

API Gateway

Getting Started

Product Documentation



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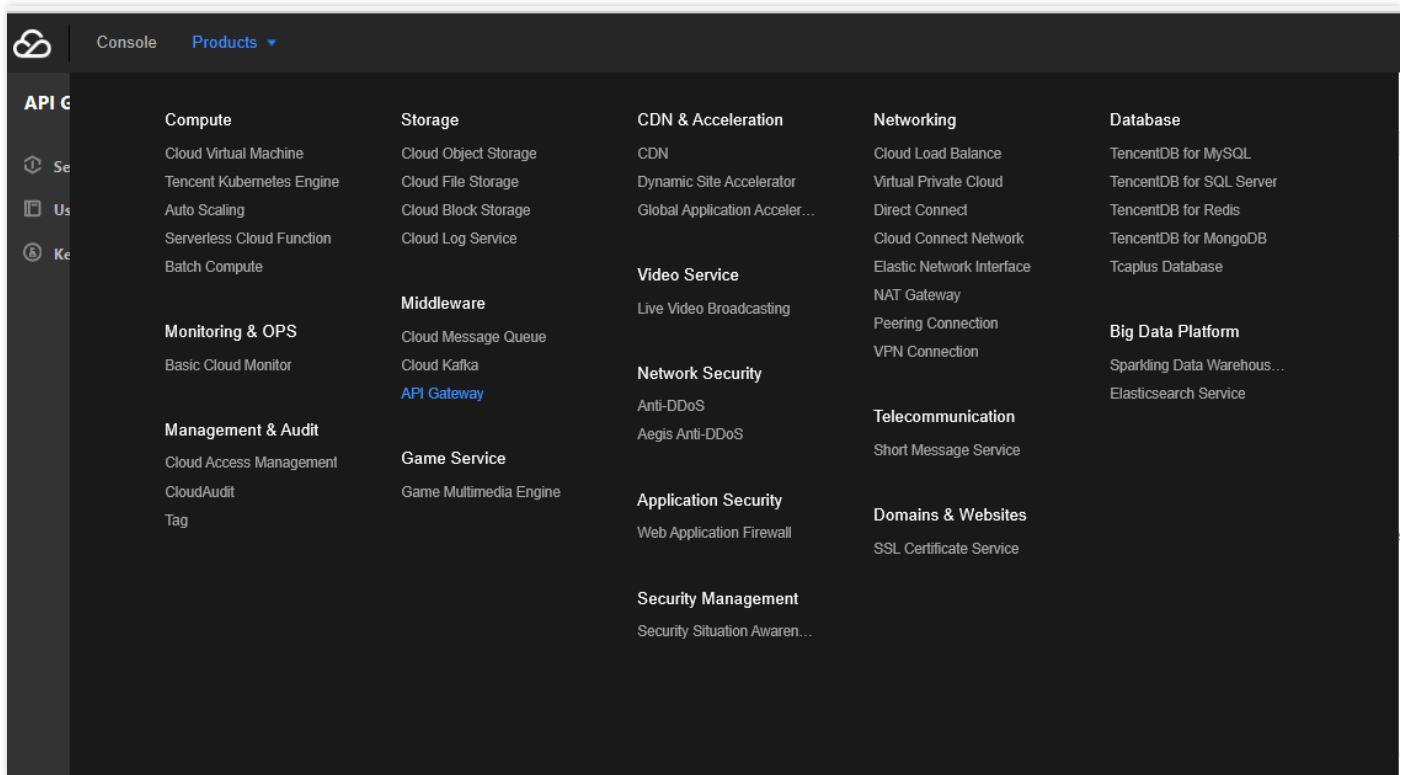
Delete Service

Getting Started

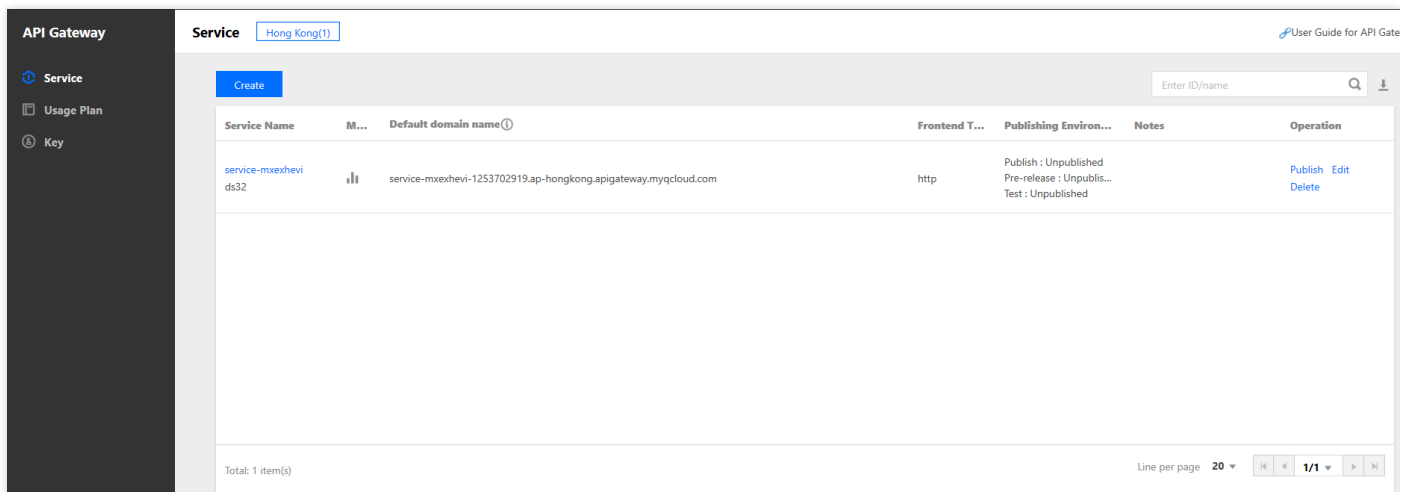
Create Service

Last updated : 2019-11-29 17:56:44

1. Log in to [Tencent Cloud Console](#), and select **API Gateway**.



2. On the Service tab, select the current region, and click **New**.



Note: If the number of services in the current region has reached the upper limit, no more services can be created.

3. Enter the service name and remarks, and select the frontend type (HTTP, HTTPS, HTTP and HTTPS).

Create Service ✕

Service Name

Up to 50 characters (including a-z, A-Z, 0-9, and _)

Region

Hong Kong

Frontend Type

http

▼

Notes

Enter remarks

Submit

Disable

Note: A service name only contains a maximum of 50 characters comprised of a-z, A-Z, 0-9, and _.

4. Click **Submit** to complete the service creation. And you can go to the API Management page to create an API.

Created successfully

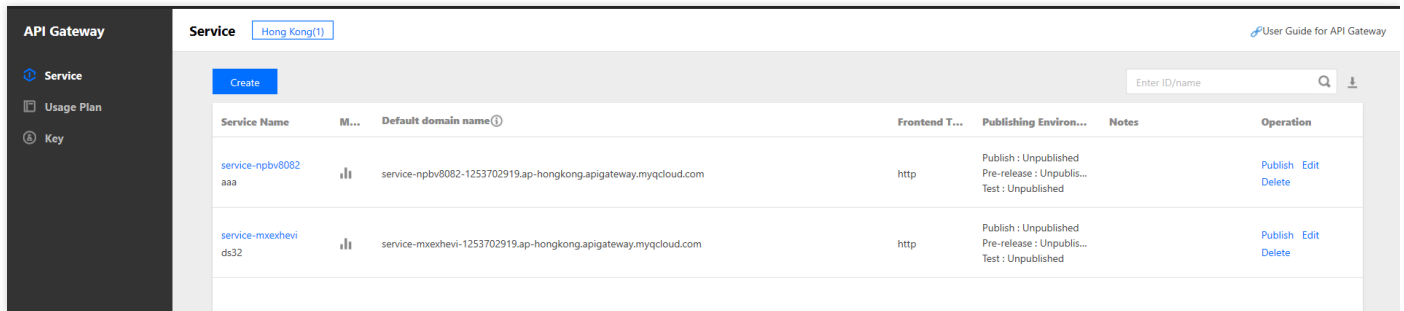
You can manage APIs on the service details page to complete the service configuration.

[API Configuration](#)[Cancel](#)

Edit Service

Last updated : 2019-07-09 18:54:53

1. Select the service to be edited in the service list on the service page, and click **Edit**.



2. Enter the editing contents and click **Finish**.

Edit services

Service Name

aaa

Up to 50 characters (including a-z, A-Z, 0-9, and _)

Region

Hong Kong

Frontend Type

http

Notes

Enter remarks

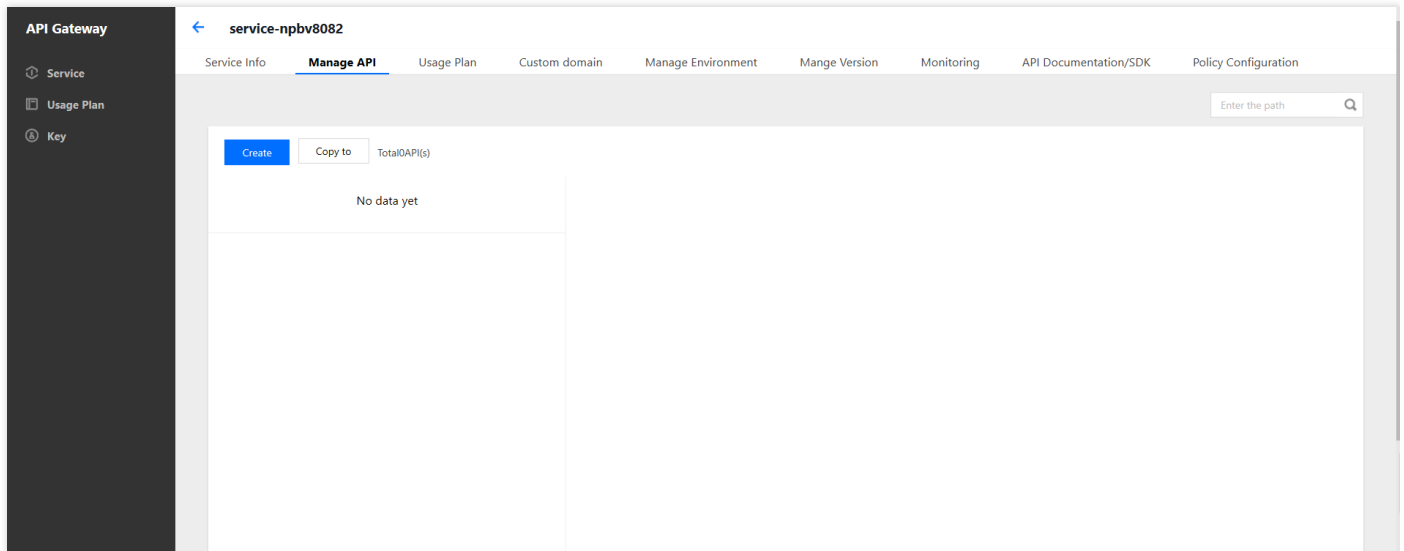
Submit

Disable

Create API

Last updated : 2019-07-09 18:55:30

1. On the API Management tab of the Service page, click **New**.



2. Perform [frontend configurations](#) and [backend configurations](#).

Configure Frontend

Last updated : 2019-07-09 18:56:22

In API Frontend Configuration, you can configure the API frontend information, such as the API request method and API parameters.

Configuration instructions:

(1) Configure the path to be opened, such as `/path`. If parameters need to be carried in the path, use the "{parameter name}" method, such as `/path/{key}`.

(2) Select your request method: GET, POST, PUT, DELETE or HEAD.

(3) If "No Authentication" is selected, the API gateway will pass the authentication and the bound usage plan will also take effect when receiving an anonymous request.

(4) Enter remarks (optional).

(5) Enter the input configuration of your API according to the prompt.

1 Frontend Configuration

2 Backend Configuration

3 Response Result

Service

aaa

API Name

Up to 60 characters

Frontend Type

HTTP

Path

It starts with "/", "=", or "^/", and supports uppercase and lowercase letters, numbers, \$, -, ., ~, +, ! and *, /, % and other symbols matching the URL rule. It supports entering variable name in {}

Request method

GET

Authentication Type

Key pair

CORS is supported

☐

Notes

Enter remarks

Parameter configurations

Parameter Name	Parameter Location ⓘ	Type	Default ⓘ	Required	Notes
Add parameter configuration					

Next

After the API frontend information is configured, click **Next** to carry out the API [backend configuration](#).

Configure Backend

Last updated : 2019-07-09 18:58:17

Integrating HTTP

If your business is deployed in another Cloud or in your local server and is open with HTTP, select the HTTP integration for the backend.

Configuration instructions:

1. To integrate HTTP, you must select HTTP or HTTPS for Backend Type.
2. Enter the backend address, which starts with `http://` or `https://` and does not include the path behind, such as `http://api.myservice.com` or `http://108.160.162.30`.
3. Enter the backend path starting with `/`, such as `/path` or `/path/{petid}`.
4. Select the request method. The request methods for the frontend and the backend can be different.
5. Set the backend timeout.
6. Set the backend parameters that map the frontend.
7. Click **Finish**.

The screenshot shows the 'Create API' interface in the Tencent Cloud API Gateway console. The left sidebar contains 'API Gateway', 'Service', 'Usage Plan', and 'Key'. The main area is titled 'Create API' and shows a progress bar with three steps: 'Frontend Configuration', 'Backend Configuration', and 'Response Result' (the current step). The 'Response Result' section includes a 'Return type' dropdown set to 'HTML', two text input fields for 'Example of success response' and 'Example of failure response', and an 'Error message configuration' table. The table has columns for 'Error Codes', 'Error Info', and 'Notes'. Below the table is a link 'Add error code configuration'. At the bottom, there are 'Previous' and 'Completed' buttons, with the 'Completed' button highlighted by a red rectangle.

Error Codes	Error Info	Notes
Add error code configuration		

API Gateway backend integrates CLB resources in a VPC

When you want to integrate the backend with CLB in a VPC, the frontend configuration is the same as other API configuration methods, and the backend configuration method is as follows:

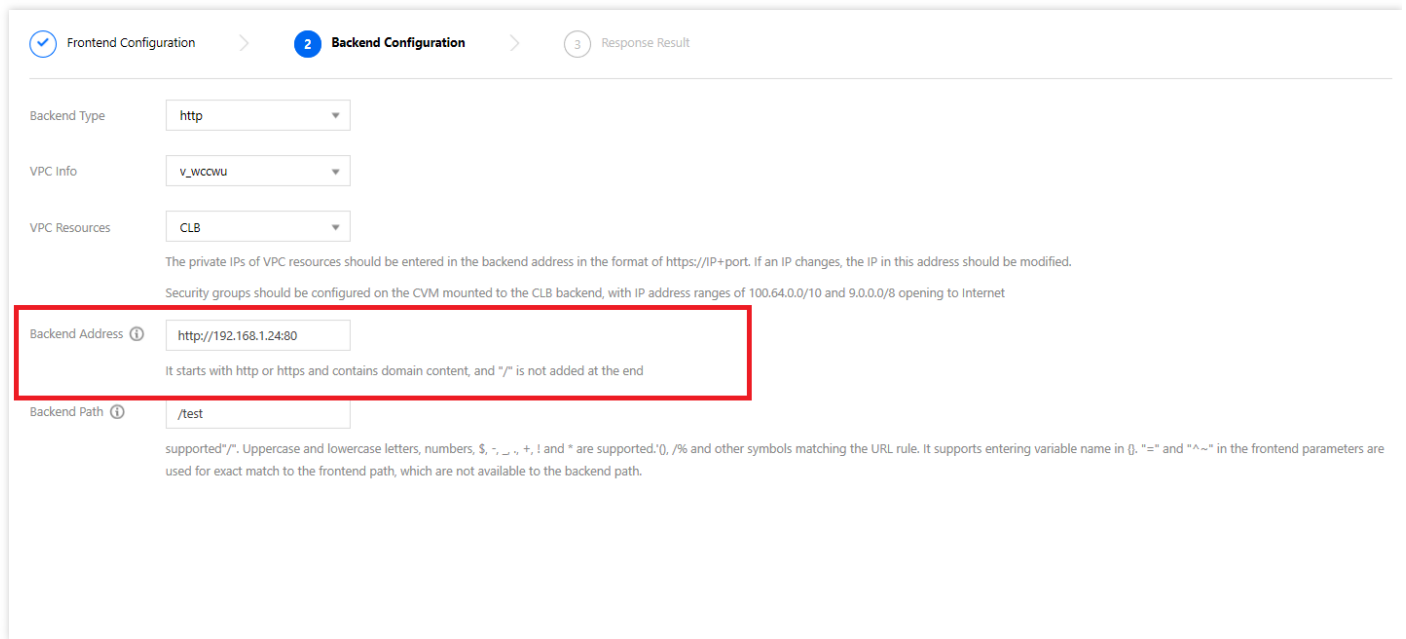
1. In the backend configuration, select the VPC to be integrated.

The screenshot shows the 'Create API' wizard in the API Gateway console. The 'Backend Configuration' step is active. The 'Backend Type' is set to 'http'. The 'VPC Info' dropdown is open, showing a list of VPCs: 'Disable VPC', 'vpc-172', 'Default-VPC', 'trsvpc172', and 'hongkong'. The 'Backend Address' field is empty, and the 'Backend Path' is set to '/path/test20'. The 'Request method' is 'GET' and the 'Backend timeout' is '15' seconds. The 'VPC Resources' dropdown is also open, showing the same list of VPCs.

2. Select CLB in the VPC. API Gateway only supports integrating CLB in a VPC. Other cloud resources in the VPC will be supported soon.

The screenshot shows the 'Create API' wizard in the API Gateway console. The 'Backend Configuration' step is active. The 'Backend Type' is set to 'http'. The 'VPC Info' dropdown is set to 'vpc-172'. The 'VPC Resources' dropdown is set to 'CLB'. The 'Backend Address' field is empty, and the 'Backend Path' is set to '/path/test20'. The 'Request method' is 'GET' and the 'Backend timeout' is '15' seconds. The 'VPC Resources' dropdown is highlighted with a red box.

3. Enter `http://vip+port` or `https://vip+port` at the backend address. The requests we send to CLB will be HTTP requests or HTTPS requests depending on the content you entered. The VIP is that of CLB, which can be found in the basic information of application-based private network CLB.



The screenshot shows the 'Backend Configuration' step in the Tencent Cloud API Gateway console. The 'Backend Address' field is highlighted with a red box and contains the value `http://192.168.1.24:80`. The 'Backend Path' field contains the value `/test`. The console also displays the 'Backend Type' as 'http', 'VPC Info' as 'v_wccwu', and 'VPC Resources' as 'CLB'. A note indicates that the private IPs of VPC resources should be entered in the backend address in the format of `https://IP+port`. Another note states that security groups should be configured on the CVM mounted to the CLB backend, with IP address ranges of 100.64.0.0/10 and 9.0.0.0/8 opening to Internet.

4. Select a listening type.

If you select the CLB listening type of HTTP/HTTPS, you must configure the backend path as the path configured in the CLB listener.

The following figure shows the domain name and path configured in the CLB listener:

The screenshot shows the 'Backend Configuration' tab in the Tencent Cloud console. The 'Backend Path' field is highlighted with a red box and contains the value '/test'. The 'Backend Address' field contains 'http://192.168.1.24:80'. The 'Backend Type' is set to 'http', 'VPC Info' is 'v_wccwu', and 'VPC Resources' is 'CLB'. The 'Backend Path' field has a tooltip that reads: 'It starts with http or https and contains domain content, and "/" is not added at the end. supported /: Uppercase and lowercase letters, numbers, \$, -, ., ~, +, ! and * are supported. /, % and other symbols matching the URL rule. It supports entering variable name in {}. "=" and "^~" in the frontend parameters are used for exact match to the frontend path, which are not available to the backend path.'

The following shows the backend path in API Gateway, which must be consistent with that in CLB.

The screenshot shows the 'Backend Path' field in the API Gateway console. The field is highlighted with a red box and contains the value '/test'. The 'Request method' is set to 'GET' and the 'Backend timeout' is set to '15' seconds. The 'Backend Path' field has a tooltip that reads: 'supported "/. Uppercase and lowercase letters, numbers, \$, -, ., ~, +, ! and * are supported. /, % and other symbols matching the URL rule. It supports entering variable name in {}. "=" and "^~" in the frontend used for exact match to the frontend path, which are not available to the backend path.'

You also need to configure the parameter host as the constant parameter and place it in the header. The parameter value is the domain name configured in the CLB listener.

Backend Path ⓘ

/test

supported"/". Uppercase and lowercase letters, numbers, \$, -, _, ~, +, ! and * are supported.(), /% and other symbols matching the URL rule. It supports entering variable name in {}. "=" and "^~" in the frontend used for exact match to the frontend path, which are not available to the backend path.

Request method

GET

Backend timeout ⓘ

15

s

Time range: 1-1800 seconds

Constant parameter

Backend Parameter Name	Parameter Location ⓘ	Parameter Value	Notes
host	Header	www.joantest.com	domain in CLB

Add constant parameter

Previous

Next

If you select the CLB listening type of TCP/UDP, you must configure the backend path as the path required by the business in the CVM mounted on the CLB.

If you configure the host verification in the CVM, you need to configure the parameter host as the constant parameter, and select the address to place parameter according to your own business, just like using a layer-7 listener.

The subsequent configurations are the same as other API configurations.

Note:

When the backend integrates CLB, security groups on the CVM mounted to the backend should be open to the IP address ranges of 100.64.0.0/10 and 9.0.0.0/8.

Integrating Mock

Mock will return a response with fixed configurations for an API request. Mock is generally used for development test. It can complete the API configuration in advance and return responses when the backend service is not completely developed. When integrating MOCK, you only need to configure the

returned data, and click **Finish**.

✓ Frontend Configuration

>

2 Backend Configuration

Backend Type

mock

Returned data

Enter the returned data

Previous

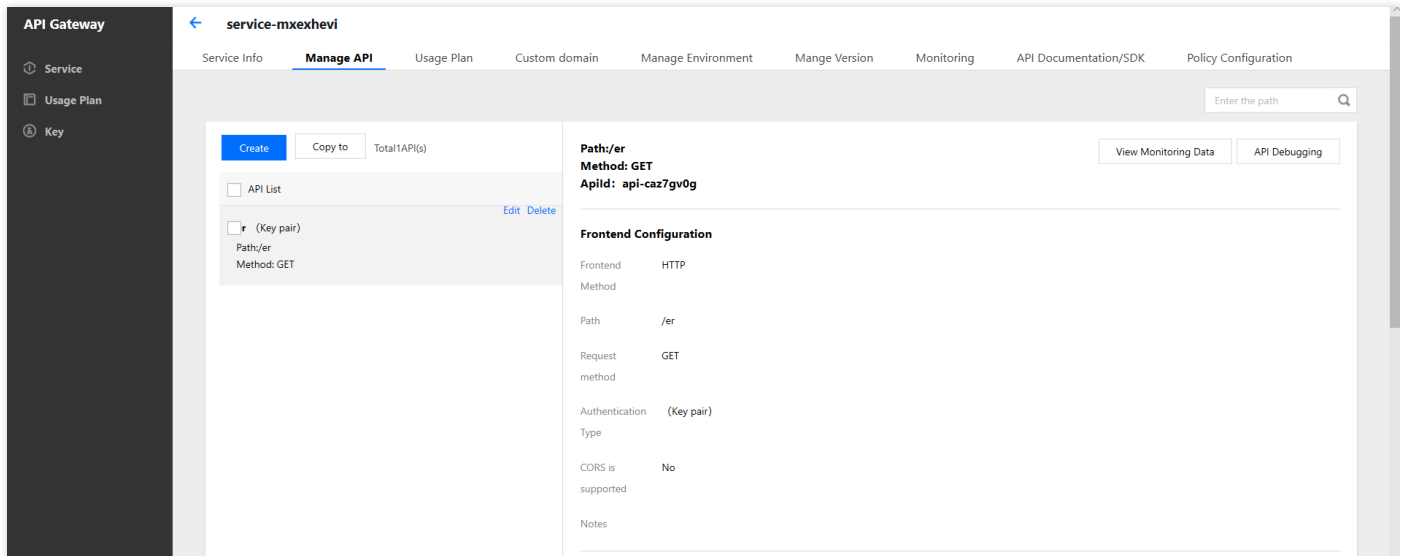
Completed

Debug API

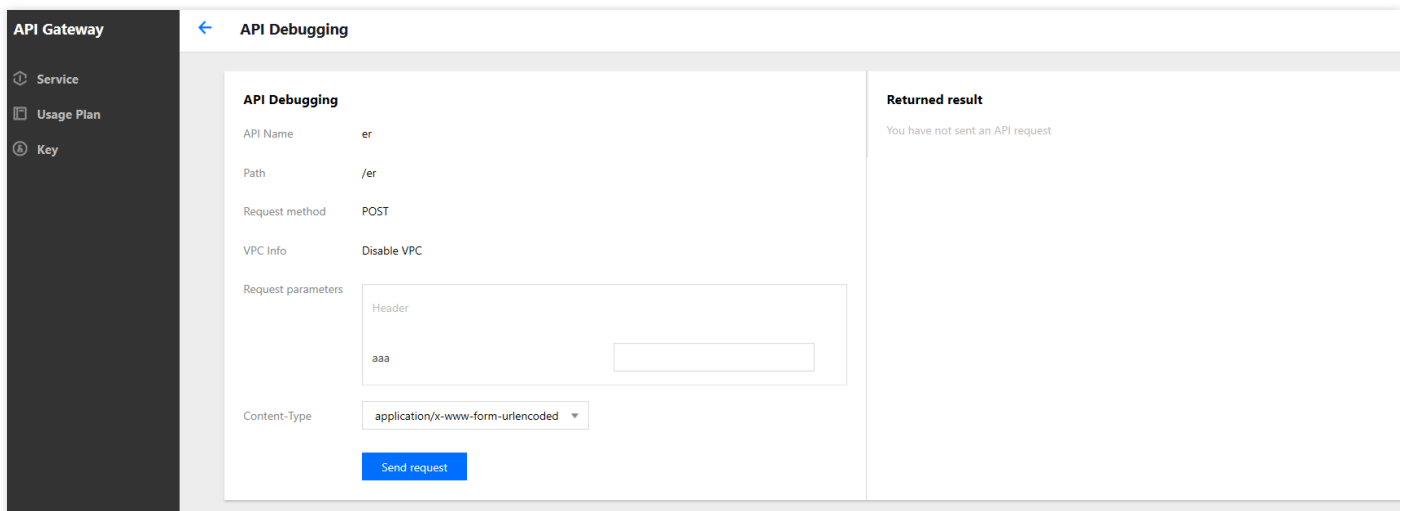
Last updated : 2019-07-09 18:57:03

After creating an API, you can debug it.

1. In the API Management tab of the Service page, select the API to be debugged and click **API Debugging** in the upper right corner to enter the Debugging page.



2. Enter the default parameters for API calling, and click **Send Request**.



If the parameters are optional and the user does not enter any values for the parameters, API Gateway will send a null to the backend by default.

}. The returned result for API calling will be shown on the right.

API Gateway

API Debugging

API Debugging

API Name: er

Path: /er

Request method: POST

VPC Info: Disable VPC

Request parameters

Header

aaa 123

Content-Type: application/x-www-form-urlencoded

Send request

Returned result

Return Code: 302

Response Latency: 173ms

Response Body

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html> <head>
<title>302 Found</title>
</head> <body>
<h1>Found</h1>
<p>The document has moved <a
href="http://www.baidu.com/search/error.html"> here</a>.</p>
</body> </html>
```

Response Headers

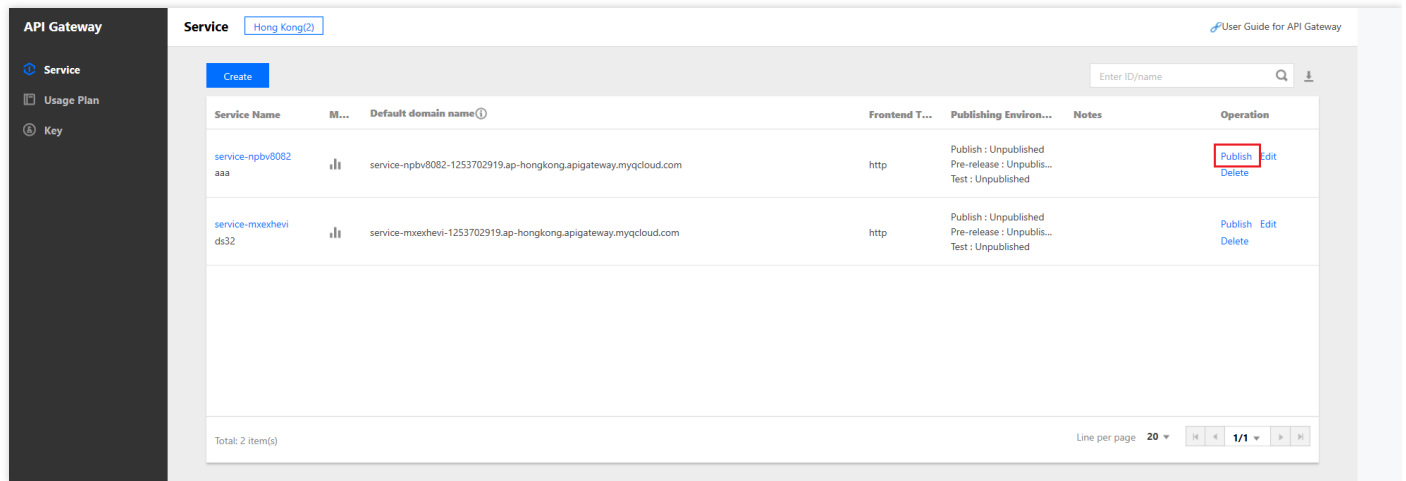
```
HTTP/1.1 302 Found
Content-Type: text/html; charset=iso-8859-1
Content-Length: 222
Connection: keep-alive
X-API-ID: api-ehzn2sp8
X-Service-RateLimit: 500/500
X-API-RateLimit: unlimited
Date: Fri, 05 Jul 2019 08:33:01 GMT
Server: Apache
```

Publish and Access Service

Last updated : 2019-07-09 18:57:35

Only after the service you created and the API in the service are published can the user access it.

1. Select the service to be published in the service list, and click the **Publish** button on the right.



2. Choose the environment which the service is published to. Three environments are supported: "Test", "Pre" and "Release". Click **Submit** to complete the publishing.

Publish service ✕

Service Name

ds32

Region

Hong Kong

Publishing Environment

Select an environment for service publishing ▼

Notes

Enter remarks

Submit

Disable

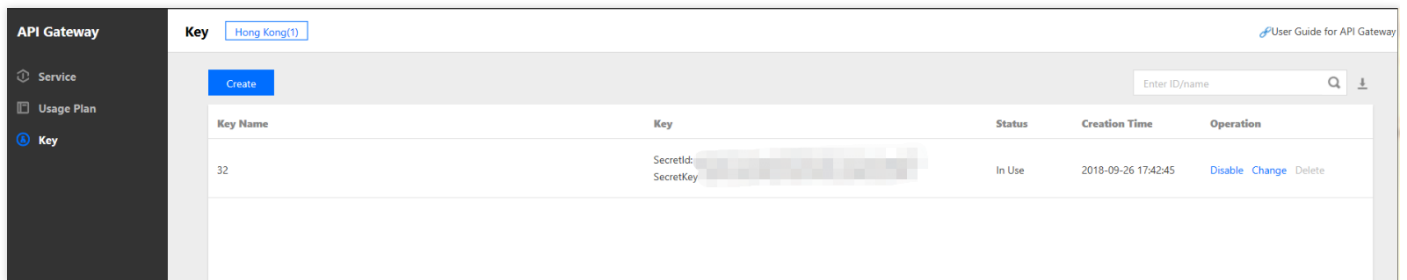
Create Usage Plan and Key

Last updated : 2019-07-09 18:47:54

After a service is published, you must create a usage plan and a key and bind them to the service before you can call it successfully.

1. Create a pair of secret_id + secret_key.

(1) Go to the Key tab, and click **New**.

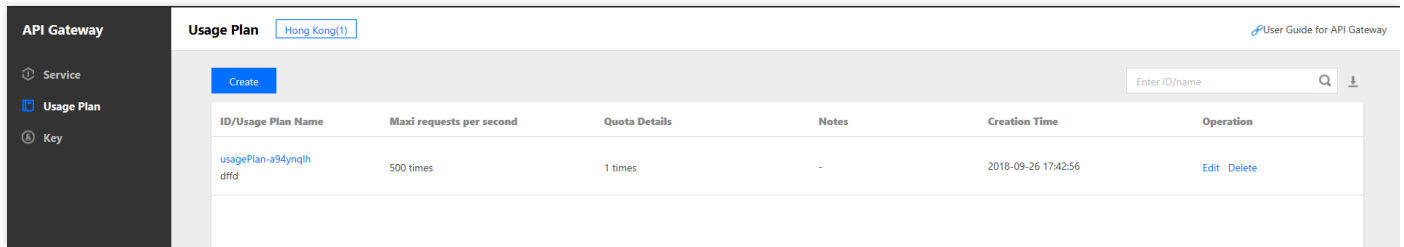


(2) Enter the key name, and click **Submit**.

The 'Create Key' dialog box is shown. It has a title bar with a close button. Below the title, there is a blue warning box that says 'For the security of your services, please change the key regularly.' Below this, there is a text input field labeled 'Key Name'. Underneath the input field, it says 'Up to 50 characters (including a-z, A-Z, 0-9, and _)'. At the bottom, there are two buttons: 'Submit' (blue) and 'Disable' (gray).

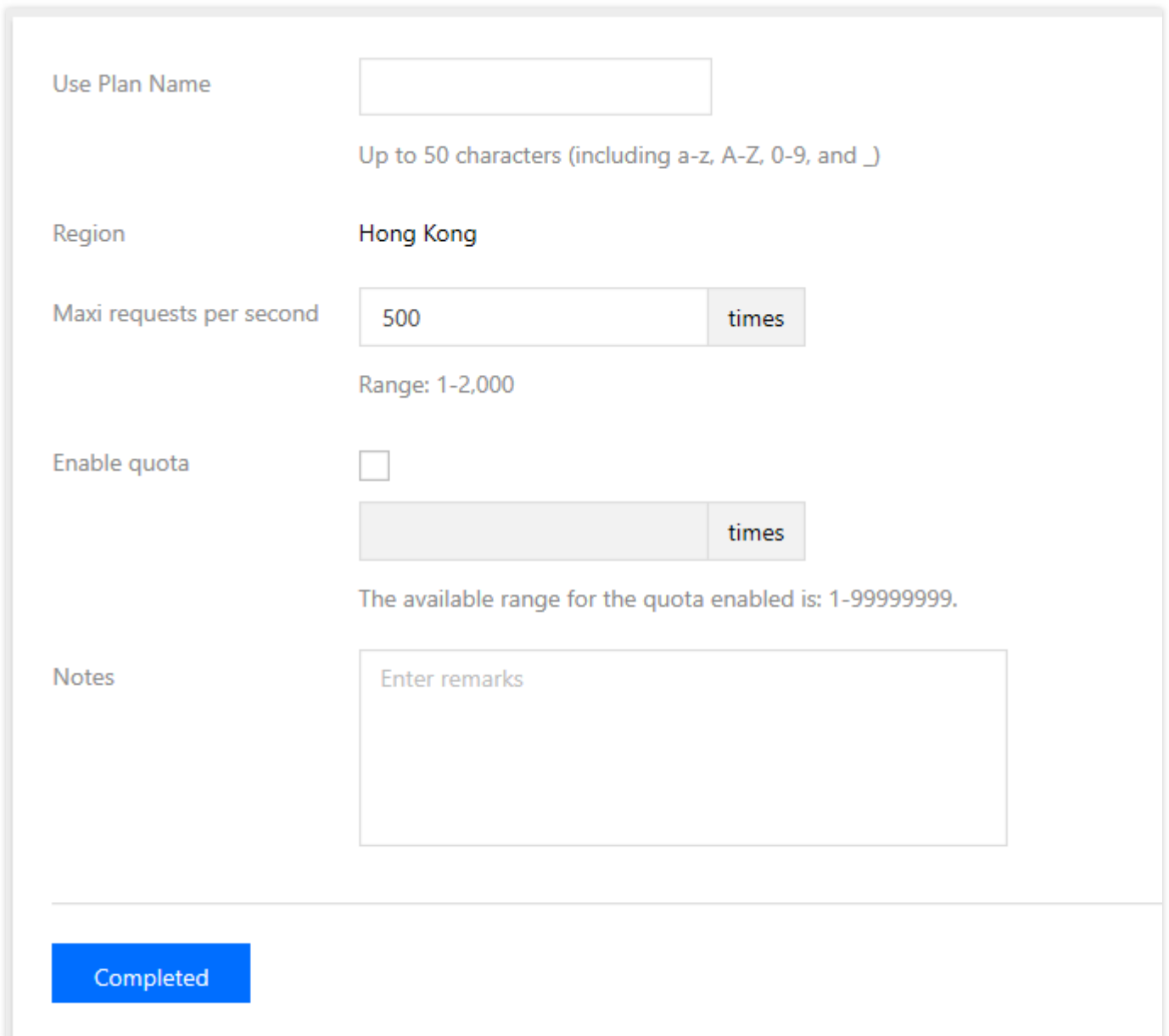
2. Create a usage plan.

(1) Go to the Usage Plan tab, and click **New**.



ID/Usage Plan Name	Maxi requests per second	Quota Details	Notes	Creation Time	Operation
usagePlan-a94ynqih-dffd	500 times	1 times	-	2018-09-26 17:42:56	Edit Delete

(2) Edit the usage plan, and click **Finish**.



Use Plan Name

Up to 50 characters (including a-z, A-Z, 0-9, and _)

Region Hong Kong

Maxi requests per second times

Range: 1-2,000

Enable quota ☐

times

The available range for the quota enabled is: 1-99999999.

Notes

Completed

3. Bind the created secret_id + secret_key in the Usage Plan tab.

(1) Go to the Usage Plan tab, and select the created service.

(2) Click **Bind Key**.

API Gateway

- Service
- Usage Plan**
- Key

usagePlan-a94ynqlh

Usage Plan Info | Already bound with environment | Already bound with API

Basic info

Use Plan Name	dffd
Region	Hong Kong
Maxi request times per second	500 times
Quota	1 times
Notes	
Modification Time	2018-09-26 17:42:56

Already bound with key

[Bind a key](#)

Key Name	Key
----------	-----

(3) Bind the created secret_id + secret_key in the Usage Plan tab, and click **Submit**.

Bind a key ✕

Select a key

Please enter a key name Q

Total 1key(s)

☒ 32

Selected (1)

✕
32

↔

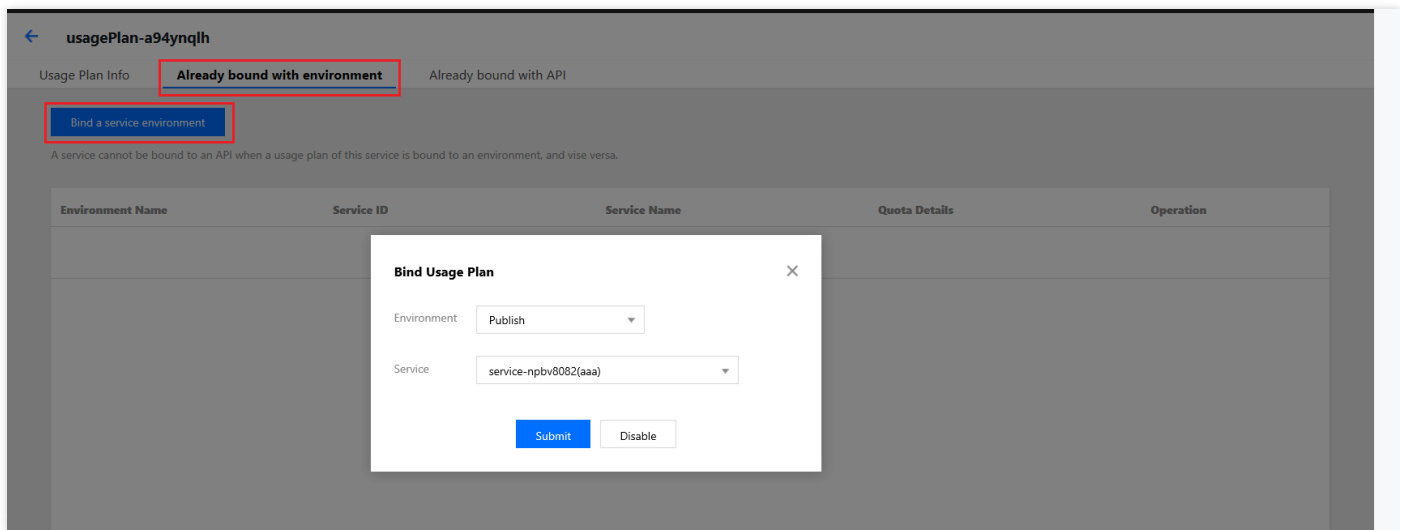
Submit

Disable

I. Bind the usage plan to a service environment.

- (1) Go to the Usage Plan tab, and select the created service.
- (2) Go to the **Bound Environment** page, and click **Bind Service Environment**.

(3) Enter the service and the environment to be bound, and click **Submit**.



Note: If two usage plans are to be bound to the same environment, the two usage plans cannot be bound to the same key.

5. After the steps above are completed, you can provide the `secret_id` + `secret_key` created in Step 1 to end users. End users can obtain the verification using the `secret_id` + `secret_key`, and then access the API published in the service via the secondary domain name of the service or by binding a private domain name.

API Call

Last updated : 2019-11-29 17:57:29

You can call an API after obtaining its `secret_id` and `secret_key` and knowing the URL and required parameters.

Whether you use HTTP or HTTPS for API calling, the signature information must be included in the request header. For more information on signature calculation, see [secret_id + secret_key Verification](#).

The steps are as follows:

Request

Address

```
http://service-kuy3rwbs-1251762227.ap-guangzhou.apigateway.myqcloud.com/release  
//Enter the URL of the API service to be called
```

Method

```
POST
```

Request body

```
QueryParam_a=value1&QueryParam_b=value2
```

Request header

```
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8  
Accept-Language: zh-cn  
Connection: Keep-Alive  
Host: service-kuy3rwbs-1251762227.ap-guangzhou.apigateway.myqcloud.com/release  
User-Agent: Mozilla/4.0(compatible;MSIE5.01;Window NT5.0)  
Accept-Encoding: gzip,deflate  
Content-Type: application/x-www-form-urlencoded;charset=utf-8  
//Request body type, which is set based on the actual request body content.  
X-Client-Proto: http  
X-Client-Proto-Ver: HTTP/1.1  
X-Real-IP: 163.177.93.244  
X-Forwarded-For: 106.19.71.102, 163.177.93.244
```

```
Date: Sun, 21 Sep 2017 06:18:21 GMT
Authorization: hmac id="AKIDCg0PWjQ6BAxvHtyckhWABJVYSBj548pN", algorithm="hmac-sha1", headers="Date Host", signature="630c82836582f78b90f293b2f38bda9c"
//Signature. For the specific signature method, see the key calculation method in Verification and Security.
```

Response

Response code

```
200
//Response status code. A value greater than or equal to 200 and less than 300 indicates success; a value greater than or equal to 400 and less than 500 indicates a client error; a value greater than 500 indicates a server error.
```

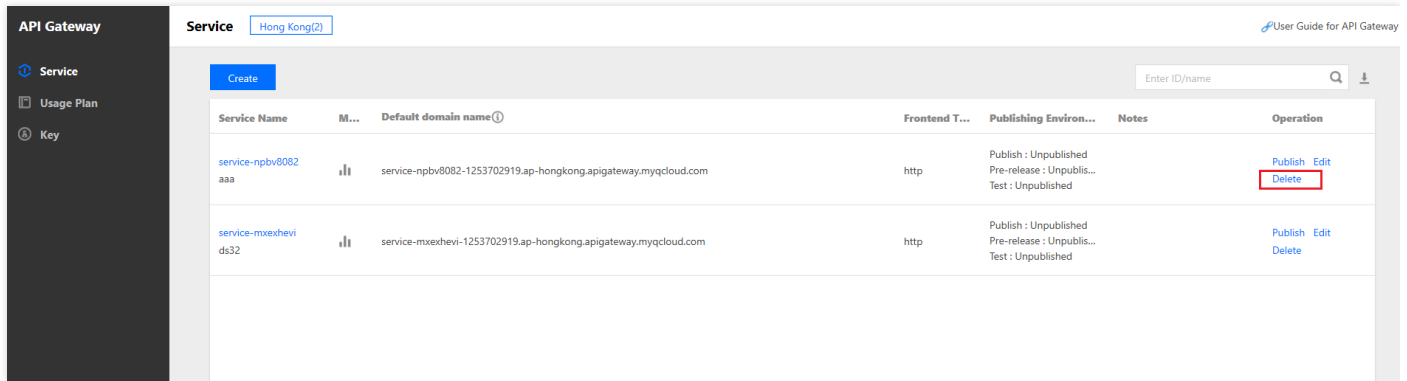
Response header

```
Content-Type: text/html; charset=UTF-8
Content-Length: 122
Date: Sun, 21 Sep 2017 06:46:04 GMT
Server: squid/3.5.20
Connection: close
Set-Cookie:1P_JAR=2017-09-18-06; expires=Mon, 25-Sep-2017 06:46:04 GMT; path=/; domain=.qq.com
X-Secret-ID:AKIDCg0PWjQ6BAxvHtyckhWABJVYSBj548pN
//secret_id in the key pair
X-UsagePlan-ID:Q6BAxvHtyckhWABJVYSBj
//ID of the usage plan bound to the key pair
X-RateLimit-Limit:500
//The traffic limit configuration in the usage plan
X-RateLimit-Used:100/125
//The traffic usage in the usage plan
```

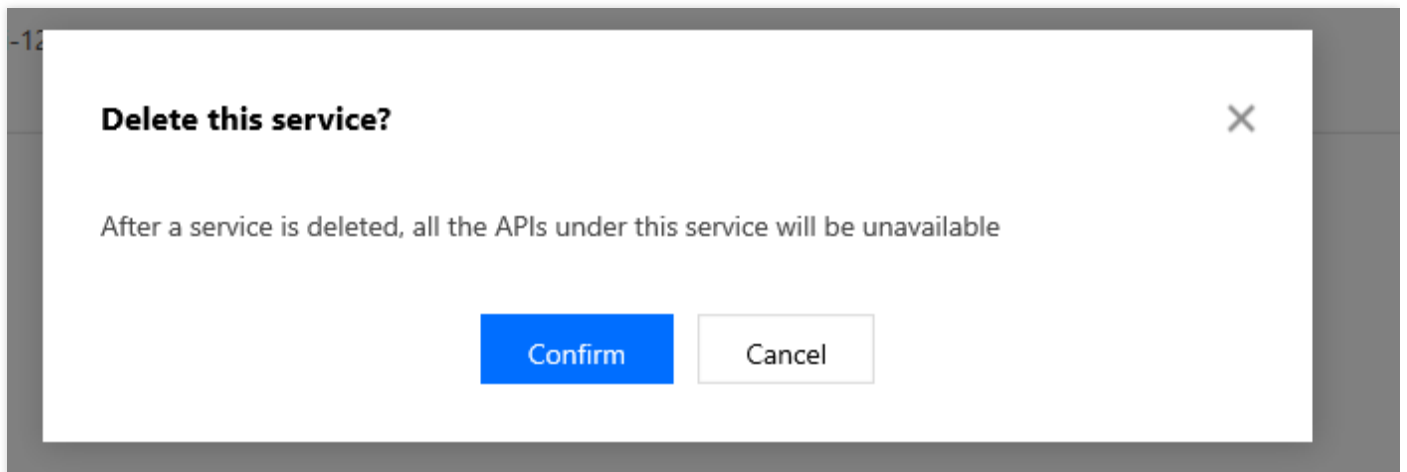
Delete Service

Last updated : 2019-07-09 18:48:37

1. In the Service tab, select the task to be deleted, and click **Delete** on the far right.



2. Click **Yes**.



Note: If an API still exists in the service, the service cannot be deleted before it is removed. In addition, if there is an activated environment, the service cannot be deleted directly.