policy
null
```

### Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6837531fd3f54550927b930180a706bf",
  "attributes" : {
    "access_policy" : {
      "version" : "2016-09-07",
      "Id" : "__default_policy_ID",
      "Statement" : [ {
        "Sid" : "__user_pub_0",
        "Effect" : "Allow",
        "Principal" : [ {
          "CSP" : [ "urn:csp:iam::93dc1b4697ac493d9b7d089569f86b32:root" ]
        } ],
        "Action" : [ "SMN:Publish", "SMN:QueryTopicDetail" ],
        "Resource" : "urn:smn:regionId:8bad8a40e0f7462f8c1676e3f93a8183:aaa"
      } ],
      "Sid" : "__service_pub_0",
      "Effect" : "Allow",
      "Principal" : [ {
        "Service" : [ "obs" ]
      } ],
      "Action" : [ "SMN:Publish", "SMN:QueryTopicDetail" ],
      "Resource" : "urn:smn:regionId:8bad8a40e0f7462f8c1676e3f93a8183:aaa"
    } ]
  }
}
```

### Status Codes

Status Code	Description
200	OK

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

## Error Codes

See [Error Codes](#).

## 5.1.6 Updating a Topic Policy

### Function

This API is used to update a topic policy.

### URI

PUT /v2/{project\_id}/notifications/topics/{topic\_urn}/attributes/{name}

**Table 5-43** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .
name	Yes	String	Specifies the policy name. Only specified policy names are supported. For details, see <a href="#">Topic Attribute List</a> .

## Request Parameters

**Table 5-44** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-45** Request body parameters

Parameter	Mandatory	Type	Description
value	Yes	String	<ol style="list-style-type: none"><li>If you set <b>name</b> to <b>access_policy</b>, <b>value</b> is the topic attributes, and the maximum length of <b>value</b> is 30 KB.</li><li>If you set <b>name</b> to <b>introduction</b>, <b>value</b> is the topic introduction, and the maximum length of <b>value</b> is 120 bytes.</li></ol>

## Response Parameters

**Status code: 200**

**Table 5-46** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-47** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.

Parameter	Type	Description
message	String	Describes the error message.

**Status code: 403**

**Table 5-48** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-49** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-50** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

- Updating a topic policy  
 PUT https://{SMN\_Endpoint}/v2/{project\_id}/notifications/topics/{topic\_urn}/attributes/access\_policy
 

```

{
  "value": "{ \"Version\": \"2016-09-07\", \"Id\": \"_default_policy_ID\", \"Statement\": [ { \"Sid\": \"_user_pub_0\", \"Effect\": \"Allow\", \"Principal\": { \"CSP\": [ \"urn:csp:iam:{domainID}:root\" ] }, \"Action\": [ \"SMN:Publish\", \"SMN:QueryTopicDetail\" ], \"Resource\": \"{topic_urn}\" }, { \"Sid\":
```

```
\\"_service_pub_0\", \\"Effect\\": \\"Allow\\", \\"Principal\\": { \\"Service\\": [\\"obs\\" ] }, \\"Action\\":  
[\\"SMN:Publish\\",\\"SMN:QueryTopicDetail\\"], \\"Resource\\": \\"{topic_urn}\\\" } ] ]"
```

- Updating a topic policy

PUT https://{SMN\_Endpoint}/v2/{project\_id}/notifications/topics/{topic\_urn}/attributes/introduction

```
{  
  "value" : ""  
}
```

## Example Responses

**Status code: 200**

OK

```
{  
  "request_id" : "6837531fd3f54550927b930180a706bf"  
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

### 5.1.7 Deleting a Topic

#### Function

This API is used to delete a topic.

#### URI

DELETE /v2/{project\_id}/notifications/topics/{topic\_urn}

**Table 5-51** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .

## Request Parameters

**Table 5-52** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of X-Subject-Token in the response header).

## Response Parameters

**Status code: 200**

**Table 5-53** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-54** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-55** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-56** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-57** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Deleting a Topic

```
DELETE https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/  
urn:smn:regionId:f96188c7ccaf4ffba0c9aa149ab2bd57:test_topic_v2
```

```
null
```

## Example Responses

**Status code: 200**

OK

```
{  
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085"  
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

### 5.1.8 Deleting All Topic Policies

#### Function

This API is used to delete all topic policies.

#### URI

DELETE /v2/{project\_id}/notifications/topics/{topic\_urn}/attributes

**Table 5-58** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .

## Request Parameters

**Table 5-59** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200**

**Table 5-60** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-61** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-62** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-63** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-64** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

```
DELETE https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/{topic_urn}/attributes
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6837531fd3f54550927b930180a706bf"
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.1.9 Deleting a Specified Topic Policy

### Function

This API is used to delete a specified topic policy.

### URI

DELETE /v2/{project\_id}/notifications/topics/{topic\_urn}/attributes/{name}

Table 5-65 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .
name	Yes	String	Specifies the topic policy name. Only specified policy names are supported. For details, see <a href="#">Topic Attribute List</a> .

### Request Parameters

Table 5-66 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

### Response Parameters

Status code: 200

**Table 5-67** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400****Table 5-68** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-69** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-70** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-71** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Deleting a specified topic policy

```
DELETE https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/{topic_urn}/attributes/access_policy
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6837531fd3f54550927b930180a706bf"
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.2 Subscription Operations

## 5.2.1 Adding a Subscription

### Function

This API is used to add a subscription to a specified topic. If the status of the subscription is unconfirmed, a confirmation message is sent to the subscriber. After confirming the subscription, the subscriber can receive notification messages published to the topic. By default, 10,000 subscriptions can be added to a topic. However, in a high-concurrency scenario, which is rare, extra subscriptions may be added successfully. The API is idempotent. If the added subscription already exists, a successful result and status code 200 are returned. Otherwise, the status code is 201.

### URI

POST /v2/{project\_id}/notifications/topics/{topic\_urn}/subscriptions

**Table 5-72** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .

### Request Parameters

**Table 5-73** Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-74** Request body parameters

Parameter	Mandatory	Type	Description
protocol	Yes	String	<p>Specifies the subscription protocol. (Different protocols indicate different types of endpoints to receive messages.) The following protocols are supported:</p> <ul style="list-style-type: none"> <li>• <b>email</b>: The endpoints are email address.</li> <li>• <b>sms</b>: The endpoints are phone numbers.</li> <li>• <b>functionstage</b>: The endpoints are FunctionGraph functions.</li> <li>• <b>http</b> and <b>https</b>: The endpoints are URLs.</li> <li>• <b>callnotify</b>: The endpoints are phone numbers.</li> </ul>
endpoint	Yes	String	<ul style="list-style-type: none"> <li>• For an HTTPS subscription, the endpoint starts with <b>https://</b>.</li> <li>• For an email subscription, the endpoint must be an email address.</li> <li>• For an SMS subscription, the endpoint must be a phone number.</li> <li>• For a FunctionStage subscription, the endpoint must be a function.</li> <li>• For a DMS subscription, the endpoint must be a message queue.</li> <li>• For an application subscription, the endpoint must be a mobile device added to a platform application.</li> <li>• For a voice notification subscription, the endpoint is a phone number.</li> </ul>
remark	No	String	<p>Specifies the remarks. The remarks must be a UTF-8-coded character string containing up to 128 bytes.</p>

## Response Parameters

### Status code: 201

**Table 5-75** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
subscription_u rn	String	Specifies the resource identifier of a subscription, which is unique.

### Status code: 400

**Table 5-76** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

### Status code: 403

**Table 5-77** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

### Status code: 404

**Table 5-78** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.

Parameter	Type	Description
message	String	Describes the error message.

**Status code: 500**

**Table 5-79** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Adding a subscription to a specified topic

```
POST https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1/subscriptions
```

```
{
  "protocol": "email",
  "endpoint": "xxx@xxx.com",
  "remark": "O&M"
}
```

## Example Responses

**Status code: 201**

OK

```
[ {
  "request_id": "6a63a18b8bab40ffb71ebd9cb80d0085",
  "subscription_urn": "urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1:2e778e84408e44058e6cbc6d3c377837"
} ]
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.2.2 Querying Subscriptions

### Function

This API is used to query the list of all subscriptions by page. The list is sorted by the subscription adding time in ascending order. You can specify **offset** and **limit**. If no subscription has been added to the topic, an empty list is returned.

### URI

GET /v2/{project\_id}/notifications/subscriptions

**Table 5-80** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

**Table 5-81** Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Specifies the offset. If the offset is an integer greater than 0 but less than the number of resources, all resources after this offset will be queried. The default offset is <b>0</b> . The default offset is <b>0</b> .
limit	No	Integer	Specifies the maximum number of records in each query. The number ranges from <b>1</b> to <b>100</b> and is generally <b>10</b> , <b>20</b> , or <b>50</b> , indicating the number of resources returned on each page. The default value is <b>100</b> . Default value: <b>100</b>

Parameter	Mandatory	Type	Description
protocol	No	String	Specifies the protocol name. Enumerated protocols: <b>http</b> , <b>https</b> , <b>sms</b> , <b>email</b> , <b>functionstage</b> , <b>dms</b> , and <b>application</b> .
status	No	Integer	Specifies the subscription status. <ul style="list-style-type: none"> <li>• <b>0</b>: The subscription has not been confirmed.</li> <li>• <b>1</b>: The subscription has been confirmed.</li> <li>• <b>2</b>: Confirmation is not required.</li> <li>• <b>3</b>: The confirmation was canceled.</li> <li>• <b>4</b>: The subscription was deleted.</li> </ul>
endpoint	No	String	Specifies the subscription endpoint.

## Request Parameters

**Table 5-82** Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200**

**Table 5-83** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

Parameter	Type	Description
subscription_count	Integer	Specifies the number of subscriptions.
subscriptions	Array of <a href="#">ListSubscriptionsItem</a> objects	Specifies the subscription structure.

**Table 5-84** ListSubscriptionsItem

Parameter	Type	Description
topic_urn	String	Specifies the resource identifier of the topic, which is unique.
protocol	String	Specifies the subscription protocol. (Different protocols indicate different types of endpoints to receive messages.) The following protocols are supported: <ul style="list-style-type: none"> <li>• <b>default</b></li> <li>• <b>email</b>: The endpoints are email address.</li> <li>• <b>sms</b>: The endpoints are phone numbers.</li> <li>• <b>functionstage</b>: The endpoints are FunctionGraph functions.</li> <li>• <b>http</b> and <b>https</b>: The endpoints are URLs.</li> </ul>
subscription_urn	String	Specifies the resource identifier of a subscription, which is unique.
owner	String	Specifies the project ID of the topic creator.
endpoint	String	Specifies the message receiving endpoint.
remark	String	Specifies the remarks.
status	Integer	Specifies the subscription status. <ul style="list-style-type: none"> <li>• <b>0</b>: The subscriber has not confirmed the subscription.</li> <li>• <b>1</b>: The subscriber has confirmed the subscription.</li> <li>• <b>3</b>: The subscriber has canceled the confirmation.</li> </ul>

**Status code: 400**

**Table 5-85** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-86** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-87** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-88** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Querying subscriptions

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/subscriptions?offset=0&limit=2
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085",
  "subscription_count" : 2,
  "subscriptions" : [ {
    "topic_urn" : "urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1",
    "protocol" : "sms",
    "subscription_urn" : "urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1:2e778e84408e44058e6cbc6d3c377837",
    "owner" : "762bdb3251034f268af0e395c53ea09b",
    "endpoint" : "xxxxxxxxxx",
    "remark" : "",
    "status" : 0
  }, {
    "topic_urn" : "urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1",
    "protocol" : "email",
    "subscription_urn" : "urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1:a2d52a9f5c3b47f48c3fafb177a58796",
    "owner" : "762bdb3251034f268af0e395c53ea09b",
    "endpoint" : "xx@xx.com",
    "remark" : "",
    "status" : 0
  } ]
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.2.3 Querying Subscriptions of a Specified Topic

### Function

This API is used to query the list of subscriptions to a specified topic by page. The list is sorted by the subscription adding time in ascending order. You can specify

the values of **offset** and **limit**. If no subscription has been added to the topic, an empty list is returned.

## URI

GET /v2/{project\_id}/notifications/topics/{topic\_urn}/subscriptions

**Table 5-89** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .

**Table 5-90** Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Specifies the offset. If the value is an integer greater than 0 but less than the number of resources, all resources after this offset will be queried. Default value: <b>0</b>
limit	No	Integer	Specifies the maximum number of records in each query. The value ranges from <b>1</b> to <b>100</b> and is generally <b>10</b> , <b>20</b> , or <b>50</b> , indicating the number of resources returned on each page. The default value is <b>100</b> . Default value: <b>100</b>

## Request Parameters

**Table 5-91** Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200**

**Table 5-92** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
subscription_count	Integer	Specifies the number of subscriptions.
subscriptions	Array of <b>ListSubscriptionsItem</b> objects	Specifies the subscription structure.

**Table 5-93** ListSubscriptionsItem

Parameter	Type	Description
topic_urn	String	Specifies the resource identifier of the topic, which is unique.
protocol	String	Specifies the subscription protocol. (Different protocols indicate different types of endpoints to receive messages.) The following protocols are supported: <ul style="list-style-type: none"><li>• <b>default</b></li><li>• <b>email</b>: The endpoints are email address.</li><li>• <b>sms</b>: The endpoints are phone numbers.</li><li>• <b>functionstage</b>: The endpoints are FunctionGraph functions.</li><li>• <b>http</b> and <b>https</b>: The endpoints are URLs.</li></ul>

Parameter	Type	Description
subscription_u rn	String	Specifies the resource identifier of a subscription, which is unique.
owner	String	Specifies the project ID of the topic creator.
endpoint	String	Specifies the message receiving endpoint.
remark	String	Specifies the remarks.
status	Integer	<b>0</b> indicates that the subscription is not confirmed. <b>1</b> indicates that the subscription is confirmed. <b>3</b> indicates that the subscription is canceled.

**Status code: 400****Table 5-94** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-95** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-96** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.

Parameter	Type	Description
message	String	Describes the error message.

**Status code: 500**

**Table 5-97** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Querying subscriptions of a specified topic

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1/subscriptions?offset=0&limit=100
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085",
  "subscription_count" : 2,
  "subscriptions" : [ {
    "topic_urn" : "urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1",
    "protocol" : "sms",
    "subscription_urn" : "urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1:2e778e84408e44058e6cbc6d3c377837",
    "owner" : "762bdb3251034f268af0e395c53ea09b",
    "endpoint" : "xxxxxxxxxx",
    "remark" : "",
    "status" : 0
  }, {
    "topic_urn" : "urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1",
    "protocol" : "email",
    "subscription_urn" : "urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1:a2d52a9f5c3b47f48c3fafb177a58796",
    "owner" : "762bdb3251034f268af0e395c53ea09b",
    "endpoint" : "xx@xx.com",
    "remark" : "",
    "status" : 0
  }
  ]
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.2.4 Deleting a Subscription

### Function

This API is used to delete a specified subscription.

### URI

DELETE /v2/{project\_id}/notifications/subscriptions/{subscription\_urn}

**Table 5-98** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
subscription_urn	Yes	String	Specifies the resource identifier of the subscriber, which is unique. To obtain the resource identifier, see <a href="#">Querying Subscriptions</a> .

## Request Parameters

**Table 5-99** Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200**

**Table 5-100** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-101** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-102** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-103** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-104** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Deleting a subscription

```
DELETE https://{SMN_Endpoint}/v2/{project_id}/notifications/subscriptions/urn:smn:regionId:762bdb3251034f268af0e395c53ea09b:test_topic_v1:2e778e84408e44058e6cbc6d3c377837
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085"
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
403	Unauthorized
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 5.3 Template Operations

## 5.3.1 Creating a Message Template

### Function

This API is used to create a message template for quick message sending and reduced request data volume. By default, a user can create a maximum of 100 message templates. However, in a high-concurrency scenario, which is rare, extra templates may be successfully created.

### URI

POST /v2/{project\_id}/notifications/message\_template

**Table 5-105** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

### Request Parameters

**Table 5-106** Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-107** Request body parameters

Parameter	Mandatory	Type	Description
message_template_name	Yes	String	Specifies the template name. Enter 1 to 64 characters, and start with a letter or digit. Only letters, digits, hyphens (-), and underscores (_) are allowed.
protocol	Yes	String	Specifies the protocol supported by the template. The following protocols are supported: <ul style="list-style-type: none"> <li>• <b>default</b></li> <li>• <b>email</b></li> <li>• <b>sms</b></li> <li>• <b>functionstage</b> (FunctionGraph function)</li> <li>• <b>dms</b></li> <li>• <b>http</b> and <b>https</b></li> </ul>
content	Yes	String	Specifies the template content, which supports plain text only. The template content cannot be left blank or larger than 256 KB.

## Response Parameters

**Status code: 201**

**Table 5-108** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
message_template_id	String	Specifies the resource identifier of the template, which is unique.

**Status code: 400**

**Table 5-109** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-110** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-111** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-112** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Creating a message template

```
POST https://{SMN_Endpoint}/v2/{project_id}/notifications/message_template
{
  "message_template_name": "confirm_message",
  "protocol": "https",
  "content": "(1/2)You are invited to subscribe to topic({topic_id}). Click the following URL to confirm
subscription:(If you do not want to subscribe to this topic, ignore this message.)"
}
```

## Example Responses

**Status code: 201**

OK

```
{
  "request_id": "6a63a18b8bab40ffb71ebd9cb80d0085",
  "message_template_id": "57ba8dcecd844878c5dd5815b65d10f"
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.3.2 Modifying a Message Template

### Function

This API is used to modify the message template content.

### URI

PUT /v2/{project\_id}/notifications/message\_template/{message\_template\_id}

**Table 5-113** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
message_template_id	Yes	String	Specifies the unique resource ID of a template. You can obtain it according to <a href="#">Querying the Message Template List</a> .

## Request Parameters

**Table 5-114** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-115** Request body parameters

Parameter	Mandatory	Type	Description
content	Yes	String	Specifies the template content.

## Response Parameters

**Status code: 200**

**Table 5-116** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-117** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

Parameter	Type	Description
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-118** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-119** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-120** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

### Modifying a message template

```
PUT https://{SMN_Endpoint}/v2/{project_id}/notifications/message_template/  
b3ffa2cdda574168826316f0628f774f
```

```
{
  "content" : "(1/22)You are invited to subscribe to topic({topic_id_id1}). Click the following URL to confirm
subscription:(If you do not want to subscribe to this topic, ignore this message.)"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085"
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

### 5.3.3 Querying the Message Template List

#### Function

This API is used to query the template list by page. The list is sorted by the template creation time in ascending order. You can specify the values of **offset** and **limit**. If no template has been created, an empty list is returned. The parameters **message\_template\_name** and **protocol** are added.

#### URI

GET /v2/{project\_id}/notifications/message\_template

**Table 5-121** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

**Table 5-122** Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Specifies the offset. If the value is an integer greater than 0 but less than the number of resources, all resources after this offset will be queried. The default value is <b>0</b> . Default value: <b>0</b>
limit	No	Integer	The value ranges from <b>1</b> to <b>100</b> and is generally <b>10</b> , <b>20</b> , or <b>50</b> , indicating the number of resources returned on each page. The default value is <b>100</b> . Default value: <b>100</b>
message_template_name	No	String	Specifies the template name. Enter 1 to 64 characters, and start with a letter or digit. Only letters, digits, hyphens (-), and underscores (_) are allowed.
protocol	No	String	Specifies the protocol supported by the template. The following protocols are supported: <ul style="list-style-type: none"> <li>• <b>default</b></li> <li>• <b>email</b></li> <li>• <b>sms</b></li> <li>• <b>functionstage</b> (FunctionGraph function)</li> <li>• <b>dms</b></li> <li>• <b>http</b> and <b>https</b></li> </ul>

## Request Parameters

**Table 5-123** Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200****Table 5-124** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
message_template_count	Integer	Specifies the number of returned templates.
message_templates	Array of <b>MessageTemplate</b> objects	Specifies the <b>Message_template</b> structure array.

**Table 5-125** MessageTemplate

Parameter	Type	Description
message_template_id	String	Specifies the template ID.
message_template_name	String	Specifies the template name.
protocol	String	Specifies the protocol supported by the template. The following protocols are supported: <ul style="list-style-type: none"><li>• <b>default</b></li><li>• <b>email</b></li><li>• <b>sms</b></li><li>• <b>functionstage</b> (FunctionGraph function)</li><li>• <b>dms</b></li><li>• <b>http</b> and <b>https</b></li></ul>

Parameter	Type	Description
tag_names	Array of strings	Specifies the variable list.
create_time	String	Specifies the time when the template was created. The UTC time is in YYYY-MM-DDTHH:MM:SSZ format.
update_time	String	Specifies the last time when the template was updated. The UTC time is in YYYY-MM-DDTHH:MM:SSZ format.

**Status code: 400****Table 5-126** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-127** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-128** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-129** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Example Requests**

Querying the message template list

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/message_template?
offset=0&limit=2&message_template_name=test1&protocol=email
null
```

**Example Responses**

**Status code: 200**

OK

```
{
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085",
  "message_template_count" : 3,
  "message_templates" : [ {
    "message_template_name" : "confirm_message",
    "protocol" : "sms",
    "update_time" : "2016-08-02T08:22:18Z",
    "create_time" : "2016-08-02T08:22:18Z",
    "tag_names" : [ "topic_urn" ],
    "message_template_id" : "79227dfd88d4e52a1820ca1eb411635"
  }, {
    "message_template_name" : "confirm_message",
    "protocol" : "email",
    "update_time" : "2016-08-02T08:22:19Z",
    "create_time" : "2016-08-02T08:22:19Z",
    "tag_names" : [ "topic_id" ],
    "message_template_id" : "ecf63465804a4b10a0573980be78ffba"
  }, {
    "message_template_name" : "confirm_message",
    "protocol" : "https",
    "update_time" : "2016-08-02T08:22:20Z",
    "create_time" : "2016-08-02T08:22:20Z",
    "tag_names" : [ "topic_id" ],
    "message_template_id" : "57ba8dcecd844878c5dd5815b65d10f"
  } ]
}
```

**Status Codes**

Status Code	Description
200	OK

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

## Error Codes

See [Error Codes](#).

## 5.3.4 Querying the Details of a Message Template

### Function

This API is used to query template details, including the template content.

### URI

GET /v2/{project\_id}/notifications/message\_template/{message\_template\_id}

**Table 5-130** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
message_template_id	Yes	String	Specifies the unique resource ID of a template. You can obtain it according to <a href="#">Querying the Message Template List</a> .

### Request Parameters

**Table 5-131** Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

Status code: 200

Table 5-132 Response body parameters

Parameter	Type	Description
message_template_id	String	Specifies the template ID.
message_template_name	String	Specifies the template name.
protocol	String	Specifies the protocol supported by the template. The following protocols are supported: <ul style="list-style-type: none"><li>• <b>default</b></li><li>• <b>email</b></li><li>• <b>sms</b></li><li>• <b>functionstage</b> (FunctionGraph function)</li><li>• <b>dms</b></li><li>• <b>http</b> and <b>https</b></li></ul>
tag_names	Array of strings	Specifies the variable list. The variable name will be quoted in braces ({} in the template. When you use a template to send messages, you can replace the variable with any content.
create_time	String	Specifies the time when the template was created. The UTC time is in YYYY-MM-DDTHH:MM:SSZ format.
update_time	String	Specifies the last time when the template was updated. The UTC time is in YYYY-MM-DDTHH:MM:SSZ format.
content	String	Specifies the template content.
request_id	String	Specifies the request ID, which is unique.

## Example Requests

Querying the details of a message template

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/message_template/  
57ba8dcecd844878c5dd5815b65d10f
```

```
null
```

## Example Responses

Status code: 200

OK

```
{
  "message_template_id" : "57ba8dcecd844878c5dd5815b65d10f",
  "message_template_name" : "confirm_message",
  "protocol" : "https",
  "tag_names" : [ "topic_id_id4" ],
  "create_time" : "2016-08-02T08:22:20Z",
  "update_time" : "2016-08-02T08:22:25Z",
  "content" : "(1/24)You are invited to subscribe to topic({topic_id_id4}). Click the following URL to confirm
subscription:(If you do not want to subscribe to this topic, ignore this message.)",
  "request_id" : "ba79ca8f794f4f50985ce7b98a401b47"
}
```

## Status Codes

Status Code	Description
200	OK

## Error Codes

See [Error Codes](#).

## 5.3.5 Deleting a Message Template

### Function

This API is used to delete a message template. After you delete the template, you cannot use it to publish messages anymore.

### URI

DELETE /v2/{project\_id}/notifications/message\_template/{message\_template\_id}

Table 5-133 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
message_template_id	Yes	String	Specifies the unique resource ID of a template. You can obtain it according to <a href="#">Querying the Message Template List</a> .

## Request Parameters

**Table 5-134** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200**

**Table 5-135** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-136** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-137** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-138** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-139** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Deleting a message template

```
DELETE https://{SMN_Endpoint}/v2/{project_id}/notifications/message_template/  
b3ffa2cdda574168826316f0628f774e  
null
```

## Example Responses

**Status code: 200**

OK

```
{  
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085"  
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
403	Unauthorized
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 5.4 Message Publishing

## 5.4.1 Publishing a Message

### Function

Publish messages to a topic. After the message ID is returned, the message has been saved and is to be pushed to the subscribers of the topic. Three message formats are supported:

- message
- message\_structure
- message\_template\_name

You only need to specify one of the three message formats. If you specify all of them at the same time, they take effect in the following sequence:  
**message\_structure** > **message\_template\_name** > **message**.

---

**⚠ CAUTION**

For e-mail and SMS messages, if an account sends more than 1,000 messages in 10 minutes, the excessive messages may be lost.

---

### URI

POST /v2/{project\_id}/notifications/topics/{topic\_urn}/publish

**Table 5-140** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
topic_urn	Yes	String	Specifies the resource identifier of the topic, which is unique. To obtain the resource identifier, see <a href="#">Querying Topics</a> .

## Request Parameters

**Table 5-141** Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-142** Request body parameters

Parameter	Mandatory	Type	Description
subject	No	String	Specifies the message subject, which is used as the email subject when you publish email messages. The length of the subject cannot exceed 512 bytes.

Parameter	Mandatory	Type	Description
message	No	String	<p>Specifies the message content. The content is a UTF-8-coded character string of no more than 256 KB. If the endpoint is a phone number that exceeds 490 characters, SMN will cut it off. The SMS message cannot contain square brackets ( []).</p> <p>For application subscribers, messages must comply with format requirements of the mobile push platform. For details, see the format of the application message body. Otherwise, the mobile app will fail to receive messages. HMS, APNS, and APNS_SANDBOX mobile push platforms are supported.</p> <p><b>NOTE</b> At least one of the three parameters: <b>message</b>, <b>message_structure</b>, and <b>message_template_name</b>, must be set. If all of them are set, the setting takes effect in the following sequence: <b>message_structure</b> &gt; <b>message_template_name</b> &gt; <b>message</b></p>

Parameter	Mandatory	Type	Description
message_structure	No	String	<p>Specifies the message structure, which contains JSON character strings. Specify protocols in the structure, which can be <b>email</b>, <b>sms</b>, <b>http</b>, <b>https</b>, <b>dms</b>, <b>functiongraph</b>, <b>functionstage</b>, <b>HMS</b>, <b>APNS</b>, and <b>APNS_SANDBOX</b>. For details about HMS, APNS, and APNS_SANDBOX message formats, see <a href="#">Application Message Format</a>. The <b>default</b> protocol is mandatory. If the system fails to match any other protocols, the default message is sent.</p> <p><b>NOTE</b></p> <p>At least one of the three parameters: <b>message</b>, <b>message_structure</b>, and <b>message_template_name</b>, must be set. If all of them are set, the setting takes effect in the following sequence:</p> <p><b>message_structure</b> &gt; <b>message_template_name</b> &gt; <b>message</b></p>
message_template_name	No	String	<p>Specifies the message template name, which can be obtained according to <a href="#">Querying the Message Template List</a>.</p> <p>Three message formats are supported:</p> <ul style="list-style-type: none"><li>• <b>message</b></li><li>• <b>message_structure</b></li><li>• <b>message_template_name</b></li></ul> <p>You must specify one of the three message formats. If you specify all of them at the same time, they take effect in the following sequence:</p> <p><b>message_structure</b> &gt; <b>message_template_name</b> &gt; <b>message</b>.</p>

Parameter	Mandatory	Type	Description
tags	No	Map<String,String>	Specifies the dictionary consisting of variable parameters and values. The value cannot be left blank. This parameter is mandatory when you use a message template to publish messages. The key in the dictionary is the parameter name in the message template and contains a maximum of 21 characters. The value in the dictionary is the value after the key in the message template is replaced. The value cannot exceed 1 KB.
time_to_live	No	String	Specifies the maximum retention period of a message in SMN. After the retention period expires, SMN does not send this message. Unit: second Default value: <b>3600s</b> (one hour) The retention period must be a positive integer less than or equal to 86,400 (3600 x 24).

## Response Parameters

**Status code: 200**

**Table 5-143** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
message_id	String	Specifies the message ID, which is unique.

**Status code: 400**

**Table 5-144** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

Parameter	Type	Description
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-145** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-146** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 429**

**Table 5-147** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-148** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

- Publishing a message

```
POST https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/urn:smn:regionId:
f96188c7ccaf4ffba0c9aa149ab2bd57:test_create_topic_v2/publish
```

```
{
  "subject" : "test message v2",
  "message" : "Message test message v2",
  "time_to_live" : "3600"
}
```

- Publishing messages using message structure

```
POST https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/urn:smn:regionId:
f96188c7ccaf4ffba0c9aa149ab2bd57:test_create_topic_v2/publish
```

```
{
  "subject" : "test message v2",
  "message_structure" : "{\n  \"default\": \"xxx\\\", \n  \"APNS\": \"{\n    \"aps\": {\n      \"alert\": {\n        \"title\": \"\n        \"xxx\\\", \"body\": \"xxx\\\"}\n      }\n    }\n  }",
  "time_to_live" : "3600"
}
```

- Publishing messages using a template

```
POST https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/urn:smn:regionId:
f96188c7ccaf4ffba0c9aa149ab2bd57:test_create_topic_v2/publish
```

```
{
  "subject" : "test message template v2",
  "message_template_name" : "confirm_message",
  "time_to_live" : "3600",
  "tags" : {
    "topic_urn" : "topic_urn3331",
    "topic_id" : "topic_id3332"
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085",
  "message_id" : "bf94b63a5dfb475994d3ac34664e24f2"
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

# 5.5 Resource Tag Operations

## 5.5.1 Adding a Resource Tag

### Function

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

### URI

POST /v2/{project\_id}/{resource\_type}/{resource\_id}/tags

**Table 5-149** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	String	Specifies the resource type. The options are as follows: <ul style="list-style-type: none"><li>• <b>smn_topic</b>: topic</li><li>• <b>smn_sms</b>: SMS</li><li>• <b>smn_application</b>: mobile push</li></ul>

Parameter	Mandatory	Type	Description
resource_id	Yes	String	Specifies the resource ID. To obtain the value of <b>resource_id</b> , perform the following steps: If you set <b>resource_type</b> to <b>smn_topic</b> : Add <b>X-SMN-RESOURCEID-TYPE=name</b> in the request header and set the resource ID to the topic name. Call the <b>GetResourceInstances</b> API to obtain the resource ID. If you set <b>resource_type</b> to <b>smn_sms</b> , the resource ID is the signature ID, which can be obtained on the console.

## Request Parameters

Table 5-150 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

Table 5-151 Request body parameters

Parameter	Mandatory	Type	Description
tag	Yes	<b>tag</b> object	Specifies the resource tag structure.

**Table 5-152** tag

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the key field to be matched. <b>key</b> can only be <b>resource_name</b> . In such a case, <b>value</b> is the ECS name. <ul style="list-style-type: none"> <li>The <b>key</b> must be unique, and the value is used for matching.</li> <li>The <b>key</b> field is a fixed dictionary value.</li> <li><b>key</b> cannot be left blank.</li> </ul>
value	Yes	String	Specifies the tag value. <b>key</b> can only be <b>resource_name</b> . In such a case, <b>value</b> is the ECS name. <ul style="list-style-type: none"> <li>Each value contains a maximum of 255 Unicode characters.</li> <li><b>value</b> cannot be left blank.</li> </ul>

## Response Parameters

**Status code: 400**

**Table 5-153** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-154** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.

Parameter	Type	Description
message	String	Describes the error message.

**Status code: 404****Table 5-155** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-156** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Adding a resource tag

```
POST https://{SMN_Endpoint}/v2/{project_id}/{resource_type}/{resource_id}/tags
```

```
{
  "tag" : {
    "key" : "DEV",
    "value" : "DEV1"
  }
}
```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.5.2 Querying Resource Tags

### Function

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

### URI

GET /v2/{project\_id}/{resource\_type}/{resource\_id}/tags

**Table 5-157** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	String	Specifies the resource type. The value can be the following: <ul style="list-style-type: none"><li>• <b>smn_topic</b>: topic</li><li>• <b>smn_sms</b>: SMS message</li><li>• <b>smn_application</b>: mobile push</li></ul>

Parameter	Mandatory	Type	Description
resource_id	Yes	String	Specifies the resource ID. To obtain the value of <b>resource_id</b> , perform the following steps: If you set <b>resource_type</b> to <b>smn_topic</b> : Add <b>X-SMN-RESOURCEID-TYPE=name</b> in the request header and set the resource ID to the topic name. Call the <b>GetResourceInstances</b> API to obtain the resource ID. If you set <b>resource_type</b> to <b>smn_sms</b> , the resource ID is the signature ID, which can be obtained on the console.

## Request Parameters

Table 5-158 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

Status code: 200

Table 5-159 Response body parameters

Parameter	Type	Description
tags	Array of <b>ResourceTag</b> objects	Specifies resource tags.

**Table 5-160** ResourceTag

Parameter	Type	Description
key	String	Specifies the key field to be matched. <b>key</b> can only be <b>resource_name</b> . In such a case, <b>value</b> is the ECS name. <ul style="list-style-type: none"><li>• The key must be unique, and the value is used for matching.</li><li>• The <b>key</b> field is a fixed dictionary value.</li><li>• <b>key</b> cannot be left blank.</li></ul>
value	String	Specifies the tag value. <b>key</b> can only be <b>resource_name</b> . In such a case, <b>value</b> is the ECS name. <ul style="list-style-type: none"><li>• Each value contains a maximum of 255 Unicode characters.</li><li>• <b>value</b> cannot be left blank.</li></ul>

**Status code: 400****Table 5-161** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-162** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-163** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-164** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Querying resource tags

```
GET https://{SMN_Endpoint}/v2/{project_id}/{resource_type}/{resource_id}/tags
null
```

## Example Responses

**Status code: 200**

OK

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

## Status Codes

Status Code	Description
200	OK
400	Bad Request

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

## Error Codes

See [Error Codes](#).

## 5.5.3 Querying Project Tags

### Function

This API is used to query all tags of a resource type in a specified region.

### URI

GET /v2/{project\_id}/{resource\_type}/tags

**Table 5-165** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	String	Specifies the resource type. The value can be the following: <ul style="list-style-type: none"><li>● <b>smn_topic</b>: topic</li><li>● <b>smn_sms</b>: SMS message</li><li>● <b>smn_application</b>: mobile push</li></ul>

## Request Parameters

**Table 5-166** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200**

**Table 5-167** Response body parameters

Parameter	Type	Description
tags	Array of <a href="#">ResourceTags</a> objects	Specifies resource tags.

**Table 5-168** ResourceTags

Parameter	Type	Description
key	String	Specifies the tag key. <ul style="list-style-type: none"><li>The tag key contains a maximum of 127 Unicode characters.</li><li>The tag key cannot be left blank.</li></ul>
values	Array of strings	Specifies the tag values. <ul style="list-style-type: none"><li>Each key has a maximum of 10 values.</li><li>Values must be unique for each key.</li><li>Each value contains a maximum of 255 Unicode characters.</li><li>If this parameter is left blank, any value can be used.</li><li>Values are in the OR relationship.</li></ul>

**Status code: 400**

**Table 5-169** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-170** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-171** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-172** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Querying project tags

```
GET https://{SMN_Endpoint}/v2/{project_id}/{resource_type}/tags
null
```

## Example Responses

**Status code: 200**

OK

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

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.5.4 Querying Resources by Tag

### Function

This API is used to query resources by tag.

### URI

POST /v2/{project\_id}/{resource\_type}/resource\_instances/action

**Table 5-173** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
resource_type	Yes	String	Specifies the resource type. The options are as follows: <ul style="list-style-type: none"><li>• <b>smn_topic</b>: topic</li><li>• <b>smn_sms</b>: SMS</li><li>• <b>smn_application</b>: mobile push</li></ul>

## Request Parameters

Table 5-174 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

Table 5-175 Request body parameters

Parameter	Mandatory	Type	Description
tags	No	Array of <b>ResourceTags</b> objects	A maximum of 10 tag keys are allowed in each query operation. Each tag key can have up to 10 tag values. The structure body is mandatory. The tag key cannot be left blank or be an empty string. Each tag key and tag values of one key must be unique. Resources identified by different keys are in AND relationship.

Parameter	Mandatory	Type	Description
tags_any	No	Array of <b>ResourceTags</b> objects	A maximum of 10 tag keys are allowed in each query operation. Each tag key can have up to 10 tag values. The structure body is mandatory. The tag key cannot be left blank or be an empty string. Each tag key and tag values of one key must be unique. Resources identified by different keys are in OR relationship.
not_tags	No	Array of <b>ResourceTags</b> objects	A maximum of 10 tag keys are allowed in each query operation. Each tag key can have up to 10 tag values. The structure body is mandatory. The tag key cannot be left blank or be an empty string. Each tag key and tag values of one key must be unique. Resources identified by different keys are in NAND relationship.
not_tags_any	No	Array of <b>ResourceTags</b> objects	A maximum of 10 tag keys are allowed in each query operation. Each tag key can have up to 10 tag values. The structure body is mandatory. The tag key cannot be left blank or be an empty string. Each tag key and tag values of one key must be unique. Resources identified by different keys are in NOR relationship.

Parameter	Mandatory	Type	Description
offset	No	String	<p>Specifies the index position. The query starts from the next data record indexed by this parameter. You do not need to specify this parameter when querying resources on the first page. When you query resources on subsequent pages, set this parameter to the location returned in the response body for the previous query.</p> <p>If you set <b>action</b> to <b>count</b>, this parameter is not required.</p> <p>If you set <b>action</b> to <b>filter</b>, the <b>offset</b> value is <b>0</b> by default. The <b>offset</b> value cannot be a negative integer.</p> <p>Default: <b>0</b></p>
limit	No	String	<p>Specifies the number of records to be queried.</p> <p>If you set <b>action</b> to <b>count</b>, this parameter is not required.</p> <p>If you set <b>action</b> to <b>filter</b>, the value of this parameter is <b>1000</b> by default. The maximum value of <b>limit</b> is <b>1000</b> and the minimum value is <b>1</b>. <b>limit</b> cannot be a negative number.</p> <p>Default value: <b>1000</b></p>
action	Yes	String	<p>Specifies the operation to be performed. The value can be <b>filter</b> (filtering) or <b>count</b> (querying the total number).  <b>filter</b>: queries resources in pages by filter conditions.  <b>count</b>: queries the total number of resources meeting the filter conditions.</p>
matches	No	Array of <b>TagMatch</b> objects	<p>Specifies the field to be matched.</p> <p>The key can only be <b>resource_name</b>.</p> <p>The value will be exactly matched.</p>

**Table 5-176** ResourceTags

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the tag key. <ul style="list-style-type: none"><li>• The tag key contains a maximum of 127 Unicode characters.</li><li>• The tag key cannot be left blank.</li></ul>
values	Yes	Array of strings	Specifies the tag values. <ul style="list-style-type: none"><li>• Each key has a maximum of 10 values.</li><li>• Values must be unique for each key.</li><li>• Each value contains a maximum of 255 Unicode characters.</li><li>• If this parameter is left blank, any value can be used.</li><li>• Values are in the OR relationship.</li></ul>

**Table 5-177** TagMatch

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the key field to be matched. The tag key can only be <b>resource_name</b> . In such a case, the tag value is the ECS name. <ul style="list-style-type: none"><li>• The key must be unique, and the value is used for matching.</li><li>• The key field is a fixed dictionary value.</li><li>• <b>key</b> cannot be left blank.</li></ul>

Parameter	Mandatory	Type	Description
value	Yes	String	<p>Specifies the tag value.</p> <p>The tag key can only be <b>resource_name</b>. In such a case, the tag value is the ECS name.</p> <ul style="list-style-type: none"> <li>Each value contains a maximum of 255 Unicode characters.</li> <li><b>value</b> cannot be left blank.</li> </ul>

## Response Parameters

Status code: 200

**Table 5-178** Response body parameters

Parameter	Type	Description
resources	Array of <b>TagResource</b> objects	Specifies the returned resource list.
total_count	Integer	Specifies the total number of records.

**Table 5-179** TagResource

Parameter	Type	Description
resource_id	String	Specifies the resource ID.
resource_detail	<b>ResourceDetail</b> object	<p>Specifies the resource details. The value is a resource object, used for extension.</p> <p>The value is left blank by default.</p> <ul style="list-style-type: none"> <li>For topic resources, the value of this field is <b>{"topic_urn": "\${TopicUrn}", "display_name": "display name"}</b>.</li> <li>For other resources, the value is <b>null</b>.</li> </ul>
tags	Array of <b>ResourceTag</b> objects	Specifies the tag list.
resource_name	String	Specifies the resource name.

**Table 5-180** ResourceDetail

Parameter	Type	Description
enterprise_project_id	String	Specifies the enterprise project ID.
detailId	String	Specifies the details ID.
topic_urn	String	Specifies the unique identifier of the topic.
display_name	String	Specifies the display name.

**Table 5-181** ResourceTag

Parameter	Type	Description
key	String	Specifies the key field to be matched. The tag key can only be <b>resource_name</b> . In such a case, the tag value is the ECS name. <ul style="list-style-type: none"><li>• The key must be unique, and the value is used for matching.</li><li>• The <b>key</b> field is a fixed dictionary value.</li><li>• <b>key</b> cannot be left blank.</li></ul>
value	String	Specifies the tag value. The tag key can only be <b>resource_name</b> . In such a case, the tag value is the ECS name. <ul style="list-style-type: none"><li>• Each value contains a maximum of 255 Unicode characters.</li><li>• <b>value</b> cannot be left blank.</li></ul>

**Status code: 400****Table 5-182** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-183** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-184** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-185** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

- Using tag to filter resource instances

POST https://{SMN\_Endpoint}/v2/{project\_id}/{resource\_type}/resource\_instances/action

```
{
  "offset": "100",
  "limit": "100",
  "action": "filter",
  "matches": [ {
    "key": "resource_name",
    "value": "resource1"
  } ],
  "not_tags": [ {
    "key": "key1",
    "values": [ "*"value1", "value2" ]
  }, {
    "key": "key2",
    "values": [ "*"value21", "value22" ]
  } ],
  "tags": [ {
```

```
"key" : "key1",
"values" : [ "*"value1", "value2" ]
}],
"tags_any" : [ {
"key" : "key1",
"values" : [ "value1", "value2" ]
}],
"not_tags_any" : [ {
"key" : "key1",
"values" : [ "value1", "value2" ]
}]
}]
}
```

- Using tag to query the total number of resource instances  
POST https://{SMN\_Endpoint}/v2/{project\_id}/{resource\_type}/resource\_instances/action

```
{
"action" : "count",
"not_tags" : [ {
"key" : "key1",
"values" : [ "value1", "*"value2" ]
}],
"tags" : [ {
"key" : "key1",
"values" : [ "value1", "value2" ]
}],
"tags_any" : [ {
"key" : "key1",
"values" : [ "value1", "value2" ]
}],
"not_tags_any" : [ {
"key" : "key1",
"values" : [ "value1", "value2" ]
}],
"matches" : [ {
"key" : "resource_name",
"value" : "resource"
}]
}]
}
```

## Example Responses

**Status code: 200**

OK

```
{
"resources" : {
"resource_detail" : {
"topic_urn" : "urn:smn:regionId:f96188c7ccaf4ffba0c9aa149ab2bd57:resource1",
"display_name" : "testtest",
"enterprise_project_id" : "0"
},
"resource_id" : "cffe4fc4c9a54219b60dbaf7b586e132",
"resource_name" : "resource1",
"tags" : [ {
"key" : "key1",
"value" : "value1"
}]
}],
"total_count" : 1000
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.5.5 Deleting Resource Tags

### Function

This API is used to delete resource tags. The API is idempotent. When deleting a tag, the system does not check its character set. The tag key cannot be left blank or be an empty string. If the key of the tag to be deleted does not exist, 404 will be returned.

### URI

DELETE /v2/{project\_id}/{resource\_type}/{resource\_id}/tags/{key}

**Table 5-186** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	String	Specifies the resource type. The options are as follows: <b>smn_topic</b> : topic <b>smn_sms</b> : SMS <b>smn_application</b> : mobile push

Parameter	Mandatory	Type	Description
resource_id	Yes	String	Specifies the resource ID. To obtain the value of <b>resource_id</b> , perform the following steps: If you set <b>resource_type</b> to <b>smn_topic</b> : Add <b>X-SMN-RESOURCEID-TYPE=name</b> in the request header and set the resource ID to the topic name. Call the <b>GetResourceInstances</b> API to obtain the resource ID. If you set <b>resource_type</b> to <b>smn_sms</b> , the resource ID is the signature ID, which can be obtained on the console.
key	Yes	String	Specifies the <b>key</b> value of the tag to be deleted.

## Request Parameters

Table 5-187 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

Status code: 400

Table 5-188 Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

Status code: 403

**Table 5-189** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-190** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-191** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Deleting resource tags

```
DELETE https://{SMN_Endpoint}/v2/{project_id}/{resource_type}/{resource_id}/tags/{key}
null
```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.5.6 Adding or Deleting Resource Tags in Batches

### Function

This API is used to add or delete tags for a specified resource in batches. You can add a maximum of 10 tags to a resource. The API is idempotent. When you create tags, if there are duplicate keys in the request body, an error is reported. If a to-be-created tag has the same key as an existing tag, the tag will be created and overwrite the existing one. During tag deletion, if some tags to be deleted do not exist, the operation is considered to be successful by default. The character set of the tags will not be checked.

### URI

POST /v2/{project\_id}/{resource\_type}/{resource\_id}/tags/action

**Table 5-192** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
resource_type	Yes	String	Specifies the resource type. The options are as follows: <b>smn_topic</b> : topic <b>smn_sms</b> : SMS <b>smn_application</b> : mobile push

Parameter	Mandatory	Type	Description
resource_id	Yes	String	Specifies the resource ID. To obtain the value of <b>resource_id</b> , perform the following steps: If you set <b>resource_type</b> to <b>smn_topic</b> : Add <b>X-SMN-RESOURCEID-TYPE=name</b> in the request header and set the resource ID to the topic name. Call the <b>GetResourceInstances</b> API to obtain the resource ID. If you set <b>resource_type</b> to <b>smn_sms</b> , the resource ID is the signature ID, which can be obtained on the console.

## Request Parameters

**Table 5-193** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-194** Request body parameters

Parameter	Mandatory	Type	Description
tags	Yes	Array of <b>ResourceTag</b> objects	Specifies the tag list. For details, see <a href="#">Table 5-195</a> . When you delete tags, the tag structure cannot be missing, and the key cannot be left blank or be an empty string. The system does not check the character set when deleting a tag.
action	Yes	String	Specifies the operation to be performed, which can be <b>create</b> or <b>delete</b> .

**Table 5-195** ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	Specifies the key field to be matched. <b>key</b> can only be <b>resource_name</b> . In such a case, <b>value</b> is the ECS name. <ul style="list-style-type: none"><li>• The <b>key</b> must be unique, and the value is used for matching.</li><li>• The <b>key</b> field is a fixed dictionary value.</li><li>• <b>key</b> cannot be left blank.</li></ul>
value	Yes	String	Specifies the tag value. <b>key</b> can only be <b>resource_name</b> . In such a case, <b>value</b> is the ECS name. <ul style="list-style-type: none"><li>• Each value contains a maximum of 255 Unicode characters.</li><li>• <b>value</b> cannot be left blank.</li></ul>

## Response Parameters

**Status code: 400**

**Table 5-196** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-197** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.

Parameter	Type	Description
message	String	Describes the error message.

**Status code: 404**

**Table 5-198** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-199** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

- Adding resource tags in batches**  
 POST https://{SMN\_Endpoint}/v2/{project\_id}/{resource\_type}/{resource\_id}/tags/action

```
{
  "action": "create",
  "tags": [ {
    "key": "key1",
    "value": "value1"
  }, {
    "key": "key",
    "value": "value3"
  } ]
}
```
- Deleting resource tags in batches**  
 POST https://{SMN\_Endpoint}/v2/{project\_id}/{resource\_type}/{resource\_id}/tags/action

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

```
}]  
}
```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

# 5.6 Application Operations

## 5.6.1 Creating a Platform Application

### Function

This API is used to create a platform application.

### URI

POST /v2/{project\_id}/notifications/applications

**Table 5-200** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

## Request Parameters

**Table 5-201** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-202** Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Specifies the application name. The value can contain only letters, underscores (_), and digits and cannot exceed 64 characters.
platform	Yes	String	Specifies the application platform. Only HMS, APNS, and APNS_SANDBOX are supported. HMS is a platform for developers to push Android messages. APNS and APNS_SANDBOX are platforms for pushing iOS messages.
platform_principal	Yes	String	For HMS, set it to the app ID, which contains only letters and digits and does not exceed 20 characters. For APNS and APNS_SANDBOX, set it to the platform certificate, which is encoded using Base64 and cannot exceed 8 KB.

Parameter	Mandatory	Type	Description
platform_credential	Yes	String	For HMS, set it to the app secret that contains 32 to 64 characters and consists of only letters and digits. For APNS and APNS_SANDBOX, set it to the certificate private key, which is encoded using Base64 and cannot exceed 8 KB.

## Response Parameters

**Status code: 201**

**Table 5-203** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
application_url	String	Specifies the unique resource identifier of the application.
application_id	String	Specifies the application resource ID.

**Status code: 400**

**Table 5-204** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-205** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.

Parameter	Type	Description
message	String	Describes the error message.

**Status code: 404****Table 5-206** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-207** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Creating a platform application

```
POST https://{SMN_Endpoint}/v2/{project_id}/notifications/applications
```

```
{
  "name" : "application_name",
  "platform" : "HMS",
  "platform_principal" : "appld",
  "platform_credential" : "appSecret"
}
```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.6.2 Updating a Platform Application

### Function

This API is used to update a platform application.

### URI

PUT /v2/{project\_id}/notifications/applications/{application\_urn}

**Table 5-208** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. For details, see <a href="#">Obtaining a Project ID</a> .
application_urn	Yes	String	Specifies the unique resource identifier of the application. You can obtain it based on <a href="#">Querying Platform Applications</a> .

## Request Parameters

**Table 5-209** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-210** Request body parameters

Parameter	Mandatory	Type	Description
platform_principal	Yes	String	For HMS, set it to the app ID, which contains only letters and digits and does not exceed 20 characters. For APNS and APNS_SANDBOX, set it to the platform certificate, which is encoded using Base64 and cannot exceed 8 KB.
platform_credential	Yes	String	For HMS, set it to the app secret that contains 32 to 64 characters and consists of only letters and digits. For APNS and APNS_SANDBOX, set it to the certificate private key, which is encoded using Base64 and cannot exceed 8 KB.

## Response Parameters

**Status code: 200****Table 5-211** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-212** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-213** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-214** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-215** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Updating a platform application

```
PUT https://{SMN_Endpoint}/v2/{project_id}/notifications/applications/{application_urn}
{
  "platform_principal": "appId",
  "platform_credential": "appSecret"
}
```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.6.3 Querying Platform Applications

### Function

This API is used to query the platform application list.

### URI

GET /v2/{project\_id}/notifications/applications

**Table 5-216** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

**Table 5-217** Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Specifies the offset. If the value is an integer greater than 0 but less than the number of resources, all resources after this offset will be queried. The default value is <b>0</b> . Default value: <b>0</b>
limit	No	Integer	Specifies the maximum number of records in each query. The value ranges from <b>1</b> to <b>100</b> and is generally <b>10</b> , <b>20</b> , or <b>50</b> , indicating the number of resources returned on each page. The default value is <b>100</b> . Default value: <b>100</b>
name	No	String	Specifies the application name entered for a search. The value contains a maximum of 64 characters and consists of letters, underscores (_), and digits. Backward fuzzy match is supported.
platform	No	String	Specifies the application platform. Only HMS, APNS, and APNS_SANDBOX are supported. HMS is a platform for developers to push Android messages. APNS and APNS_SANDBOX are platforms for pushing iOS messages.

## Request Parameters

**Table 5-218** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200****Table 5-219** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
application_count	Integer	Specifies the number of returned applications. No matter what <b>offset</b> and <b>limit</b> values you have set in the request, this parameter always returns the total number of applications.
applications	Array of <a href="#">ApplicationItem</a> objects	For details, see <a href="#">Table 5-220</a> .

**Table 5-220** ApplicationItem

Parameter	Type	Description
name	String	Specifies the application name.
platform	String	Specifies the application platform.
create_time	String	Specifies the time when the application was created. The UTC time is in YYYY-MM-DDTHH:MM:SSZ format.
application_url	String	Specifies the unique resource identifier of the application.
application_id	String	Specifies the application ID, which is unique.
enabled	String	Specifies whether the platform application is enabled.

Parameter	Type	Description
apple_certificate_expiration_date	String	Specifies the time when the Apple certificate expires. This parameter is available only for the APNS and APNS_SANDBOX platforms. The value is a UTC time in YYYY-MM-DDTHH:MM:SSZ format.

**Status code: 400****Table 5-221** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-222** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-223** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-224** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/applications?
offset=0&limit=100&name=application_name&platform=APNS
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085",
  "application_count" : 2,
  "applications" : [ {
    "create_time" : "2018-02-08T08:30:16Z",
    "apple_certificate_expiration_date" : "2018-03-09T12:21:40Z",
    "name" : "application_name001",
    "platform" : "APNS",
    "enabled" : "true",
    "application_urn" : "urn:smn:regionId:429ffced18074da0938112f2c362b935:app-APNS-
application_name001",
    "application_id" : "b1b8643dc12b4g77ad6e35a16003119b"
  }, {
    "create_time" : "2018-01-11T12:58:58Z",
    "apple_certificate_expiration_date" : "2018-03-09T12:21:40Z",
    "name" : "application_name002",
    "platform" : "APNS",
    "enabled" : "true",
    "application_urn" : "urn:smn:regionId:429ffced18074da0938112f2c362b935:app-APNS-
application_name002",
    "application_id" : "a3a4643dc12b4g77ad6e35a16002558c"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
403	Unauthorized
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 5.6.4 Querying Application Attributes

### Function

This API is used to query attributes of a platform application.

### URI

GET /v2/{project\_id}/notifications/applications/{application\_urn}

**Table 5-225** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
application_urn	Yes	String	Specifies the unique resource identifier of the application. You can obtain it based on <a href="#">Querying Platform Applications</a> .

### Request Parameters

**Table 5-226** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

### Response Parameters

Status code: 200

**Table 5-227** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
application_id	String	Specifies the application ID, which is unique.
attributes	<a href="#">Table 5-228</a> object	-

**Table 5-228** ApplicationAttribute

Parameter	Type	Description
enabled	String	Specifies whether the platform application is enabled.
apple_certificate_expiration_date	String	Specifies the expiration time of the Apple certificate. This parameter is valid only for the APNS and APNS_SANDBOX platforms. The UTC time is in YYYY-MM-DDTHH:MM:SSZ format.

**Status code: 400****Table 5-229** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-230** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404**

**Table 5-231** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-232** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/applications/{application_urn}
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "6a63a18b8bab40ffb71ebd9cb80d0085",
  "application_id" : "b1b8643dc12b4g77ad6e35a16003119b",
  "attributes" : {
    "enabled" : "true",
    "apple_certificate_expiration_date" : "2018-03-09T12:21:40Z"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
403	Unauthorized
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

## 5.6.5 Deleting a Platform Application

### Function

This API is used to delete a platform application.

### URI

DELETE /v2/{project\_id}/notifications/applications/{application\_urn}

**Table 5-233** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
application_urn	Yes	String	Specifies the unique resource identifier of the application. You can obtain it based on <a href="#">Querying Platform Applications</a> .

### Request Parameters

**Table 5-234** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

### Response Parameters

Status code: 200

**Table 5-235** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400****Table 5-236** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-237** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-238** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-239** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Deleting a platform application

```
DELETE https://{SMN_Endpoint}/v2/{project_id}/notifications/applications/{application_urn}
{
  "platform_principal" : "appId",
  "platform_credential" : "appSecret"
}
```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

# 5.7 Application Endpoint Operations

## 5.7.1 Adding an Application Endpoint

### Function

This API is used to add an endpoint to a platform application.

## URI

POST /v2/{project\_id}/notifications/applications/{application\_urn}/endpoints

**Table 5-240** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
application_urn	Yes	String	Specifies the unique resource identifier of the application. You can obtain it based on <a href="#">Querying Platform Applications</a> .

## Request Parameters

**Table 5-241** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-242** Request body parameters

Parameter	Mandatory	Type	Description
token	Yes	String	Specifies the mobile device token, which cannot exceed 512 bytes.
user_data	Yes	String	Specifies description or additional information about the endpoint. The value is a UTF-8 encoded string not exceeding 2048 bytes.

## Response Parameters

**Status code: 201**

**Table 5-243** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
endpoint_urn	String	Specifies the unique resource identifier of the endpoint.

**Status code: 400****Table 5-244** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-245** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-246** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500**

**Table 5-247** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Adding an application endpoint

```
POST https://{SMN_Endpoint}/v2/{project_id}/notifications/applications/{application_urn}/endpoints
{
  "token" : "3708232124742383445",
  "user_data" : "This is token for user001"
}
```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.7.2 Updating Application Endpoint Attributes

### Function

This API is used to update application endpoint attributes.

### URI

PUT /v2/{project\_id}/notifications/endpoints/{endpoint\_urn}

**Table 5-248** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
endpoint_urn	Yes	String	Specifies the unique resource identifier of the application endpoint. You can obtain it according to <a href="#">Querying the Endpoints of an Application</a> .

## Request Parameters

**Table 5-249** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

**Table 5-250** Request body parameters

Parameter	Mandatory	Type	Description
enabled	No	String	Specifies whether a device is enabled. The value can be <b>true</b> or <b>false</b> .
user_data	No	String	Specifies description or additional information about the endpoint. The value is a UTF-8 encoded string not exceeding 2048 bytes.

## Response Parameters

Status code: 200

**Table 5-251** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400****Table 5-252** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-253** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-254** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-255** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Updating application endpoint attributes

```
POST https://{SMN_Endpoint}/v2/{project_id}/notifications/applications/{application_urn}/endpoints
{
  "enabled": "false",
  "user_data": "This is an APNS token for user001"
}
```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.7.3 Querying the Endpoints of an Application

### Function

This API is used to query the endpoints of an application.

### URI

GET /v2/{project\_id}/notifications/applications/{application\_urn}/endpoints

**Table 5-256** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .

Parameter	Mandatory	Type	Description
application_urn	Yes	String	Specifies the unique resource identifier of the application. You can obtain it based on <a href="#">Querying Platform Applications</a> .

**Table 5-257** Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Specifies the offset. If the value is an integer greater than 0 but less than the number of resources, all resources after this offset will be queried. The default value is <b>0</b> . Default value: <b>0</b>
limit	No	Integer	Specifies the maximum number of records in each query. The value ranges from <b>1</b> to <b>100</b> and is generally <b>10</b> , <b>20</b> , or <b>50</b> , indicating the number of resources returned on each page. The default value is <b>100</b> . Default value: <b>100</b>
enabled	No	String	Specifies whether a device is enabled. The value can be true or false.
token	No	String	Specifies the device token, which contains a maximum of 512 bytes.
user_data	No	String	Description or additional information about the endpoint. The value cannot exceed 2048 bytes.

## Request Parameters

**Table 5-258** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200****Table 5-259** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
next_page_flag	Boolean	Specifies whether a link to the next page is provided.
endpoints	Array of <b>ApplicationEndpoint</b> objects	Specifies the application_endpoint structure array.

**Table 5-260** ApplicationEndpoint

Parameter	Type	Description
create_time	String	Specifies the time when the application was created. The UTC time is in YYYY-MM-DDTHH:MM:SSZ format.
endpoint_urn	String	Specifies the unique resource identifier of the application endpoint.
user_data	String	Specifies the user-defined data. The value is a UTF-8 encoded string not exceeding 2048 bytes.
enabled	String	Whether an endpoint is enabled for notifications The value can be <b>true</b> or <b>false</b> .
token	String	Specifies the device token. The value cannot exceed 512 bytes.

**Status code: 400****Table 5-261** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-262** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-263** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-264** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/applications/{application_urn}/endpoints?
offset=0&limit=10

null
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "c90d871f77f7425cae0a8b772a563d17",
  "next_page_flag" : false,
  "endpoints" : [ {
    "create_time" : "2018-01-12T01:25:14Z",
    "endpoint_urn" : "urn:smn:regionId:429ffced18074da0938112f2c362b935:endpoint-APNS-
application_name-62f0bafec61c45fbbb5d0fc6bd696a2d",
    "user_data" : "no user data",
    "enabled" : "true",
    "token" : "1f2fda4c1013c47ac4c59bd22379d88e14b07b0ebf47f2f79d1a6b06ed03390d"
  } ]
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.7.4 Querying Application Endpoint Attributes

### Function

This API is used to query attributes of an endpoint.

### URI

```
GET /v2/{project_id}/notifications/endpoints/{endpoint_urn}
```

**Table 5-265** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
endpoint_urn	Yes	String	Specifies the unique resource identifier of the endpoint. You can obtain it by referring to <a href="#">Querying the Endpoints of an Application</a> .

## Request Parameters

**Table 5-266** Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200**

**Table 5-267** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
attributes	<a href="#">attributes</a> object	Specifies the attribute key-value pair.

**Table 5-268** attributes

Parameter	Type	Description
enabled	String	Specifies whether the device is available.
token	String	Specifies the device token.
user_data	String	Specifies the user data.

**Status code: 400****Table 5-269** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-270** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-271** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-272** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

```
GET https://{SMN_Endpoint}/v2/{project_id}/notifications/endpoints/{endpoint_urn}
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "request_id" : "c90d871f77f7425cae0a8b772a563d17",
  "attributes" : {
    "enabled" : "true",
    "token" : "3708232124742383445",
    "user_data" : "abc"
  }
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.7.5 Deleting an Application Endpoint

### Function

This API is used to delete an application endpoint.

### URI

```
DELETE /v2/{project_id}/notifications/endpoints/{endpoint_urn}
```

**Table 5-273** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
endpoint_urn	Yes	String	Specifies the unique resource identifier of the application endpoint. You can obtain it according to <a href="#">Querying the Endpoints of an Application</a> .

## Request Parameters

**Table 5-274** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200**

**Table 5-275** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-276** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-277** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-278** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-279** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

Deleting an Application Endpoint

```
DELETE https://{SMN_Endpoint}/v2/{project_id}/notifications/endpoints/{endpoint_urn}
null
```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

# 5.8 Application Message Sending

## 5.8.1 Publishing an Application Message

### Function

This API is used to send a message to an endpoint.

### URI

POST /v2/{project\_id}/notifications/endpoints/{endpoint\_urn}/publish

**Table 5-280** Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. See <a href="#">Obtaining a Project ID</a> .
endpoint_urn	Yes	String	Specifies the unique resource identifier of the endpoint. You can obtain it based on <a href="#">Querying the Endpoints of an Application</a> .

## Request Parameters

**Table 5-281** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

Table 5-282 Request body parameters

Parameter	Mandatory	Type	Description
message	No	String	<p>Select either <b>message</b> or <b>message_structure</b>.</p> <p><b>message</b>: Publish an application message.</p> <p><b>message_structure</b>: Publish an application message using a message structure.</p> <p>Specifies the message content. <b>HMS</b>, <b>APNS</b>, and <b>APNS_SANDBOX</b> are supported.</p> <p>HMS is a platform for developers to push Android messages.</p> <p>APNS and APNS_SANDBOX are platforms for pushing iOS messages.</p> <p>Message content for HMS cannot exceed 2 KB.</p> <p>Message content for APNS and APNS_SANDBOX cannot exceed 4 KB.</p> <p>For details about the message content format requirements of the push platform, see the format of the application message body.</p> <p>HMS transparent push message</p> <pre>{ "hps": { "msg": { "type": 1, "body": { "key": "value" } } } }</pre> <p>Huawei notification push message</p> <pre>{ "hps": { "msg": { "type": 3, "body": { "content": "Push message content", "title": "Push message content" }, "action": { "type": 1, "param": { "intent": "#Intent;compo=com.rvr/.Activity;S.W=U;end" } } }, "ext": { "biTag": "Trump", "icon": "http://upload.w.org/00/150pxsvg.png" } } }</pre>

Parameter	Mandatory	Type	Description
			Apple platform message { "aps": { "alert": "hello world" } }
message_structure	No	String	<p>Specifies the message content. <b>HMS, APNS, and APNS_SANDBOX</b> are supported.</p> <p>HMS is a platform for developers to push Android messages.</p> <p>APNS and APNS_SANDBOX are platforms for pushing iOS messages.</p> <p>Message content for HMS cannot exceed 2 KB.</p> <p>Message content for APNS and APNS_SANDBOX cannot exceed 4 KB.</p> <p>For details about the message content format requirements of the push platform, see the format of the application message body.</p> <p>HMS transparent push message  <pre>{ "HMS": { "hps": { "msg": { "type": 1, "body": { "key": "value" } } } }</pre> </p> <p>Huawei notification push message  <pre>{ "HMS": { "hps": { "msg": { "type": 3, "body": { "content": "Push message content", "title": "Push message content" }, "action": { "type": 1, "param": { "intent": "#Intent;compo=com.rvr/.Activity;S.W=U;end" } } }, "ext": { "biTag": "Trump", "icon": "http://upload.w.org/00/150pxsvg.png" } } }</pre> </p> <p>Apple platform message { "APNS": { "aps": { "alert": "hello world" } } }</p>

Parameter	Mandatory	Type	Description
time_to_live	No	String	<p>Specifies message TTL (counting from the time when you make the sending request).</p> <p>SMN will count the time a message already consumed in the SMN system before forwarding it to the mobile push platform. The message will be forwarded only when the time it consumed in SMN is less than the TTL, and the consumed time is deducted from the TTL. If the consumed time has exceeded the TTL, the message will be discarded.</p> <p>The time period is measured in seconds, and the default TTL is <b>3600s</b> (one hour). The value must be a positive integer less than or equal to 86,400 (3600 x 24).</p> <p>Default value: <b>3600</b></p>

## Response Parameters

**Status code: 200**

**Table 5-283** Response body parameters

Parameter	Type	Description
message_id	String	Specifies the message ID, which is unique.
request_id	String	Specifies the request ID, which is unique.

**Status code: 400**

**Table 5-284** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-285** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-286** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-287** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

- Publishing an application message

POST https://{SMN\_Endpoint}/v2/{project\_id}/notifications/endpoints/{endpoint\_urn}/publish

```
{
  "message" : {
    "hps" : {
      "msg" : {
        "action" : {
          "param" : {
            "intent" : "#Intent;compo=com.HC.SmnAppPush.defaultAction/.Activity;S.W=U;end"
          },
        },
        "type" : 1
      }
    }
  }
}
```

```

    },
    "body" : {
      "title" : "hello world",
      "content" : "hello world"
    },
    "type" : 3
  }
}
},
"time_to_live" : 3600
}

```

- Publishing an application message using a message structure  
POST [https://{SMN\\_Endpoint}/v2/{project\\_id}/notifications/endpoints/{endpoint\\_urn}/publish](https://{SMN_Endpoint}/v2/{project_id}/notifications/endpoints/{endpoint_urn}/publish)

```

{
  "message" : {
    "HMS" : {
      "hps" : {
        "msg" : {
          "action" : {
            "param" : {
              "intent" : "#Intent;compo=com.HC.SmnAppPush.defaultAction/.Activity;S.W=U;end"
            },
            "type" : 1
          },
          "body" : {
            "title" : "hello world",
            "content" : "hello world"
          },
          "type" : 3
        }
      }
    }
  },
  "time_to_live" : 3600
}

```

## Example Responses

None

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.9 Version Querying

### 5.9.1 Querying All SMN API Versions

#### Function

This API is used to list all SMN API versions.

#### URI

GET /

#### Request Parameters

Table 5-288 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

#### Response Parameters

Status code: 200

Table 5-289 Response body parameters

Parameter	Type	Description
versions	Array of <b>VersionItem</b> objects	Specifies the list of all versions.

Table 5-290 VersionItem

Parameter	Type	Description
id	String	Specifies the version ID, for example, <b>v2</b> .
min_version	String	Specifies the microversion. If the API supports microversions, the system returns the supported minimum microversion. If no, the system returns an empty value.

Parameter	Type	Description
status	String	Specifies the version status. Possible values are: <b>CURRENT</b> : widely used version <b>SUPPORTED</b> : earlier version which is still supported <b>DEPRECATED</b> : deprecated version which may be deleted later
updated	String	Specifies the version release time, which must be a UTC time. For example, the release time of v2 is <b>2014-06-28T12:20:21Z</b> .
version	String	Specifies the microversion. If the API supports microversions, the system returns the supported minimum microversion. If no, the system returns an empty value.
links	Array of <a href="#">LinkItem</a> objects	Specifies the API URL.

**Table 5-291** LinkItem

Parameter	Type	Description
href	String	Specifies the corresponding shortcut link.
rel	String	Specifies the shortcut link marker name.

**Status code: 400****Table 5-292** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403**

**Table 5-293** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-294** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 500****Table 5-295** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Example Requests**

```
GET https://{SMN_Endpoint}/  
null
```

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

OK

```
{  
  "versions": {  
    "id": "v2",  
    "links": [ {  
      "href": "https://127.0.0.1/v2",  
      "rel": "self"  
    } ],  
    "min_version": ""  
  }
```

```
"status" : "CURRENT",
"updated" : "2018-09-19T00:00:00Z",
"version" : ""
}
}
```

## Status Codes

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

## Error Codes

See [Error Codes](#).

## 5.9.2 Querying the SMN API v2 Version

### Function

This API is used to query the version of SMN API v2.

### URI

GET /{api\_version}

**Table 5-296** Path parameters

Parameter	Mandatory	Type	Description
api_version	Yes	String	Specifies the version to be queried. Only v2 API is supported.

## Request Parameters

**Table 5-297** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies the user token. It can be obtained by calling the IAM API (value of <b>X-Subject-Token</b> in the response header).

## Response Parameters

**Status code: 200**

**Table 5-298** Response body parameters

Parameter	Type	Description
version	Object	Specifies the list of all versions.

**Table 5-299** VersionItem

Parameter	Type	Description
id	String	Specifies the version ID, for example, <b>v2</b> .
min_version	String	Specifies the microversion. If the API supports microversions, the system returns the supported minimum microversion. If no, the system returns an empty value.
status	String	Specifies the version status. Possible values are: <b>CURRENT</b> : widely used version <b>SUPPORTED</b> : earlier version which is still supported <b>DEPRECATED</b> : deprecated version which may be deleted later
updated	String	Specifies the version release time, which must be a UTC time. For example, the release time of v2 is <b>2014-06-28T12:20:21Z</b> .
version	String	Specifies the microversion. If the API supports microversions, the system returns the supported minimum microversion. If no, the system returns an empty value.

Parameter	Type	Description
links	Array of <a href="#">LinkItem</a> objects	Specifies the API URL.

**Table 5-300** LinkItem

Parameter	Type	Description
href	String	Specifies the corresponding shortcut link.
rel	String	Specifies the shortcut link marker name.

**Status code: 400****Table 5-301** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 403****Table 5-302** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

**Status code: 404****Table 5-303** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.

Parameter	Type	Description
message	String	Describes the error message.

**Status code: 500**

**Table 5-304** Response body parameters

Parameter	Type	Description
request_id	String	Specifies the request ID, which is unique.
code	String	Specifies the error code.
message	String	Describes the error message.

## Example Requests

```
GET https://{SMN_Endpoint}/v2
null
```

## Example Responses

**Status code: 200**

OK

```
{
  "version" : {
    "id" : "v2",
    "links" : [ {
      "href" : "https://127.0.0.1/v2",
      "rel" : "self"
    } ],
    "min_version" : "",
    "status" : "CURRENT",
    "updated" : "2018-09-19T00:00:00Z",
    "version" : ""
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	Bad Request
403	Unauthorized
404	Not Found

Status Code	Description
500	Internal Server Error

## Error Codes

See [Error Codes](#).

# 6 Examples

## 6.1 Example 1: Publishing Messages to a Topic

### Scenarios

This section describes how to publish messages by calling APIs. For details, see [Calling APIs](#).

### Involved APIs

- [Obtaining a User Token Through Password Authentication](#)
- [Creating a Topic](#)
- [Adding a Subscription](#)
- [Publishing a Message](#)

### Procedure

1. Obtain the token by following instructions in [Authentication](#).
2. Create a topic.
  - a. Send request **POST** [https://{SMN\\_Endpoint}/v2/{project\\_id}/notifications/topics](https://{SMN_Endpoint}/v2/{project_id}/notifications/topics).
  - b. Add **X-Auth-Token** to the request header.
  - c. Specify the following parameters in the request body:

For details about the parameters, see [Creating a Topic](#).

```
{
  "name": "test_topic_v2", //(Mandatory) Topic name
  "display_name": "test", //(Optional) Display name
  "enterprise_project_id": "0" //Enterprise project ID (mandatory in the enterprise project
scenario)
}
```

Example response

```
{
  "request_id": "6a63a18b8bab40ffb71ebd9cb80d0085",
  "topic_urn": "urn:smn:regionId:f96188c7ccaf4ffba0c9aa149ab2bd57:test_topic_v2"
}
```

3. Add a subscription.
  - a. Send request **POST** `https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/{topic_urn}/subscriptions`.

Set `topic_urn` based on the response in [2.c](#).

- b. Add **X-Auth-Token** to the request header.
  - c. Specify the following parameters in the request body:

```
{
  "protocol": "email", //(Mandatory) Subscription protocol
  "endpoint": "xxx@xx.com", //(Mandatory) Email address
  "remark": "Subscription" //(Optional) Description
}
```

Example response

```
{
  "subscriptions_result": [{
    "request_id": "126c17f805934e5eadf647b0860c7a0a",
    "subscription_urn": "urn:smn:regionId:f96188c7ccaf4ffba0c9aa149ab2bd57:test_topic_v2",
    "http_code": 201}]
}
```

#### NOTE

You can add multiple subscriptions to a topic.

- d. The subscription endpoint receives a confirmation message, and you must confirm the subscription in the email.
4. Publish a message.

- a. Send request **POST** `https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/{topic_urn}/publish`.

- b. Add **X-Auth-Token** to the request header.

- c. Specify the following parameters in the request body:

```
{
  "subject": "test message v2", //(Optional) Message subject, which is displayed in email
  messages
  "message": "Message test message v2." //(Mandatory) Message to be published
}
```

Example response

```
{
  "request_id": "6a63a18b8bab40ffb71ebd9cb80d0085",
  "message_id": "992bbd32819448af95f83814cb3c7454"
}
```

#### NOTE

Only confirmed subscription endpoints can receive the message you publish.

## 6.2 Example 2: Publishing a Message Using a Message Template

### Scenarios

This section describes how to publish a message using a message template. For details, see [Calling APIs](#).

## Involved APIs

- [Obtaining a User Token Through Password Authentication](#)
- [Creating a Topic](#)
- [Adding a Subscription](#)
- [Creating a Message Template](#): Create a message template for quick message sending and reduced the request data volume.
- [Publishing a Message](#)

## Procedure

1. Obtain the token by following instructions in [Authentication](#).
2. Create a topic.
  - a. Send request **POST** [https://{SMN\\_Endpoint}/v2/{project\\_id}/notifications/topics](https://{SMN_Endpoint}/v2/{project_id}/notifications/topics).
  - b. Add **X-Auth-Token** to the request header.
  - c. Specify the following parameters in the request body:

For details about the parameters, see [Creating a Topic](#).

```
{
  "name": "publish_by_template", //(Mandatory) Topic name
  "display_name": "test", //(Optional) Display name
  "enterprise_project_id": "0" //Enterprise project ID (mandatory in the enterprise project
scenario)
}
```

Example response

```
{
  "request_id": "a8f8161449564f569c19e2a9e3be25c9",
  "topic_urn": "urn:smn:br-iaas-
odin1:0605767e0a00d5762fe7c00d0e33345c:publish_by_template"
}
```

3. Add a subscription.
  - a. Send request **POST** [https://{SMN\\_Endpoint}/v2/{project\\_id}/notifications/topics/{topic\\_urn}/subscriptions](https://{SMN_Endpoint}/v2/{project_id}/notifications/topics/{topic_urn}/subscriptions).  
Set **topic\_urn** based on the response in [2.c](#).
  - b. Add **X-Auth-Token** to the request header.
  - c. Specify the following parameters in the request body:

```
{
  "protocol": "sms", //(Mandatory) Subscription protocol
  "endpoint": "86137***3629", //(Mandatory) Email address
  "remark": "Subscription" //(Optional) Description
}
```

Example response

```
{
  "subscriptions_result":[{
    "request_id":"126c17f805934e5eadf647b0860c7a0a",
    "subscription_urn":"urn:smn:br-iaas-
odin1:0605767e0a00d5762fe7c00d0e33345c:publish_by_template:
3e5ac4544a1947b7b0d9f743fe52bdbd",
    "http_code":201}]
}
```

### NOTE

You can add multiple subscriptions to a topic.

- d. The subscription endpoint receives a confirmation message, and you must confirm the subscription in the email.
4. Create a message template.  
Send request **POST https://{SMN\_Endpoint}/v2/{project\_id}/notifications/message\_template**.
5. Add **X-Auth-Token** to the request header.

- a. Specify the following parameters in the request body:

```
{
  "message_template_name": "sms_template_test",
  "locale": "zh-cn",
  "content": "{content}",
  "protocol": "sms"
}
```

Example response

```
{
  "request_id": "e67228ac92324a58980e922ca600f8ef",
  "message_template_id": "cdb113996c5d49149fb97af36d9801ce"
}
```

- b. The subscription endpoint receives a confirmation message and you must confirm the subscription with your phone.
6. Use the message template to publish a message.

- a. Send request **POST https://{SMN\_Endpoint}/v2/{project\_id}/notifications/topics/{topic\_urn}/publish**.
- b. Add **X-Auth-Token** to the request header.
- c. Specify the following parameters in the request body:

```
{
  "message_template_name": "sms_template_test",
  "tags": {
    "content": "hello test"
  },
  "subject": "template message test"
}
```

Example response

```
{
  "message_id": "5da965fd9e2c4036a0542317d944af83",
  "request_id": "c6be4517f985470e8448e42f9d2ec5a2"
}
```

#### NOTE

Only confirmed subscription endpoints can receive the message you publish.

## 6.3 Example 3: Using Mobile Push

### Scenarios

This section describes how to use mobile push by calling APIs. For details, see [Calling APIs](#).

### Prerequisites

- For HMS, you have obtained the app ID and app secret.
- For APNS, you have obtained a .p12 iOS push certificate and its password.

## Involved APIs

- [Obtaining a User Token Through Password Authentication](#)
- [Creating a Platform Application](#)
- [Adding an Application Endpoint](#)
- [Publishing an Application Message](#)

## Procedure

1. Obtain the token by following instructions in [Authentication](#).
2. Create a platform application.
  - a. Send request **POST https://{SMN\_Endpoint}/v2/{project\_id}/notifications/applications**.
  - b. Add **X-Auth-Token** to the request header.
  - c. Specify the following parameters in the request body:

For details about the parameters, see [Creating a Topic](#).

```
{
  "name": "application_name",
  "platform": "HMS",
  "platform_principal": "appld",
  "platform_credential": "appSecret"
}
```

Example response

```
{
  "request_id": "6a63a18b8bab40ffb71ebd9cb80d0085",
  "application_urn": "urn:smn:regionId:f96188c7ccaf4ffba0c9aa149ab2bd57:app-HMS-
application_name",
  "application_id": "4f9ad22e1c244034995a77760252553c"
}
```

3. Add an application endpoint.
  - a. Send request **POST https://{SMN\_Endpoint}/v2/{project\_id}/notifications/applications/{application\_urn}/endpoints**.  
Set **application\_urn** based on the response in [2.c](#).
  - b. Add **X-Auth-Token** to the request header.
  - c. Specify the following parameters in the request body:

```
{
  "token": "37082*****383445",
  "user_data": "add endpoint"
}
```

Example response

```
{
  "request_id": "6a63a18b8bab40ffb71ebd9cb80d0085",
  "endpoint_urn": "urn:smn:regionId:f96188c7ccaf4ffba0c9aa149ab2bd57:endpoint-APNS-
example_application_name-37a2cb947fa43a20bc66e91281194e7a"
}
```

### NOTE

You can add multiple endpoints for an application, and modify the endpoint information. For details, see [Updating Application Endpoint Attributes](#).

4. Publish an application message.
  - a. Send request **POST https://{SMN\_Endpoint}/v2/{project\_id}/notifications/topics/{topic\_urn}/publish**.

- b. Add **X-Auth-Token** to the request header.
- c. Specify the following parameters in the request body:

```
{
  "message":{
    "hps":{
      "msg":{
        "action":{
          "param":{
            "intent":
"#Intent;compo=com.HC.SmnAppPush.defaultAction/.Activity;S.W=U;end"
          },
          "type": 1
        },
        "body": {
          "title": "hello world",
          "content": "hello world"
        },
        "type": 3
      }
    }
  }
}
```

#### Example response

```
{
  "request_id": "6a63a18b8bab40ffb71ebd9cb80d0085",
  "message_id": "992bbd32819448af95f83814cb3c7454"
}
```

#### NOTE

Ensure that the token in [4.c](#) is correct. Otherwise, you may fail to receive mobile app messages.

# 7 Permissions Policies and Supported Actions

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## 7.1 Permissions Policies and Supported Actions

This section describes fine-grained permissions management for your SMN resources. If your HUAWEI CLOUD account does not need individual IAM users, you can skip over 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 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.

You can grant users permissions by using **roles** and **policies**. Roles: A type of coarse-grained authorization mechanism that defines service-level permissions based on user responsibilities. There are only a limited number of roles for granting permissions to users. Policies: A type of fine-grained authorization mechanism that defines permissions required to perform operations on specific cloud resources under certain conditions. This mechanism allows for more flexible policy-based authorization and secure access control.

### NOTE

Policy-based authorization is useful if you want to allow or deny the access to an API.

An account has all of the permissions required to call all APIs, but IAM users must have the required permissions specifically assigned. The permissions required for calling an API are determined by the actions supported by the API. Only users who have been granted permissions allowing the actions can call the API successfully. For example, if an IAM user wants to query ECSs using an API, the user must have been granted permissions that allow the **ecs:servers:list** action.

## Supported Actions

IAM provides system-defined policies that can be directly used. You can also create custom policies and use them to supplement system-defined policies, implementing more refined access control. Actions supported by policies are specific to APIs. Common concepts related to policies include:

- **Permissions:** Statements in a policy that allow or deny certain operations.
- **APIs:** REST APIs that can be called by a user who has been granted specific permissions.
- **Actions:** Specific operations that are allowed or denied.
- **Related actions:** Actions on which a specific action depends to take effect. When assigning permissions for the action to a user, you also need to assign permissions for the dependent actions.
- **IAM or enterprise projects:** Type of projects for which an action will take effect. 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. Administrators can check whether an action supports IAM projects or enterprise projects in the action list. "√" indicates that the action supports the project and "x" indicates that the action does not support the project. For details about the differences between IAM and enterprise management, see [What Are the Differences Between IAM and Enterprise Management?](#)

SMN supports the following actions that can be defined in custom policies:

- **Topic Operations**, including actions supported by topic management APIs, such as APIs for creating, querying, updating, and deleting topics.
- **Template Operations**, including actions supported by message template management APIs, such as the APIs for creating, querying, updating, and deleting message templates.
- **Application Operations**, including actions supported by application management APIs, such as the APIs for creating, querying, updating, and deleting applications.
- **Tag Operations**, including actions supported by TMS APIs, such as the APIs for querying resources, adding a resource tag, adding or deleting resource tags in batches, and deleting a resource a tag.
- **Message Publishing**, including actions supported by message publishing management APIs, such as the message publishing API.
- **Sending an Application Message**, including actions supported by direct application messaging management API, such as the API for sending an application message.

## 7.2 Topic Operations

Permission	API	Action	IAM Project	Enterprise Project
Creating a topic	POST /v2/{project_id}/notifications/topics	smn:topic:create	√	√
Querying a topic	GET /v2/{project_id}/notifications/topics	smn:topic:list	√	√

Permission	API	Action	IAM Project	Enterprise Project
Updating a topic	PUT /v2/{project_id}/notifications/topics/{topic_urn}	smn:topic:update	√	√
Deleting a topic	DELETE /v2/{project_id}/notifications/topics/{topic_urn}	smn:topic:delete	√	√

## 7.3 Template Operations

Permission	API	Action	IAM Project	Enterprise Project
Creating a message template	POST /v2/{project_id}/notifications/message_template	smn:template:create	√	√
Querying a message template	GET /v2/{project_id}/notifications/message_template	smn:template:list	√	√
Modifying a message template	PUT /v2/{project_id}/notifications/message_template/{message_template_id}	smn:template:update	√	√
Deleting a message template	DELETE /v2/{project_id}/notifications/message_template/{message_template_id}	smn:template:delete	√	√

## 7.4 Application Operations

Permission	API	Action	IAM Project	Enterprise Project
Creating a platform application	POST /v2/{project_id}/notifications/applications	smn:application:create	√	√
Querying platform applications	GET /v2/{project_id}/notifications/applications?offset={offset}&limit={limit}&name={name}&platform={platform}	smn:application:list	√	√
Updating a platform application	PUT /v2/{project_id}/notifications/applications/{application_id}	smn:application:update	√	√
Deleting a platform application	DELETE /v2/{project_id}/notifications/applications/{application_id}	smn:application:delete	√	√

## 7.5 Tag Operations

Permission	API	Action	IAM Project	Enterprise Project
Adding a resource tag	POST /v2/{project_id}/{resource_type}/{resource_id}/tags	smn:tag:create	√	√

Permission	API	Action	IAM Project	Enterprise Project
Updating a tag	-	smn:tag:update	√	√
Deleting a resource tag	DELETE /v2/{project_id}/{resource_type}/{resource_id}/tags/{key}	smn:tag:delete	√	√
Querying resource tags	GET /v2/{project_id}/{resource_type}/{resource_id}/tags	smn:tag:list	√	√

## 7.6 Message Publishing

Permission	API	Action	IAM Project	Enterprise Project
Publishing a message	POST /v2/{project_id}/notifications/topics/{topic_urn}/publish	smn:topic:publish	√	√

## 7.7 Sending an Application Message

Permission	API	Action	IAM Project	Enterprise Project
Sending an application message	POST /v2/{project_id}/notifications/endpoints/{endpoint_urn}/publish	smn:application:publish	√	√

# 8 Public Parameters

## 8.1 Application Message Format

Table 8-1 Application message format

Type	Example Value	Remarks
HMS transparent push message	<pre>"hps": {   "msg" : {     "type" : 1,     "body" :     {"key":"value"}   } }</pre>	<p>You can choose to specify the message in text or JSON format.</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"><li>• The JSON format is recommended, as shown in the example value.</li><li>• The message in text format is encoded using UTF-8.</li><li>• The message body cannot exceed 2 KB. For details, visit <a href="#">Huawei Mobile Services</a>.</li></ul>

Type	Example Value	Remarks
Huawei notification push message	<pre>"hps": {   "msg": {     "type": 3,     "body": {       "content": "Push message content",       "title": "Push message content"     },     "action": {       "type": 1,       "param": {         "intent": "#Intent;comp o=com.rvr/.Activity;S.W =U;end"       }     }   },   "ext": {     "biTag": "Trump",     "icon": "http:// upload.w.org/ 00/150pxsvg.png"   } }</pre>	
Apple platform message	<pre>{   "aps": {     "alert": "hello world"   } }</pre>	The message body cannot exceed 4 KB. For details, visit <a href="#">Apple Push Notification Service</a> .

## 8.2 Obtaining a Project ID

### Scenarios

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

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

## Obtain the Project ID by Calling an API

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

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

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

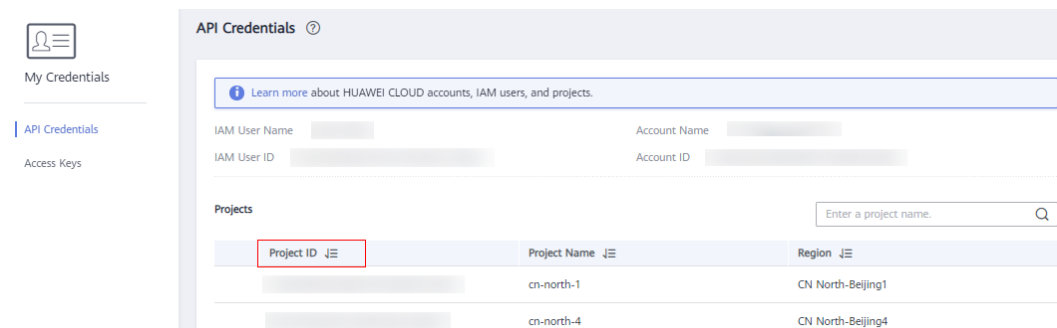
```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "project_name",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
      },
      "id": "a4a5d4098fb4474fa22cd05f897d6b99",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

## Obtain a Project ID from the Console

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

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

**Figure 8-1** Viewing the project ID



# A Appendix

## A.1 Topic Attribute List

Attribute Name	Function	Default Value
access_policy	Configures topic access policy, which is used to limit the access permission of other users.	Empty string
introduction	Configures the topic introduction, which is displayed in the email or SMS confirmation messages.	Empty string

## A.2 General Request Return Values

### A.2.1 Exception Response

- Parameter description

Parameter	Type	Description
request_id	String	Request ID
code	String	See <a href="#">Error Codes</a> .
message	String	See <a href="#">Error Codes</a> .

- Example

```
{
  "request_id": "aad0860d089c482b943971f802a6718e",
  "code": "SMN.0006",
  "message": "Topic not found."
}
```

## A.2.2 Status Codes

**Table A-1** Normal values

Returned Value	Description
200	Task submitted.
201	Resource created.

**Table A-2** Abnormal values

Returned Value	Description
400 Bad Request	Incorrect request parameters.
401 Unauthorized	Authentication failed.
403 Forbidden	No permission to access the requested resource.
404 Not Found	The requested resource does not exist.
500 Internal Server Error	Failed to complete the request because the service is abnormal.
501 Not Implemented	Failed to complete the request. The server does not support the requested function.
502 Bad Gateway	Failed to complete the request. The server receives an invalid response from the upstream server.
503 Service Unavailable	Failed to complete the request because the service is unavailable.
504 Gateway Timeout	Gateway times out.

## A.3 Error Codes

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

Table A-3 Error codes

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0038	Parameter: tag is invalid.	Invalid <b>tag</b> .	Specify a valid <b>tag</b> .
403	SMN.0075	Parameter: tags are too many.	The maximum allowed number of tags was exceeded.	Enter no more than 90 non-repeated variables in the message template.
400	SMN.0159	The number of endpoints has reached the maximum allowed.	Endpoints reached the quota.	Enter no more than 1000 phone numbers.
400	SMN.0160	Invalid endpoint.	Invalid endpoint.	Specify a valid endpoint.
404	SMN.0167	Phone number does not exist.	The phone number does not exist.	Specify a valid phone number.
404	SMN.0168	Email Address does not exist.	The email address does not exist.	Specify a valid email address.
400	SMN.0082	The length of the remark parameter value has reached the maximum allowed.	Invalid <b>remark</b> length.	Specify a valid <b>remark</b> that contains no more than 1500 bytes.
400	SMN.0152	The number allocated to the SMS template has reached the maximum allowed.	The maximum allowed number of SMS templates was reached.	Create no more than 100 SMS templates.
403	SMN.0153	Only enterprise users can create SMS message Template.	Only enterprise users can create SMS templates.	Complete enterprise authentication.

Status Code	Error Code	Error Message	Description	Handling Measure
403	SMN.0154	Only enterprise users who use the certificate images for authentication can create sms message templates.	Only enterprise users who use certificates for identity authentication can create SMS templates.	Contact customer service.
400	SMN.0155	Parameter: SmsTemplateType is invalid.	Invalid <b>SmsTemplateType</b> .	Specify a valid <b>SmsTemplateType</b> .
400	SMN.0156	Parameter: SmsTemplateName is invalid.	Invalid <b>SmsTemplateName</b> .	Specify a valid <b>SmsTemplateName</b> .
400	SMN.0157	Parameter: SmsTemplateContent is invalid.	Invalid <b>SmsTemplateContent</b> .	Specify a valid <b>SmsTemplateContent</b> .
400	SMN.0161	Invalid SMS template ID.	Invalid <b>sms_template_id</b> .	Specify a valid <b>sms_template_id</b> .
404	SMN.0162	SMS template not found.	The SMS template does not exist.	Specify a valid SMS template.
400	SMN.0204	Promotional SMS messages must contain the way to unsubscribe in the end, for example, by replying "TD", or "T".	Promotional SMS messages must include content at the end explaining how recipients can unsubscribe, for example, by replying "unsubscribe".	Promotional SMS messages must include content at the end explaining how recipients can unsubscribe, for example, by replying "unsubscribe".

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0215	The SMS message signature ID does not match the signature name in the SMS message template content.	The SMS message signature ID does not match the signature name in <b>sms_template_content</b> .	Specify a signature ID that matches the signature name in <b>sms_template_content</b> .
400	SMN.0216	The template content does not include any valid SMS message signature.	No valid SMS message signature in the template <b>Content</b> .	Specify a valid signature in the template <b>Content</b> .
400	SMN.0217	The template content does not include any SMS message signature.	No SMS message signature in <b>sms_template_content</b> .	<b>sms_template_content</b> must contain an approved and available signature, for example, [ <b>xx mall</b> ].
400	SMN.0224	The SMS message template is invalid because the associated signature has been deleted.	The SMS template has expired due to the deletion of the associated signature.	Specify a valid <b>sms_template_id</b> .
400	SMN.0227	The message contains sensitive words.	Sensitive words contained in the message content.	Modify the message content.

Status Code	Error Code	Error Message	Description	Handling Measure
403	SMN.0057	The number of SMS messages exceeds the limit.	The maximum allowed number of SMS messages was exceeded.	Send no more than 60 SMS messages to a phone number within 1 hour and no more than 200 within 12 hours. This limit is applicable only to direct SMS message sending. There is no limit on the number of messages you can publish to a topic.
404	SMN.0084	The SMS message signature could not be found.	SMS message signature not found.	Specify an approved SMS message signature.
403	SMN.0086	The number allocated to the SMS message signature has reached the maximum allowed.	The maximum allowed number of SMS message signatures was reached.	Create no more than 10 SMS message signatures.
400	SMN.0087	The SMS message signature has not been approved.	SMS message signature not approved.	Specify an approved SMS message signature.
400	SMN.0151	The message signature type cannot be promotional.	The signature cannot be a promotional SMS message signature.	Specify a transactional SMS message signature.
500	SMN.0158	Failed to upload the file.	Failed to upload the file.	Contact customer service.
400	SMN.0188	Invalid SMS template type.	Invalid SMS template type.	The template must be a promotional SMS template.

Status Code	Error Code	Error Message	Description	Handling Measure
403	SMN.0001	No permission to request resources.	No permissions for the requested resource.	Request the required permissions.
400	SMN.0015	Parameter: Offset or limit is invalid.	Invalid <b>offset</b> or <b>limit</b> .	Specify valid <b>offset</b> and <b>limit</b> .
500	SMN.0016	Database Exceptions.	Database exception.	Contact customer service.
400	SMN.0017	Parameter: Remark is invalid.	Invalid <b>Remark</b> .	Specify a valid <b>Remark</b> .
500	SMN.0018	Service internal error.	Internal service error.	Contact customer service.
403	SMN.0022	Parameter: token is invalid.	Invalid <b>token</b> .	Specify a valid <b>token</b> .
400	SMN.0033	Parameter: push_policy is invalid.	Invalid <b>push_policy</b> .	Specify a valid <b>push_policy</b> .
400	SMN.0034	Parameter: subscription_auth_policy is invalid.	Invalid <b>subscription_auth_policy</b> .	Specify a valid <b>subscription_auth_policy</b> .
400	SMN.0035	Parameter: validation_policy is invalid.	Invalid <b>validation_policy</b> .	Specify a valid <b>validation_policy</b> .
400	SMN.0036	Parameter: xdomain_type is invalid.	Invalid <b>xdomain_type</b> .	Specify a valid <b>xdomain_type</b> .
400	SMN.0059	Parameter: job_id is invalid.	Invalid <b>job_id</b> .	Contact customer service.
404	SMN.0060	Job not found.	Failed to query the job.	Contact customer service.
400	SMN.0061	Parameter: Service name is invalid.	Invalid <b>Service name</b> .	Contact customer service.

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0062	Parameter: Show name is invalid.	Invalid <b>Show name</b> .	Contact customer service.
404	SMN.0063	Cloud service not found.	Cloud service not found.	Contact customer service.
403	SMN.0065	The number of email messages exceeds the limit.	The maximum allowed number of email messages was exceeded.	Contact customer service.
400	SMN.0066	Parameter: System parameter name is invalid.	Invalid <b>System parameter name</b> .	Contact customer service.
400	SMN.0067	Parameter: System parameter value is invalid.	Invalid <b>System parameter value</b> .	Contact customer service.
404	SMN.0068	System parameter not found.	System parameter not found.	Contact customer service.
403	SMN.0069	Not authorized to subscribe internal endpoints.	Subscription endpoint not authorized.	Specify a correct HTTP/HTTPS endpoint.
403	SMN.0070	No permission to request resources. The role is op_restricted. Contact customer service.	Insufficient permissions to operate the current resource.	Check the account balance and top up your account if necessary. If the fault persists, contact customer service.
403	SMN.0071	No permission to request resources. The role is op_suspended.	Insufficient permissions to request the current resource. Your role is suspended.	Check whether your account has been frozen.

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0074	Failed to add permission.	Failed to add permissions.	Contact customer service.
400	SMN.0077	Parameter: Status is invalid.	Invalid <b>Status</b> .	Specify a valid <b>Status</b> .
400	SMN.0080	The signId parameter is invalid.	Invalid <b>signId</b> .	Specify a valid <b>signId</b> .
400	SMN.0081	The signName parameter is invalid.	Invalid <b>signName</b> .	Specify a valid <b>signName</b> . The name must contain 2 to 8 characters and only letters and digits are allowed.
403	SMN.0083	Finish real-name authentication before continuing.	The real-name authentication is not completed.	Contact customer service.
500	SMN.0089	An error occurred in the BSS system. Try again later.	BSS error. Try again later.	Contact customer service.
400	SMN.0090	Invalid domain ID.	Invalid <b>domain_id</b> .	Specify a valid <b>domain_id</b> . For details about how to obtain a project ID, see <a href="#">Obtaining a Project ID</a> .
400	SMN.0092	The kafka_id parameter is invalid.	Invalid <b>kafka_id</b> .	Contact customer service.
400	SMN.0093	The address_list parameter is invalid.	Invalid <b>address_list</b> .	Contact customer service.
400	SMN.0094	The type of queue parameter is invalid.	Invalid queue parameter type.	Contact customer service.

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0095	The count of queue parameter is invalid.	Invalid queue parameter statistics.	Contact customer service.
404	SMN.0096	Kafka not found.	Kafka not found.	Contact customer service.
400	SMN.0097	The names parameter is invalid.	Invalid <b>names</b> .	Contact customer service.
404	SMN.0098	This queue does not exist.	The queue does not exist.	Specify a valid DMS queue.
403	SMN.0099	The SMN service has not been authorized to send messages to this queue.	SMN is not authorized to send messages to this queue.	Grant permissions to SMN in the queue policy.
400	SMN.0100	The eventType parameter is invalid.	Invalid <b>eventType</b> .	Specify a valid <b>eventType</b> .
400	SMN.0103	The start_time parameter value is invalid.	Invalid <b>start_time</b> .	Specify a valid <b>start_time</b> .
400	SMN.0104	The end_time parameter value is invalid.	Invalid <b>end_time</b> .	Specify a valid <b>end_time</b> .
400	SMN.0108	Parameter: Type is invalid.	Invalid <b>Type</b> .	Specify a valid <b>Type</b> .
404	SMN.0109	Start date is not found.	<b>Start date</b> not found.	<b>Start date</b> must be specified.
400	SMN.0110	Parameter: Start date is invalid.	Invalid <b>Start date</b> .	Specify a valid <b>Start date</b> .
404	SMN.0111	End date is not found.	<b>End date</b> not found.	<b>End date</b> must be specified.
400	SMN.0112	Parameter: End date is invalid.	Invalid <b>End date</b> .	Specify a valid <b>End date</b> .

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0113	The start time and end time must be within the past 3 months.	The start time and end time must be within the past three months.	Specify the start time and end time within the past three months.
400	SMN.0114	The end time must be later than the start time.	The end time must be later than the start time.	Specify an end time that is later than the start time.
403	SMN.0147	Only enterprise users who use the certificate images for authentication can create message signatures.	Only enterprise users who use certificates for identity authentication can create message signatures.	Contact customer service.
400	SMN.0150	Complete real-name registration using your company's certificate.	Complete real-name registration using your company's certificate.	Contact customer service.
403	SMN.0165	Parameter: tenant_token is invalid.	Invalid <b>tenant_token</b> .	Specify a valid <b>tenant_token</b> .
400	SMN.0189	Failed to obtain the certificate required for reviewing the SMS message template function.	Failed to obtain the certificate required for viewing the SMS message template.	Contact customer service.
400	SMN.0191	Parameter: Invalid enterprise name.	Invalid enterprise name.	Contact customer service.

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0192	Parameter: Invalid enterprise certificate ID.	Invalid enterprise certificate ID.	Contact customer service.
403	SMN.0195	Complete enterprise real-name authentication first.	The real-name authentication is not completed.	Complete real-name authentication.
403	SMN.0228	Do not have permission to use this API. Contact customer service to apply for permission.	Insufficient permissions to use this API. Contact customer service.	Contact customer service to apply for permissions required to use this API.
400	SMN.0261	Check whether your account balance is sufficient and top up your account if necessary.	Your account balance may be insufficient.	Check your account balance and top up the account if necessary.
400	SMN.0115	Parameter: Application name is invalid.	Invalid <b>Application name</b> .	Specify a valid <b>Application name</b> .
403	SMN.0116	Platform not supported.	Unsupported platform.	Specify a supported platform.
403	SMN.0117	Certificate type is not supported.	Unsupported certificate type.	Specify a supported certificate type.
400	SMN.0118	Wrong Certificate.	Certificate error.	Specify a valid certificate.
403	SMN.0119	PlatformPrincipal must be at most 8192 bytes long in UTF-8 encoding.	UTF-8 encoded <b>PlatformPrincipal</b> exceeded 8192 bytes.	Specify a valid, UTF-8 encoded value for <b>PlatformPrincipal</b> that does not exceed 8192 bytes.

Status Code	Error Code	Error Message	Description	Handling Measure
403	SMN.0120	PlatformCredential must be at most 8192 bytes long in UTF-8 encoding.	UTF-8 encoded <b>PlatformCredential</b> must not exceed 8192 bytes.	Specify a valid, UTF-8 encoded value for <b>PlatformCredential</b> that does not exceed 8192 bytes.
201	SMN.0121	An application with the same name but different properties already exists.	An application with the same name but different attributes already exists.	Specify a different application name.
404	SMN.0122	Application not found.	Application not found.	Specify a valid application name.
400	SMN.0123	Parameter: ApplicationUrn is invalid.	Invalid <b>ApplicationUrn</b> .	Specify a valid <b>ApplicationUrn</b> .
400	SMN.0124	Parameter: application attribute is invalid.	Invalid <b>application attribute</b> .	Specify a valid <b>application attribute</b> .
404	SMN.0125	Endpoint does not exist.	The endpoint does not exist.	Specify a valid application endpoint.
400	SMN.0126	ContentType is wrong.	Incorrect content type.	Contact customer service.
403	SMN.0127	File is too large.	Excessive file size.	Contact customer service.
403	SMN.0128	Password is empty.	Password not specified.	Contact customer service.
400	SMN.0129	Certificate type is wrong.	Incorrect certificate type.	Contact customer service.

Status Code	Error Code	Error Message	Description	Handling Measure
404	SMN.0130	The application does not exist.	The application platform does not exist.	Specify a valid <b>application_urn</b> .
403	SMN.0131	The value of the Token parameter is invalid.	Invalid <b>Token</b> .	Specify a valid <b>Token</b> .
400	SMN.0132	The value of the User_data parameter is invalid.	Invalid <b>User_data</b> .	Specify a valid <b>User_data</b> .
400	SMN.0133	The device token already exists.	A device token already exists.	You cannot create the same device token twice.
400	SMN.0134	The endpoint URN is invalid.	Invalid <b>endpoint URN</b> .	Specify a valid <b>endpoint URN</b> .
400	SMN.0135	The endpoint does not exist.	The endpoint does not exist.	Specify a valid endpoint.
400	SMN.0136	The value of the enabled parameter is invalid.	Invalid <b>enabled</b> .	Specify a valid <b>enabled</b> .
400	SMN.0137	The application URN is invalid.	Invalid <b>application URN</b> .	Specify a valid <b>application URN</b> .
201	SMN.0190	This endpoint already exists.	An endpoint already exists.	Specify another endpoint.
400	SMN.0230	Parameter: Invalid title.	Invalid <b>title</b> .	Specify a valid <b>title</b> .
400	SMN.0011	Parameter: Protocol is invalid.	Invalid <b>Protocol</b> .	Specify a valid <b>Protocol</b> .

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0012	Parameter: Endpoint is invalid.	Invalid <b>Endpoint</b> .	Specify a valid <b>Endpoint</b> .
404	SMN.0013	Subscription resource not found.	No topics found.	Specify a valid topic.
400	SMN.0014	Parameter: SubscriptionUrn is invalid.	Invalid <b>SubscriptionUrn</b> .	Specify a valid <b>SubscriptionUrn</b> .
400	SMN.0043	Parameter: subscription is invalid.	Invalid <b>subscription</b> .	Specify a valid <b>subscription</b> .
403	SMN.0078	The maximum number of subscriptions has been reached.	The maximum allowed number of subscriptions was reached.	Create a topic.
403	SMN.0008	Parameter: Subject is invalid.	Invalid <b>Subject</b> .	Specify a valid <b>Subject</b> .
403	SMN.0009	Parameter: Message is invalid.	Invalid <b>Message</b> .	Specify a valid <b>Message</b> .
400	SMN.0019	Producer Exceptions.	Generator exception.	Contact customer service.
400	SMN.0021	MessageStructure is invalid.	Invalid <b>MessageStructure</b> .	Specify a valid <b>MessageStructure</b> .
400	SMN.0140	The topic URN configured for the message sending failure event is invalid.	Invalid <b>topic URN</b> configured for the message sending failure event.	Specify a valid <b>topic URN</b> .

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0141	The topic configured for the message sending failure event does not exist.	<b>topic URN</b> configured for the message sending failure event does not exist.	Specify a valid <b>topic URN</b> .
400	SMN.0142	The topic URN configured for the message sending success event is invalid.	Invalid <b>topic URN</b> configured for the message sending success event.	Specify a valid <b>topic URN</b> .
400	SMN.0143	The topic configured for the message sending success event does not exist.	<b>topic URN</b> configured for the message sending success event does not exist.	Specify a valid <b>topic URN</b> .
400	SMN.0144	The topic URN configured for the response message event is invalid.	Invalid <b>topic URN</b> configured for the response message event.	Specify a valid <b>topic URN</b> .
400	SMN.0145	The topic configured for the response message event does not exist.	<b>topic URN</b> configured for the response message event does not exist.	Specify a valid <b>topic URN</b> .
400	SMN.0148	Parameter: user_id is invalid.	Invalid <b>user_id</b> .	Specify a valid <b>user_id</b>
400	SMN.0024	Parameter: content is invalid.	Invalid <b>content</b> .	Specify a valid <b>content</b>

Status Code	Error Code	Error Message	Description	Handling Measure
200	SMN.0025	Template already exists.	A template already exists.	You cannot create the same template twice.
404	SMN.0027	Template not found.	Template not found.	Use an existing template.
400	SMN.0031	Parameter: template_id is invalid.	Invalid <b>template_id</b> .	Specify a valid <b>template_id</b> .
400	SMN.0032	Parameter: message_template_name is invalid.	Invalid <b>message_template_name</b> .	Specify a valid <b>message_template_name</b> .
400	SMN.0042	Parameter: Message_template_name is invalid.	Invalid <b>Message_template_name</b> .	Specify a valid <b>Message_template_name</b> .
400	SMN.0044	Exceeded template limit.	The maximum allowed number of templates was exceeded.	Create no more than 100 message templates.
404	SMN.0076	Default message template not found.	The message template using the <b>Default</b> protocol does not exist.	Create a message template using the <b>Default</b> protocol.
404	SMN.0091	Default system message template not found.	The message template using the <b>Default</b> protocol does not exist.	Create a system template using the <b>Default</b> protocol.

Status Code	Error Code	Error Message	Description	Handling Measure
404	SMN.0101	The graph does not exist in the functiongraph service.	The function does not exist in FunctionGraph.	Specify a valid FunctionGraph endpoint.
400	SMN.0102	Parameter: message_id is invalid.	Invalid <b>message_id</b> .	Specify a valid <b>message_id</b> .
400	SMN.0002	Parameter: Name is invalid.	Invalid <b>Name</b> .	Specify a valid <b>Name</b> .
400	SMN.0003	Parameter: DisplayName is invalid.	Invalid <b>Display Name</b> .	Specify a valid <b>DisplayName</b> .
403	SMN.0004	Exceeded topic limit.	Topics exceeded the maximum number allowed.	Create no more than 3000 topics.
400	SMN.0005	Parameter: TopicUrn is invalid.	Invalid <b>topicUrn</b> .	Specify a valid <b>topicUrn</b> .
404	SMN.0006	Topic not found.	Topic not found.	The topic does not exist. Create a topic.
403	SMN.0007	Exceeded subscription limit.	Subscriptions exceeded the maximum number allowed.	Add no more than 10,000 subscriptions to a topic.
404	SMN.0045	Attribute not found.	Attribute not found.	Specify a valid attribute.
400	SMN.0046	Parameter: Attribute name is invalid.	Invalid <b>Attribute name</b> .	Specify a valid <b>Attribute name</b> .
403	SMN.0047	Parameter: Value exceeds the maximum length.	Value exceeds the maximum length.	Specify a valid <b>Value</b> .

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0048	Parameter: Access policy is invalid.	Invalid <b>Access policy</b> .	Specify a valid <b>Access policy</b> .
400	SMN.0049	Parameter: Access policy version is invalid.	Invalid <b>Access policy version</b> .	Specify a valid <b>Access policy version</b> .
400	SMN.0050	Parameter: Access policy ID is invalid.	Invalid <b>Access policy ID</b> .	Specify a valid <b>Access policy ID</b> .
400	SMN.0051	Parameter: Access policy statement is invalid.	Invalid <b>Access policy statement</b> .	Specify a valid <b>Access policy statement</b> .
400	SMN.0052	Parameter: Access policy statement ID is invalid.	Invalid <b>Access policy statement ID</b> .	Specify a valid <b>Access policy statement ID</b> .
400	SMN.0053	Parameter: Access policy statement resource is invalid.	Invalid <b>Access policy statement resource</b> .	Specify a valid <b>Access policy statement resource</b> .
400	SMN.0054	Parameter: Access policy statement effect is invalid.	Invalid <b>Access policy statement effect</b> .	Specify a valid <b>Access policy statement effect</b> .
400	SMN.0055	Parameter: Access policy statement action is invalid.	Invalid <b>Access policy statement action</b> .	Specify a valid <b>Access policy statement action</b> .
400	SMN.0056	Parameter: Access policy statement principal is invalid.	Invalid <b>Access policy statement principal</b> .	Specify a valid <b>Access policy statement principal</b> .

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMN.0058	Parameter: Access policy statement condition is invalid.	Invalid <b>Access policy statement condition</b> .	Specify a valid <b>Access policy statement condition</b> .
400	SMN.0072	Parameter: Service is invalid.	Invalid <b>Service</b> .	Specify a valid <b>Service</b> .
400	SMN.0073	Parameter: Invalid action.	Invalid <b>action</b> .	Specify a valid <b>action</b> .
400	SMN.00290	SubscriberUrn is unavailable.	Subscriber Urn is unavailable.	Check whether SubscriberUrn is correct.
400	SMN.00308	Policy doesn't allow {} to be performed.	The policy cannot be executed.	Check the SMN permissions.

## A.4 SMS Message Delivery Status (CMPP)

Status	Description
DELIVRD	The message is successfully delivered.
EXPIRED	Message delivery times out.
DELETED	The message has been deleted.
UNDELIV	The message delivery has failed.
ACCEPTD	The message is accepted by the receiver.
UNKNOWN	The message status is unknown.
REJECTD	The message is rejected.

## A.5 Country/Region Code

Country/Region	Country/Region Code
Afghanistan	93
Albania	355

Country/Region	Country/Region Code
Algeria	213
American Samoa	1684
Andorra	376
Angola	244
Anguilla	1264
Antigua and Barbuda	1268
Argentina	54
Armenia	374
Aruba	297
Australia	61
Austria	43
Azerbaijan	994
Bahamas	1242
Bahrain	973
Bangladesh	880
Barbados	1246
Belarus	375
Belgium	32
Belize	501
Benin	229
Bermuda	1441
Bhutan	975
Bolivia	591
Bosnia and Herzegovina	387
Botswana	267
Brazil	55
British Indian Ocean Territory	246
Brunei	673
Bulgaria	359

<b>Country/Region</b>	<b>Country/Region Code</b>
Burkina Faso	226
Burundi	257
Cambodia	855
Cameroon	237
Canada	1
Cape Verde	238
Cayman Islands	1345
Central African Republic	236
Chad	235
Chile	56
Colombia	57
Comoros	269
Republic Of The Congo	242
Democratic Republic of the Congo	243
Cook Islands	682
Costa Rica	506
Croatia	385
Curacao	599
Cyprus	357
Czechia	420
Denmark	45
Djibouti	253
Dominica	1767
Dominican Republic	1809
Ecuador	593
Egypt	20
El Salvador	503
Equatorial Guinea	240
Eritrea	291

Country/Region	Country/Region Code
Estonia	372
Ethiopia	251
Falkland Islands	500
Faroe Islands	298
Fiji	679
Finland	358
France	33
French Guiana	594
French Polynesia	689
Gabon	241
Gambia	220
Georgia	995
Germany	49
Ghana	233
Gibraltar	350
Greece	30
Greenland	299
Grenada	1473
Guadeloupe	590
Guatemala	502
Guernsey	44
Guinea	224
Guinea-Bissau	245
Guyana	592
Haiti	509
Honduras	504
Hong Kong (China)	852
Hungary	36
Iceland	354
India	91

Country/Region	Country/Region Code
Indonesia	62
Iraq	964
Ireland	353
Isle of Man	44
Israel	972
Italy	39
Ivory Coast	225
Jamaica	1876
Japan	81
Jersey	44
Jordan	962
Kazakhstan	7
Kenya	254
Kuwait	965
Kyrgyzstan	996
Laos	856
Latvia	371
Lebanon	961
Lesotho	266
Liberia	231
Libya	218
Liechtenstein	423
Lithuania	370
Luxembourg	352
Macau (China)	853
Macedonia	389
Madagascar	261
Malawi	265
Malaysia	60
Maldives	960

Country/Region	Country/Region Code
Mali	223
Malta	356
Marshall Islands	692
Martinique	596
Mauritania	222
Mauritius	230
Mexico	52
Moldova	373
Monaco	377
Mongolia	976
Montenegro	382
Montserrat	1664
Morocco	212
Mozambique	258
Myanmar	95
Namibia	264
Nauru	674
Nepal	977
Netherlands	31
New Caledonia	687
New Zealand	64
Nicaragua	505
Niger	227
Nigeria	234
Niue	683
Norfolk Island	672
Norway	47
Oman	968
Pakistan	92
Palau	680

<b>Country/Region</b>	<b>Country/Region Code</b>
Palestinian Territory	970
Panama	507
Papua New Guinea	675
Paraguay	595
Peru	51
Philippines	63
Poland	48
Portugal	351
Qatar	974
Réunion Island	262
Romania	40
Russia	7
Rwanda	250
Saint Kitts and Nevis	1869
Saint Lucia	1758
Saint Pierre and Miquelon	508
Saint Vincent and The Grenadines	1784
Samoa	685
San Marino	378
Sao Tome and Principe	239
Saudi Arabia	966
Senegal	221
Serbia	381
Seychelles	248
Sierra Leone	232
Singapore	65
Sint Maarten (Dutch Part)	1721
Slovakia	421
Slovenia	386

<b>Country/Region</b>	<b>Country/Region Code</b>
Solomon Islands	677
Somalia	252
South Africa	27
South Korea	82
Spain	34
Sri Lanka	94
Suriname	597
Swaziland	268
Sweden	46
Switzerland	41
Taiwan (China)	886
Tajikistan	992
Tanzania	255
Thailand	66
Timor L'este	670
Togo	228
Tonga	676
Trinidad and Tobago	1868
Tunisia	216
Turkey	90
Turkmenistan	993
Turks and Caicos Islands	1649
Tuvalu	688
Uganda	256
Ukraine	380
United Arab Emirates	971
United Kingdom	44
United States	1
Uruguay	598
Uzbekistan	998

<b>Country/Region</b>	<b>Country/Region Code</b>
Vanuatu	678
Venezuela	58
Vietnam	84
Virgin Islands, British	1284
Wallis and Futuna	681
Yemen	967
Zambia	260
Zimbabwe	263

# B Change History

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Date	Description
2020-09-30	This issue is the fourteenth official release, which incorporates the following changes: Optimized the entire document.
2019-07-05	This issue is the fourteenth official release, which incorporates the following changes: Added "API Usage Guidelines" and "REST APIs".
2018-11-30	This issue is the thirteenth official release, which incorporates the following changes:
2018-09-30	This issue is the twelfth official release, which incorporates the following changes: Added <a href="#">Version Querying</a> .

Date	Description
2018-04-30	<p>This issue is the eleventh official release, which incorporates the following changes:</p> <ul style="list-style-type: none"><li>• Added the "Error Code" section.</li><li>• Added content for using TMS tags.</li><li>• Added an API to send promotional SMS messages of different content in batches.</li><li>• Added the tags structure, match condition structure, resource structure, resource tag structure, and promotional SMS messaging result structure.</li><li>• Added description for error code 401.</li><li>• Added error code description.</li><li>• Updated description of error code SMN.0113.</li><li>• Updated description for APIs to send promotional SMS messages in batches, delete an SMS message signature, created an SMS message template, query SMS message templates, and query SMS message template details.</li><li>• Updated section "Country/Region Codes Supported by SMS Messaging"</li></ul>
2018-03-30	<p>This issue is the tenth official release, which incorporates the following changes:</p> <ul style="list-style-type: none"><li>• Added the API to send transactional SMS messages in batches.</li><li>• Added the API to send different transactional SMS messages to different phone numbers.</li><li>• Added the SMS message delivery result structure.</li><li>• Added the SMS message structure.</li><li>• Added error code SMNE005.</li><li>• Updated description for the API to send a transactional SMS message.</li><li>• Deleted the promotional SMS message delivery result structure.</li></ul>

Date	Description
2018-01-30	<p>This issue is the ninth official release, which incorporates the following changes:</p> <ul style="list-style-type: none"><li>• Added the API to create SMS message templates.</li><li>• Added the API to list SMS message templates.</li><li>• Added the API to query SMS message template details.</li><li>• Added the API to delete an SMS message template.</li><li>• Added the API to send promotional SMS messages in batches.</li><li>• Updated error code description.</li><li>• Added SMS message template structure description.</li><li>• Added the promotional SMS message delivery result structure.</li><li>• Added SMS message event description.</li></ul>
2017-11-30	<p>This issue is the eighth official release, which incorporates the following changes:</p> <p>Added the FunctionGraph subscription protocol.</p>
2017-10-30	<p>This issue is the seventh official release, which incorporates the following changes:</p> <ul style="list-style-type: none"><li>• Added the DMS subscription protocol.</li><li>• Added the API to query SMS message delivery status.</li><li>• Added the API to query delivered SMS message content.</li><li>• Added the API to query SMS message events.</li><li>• Added the API to update SMS message events.</li></ul>
2017-08-18	<p>This issue is the sixth official release, which incorporates the following changes:</p> <p>Added the FunctionStage subscription protocol.</p>
2017-06-30	<p>This issue is the fifth official release, which incorporates the following changes:</p> <ul style="list-style-type: none"><li>• Added SMS message signature APIs.</li><li>• Added error code description for SMS message signatures.</li></ul>
2017-03-13	<p>This issue is the fourth official release, which incorporates the following changes:</p> <p>Added the topic introduction attribute.</p>

Date	Description
2016-10-29	This issue is the third official release, which incorporates the following changes: <ul style="list-style-type: none"><li>• Added API names.</li><li>• Modified the operation for generating the AK/SK.</li><li>• Added the API for directly pushing an SMS message.</li></ul>
2016-09-30	This issue is the second official release, which incorporates the following changes: <ul style="list-style-type: none"><li>• Added the API for querying topic attributes.</li><li>• Added the API for modifying topic attributes.</li><li>• Added the API for deleting a specified topic attribute.</li><li>• Added the API for deleting all topic attributes.</li></ul>
2016-08-25	This issue is the first official release.