Multiple Network Acceleration

API Documentation

Product Documentation

Contents

API Documentation History

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Release 2

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Release updates:

Improvement to existing documentation.

New APIs:

- DescribeAccessRegions
- ModifyDeviceAccessRegions

New data structures:

- RegionInfo

Modified data structures:

- DeviceBaseInfo
  - New members:AllowedRegions

Release 1

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Release updates:

Improvement to existing documentation.

New APIs:

- ActivateHardware
- AddApplication
- AddDevice
- AddGroup
- AddHardware

- AddL3Conn
- CreateEncryptedKey
- DeleteApplication
- DeleteDevice
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New data structures:

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- DeviceDetails
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- GroupInfo
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- HardwareInfo
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- NetDetails
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- SlotNetInfo
- UpdateNetInfo
- VendorHardware

Introduction

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Overview

Multiple Network Acceleration (Tencent Cloud Jutong) applies multi-channel network aggregation technology to intelligently aggregate multiple network lines into a single virtual channel, providing high bandwidth, low delay, and reliable network service. Currently, MNA supports cross-network acceleration for carriers and backbone network acceleration, enabling smart network switchover and load balancing for mobile devices and sector terminals. It provides solutions for various scenarios with strict network quality requirements, such as gaming, meetings, live streams, and industry inspections.
This section introduces Multiple Network Acceleration (Tencent Cloud Aggregation) API interfaces. All are API 3.0 interfaces.
You can call APIs to operate Multiple Network Acceleration (Tencent Cloud Jutong), such as configuring multi-channel network aggregation policies, managing acceleration gateway deployment region selection and bandwidth allocation, and optimizing cross-network transmission.
For all APIs supported by Multiple Network Acceleration (Tencent Cloud Jutong), please refer to the API overview.

Glossary

Common terminology for Multiple Network Acceleration (Tencent Cloud Jutong) API interface, see the table below:

Term	Description
Bandwidth is the traffic transmitted per unit time, in bps (bit/s). For example, 1M bandwidth means 1Mbps, which can transmit 1Mbit of traffic in one second.	
DataKey	DataKey (key) is a unique base64-encoded string for the device, customized by the user or system-generated.
Access Environment	The access environment is divided into public cloud gateway, private gateway, and both. Public cloud gateway means the device can only access the public cloud gateway. Private gateway means the device

	can only access the already registered and launched private gateway. Both means the device can simultaneously access the public cloud gateway and the already registered and launched private gateway.

Usage Limits

For API parameters, refer to the parameter descriptions in the API documentation.

API Quick Start

You can use the API Explorer tool to call APIs online.
This document uses creating a new device as an example. The steps to make an API call via the API Explorer Tool are as follows:

1. Go to the API Explorer tool page. For more information about API Explorer tool usage, see Using API Explorer.
2. Call the AddDevice API to create a new device.
3. Set your device name, remark, and device key.
4. Select the access environment and payment method.
5. After a series of configurations, initiate the call.
6. After creating a new device, you can see the already created device in the console page. Subsequently, you can perform a series of operations such as modifying remarks, access environment, and payment method for the device.

API Category

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Multi-Network Aggregation Acceleration (Tencent Cloud Jutong) APIs

API Name	Feature	Frequency Limit (maximum requests per second)
ActivateHardware	Activates hardware devices in batch	20
AddDevice	Create a new device	20
AddGroup	Create group	20
AddL3Conn	Create an interconnection rule	20
GroupAddDevice	Adds a device to a group	20
GroupDeleteDevice	Deletes a device in the group	20
AddHardware	Add hardware device	20
CreateEncryptedKey	Set or update a key	20
DeleteDevice	Delete a device	30
DeleteGroup	Delete group	20
DeleteL3Conn	Delete an interconnection rule	20
GetDestIPByName	Query target IP addresses based on device name	20
DescribeAccessRegions	Query the access region list	20
GetDevice	Retrieve device details	20
GetGroupDetail	Get group details	20
ModifyDeviceAccessRegions	Modify the device access region	20
GetDevices	List of Device Information	20

GetGroupList	This API is used to obtain a group list.	20
GetL3ConnList	Retrieve the interconnection rule list	20
GetFlowStatistic	Retrieve data traffic stats	20
GetFlowStatisticByGroup	Retrieve data traffic stats based on device group	20
GetFlowStatisticByName	Retrieve data traffic stats based on device name	20
GetFlowStatisticByRegion	Retrieve data traffic stats by region	20
GetHardwareInfo	Retrieve hardware device information	20
GetHardwareList	Get the hardware list of the manufacturer	20
GetMonitorDataByName	Download the monitoring data file based on device name	20
GetMultiFlowStatistic	Obtain batch device traffic statistics	20
GetNetMonitor	Retrieve traffic monitoring information	20
GetNetMonitorByName	Retrieve traffic monitoring information based on device name	20
GetPublicKey	Access the public key.	20
GetStatisticData	Download usage statistics	20
GetStatisticDataByName	Download usage statistics based on device name	20
GetVendorHardware	Get the hardware device list of the manufacturer	20
UpdateDevice	Update a device	20
UpdateGroup	Update group information	20
UpdateL3Cidr	Update the interconnection rule CIDR	20
UpdateL3Conn	Update the remark of an interconnection rule	20

UpdateL3Switch	Modify the interconnection rule switch	20
UpdateHardware	Refresh hardware info	20
OrderFlowPackage	Subscribe to a data transfer plan	20
OrderPerLicense	Purchase a single-use License	20
GetFlowAlarmInfo	Query traffic alarm info	20
ModifyPackageRenewFlag	Modify the data transfer plan auto-renewal flag	20
SetNotifyUrl	Set user traffic alarm info	20
GetFlowPackages	Retrieve the Data Transfer Plan List	20
AddApplication	Create an application	20
DeleteApplication	Deletes applications	20
DownloadActiveDeviceCount	Download the number of active devices statistics	20
GetActiveDeviceCount	Number of active devices statistics	20
GetApplication	This API is used to obtain application information.	20
GetDevicePayMode	Obtain the payment mode of a device	20
ReportOrder	Report order information	20
UpdateApplicationInfo	Update application information	20
UpdateApplicationKey	Update the application key	20

Making API Requests
Request Structure

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1. Service Address

The API supports access from either a nearby region (at mna.intl.tencentcloudapi.com) or a specified region (at mna.ap-guangzhou.tencentcloudapi.com for Guangzhou, for example).

We recommend using the domain name to access the nearest server. When you call an API, the request is automatically resolved to a server in the region **nearest** to the location where the API is initiated. For example, when you initiate an API request in Guangzhou, this domain name is automatically resolved to a Guangzhou server, the result is the same as that of specifying the region in the domain like "mna.ap-guangzhou.tencentcloudapi.com".

Note: For latency-sensitive businesses, we recommend that you specify the region in the domain name.

Tencent Cloud currently supports the following regions:

Hosted region	Domain name
Local access region (recommended, only for non-financial availability zones)	mna.intl.tencentcloudapi.com
South China (Guangzhou)	mna.ap-guangzhou.tencentcloudapi.com
East China (Shanghai)	mna.ap-shanghai.tencentcloudapi.com
East China (Nanjing)	mna.ap-nanjing.tencentcloudapi.com
North China (Beijing)	mna.ap-beijing.tencentcloudapi.com
Southwest China (Chengdu)	mna.ap-chengdu.tencentcloudapi.com
Southwest China (Chongqing)	mna.ap-chongqing.tencentcloudapi.com
Hong Kong, Macao, Taiwan (Hong Kong, China)	mna.ap-hongkong.tencentcloudapi.com
Southeast Asia (Singapore)	mna.ap-

	singapore.tencentcloudapi.com
Southeast Asia (Jakarta)	mna.ap-jakarta.tencentcloudapi.com
Southeast Asia (Bangkok)	mna.ap-bangkok.tencentcloudapi.com
Northeast Asia (Seoul)	mna.ap-seoul.tencentcloudapi.com
Northeast Asia (Tokyo)	mna.ap-tokyo.tencentcloudapi.com
U.S. East Coast (Virginia)	mna.na-ashburn.tencentcloudapi.com
U.S. West Coast (Silicon Valley)	mna.na-siliconvalley.tencentcloudapi.com
South America (São Paulo)	mna.sa-saopaulo.tencentcloudapi.com
Europe (Frankfurt)	mna.eu-frankfurt.tencentcloudapi.com

2. Communications Protocol

All the Tencent Cloud APIs communicate via HTTPS, providing highly secure communication tunnels.

3. Request Methods

Supported HTTP request methods:

- POST (recommended)
- GET

The Content-Type types supported by POST requests:

- application/json (recommended). The TC3-HMAC-SHA256 signature algorithm must be used.
- application/x-www-form-urlencoded. The HmacSHA1 or HmacSHA256 signature algorithm must be used.
- multipart/form-data (only supported by certain APIs). You must use TC3-HMAC-SHA256 to calculate the signature.

The size of a GET request packet is up to 32 KB. The size of a POST request is up to 1 MB when the HmacSHA1 or HmacSHA256 signature algorithm is used, and up to 10 MB when TC3-HMAC-SHA256 is used.

4. Character Encoding

Only UTF-8 encoding is used.

Common Params

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Common parameters are used for all APIs authenticating requestors. Common parameters must be included in all API requests, and they will not be described in individual API documents.

The exact contents of the common parameters will vary depending on the version of the signature method you use.

Common parameters for Signature Algorithm v3

When the TC3-HMAC-SHA256 algorithm is used, the common parameters should be uniformly placed in the HTTP request header, as shown below:

Parameter Name	Type	Required	Description
X-TC-Action	String	Yes	The name of the API for the desired operation. For the specific value, see the description of common parameter `Action` in the input parameters in related API documentation. For example, the API for querying the CVM instance list is `DescribeInstances`.
X-TC-Region	String	Yes	Region parameter, which is used to identify the region to which the data you want to work with belongs. For values supported for an API, see the description of common parameter `Region` in the input parameters in related API documentation. Note: This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even it is passed.
X-TC-Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request was initiated, for example, 1529223702. Note: If the difference between the UNIX timestamp and the server time is greater than 5 minutes, a signature expiration error may occur.
X-TC-Version	String	Yes	API version of the action. For the valid values, see the description of the common input parameter `Version` in the API documentation. For example, the version of CVM is 2017-03-12.
Authorization	String	Yes	The HTTP authentication request header, for example: TC3-HMAC-SHA256 Credential=AKID***/Date/service/tc3_request, SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc963176630326f1024 Here: - TC3-HMAC-SHA256: Signature method, currently fixed as this value; - Credential: Signature credential; AKID*** is the SecretId; Date is a date in UTC time, and this value must match the value of X-TC-Timestamp (a common parameter) in UTC time format; service is the name of the product/service, and is generally a domain name prefix. For example, a domain name cvm.tencentcloudapi.com refers to the CVM product and the value would be cvm; - SignedHeaders: The headers that contains the authentication information; content-type and host are the required headers; - Signature: Signature digest.
X-TC-Token	String	No	The token used for a temporary certificate. It must be used with a temporary key. You can obtain the temporary key and token by calling a CAM API. No token is required for a long-term key.

Assuming you want to query the list of Cloud Virtual Machine instances in the Guangzhou region, the request structure in the form of request URL, request header and request body may be as follows:

Example of an HTTP GET request structure:

```
https://cvm.tencentcloudapi.com/?Limit=10&Offset=0

Authorization: TC3-HMAC-SHA256 Credential=AKID********************************/20
18-10-09/cvm/tc3_request, SignedHeaders=content-type;host, Signature=5da7a33f6993
f0614b047e5df4582db9e9bf4672ba50567dba16c6ccf174c474
Content-Type: application/x-www-form-urlencoded
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1539084154
X-TC-Region: ap-guangzhou
```

The following example shows you how to structure an HTTP POST (application/json) request:

```
https://cvm.tencentcloudapi.com/

Authorization: TC3-HMAC-SHA256 Credential=AKID********************************/20
18-05-30/cvm/tc3_request, SignedHeaders=content-type;host, Signature=582c400e06b5
924a6f2b5d7d672d79c15b13162d9279b0855cfba6789a8edb4c
Content-Type: application/json
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

{"Offset":0,"Limit":10}
```

Example of an HTTP POST (multipart/form-data) request structure (only supported by specific APIs):

```
https://cvm.tencentcloudapi.com/

Authorization: TC3-HMAC-SHA256 Credential=AKID********************************/20
18-05-30/cvm/tc3_request, SignedHeaders=content-type;host, Signature=582c400e06b5
924a6f2b5d7d672d79c15b13162d9279b0855cfba6789a8edb4c
Content-Type: multipart/form-data; boundary=58731222010402
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

--58731222010402
Content-Disposition: form-data; name="Offset"
```

```
0
--58731222010402
Content-Disposition: form-data; name="Limit"

10
--58731222010402--
```

Common parameters for Signature Algorithm v1

To adopt the HmacSHA1 and HmacSHA256 signature methods, common parameters must be put into the request string, as shown below:

Parameter Name	Type	Required	Description
Action	String	Yes	The name of the API for the desired operation. For the specific value, see the description of common parameter `Action` in the input parameters in related API documentation. For example, the API for querying the CVM instance list is `DescribeInstances`.
Region	String	Yes	Region parameter, which is used to identify the region to which the data you want to work with belongs. For values supported for an API, see the description of common parameter `Region` in the input parameters in related API documentation. Note: This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even if it is passed.
Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request was initiated, for example, 1529223702. If the difference between the value and the current system time is too large, a signature expiration error may occur.
Nonce	Integer	Yes	A random positive integer used along with `Timestamp` to prevent replay attacks.
SecretId	String	Yes	The identifying SecretId obtained on the Cloud API Key page. A SecretId corresponds to a unique SecretKey which is used to generate the request signature (Signature).
Signature	String	Yes	Request signature used to verify the validity of this request. This is calculated based on the actual input parameters. For more information about how this is calculated, see the API authentication documentation.
Version	String	Yes	API version of the action. For the valid values, see the description of the common input parameter `Version` in the API documentation. For example, the version of CVM is 2017-03-12.
SignatureMethod	String	No	Signature method. Currently, only HmacSHA256 and HmacSHA1 are supported. The HmacSHA256 algorithm is used to verify the signature only when this parameter is specified as HmacSHA256. In other cases, the signature is verified with HmacSHA1.
Token	String	No	The token used for a temporary certificate. It must be used with a temporary key. You can obtain the temporary key and token by calling a CAM API. No token is required for a long-term key.

Assuming you want to query the list of Cloud Virtual Machine instances in the Guangzhou region, the request structure in the form of request URL, request header and request body may be as follows:

Example of an HTTP GET request structure:

```
https://cvm.tencentcloudapi.com/?Action=DescribeInstances&Version=2017-03-12&Sign
atureMethod=HmacSHA256&Timestamp=1527672334&Signature=37ac2f4fde00b0ac9bd9eadeb45
9b1bbee224158d66e7ae5fcadb70b2d181d02&Region=ap-guangzhou&Nonce=23823223&SecretId
=AKID********************************

Host: cvm.tencentcloudapi.com
Content-Type: application/x-www-form-urlencoded
```

Example of an HTTP POST request structure:

```
https://cvm.tencentcloudapi.com/

Host: cvm.tencentcloudapi.com
Content-Type: application/x-www-form-urlencoded

Action=DescribeInstances&Version=2017-03-12&SignatureMethod=HmacSHA256&Timestamp=
1527672334&Signature=37ac2f4fde00b0ac9bd9eadeb459b1bbee224158d66e7ae5fcadb70b2d18
1d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKID**************************
****
```

Region List

The supported Region field values for all APIs in this product are listed as below. For any API that does not support any of the following regions, this field will be described additionally in the relevant API document.

Region	Value
Southeast Asia (Singapore)	ap-singapore

Signature v3

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TencentCloud API authenticates every single request, i.e., the request must be signed using the security credentials in the designated steps. Each request has to contain the signature information (Signature) in the common request parameters and be sent in the specified way and format.

Applying for Security Credentials

The security credential used in this document is a key, which includes a SecretId and a SecretKey. Each user can have up to two pairs of keys.

- SecretId: Used to identify the API caller, which is just like a username.
- SecretKey: Used to authenticate the API caller, which is just like a password.
- **You must keep your security credentials private and avoid disclosure; otherwise, your assets may be compromised. If they are disclosed, please disable them as soon as possible.**

You can apply for the security credentials through the following steps:

1. Log in to the Tencent Cloud Console.
2. Go to the TencentCloud API Key console page.
3. On the TencentCloud API Key page, click **Create** to create a SecretId/SecretKey pair.

Using the Resources for Developers

TencentCloud API comes with SDKs for seven commonly used programming languages, including Python, Java, PHP, Go, NodeJS and .NET. In addition, it provides API Explorer which enables online call, signature verification, and SDK code generation. If you have any troubles calculating a signature, consult these resources.

TC3-HMAC-SHA256 Signature Algorithm

Compatible with the previous HmacSHA1 and HmacSHA256 signature algorithms, the TC3-HMAC-SHA256 signature algorithm is more secure and supports larger requests and JSON format with better performance. We recommend using TC3-HMAC-SHA256 to calculate the signature.

TencentCloud API supports both GET and POST requests. For the GET method, only the Content-Type: application/x-www-form-urlencoded protocol format is supported. For the POST method, two protocol formats, Content-Type: application/json and Content-Type: multipart/form-data, are supported. The JSON format is supported by default for all business APIs, and the multipart format is supported only for specific business APIs. In this case, the API cannot be called in JSON format. See the specific business API documentation for more information. The POST method is recommended, as there is no difference in the results of both the methods, but the GET method only supports request packets up to 32 KB.

The following uses querying the list of CVM instances in the Guangzhou region as an example to describe the steps of signature splicing. We chose this API because:

1. CVM is activated by default, and this API is often used;
2. It is read-only and does not change the status of existing resources;
3. It covers many types of parameters, which allows it to be used to demonstrate how to use arrays containing data structures.

In the example, we try to choose common parameters and API parameters that are prone to mistakes. When you actually call an API, please use parameters based on the actual conditions. The parameters vary by API. Do not copy the parameters and values in this example.

Assuming that your SecretId and SecretKey are `AKID********************************` and `********************************`, respectively, if you want to view the status of the instance in the Guangzhou region whose CVM instance name is "unnamed" and have only one data entry returned, then the request may be:

```
curl -X POST https://cvm.tencentcloudapi.com \
-H "Authorization: TC3-HMAC-SHA256 Credential=AKID********************************
*/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=a7b85514
48762bd123d6f79e81815e31a92013640a6cef36a08ad4b292a4d2f2" \
-H "Content-Type: application/json; charset=utf-8" \
-H "Host: cvm.tencentcloudapi.com" \
-H "X-TC-Action: DescribeInstances" \
-H "X-TC-Timestamp: 1551113065" \
-H "X-TC-Version: 2017-03-12" \
-H "X-TC-Region: ap-guangzhou" \
-d '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}'
```

The signature calculation process is explained in detail below.

1. Concatenating the CanonicalRequest String

Concatenate the canonical request string (CanonicalRequest) in the following pseudocode format:

```
CanonicalRequest =
HTTPRequestMethod + '\n' +
CanonicalURI + '\n' +
CanonicalQueryString + '\n' +
CanonicalHeaders + '\n' +
SignedHeaders + '\n' +
HashedRequestPayload
```

Field Name	Explanation
HTTPRequestMethod	HTTP request method (GET or POST). This example uses `POST`.
CanonicalURI	URI parameter. Slash ("/") is used for API 3.0.
CanonicalQueryString	The query string in the URL of the originating HTTP request. This is always an empty string "" for POST requests, and is the string after the question mark (?) for GET requests. For example: Limit=10&Offset=0。 Note: `CanonicalQueryString` must be URL-encoded, referencing RFC3986, the UTF8 character set. We recommend using the programming language library. All special characters must be encoded and capitalized.
CanonicalHeaders	Header information for signature calculation, including at least two headers of `host` and `content-type`. Custom headers can be added to participate in the signature process to improve the uniqueness and security of the request. Concatenation rules: 1. Both the key and value of the header should be converted to lowercase with the leading and trailing spaces removed, so they are concatenated in the format of key:value\n format; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase). The calculation result in this example is `content-type:application/json; charset=utf-8\nhost:cvm.tencentcloudapi.com\n`. Note: `content-type` must match the actually sent content. In some programming languages, a charset value would be added even if it is not specified. In this case, the request sent is different from the one signed, and the sever will return an error indicating that signature verification failed.
SignedHeaders	Header information for signature calculation, indicating which headers of the request participate in the signature process (they must each individually correspond to the headers in CanonicalHeaders). `Content-type` and `host` are required headers. Concatenation rules: 1. Both the key and value of the header should be converted to lowercase; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase) and separated by semicolons (;). The value in this example is `content-type;host`
HashedRequestPayload	Hash value of the request payload (i.e., the body, such as `{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}` in this example). The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(RequestPayload))) by SHA256 hashing the payload of the HTTP request, performing hexadecimal encoding, and finally converting the encoded string to lowercase letters. For GET requests, `RequestPayload` is always an empty string. The calculation result in this example is `99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b4907`.

According to the rules above, the `CanonicalRequest` string obtained in the example is as follows:

```
POST
/

content-type:application/json; charset=utf-8
host:cvm.tencentcloudapi.com

content-type;host
99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b4907
```

2. Concatenating the String to Be Signed

The string to sign is concatenated as follows:

```
StringToSign =
Algorithm + \n +
RequestTimestamp + \n +
CredentialScope + \n +
HashedCanonicalRequest
```

Field Name	Explanation
Algorithm	Signature algorithm, which is currently always `TC3-HMAC-SHA256`.
RequestTimestamp	Request timestamp, i.e., the value of the common parameter `X-TC-Timestamp` in the request header, which is the UNIX timestamp of the current time in seconds, such as `1551113065` in this example.
CredentialScope	Scope of the credential in the format of `Date/service/tc3_request`, including the date, requested service and termination string (tc3_request). **`Date` is a date in UTC time, whose value should match the UTC date converted by the common parameter `X-TC-Timestamp`**; `service` is the product name, which should match the domain name of the product called. The calculation result in this example is `2019-02-25/cvm/tc3_request`.
HashedCanonicalRequest	Hash value of the CanonicalRequest string concatenated in the steps above. The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(CanonicalRequest))). The calculation result in this example is `2815843035062fffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3adda7a`.

Note:

1. Date has to be calculated from the timestamp "X-TC-Timestamp" and the time zone is UTC+0. If you add the system's local time zone information (such as UTC+8), calls can succeed both day and night but will definitely fail at 00:00. For example, if the timestamp is 1551113065 and the time in UTC+8 is 2019-02-26 00:44:25, the UTC+0 date in the calculated Date value should be 2019-02-25 instead of 2019-02-26.

2. Timestamp must be the same as your current system time, and your system time and standard time must be synced; if the difference between Timestamp and your current system time is larger than five minutes, the request will fail. If your system time is out of sync with the standard time for a while, the request will fail and return a signature expiration error.

According to the preceding rules, the string to be signed obtained in the example is as follows:

```
TC3-HMAC-SHA256
1551113065
2019-02-25/cvm/tc3_request
2815843035062fffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3adda7a
```

3. Calculating the Signature

1) Calculate the derived signature key with the following pseudocode:

```
SecretKey = "********************************"
SecretDate = HMAC_SHA256("TC3" + SecretKey, Date)
SecretService = HMAC_SHA256(SecretDate, Service)
SecretSigning = HMAC_SHA256(SecretService, "tc3_request")
```

Field Name	Explanation
SecretKey	The original SecretKey, i.e., `********************************` .
Date	The Date field information in `Credential` , such as `2019-02-25` in this example.
Service	Value in the Service field in `Credential` , such as `cvm` in this example.

2) Calculate the signature with the following pseudocode:

```
Signature = HexEncode(HMAC_SHA256(SecretSigning, StringToSign))
```

4. Concatenating the Authorization

The Authorization is concatenated as follows:

```
Authorization =
Algorithm + ' ' +
'Credential=' + SecretId + '/' + CredentialScope + ', ' +
```

```
'SignedHeaders=' + SignedHeaders + ', ' +
'Signature=' + Signature
```

Field Name	Explanation
Algorithm	Signature algorithm, which is always `TC3-HMAC-SHA256`.
SecretId	The SecretId in the key pair, i.e., `AKID********************************`.
CredentialScope	Credential scope (see above). The calculation result in this example is `2019-02-25/cvm/tc3_request`.
SignedHeaders	Header information for signature calculation (see above), such as `content-type;host` in this example.
Signature	Signature value. The calculation result in this example is `a7b8551448762bd123d6f79e81815e31a92013640a6cef36a08ad4b292a4d2f2`.

According to the rules above, the value obtained in the example is:

```
TC3-HMAC-SHA256 Credential=AKID********************************/2019-02-25/cvm/tc
3_request, SignedHeaders=content-type;host, Signature=a7b8551448762bd123d6f79e818
15e31a92013640a6cef36a08ad4b292a4d2f2
```

The following example shows a finished authorization header:

```
POST https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKID********************************/20
19-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=a7b855144876
2bd123d6f79e81815e31a92013640a6cef36a08ad4b292a4d2f2
Content-Type: application/json; charset=utf-8
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1551113065
X-TC-Region: ap-guangzhou

{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}
```

5. Signature Demo

When calling API 3.0, you are recommended to use the corresponding Tencent Cloud SDK 3.0 which encapsulates the signature process, enabling you to focus on only the specific APIs provided by the product when developing. See SDK Center for more information. Currently, the following programming languages are supported:

- Python
- Java
- PHP

- Go
- NodeJS
- .NET

To further explain the signing process, we will use a programming language to implement the process described above. The request domain name, API and parameter values in the sample are used here. This goal of this example is only to provide additional clarification for the signature process, please see the SDK for actual usage.

The final output URL might be: https://cvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKID**********&Signature=EliP9YW3pW28FpsEdkXt%2F%2BWcGel%3D&Timestamp=1465185768&Version=2017-03-12.

Note: The key in the example is fictitious, and the timestamp is not the current time of the system, so if this URL is opened in the browser or called using commands such as curl, an authentication error will be returned: Signature expired. In order to get a URL that can work properly, you need to replace the SecretId and SecretKey in the example with your real credentials and use the current time of the system as the Timestamp.

Note: In the example below, even if you use the same programming language, the order of the parameters in the URL may be different for each execution. However, the order does not matter, as long as all the parameters are included in the URL and the signature is calculated correctly.

Note: The following code is only applicable to API 3.0. It cannot be directly used in other signature processes. Even with an older API, signature calculation errors may occur due to the differences in details. Please refer to the corresponding documentation.

Java

```
import java.nio.charset.Charset;
import java.nio.charset.StandardCharsets;
import java.security.MessageDigest;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.TimeZone;
import java.util.TreeMap;
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
import javax.xml.bind.DatatypeConverter;

public class TencentCloudAPITC3Demo {
private final static Charset UTF8 = StandardCharsets.UTF_8;
```

```
private final static String SECRET_ID = "AKID********************************";
private final static String SECRET_KEY = "********************************";
private final static String CT_JSON = "application/json; charset=utf-8";

public static byte[] hmac256(byte[] key, String msg) throws Exception {
Mac mac = Mac.getInstance("HmacSHA256");
SecretKeySpec secretKeySpec = new SecretKeySpec(key, mac.getAlgorithm());
mac.init(secretKeySpec);
return mac.doFinal(msg.getBytes(UTF8));
}

public static String sha256Hex(String s) throws Exception {
MessageDigest md = MessageDigest.getInstance("SHA-256");
byte[] d = md.digest(s.getBytes(UTF8));
return DatatypeConverter.printHexBinary(d).toLowerCase();
}

public static void main(String[] args) throws Exception {
String service = "cvm";
String host = "cvm.tencentcloudapi.com";
String region = "ap-guangzhou";
String action = "DescribeInstances";
String version = "2017-03-12";
String algorithm = "TC3-HMAC-SHA256";
String timestamp = "1551113065";
//String timestamp = String.valueOf(System.currentTimeMillis() / 1000);
SimpleDateFormat sdf = new SimpleDateFormat("yyyy-MM-dd");
// Pay attention to the time zone; otherwise, errors may occur
sdf.setTimeZone(TimeZone.getTimeZone("UTC"));
String date = sdf.format(new Date(Long.valueOf(timestamp + "000")));

// ************* Step 1: Concatenate the CanonicalRequest string *************
String httpRequestMethod = "POST";
String canonicalUri = "/";
String canonicalQueryString = "";
String canonicalHeaders = "content-type:application/json; charset=utf-8\n" + "hos
t:" + host + "\n";
String signedHeaders = "content-type;host";

String payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"], \"Name
\": \"instance-name\"}]}";
String hashedRequestPayload = sha256Hex(payload);
String canonicalRequest = httpRequestMethod + "\n" + canonicalUri + "\n" + canoni
calQueryString + "\n"
+ canonicalHeaders + "\n" + signedHeaders + "\n" + hashedRequestPayload;
System.out.println(canonicalRequest);
```

```
// ************* Step 2: Concatenate the string to sign *************
String credentialScope = date + "/" + service + "/" + "tc3_request";
String hashedCanonicalRequest = sha256Hex(canonicalRequest);
String stringToSign = algorithm + "\n" + timestamp + "\n" + credentialScope +
"\n" + hashedCanonicalRequest;
System.out.println(stringToSign);

// ************* Step 3: Calculate the signature *************
byte[] secretDate = hmac256(("TC3" + SECRET_KEY).getBytes(UTF8), date);
byte[] secretService = hmac256(secretDate, service);
byte[] secretSigning = hmac256(secretService, "tc3_request");
String signature = DatatypeConverter.printHexBinary(hmac256(secretSigning, string
ToSign)).toLowerCase();
System.out.println(signature);

// ************* Step 4: Concatenate the Authorization *************
String authorization = algorithm + " " + "Credential=" + SECRET_ID + "/" + creden
tialScope + ", "
+ "SignedHeaders=" + signedHeaders + ", " + "Signature=" + signature;
System.out.println(authorization);

TreeMap<String, String> headers = new TreeMap<String, String>();
headers.put("Authorization", authorization);
headers.put("Content-Type", CT_JSON);
headers.put("Host", host);
headers.put("X-TC-Action", action);
headers.put("X-TC-Timestamp", timestamp);
headers.put("X-TC-Version", version);
headers.put("X-TC-Region", region);

StringBuilder sb = new StringBuilder();
sb.append("curl -X POST https://").append(host)
.append(" -H \"Authorization: ").append(authorization).append("\"")
.append(" -H \"Content-Type: application/json; charset=utf-8\"")
.append(" -H \"Host: ").append(host).append("\"")
.append(" -H \"X-TC-Action: ").append(action).append("\"")
.append(" -H \"X-TC-Timestamp: ").append(timestamp).append("\"")
.append(" -H \"X-TC-Version: ").append(version).append("\"")
.append(" -H \"X-TC-Region: ").append(region).append("\"")
.append(" -d '").append(payload).append("'");
System.out.println(sb.toString());
}
}
```

Python

```
# -*- coding: utf-8 -*-
import hashlib, hmac, json, os, sys, time
from datetime import datetime

# Key Parameters
secret_id = "AKID********************************"
secret_key = "********************************"

service = "cvm"
host = "cvm.tencentcloudapi.com"
endpoint = "https://" + host
region = "ap-guangzhou"
action = "DescribeInstances"
version = "2017-03-12"
algorithm = "TC3-HMAC-SHA256"
#timestamp = int(time.time())
timestamp = 1551113065
date = datetime.utcfromtimestamp(timestamp).strftime("%Y-%m-%d")
params = {"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-nam
e"}]}

# ************* Step 1: Concatenate the CanonicalRequest string *************
http_request_method = "POST"
canonical_uri = "/"
canonical_querystring = ""
ct = "application/json; charset=utf-8"
payload = json.dumps(params)
canonical_headers = "content-type:%s\nhost:%s\n" % (ct, host)
signed_headers = "content-type;host"
hashed_request_payload = hashlib.sha256(payload.encode("utf-8")).hexdigest()
canonical_request = (http_request_method + "\n" +
canonical_uri + "\n" +
canonical_querystring + "\n" +
canonical_headers + "\n" +
signed_headers + "\n" +
hashed_request_payload)
print(canonical_request)

# ************* Step 2: Concatenate the string to sign *************
credential_scope = date + "/" + service + "/" + "tc3_request"
hashed_canonical_request = hashlib.sha256(canonical_request.encode("utf-8")).hexd
igest()
string_to_sign = (algorithm + "\n" +
str(timestamp) + "\n" +
credential_scope + "\n" +
hashed_canonical_request)
```

```
print(string_to_sign)


# ************* Step 3: Calculate the Signature *************
# Function for computing signature digest
def sign(key, msg):
return hmac.new(key, msg.encode("utf-8"), hashlib.sha256).digest()
secret_date = sign(("TC3" + secret_key).encode("utf-8"), date)
secret_service = sign(secret_date, service)
secret_signing = sign(secret_service, "tc3_request")
signature = hmac.new(secret_signing, string_to_sign.encode("utf-8"), hashlib.sha2
56).hexdigest()
print(signature)

# ************* Step 4: Concatenate the Authorization *************
authorization = (algorithm + " " +
"Credential=" + secret_id + "/" + credential_scope + ", " +
"SignedHeaders=" + signed_headers + ", " +
"Signature=" + signature)
print(authorization)

print('curl -X POST ' + endpoint
+ ' -H "Authorization: ' + authorization + '"'
+ ' -H "Content-Type: application/json; charset=utf-8"'
+ ' -H "Host: ' + host + '"'
+ ' -H "X-TC-Action: ' + action + '"'
+ ' -H "X-TC-Timestamp: ' + str(timestamp) + '"'
+ ' -H "X-TC-Version: ' + version + '"'
+ ' -H "X-TC-Region: ' + region + '"'
+ " -d '" + payload + "'")
```

Golang

```
package main

import (
"crypto/hmac"
"crypto/sha256"
"encoding/hex"
"fmt"
"time"
)

func sha256hex(s string) string {
b := sha256.Sum256([]byte(s))
return hex.EncodeToString(b[:])
```

```
}

func hmacsha256(s, key string) string {
hashed := hmac.New(sha256.New, []byte(key))
hashed.Write([]byte(s))
return string(hashed.Sum(nil))
}

func main() {
secretId := "AKID********************************"
secretKey := "********************************"
host := "cvm.tencentcloudapi.com"
algorithm := "TC3-HMAC-SHA256"
service := "cvm"
version := "2017-03-12"
action := "DescribeInstances"
region := "ap-guangzhou"
//var timestamp int64 = time.Now().Unix()
var timestamp int64 = 1551113065

// step 1: build canonical request string
httpRequestMethod := "POST"
canonicalURI := "/"
canonicalQueryString := ""
canonicalHeaders := "content-type:application/json; charset=utf-8\n" + "host:" +
host + "\n"
signedHeaders := "content-type;host"
payload := `{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-na
me"}]}`
hashedRequestPayload := sha256hex(payload)
canonicalRequest := fmt.Sprintf("%s\n%s\n%s\n%s\n%s\n%s",
httpRequestMethod,
canonicalURI,
canonicalQueryString,
canonicalHeaders,
signedHeaders,
hashedRequestPayload)
fmt.Println(canonicalRequest)

// step 2: build string to sign
date := time.Unix(timestamp, 0).UTC().Format("2006-01-02")
credentialScope := fmt.Sprintf("%s/%s/tc3_request", date, service)
hashedCanonicalRequest := sha256hex(canonicalRequest)
string2sign := fmt.Sprintf("%s\n%d\n%s\n%s",
algorithm,
timestamp,
credentialScope,
```

```
hashedCanonicalRequest)
fmt.Println(string2sign)

// step 3: sign string
secretDate := hmacsha256(date, "TC3"+secretKey)
secretService := hmacsha256(service, secretDate)
secretSigning := hmacsha256("tc3_request", secretService)
signature := hex.EncodeToString([]byte(hmacsha256(string2sign, secretSigning)))
fmt.Println(signature)

// step 4: build authorization
authorization := fmt.Sprintf("%s Credential=%s/%s, SignedHeaders=%s, Signature=%
s",
algorithm,
secretId,
credentialScope,
signedHeaders,
signature)
fmt.Println(authorization)

curl := fmt.Sprintf(`curl -X POST https://%s\
-H "Authorization: %s"\
-H "Content-Type: application/json; charset=utf-8"\
-H "Host: %s" -H "X-TC-Action: %s"\
-H "X-TC-Timestamp: %d"\
-H "X-TC-Version: %s"\
-H "X-TC-Region: %s"\
-d '%s'`, host, authorization, host, action, timestamp, version, region, payload)
fmt.Println(curl)
}
```

PHP

```
<?php
$secretId = "AKID********************************";
$secretKey = "********************************";
$host = "cvm.tencentcloudapi.com";
$service = "cvm";
$version = "2017-03-12";
$action = "DescribeInstances";
$region = "ap-guangzhou";
// $timestamp = time();
$timestamp = 1551113065;
$algorithm = "TC3-HMAC-SHA256";

// step 1: build canonical request string
```

```
$httpRequestMethod = "POST";
$canonicalUri = "/";
$canonicalQueryString = "";
$canonicalHeaders = "content-type:application/json; charset=utf-8\n"."host:".$hos
t."\n";
$signedHeaders = "content-type;host";
$payload = '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-na
me"}]}';
$hashedRequestPayload = hash("SHA256", $payload);
$canonicalRequest = $httpRequestMethod."\n"
.$canonicalUri."\n"
.$canonicalQueryString."\n"
.$canonicalHeaders."\n"
.$signedHeaders."\n"
.$hashedRequestPayload;
echo $canonicalRequest.PHP_EOL;

// step 2: build string to sign
$date = gmdate("Y-m-d", $timestamp);
$credentialScope = $date."/".$service."/tc3_request";
$hashedCanonicalRequest = hash("SHA256", $canonicalRequest);
$stringToSign = $algorithm."\n"
.$timestamp."\n"
.$credentialScope."\n"
.$hashedCanonicalRequest;
echo $stringToSign.PHP_EOL;

// step 3: sign string
$secretDate = hash_hmac("SHA256", $date, "TC3".$secretKey, true);
$secretService = hash_hmac("SHA256", $service, $secretDate, true);
$secretSigning = hash_hmac("SHA256", "tc3_request", $secretService, true);
$signature = hash_hmac("SHA256", $stringToSign, $secretSigning);
echo $signature.PHP_EOL;

// step 4: build authorization
$authorization = $algorithm
." Credential=".$secretId."/".$credentialScope
.", SignedHeaders=content-type;host, Signature=".$signature;
echo $authorization.PHP_EOL;

$curl = "curl -X POST https://".$host
.' -H "Authorization: '.$authorization.'"'
.' -H "Content-Type: application/json; charset=utf-8"'
.' -H "Host: '.$host.'"'
.' -H "X-TC-Action: '.$action.'"'
.' -H "X-TC-Timestamp: '.$timestamp.'"'
.' -H "X-TC-Version: '.$version.'"'
```

```
.' -H "X-TC-Region: '.$region.'"'
." -d '".$payload."'";
echo $curl.PHP_EOL;
```

Ruby

```
# -*- coding: UTF-8 -*-
# require ruby>=2.3.0
require 'digest'
require 'json'
require 'time'
require 'openssl'

# Key Parameters
secret_id = 'AKID********************************'
secret_key = '********************************'

service = 'cvm'
host = 'cvm.tencentcloudapi.com'
endpoint = 'https://' + host
region = 'ap-guangzhou'
action = 'DescribeInstances'
version = '2017-03-12'
algorithm = 'TC3-HMAC-SHA256'
# timestamp = Time.now.to_i
timestamp = 1551113065
date = Time.at(timestamp).utc.strftime('%Y-%m-%d')

# ************* Step 1: Concatenate the CanonicalRequest string *************
http_request_method = 'POST'
canonical_uri = '/'
canonical_querystring = ''
canonical_headers = "content-type:application/json; charset=utf-8\nhost:#{host}
\n"
signed_headers = 'content-type;host'
# params = { 'Limit' => 1, 'Filters' => [{ 'Name' => 'instance-name', 'Values' =>
['unnamed'] }] }
# payload = JSON.generate(params, { 'ascii_only' => true, 'space' => ' ' })
# json will generate in random order, to get specified result in example, we hard
-code it here.
payload = '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-nam
e"}]}'
hashed_request_payload = Digest::SHA256.hexdigest(payload)
canonical_request = [
http_request_method,
canonical_uri,
```

```
canonical_querystring,
canonical_headers,
signed_headers,
hashed_request_payload,
].join("\n")

puts canonical_request

# ************* Step 2: Concatenate the string to sign *************
credential_scope = date + '/' + service + '/' + 'tc3_request'
hashed_request_payload = Digest::SHA256.hexdigest(canonical_request)
string_to_sign = [
algorithm,
timestamp.to_s,
credential_scope,
hashed_request_payload,
].join("\n")
puts string_to_sign

# ************* Step 3: Calculate the Signature *************
digest = OpenSSL::Digest.new('sha256')
secret_date = OpenSSL::HMAC.digest(digest, 'TC3' + secret_key, date)
secret_service = OpenSSL::HMAC.digest(digest, secret_date, service)
secret_signing = OpenSSL::HMAC.digest(digest, secret_service, 'tc3_request')
signature = OpenSSL::HMAC.hexdigest(digest, secret_signing, string_to_sign)
puts signature

# ************* Step 4: Concatenate the Authorization *************
authorization = "#{algorithm} Credential=#{secret_id}/#{credential_scope}, Signed
Headers=#{signed_headers}, Signature=#{signature}"
puts authorization

puts 'curl -X POST ' + endpoint \
+ ' -H "Authorization: ' + authorization + '"' \
+ ' -H "Content-Type: application/json; charset=utf-8"' \
+ ' -H "Host: ' + host + '"' \
+ ' -H "X-TC-Action: ' + action + '"' \
+ ' -H "X-TC-Timestamp: ' + timestamp.to_s + '"' \
+ ' -H "X-TC-Version: ' + version + '"' \
+ ' -H "X-TC-Region: ' + region + '"' \
+ " -d '" + payload + "'"
```

DotNet

```
using System;
using System.Collections.Generic;
```

```
using System.Security.Cryptography;
using System.Text;

public class Application
{
public static string SHA256Hex(string s)
{
using (SHA256 algo = SHA256.Create())
{
byte[] hashbytes = algo.ComputeHash(Encoding.UTF8.GetBytes(s));
StringBuilder builder = new StringBuilder();
for (int i = 0; i < hashbytes.Length; ++i)
{
builder.Append(hashbytes[i].ToString("x2"));
}
return builder.ToString();
}
}
public static byte[] HmacSHA256(byte[] key, byte[] msg)
{
using (HMACSHA256 mac = new HMACSHA256(key))
{
return mac.ComputeHash(msg);
}
}

public static Dictionary<String, String> BuildHeaders(string secretid,
string secretkey, string service, string endpoint, string region,
string action, string version, DateTime date, string requestPayload)
{
string datestr = date.ToString("yyyy-MM-dd");
DateTime startTime = new DateTime(1970, 1, 1, 0, 0, 0, 0, DateTimeKind.Utc);
long requestTimestamp = (long)Math.Round((date - startTime).TotalMilliseconds, Mi
dpointRounding.AwayFromZero) / 1000;
// ************* Step 1: Concatenate the CanonicalRequest string *************
string algorithm = "TC3-HMAC-SHA256";
string httpRequestMethod = "POST";
string canonicalUri = "/";
string canonicalQueryString = "";
string contentType = "application/json";
string canonicalHeaders = "content-type:" + contentType + "; charset=utf-8\n" +
"host:" + endpoint + "\n";
string signedHeaders = "content-type;host";
string hashedRequestPayload = SHA256Hex(requestPayload);
string canonicalRequest = httpRequestMethod + "\n"
+ canonicalUri + "\n"
+ canonicalQueryString + "\n"
```

```
+ canonicalHeaders + "\n"
+ signedHeaders + "\n"
+ hashedRequestPayload;
Console.WriteLine(canonicalRequest);
Console.WriteLine("-----------------------------------");

// ************ Step 2: Concatenate the string to sign *************
string credentialScope = datestr + "/" + service + "/" + "tc3_request";
string hashedCanonicalRequest = SHA256Hex(canonicalRequest);
string stringToSign = algorithm + "\n" + requestTimestamp.ToString() + "\n" + cre
dentialScope + "\n" + hashedCanonicalRequest;
Console.WriteLine(stringToSign);
Console.WriteLine("-----------------------------------");

// ************ Step 3: Calculate the signature *************
byte[] tc3SecretKey = Encoding.UTF8.GetBytes("TC3" + secretkey);
byte[] secretDate = HmacSHA256(tc3SecretKey, Encoding.UTF8.GetBytes(datestr));
byte[] secretService = HmacSHA256(secretDate, Encoding.UTF8.GetBytes(service));
byte[] secretSigning = HmacSHA256(secretService, Encoding.UTF8.GetBytes("tc3_requ
est"));
byte[] signatureBytes = HmacSHA256(secretSigning, Encoding.UTF8.GetBytes(stringTo
Sign));
string signature = BitConverter.ToString(signatureBytes).Replace("-", "").ToLower
();
Console.WriteLine(signature);
Console.WriteLine("-----------------------------------");

// ************ Step 4: Concatenate the Authorization *************
string authorization = algorithm + " "
+ "Credential=" + secretid + "/" + credentialScope + ", "
+ "SignedHeaders=" + signedHeaders + ", "
+ "Signature=" + signature;
Console.WriteLine(authorization);
Console.WriteLine("-----------------------------------");

Dictionary<string, string> headers = new Dictionary<string, string>();
headers.Add("Authorization", authorization);
headers.Add("Host", endpoint);
headers.Add("Content-Type", contentType + "; charset=utf-8");
headers.Add("X-TC-Timestamp", requestTimestamp.ToString());
headers.Add("X-TC-Version", version);
headers.Add("X-TC-Action", action);
headers.Add("X-TC-Region", region);
return headers;
}
public static void Main(string[] args)
{
```

```
// SecretID and SecretKey
string SECRET_ID = "AKID********************************";
string SECRET_KEY = "********************************";

string service = "cvm";
string endpoint = "cvm.tencentcloudapi.com";
string region = "ap-guangzhou";
string action = "DescribeInstances";
string version = "2017-03-12";

// The timestamp `2019-02-26 00:44:25` used here is only for reference. In a proj
ect, use the following parameter:
// DateTime date = DateTime.UtcNow;
// Enter the correct time zone. We recommend using UTC timestamp to avoid errors.
DateTime date = new DateTime(1970, 1, 1, 0, 0, 0, 0, DateTimeKind.Utc).AddSeconds
(1551113065);
string requestPayload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"],
\"Name\": \"instance-name\"}]}";

Dictionary<string, string> headers = BuildHeaders(SECRET_ID, SECRET_KEY, service
, endpoint, region, action, version, date, requestPayload);

Console.WriteLine("POST https://cvm.tencentcloudapi.com");
foreach (KeyValuePair<string, string> kv in headers)
{
Console.WriteLine(kv.Key + ": " + kv.Value);
}
Console.WriteLine();
Console.WriteLine(requestPayload);
}
}
```

NodeJS

```
const crypto = require('crypto');

function sha256(message, secret = '', encoding) {
const hmac = crypto.createHmac('sha256', secret)
return hmac.update(message).digest(encoding)
}
function getHash(message, encoding = 'hex') {
const hash = crypto.createHash('sha256')
return hash.update(message).digest(encoding)
}
function getDate(timestamp) {
```

```
const date = new Date(timestamp * 1000)
const year = date.getUTCFullYear()
const month = ('0' + (date.getUTCMonth() + 1)).slice(-2)
const day = ('0' + date.getUTCDate()).slice(-2)
return `${year}-${month}-${day}`
}
function main(){

const SECRET_ID = "AKID********************************"
const SECRET_KEY = "********************************"

const endpoint = "cvm.tencentcloudapi.com"
const service = "cvm"
const region = "ap-guangzhou"
const action = "DescribeInstances"
const version = "2017-03-12"
//const timestamp = getTime()
const timestamp = 1551113065
const date = getDate(timestamp)

// ************* Step 1: Concatenate the CanonicalRequest string *************
const signedHeaders = "content-type;host"

const payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"], \"Name
\": \"instance-name\"}]}"

const hashedRequestPayload = getHash(payload);
const httpRequestMethod = "POST"
const canonicalUri = "/"
const canonicalQueryString = ""
const canonicalHeaders = "content-type:application/json; charset=utf-8\n" + "hos
t:" + endpoint + "\n"

const canonicalRequest = httpRequestMethod + "\n"
+ canonicalUri + "\n"
+ canonicalQueryString + "\n"
+ canonicalHeaders + "\n"
+ signedHeaders + "\n"
+ hashedRequestPayload
console.log(canonicalRequest)
console.log("----------------------------")

// ************* Step 2: Concatenate the string to sign *************
const algorithm = "TC3-HMAC-SHA256"
const hashedCanonicalRequest = getHash(canonicalRequest);
const credentialScope = date + "/" + service + "/" + "tc3_request"
const stringToSign = algorithm + "\n" +
```

```
timestamp + "\n" +
credentialScope + "\n" +
hashedCanonicalRequest
console.log(stringToSign)
console.log("----------------------------")

// ************* Step 3: Calculate the signature *************
const kDate = sha256(date, 'TC3' + SECRET_KEY)
const kService = sha256(service, kDate)
const kSigning = sha256('tc3_request', kService)
const signature = sha256(stringToSign, kSigning, 'hex')
console.log(signature)
console.log("----------------------------")

// ************* Step 4: Concatenate the Authorization *************
const authorization = algorithm + " " +
"Credential=" + SECRET_ID + "/" + credentialScope + ", " +
"SignedHeaders=" + signedHeaders + ", " +
"Signature=" + signature
console.log(authorization)
console.log("----------------------------")

const Call_Information = 'curl -X POST ' + "https://" + endpoint
+ ' -H "Authorization: ' + authorization + '"'
+ ' -H "Content-Type: application/json; charset=utf-8"'
+ ' -H "Host: ' + endpoint + '"'
+ ' -H "X-TC-Action: ' + action + '"'
+ ' -H "X-TC-Timestamp: ' + timestamp.toString() + '"'
+ ' -H "X-TC-Version: ' + version + '"'
+ ' -H "X-TC-Region: ' + region + '"'
+ " -d '" + payload + "'"
console.log(Call_Information)
}
main()
```

C++

```
#include <iostream>
#include <iomanip>
#include <sstream>
#include <string>
#include <stdio.h>
#include <time.h>
#include <openssl/sha.h>
#include <openssl/hmac.h>
```

```
using namespace std;

string get_data(int64_t ×tamp)
{
string utcDate;
char buff[20] = {0};
// time_t timenow;
struct tm sttime;
sttime = *gmtime(×tamp);
strftime(buff, sizeof(buff), "%Y-%m-%d", &sttime);
utcDate = string(buff);
return utcDate;
}
string int2str(int64_t n)
{
std::stringstream ss;
ss << n;
return ss.str();
}
string sha256Hex(const string &str)
{
char buf[3];
unsigned char hash[SHA256_DIGEST_LENGTH];
SHA256_CTX sha256;
SHA256_Init(&sha256);
SHA256_Update(&sha256, str.c_str(), str.size());
SHA256_Final(hash, &sha256);
std::string NewString = "";
for(int i = 0; i < SHA256_DIGEST_LENGTH; i++)
{
snprintf(buf, sizeof(buf), "%02x", hash[i]);
NewString = NewString + buf;
}
return NewString;
}
string HmacSha256(const string &key, const string &input)
{
unsigned char hash[32];

HMAC_CTX *h;
#if OPENSSL_VERSION_NUMBER < 0x10100000L
HMAC_CTX hmac;
HMAC_CTX_init(&hmac);
h = &hmac;
#else
h = HMAC_CTX_new();
#endif
```

```
HMAC_Init_ex(h, &key[0], key.length(), EVP_sha256(), NULL);
HMAC_Update(h, ( unsigned char* )&input[0], input.length());
unsigned int len = 32;
HMAC_Final(h, hash, &len);

#if OPENSSL_VERSION_NUMBER < 0x10100000L
HMAC_CTX_cleanup(h);
#else
HMAC_CTX_free(h);
#endif

std::stringstream ss;
ss << std::setfill('0');
for (int i = 0; i < len; i++)
{
ss << hash[i];
}

return (ss.str());
}
string HexEncode(const string &input)
{
static const char* const lut = "0123456789abcdef";
size_t len = input.length();

string output;
output.reserve(2 * len);
for (size_t i = 0; i < len; ++i)
{
const unsigned char c = input[i];
output.push_back(lut[c >> 4]);
output.push_back(lut[c & 15]);
}
return output;
}

int main()
{
string SECRET_ID = "AKID********************************";
string SECRET_KEY = "********************************";

string service = "cvm";
string host = "cvm.tencentcloudapi.com";
string region = "ap-guangzhou";
string action = "DescribeInstances";
string version = "2017-03-12";
```

```
int64_t timestamp = 1551113065;
string date = get_data(timestamp);

// ************* Step 1: Concatenate the CanonicalRequest string *************
string httpRequestMethod = "POST";
string canonicalUri = "/";
string canonicalQueryString = "";
string canonicalHeaders = "content-type:application/json; charset=utf-8\nhost:" +
host + "\n";
string signedHeaders = "content-type;host";
string payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"], \"Name
\": \"instance-name\"}]}";
string hashedRequestPayload = sha256Hex(payload);
string canonicalRequest = httpRequestMethod + "\n" + canonicalUri + "\n" + canoni
calQueryString + "\n"
+ canonicalHeaders + "\n" + signedHeaders + "\n" + hashedRequestPayload;
cout << canonicalRequest << endl;
cout << "-----------------------" << endl;

// ************* Step 2: Concatenate the string to sign *************
string algorithm = "TC3-HMAC-SHA256";
string RequestTimestamp = int2str(timestamp);
string credentialScope = date + "/" + service + "/" + "tc3_request";
string hashedCanonicalRequest = sha256Hex(canonicalRequest);
string stringToSign = algorithm + "\n" + RequestTimestamp + "\n" + credentialScop
e + "\n" + hashedCanonicalRequest;
cout << stringToSign << endl;
cout << "-----------------------" << endl;

// ************* Step 3: Calculate the signature ***************
string kKey = "TC3" + SECRET_KEY;
string kDate = HmacSha256(kKey, date);
string kService = HmacSha256(kDate, service);
string kSigning = HmacSha256(kService, "tc3_request");
string signature = HexEncode(HmacSha256(kSigning, stringToSign));
cout << signature << endl;
cout << "-----------------------" << endl;

// ************* Step 4: Concatenate the Authorization *************
string authorization = algorithm + " " + "Credential=" + SECRET_ID + "/" + creden
tialScope + ", "
+ "SignedHeaders=" + signedHeaders + ", " + "Signature=" + signature;
cout << authorization << endl;
cout << "-----------------------" << endl;

string headers = "curl -X POST https://" + host + "\n"
+ " -H \"Authorization: " + authorization + "\n"
```

```
+ " -H \"Content-Type: application/json; charset=utf-8\"" + "\n"
+ " -H \"Host: " + host + "\n"
+ " -H \"X-TC-Action: " + action + "\n"
+ " -H \"X-TC-Timestamp: " + RequestTimestamp + "\n"
+ " -H \"X-TC-Version: " + version + "\n"
+ " -H \"X-TC-Region: " + region + "\n"
+ " -d '" + payload;
cout << headers << endl;
return 0;
};
```

Signature Failure

The following situational error codes for signature failure may occur. Please resolve the errors accordingly.

Error Code	Description
AuthFailure.SignatureExpire	Signature expired. Timestamp and server time cannot differ by more than five minutes.
AuthFailure.SecretIdNotFound	The key does not exist. Please go to the console to check whether it is disabled or you copied fewer or more characters.
AuthFailure.SignatureFailure	Signature error. It is possible that the signature was calculated incorrectly, the signature does not match the content actually sent, or the SecretKey is incorrect.
AuthFailure.TokenFailure	Temporary certificate token error.
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type).

Signature

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Tencent Cloud API authenticates each access request, i.e. each request needs to include authentication information (Signature) in the common parameters to verify the identity of the requester.
The Signature is generated by the security credentials which include SecretId and SecretKey. If you don't have the security credentials yet, go to the TencentCloud API Key page to apply for them; otherwise, you cannot invoke the TencentCloud API.

1. Applying for Security Credentials

Before using the TencentCloud API for the first time, go to the TencentCloud API Key page to apply for security credentials.
Security credentials consist of SecretId and SecretKey:

- SecretId is used to identify the API requester.
- SecretKey is used to encrypt the signature string and verify it on the server.
- **You must keep your security credentials private and avoid disclosure.**

You can apply for the security credentials through the following steps:

1. Log in to the Tencent Cloud Console.
2. Go to the TencentCloud API Key page.
3. On the API Key Management page, click **Create Key** to create a SecretId/SecretKey pair.

Note: Each account can have up to two pairs of SecretId/SecretKey.

2. Generating a Signature

With the SecretId and SecretKey, a signature can be generated. The following describes how to generate a signature:

Assume that the SecretId and SecretKey are:

- SecretId: `AKID********************************`
- SecretKey: `********************************`

Note: This is just an example. For actual operations, please use your own SecretId and SecretKey.

Take the Cloud Virtual Machine's request to view the instance list (DescribeInstances) as an example. When you invoke this API, the request parameters may be as follows:

Parameter name	Description	Parameter value
Action	Method name	DescribeInstances
SecretId	Key ID	`AKID********************************`
Timestamp	Current timestamp	1465185768
Nonce	Random positive integer	11886
Region	Region where the instance is located	ap-guangzhou
InstanceIds.0	ID of the instance to query	ins-09dx96dg
Offset	Offset	0
Limit	Allowed maximum output	20
Version	API version number	2017-03-12

2.1. Sorting Parameters

First, sort all the request parameters in an ascending lexicographical order (ASCII code) by their names. Notes: (1) Parameters are sorted by their names instead of their values; (2) The parameters are sorted based on ASCII code, not in an alphabetical order or by values. For example, InstanceIds.2 should be arranged after InstanceIds.12. You can complete the sorting process using a sorting function in a programming language, such as the ksort function in PHP. The parameters in the example are sorted as follows:

```
{
'Action' : 'DescribeInstances',
'InstanceIds.0' : 'ins-09dx96dg',
'Limit' : 20,
'Nonce' : 11886,
'Offset' : 0,
'Region' : 'ap-guangzhou',
'SecretId' : 'AKID********************************',
'Timestamp' : 1465185768,
'Version': '2017-03-12',
}
```

When developing in another programming language, you can sort these sample parameters and it will work as long as you obtain the same results.

2.2. Concatenating a Request String

This step generates a request string.

Format the request parameters sorted in the previous step into the form of "parameter name"="parameter value". For example, for the Action parameter, its parameter name is "Action" and its parameter value is "DescribeInstances", so it will become Action=DescribeInstances after formatted.

Note: The "parameter value" is the original value but not the value after URL encoding.

Then, concatenate the formatted parameters with "&". The resulting request string is as follows:

```
Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0
&Region=ap-guangzhou&SecretId=AKID********************************&Timestamp=1465
185768&Version=2017-03-12
```

2.3. Concatenating the Signature Original String

This step generates a signature original string.

The signature original string consists of the following parameters:

1. HTTP method: POST and GET modes are supported, and GET is used here for the request. Please note that the method name should be in all capital letters.
2. Request server: the domain name of the request to view the list of instances (DescribeInstances) is cvm.tencentcloudapi.com. The actual request domain name varies by the module to which the API belongs. For more information, see the instructions of the specific API.
3. Request path: The request path in the current version of TencentCloud API is fixed to /.
4. Request string: the request string generated in the previous step.

The concatenation rule of the signature original string is: Request method + request host + request path + ? + request string

The concatenation result of the example is:

```
GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&L
imit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKID******************
************&Timestamp=1465185768&Version=2017-03-12
```

2.4. Generating a Signature String

This step generates a signature string.

First, use the HMAC-SHA1 algorithm to sign the **signature original string** obtained in the previous step, and

then encode the generated signature using Base64 to obtain the final signature.

The specific code is as follows with the PHP language being used as an example:

```
$secretKey = '*******************************';
$srcStr = 'GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins
-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKID********
**********************&Timestamp=1465185768&Version=2017-03-12';
$signStr = base64_encode(hash_hmac('sha1', $srcStr, $secretKey, true));
echo $signStr;
```

The final signature is:

```
7RAM2xfNMO9EiVTNmPg06MRnCvQ=
```

When developing in another programming language, you can sign and verify the original in the example above and it works as long as you get the same results.

3. Encoding a Signature String

The generated signature string cannot be directly used as a request parameter and must be URL encoded.

For example, if the signature string generated in the previous step is 7RAM2xfNMO9EiVTNmPg06MRnCvQ=, the final signature string request parameter (Signature) is 7RAM2xfNMO9EiVTNmPg06MRnCvQ%3D, which will be used to generate the final request URL.

Note: If your request method is GET, or the request method is POST and the Content-Type is application/x-www-form-urlencoded, then all the request parameter values need to be URL encoded (except the parameter key and the symbol of =) when sending the request. Non-ASCII characters need to be encoded with UTF-8 before URL encoding.

Note: The network libraries of some programming languages automatically URL encode all parameters, in which case there is no need to URL encode the signature string; otherwise, two rounds of URL encoding will cause the signature to fail.

Note: Other parameter values also need to be encoded using RFC 3986. Use %XY in percent-encoding for special characters such as Chinese characters, where "X" and "Y" are hexadecimal characters (0-9 and uppercase A-F), and using lowercase will cause an error.

4. Signature Failure

The following situational error codes for signature failure may occur. Please resolve the errors accordingly.

Error code	Error description
AuthFailure.SignatureExpire	The signature is expired
AuthFailure.SecretIdNotFound	The key does not exist
AuthFailure.SignatureFailure	Signature error
AuthFailure.TokenFailure	Token error
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type)

5. Signature Demo

When calling API 3.0, you are recommended to use the corresponding Tencent Cloud SDK 3.0 which encapsulates the signature process, enabling you to focus on only the specific APIs provided by the product when developing. See SDK Center for more information. Currently, the following programming languages are supported:

- Python
- Java
- PHP
- Go
- NodeJS
- .NET

To further explain the signing process, we will use a programming language to implement the process described above. The request domain name, API and parameter values in the sample are used here. This goal of this example is only to provide additional clarification for the signature process, please see the SDK for actual usage.

The final output URL might be: `https://cvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKID**********&Signature=7RAM2xfNMO9EiVTNmPg06MRnCvQ%3D&Timestamp=1465185768&Version=2017-03-12` .

Note: The key in the example is fictitious, and the timestamp is not the current time of the system, so if this URL is opened in the browser or called using commands such as curl, an authentication error will be

returned: Signature expired. In order to get a URL that can work properly, you need to replace the SecretId and SecretKey in the example with your real credentials and use the current time of the system as the Timestamp.

Note: In the example below, even if you use the same programming language, the order of the parameters in the URL may be different for each execution. However, the order does not matter, as long as all the parameters are included in the URL and the signature is calculated correctly.

Note: The following code is only applicable to API 3.0. It cannot be directly used in other signature processes. Even with an older API, signature calculation errors may occur due to the differences in details. Please refer to the corresponding documentation.

Java

```
import java.io.UnsupportedEncodingException;
import java.net.URLEncoder;
import java.util.Random;
import java.util.TreeMap;
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
import javax.xml.bind.DatatypeConverter;

public class TencentCloudAPIDemo {
private final static String CHARSET = "UTF-8";

public static String sign(String s, String key, String method) throws Exception {
Mac mac = Mac.getInstance(method);
SecretKeySpec secretKeySpec = new SecretKeySpec(key.getBytes(CHARSET), mac.getAlg
orithm());
mac.init(secretKeySpec);
byte[] hash = mac.doFinal(s.getBytes(CHARSET));
return DatatypeConverter.printBase64Binary(hash);
}

public static String getStringToSign(TreeMap<String, Object> params) {
StringBuilder s2s = new StringBuilder("GETcvm.tencentcloudapi.com/?");
// When signing, the parameters need to be sorted in lexicographical order. TreeM
ap is used here to guarantee the correct order.
for (String k : params.keySet()) {
s2s.append(k).append("=").append(params.get(k).toString()).append("&");
}
return s2s.toString().substring(0, s2s.length() - 1);
}

public static String getUrl(TreeMap<String, Object> params) throws UnsupportedEnc
odingException {
```

```
StringBuilder url = new StringBuilder("https://cvm.tencentcloudapi.com/?");
// There is no requirement for the order of the parameters in the actual request URL.
for (String k : params.keySet()) {
// The request string needs to be URL encoded. As the Key is all in English letters, only the value is URL encoded here.
url.append(k).append("=").append(URLEncoder.encode(params.get(k).toString(), CHARSET)).append("&");
}
return url.toString().substring(0, url.length() - 1);
}

public static void main(String[] args) throws Exception {
TreeMap<String, Object> params = new TreeMap<String, Object>(); // TreeMap enables automatic sorting
// A random number should be used when actually calling, for example: params.put("Nonce", new Random().nextInt(java.lang.Integer.MAX_VALUE));
params.put("Nonce", 11886); // Common parameter
// The current time of the system should be used when actually calling, for example: params.put("Timestamp", System.currentTimeMillis() / 1000);
params.put("Timestamp", 1465185768); // Common parameter
params.put("SecretId", "AKID********************************"); // Common parameter
params.put("Action", "DescribeInstances"); // Common parameter
params.put("Version", "2017-03-12"); // Common parameter
params.put("Region", "ap-guangzhou"); // Common parameter
params.put("Limit", 20); // Business parameter
params.put("Offset", 0); // Business parameter
params.put("InstanceIds.0", "ins-09dx96dg"); // Business parameter
params.put("Signature", sign(getStringToSign(params), "************************", "HmacSHA1")); // Common parameter
System.out.println(getUrl(params));
}
}
```

Python

Note: If running in a Python 2 environment, the following requests dependency package must be installed first: `pip install requests` .

```
# -*- coding: utf8 -*-
import base64
import hashlib
import hmac
import time
```

```
import requests

secret_id = "AKID********************************"
secret_key = "********************************"

def get_string_to_sign(method, endpoint, params):
s = method + endpoint + "/?"
query_str = "&".join("%s=%s" % (k, params[k]) for k in sorted(params))
return s + query_str

def sign_str(key, s, method):
hmac_str = hmac.new(key.encode("utf8"), s.encode("utf8"), method).digest()
return base64.b64encode(hmac_str)

if __name__ == '__main__':
endpoint = "cvm.tencentcloudapi.com"
data = {
'Action' : 'DescribeInstances',
'InstanceIds.0' : 'ins-09dx96dg',
'Limit' : 20,
'Nonce' : 11886,
'Offset' : 0,
'Region' : 'ap-guangzhou',
'SecretId' : secret_id,
'Timestamp' : 1465185768, # int(time.time())
'Version': '2017-03-12'
}
s = get_string_to_sign("GET", endpoint, data)
data["Signature"] = sign_str(secret_key, s, hashlib.sha1)
print(data["Signature"])
# An actual invocation would occur here, which may incur fees after success
# resp = requests.get("https://" + endpoint, params=data)
# print(resp.url)
```

Golang

```
package main

import (
"bytes"
"crypto/hmac"
"crypto/sha1"
"encoding/base64"
"fmt"
"sort"
)
```

```
func main() {
secretId := "AKID********************************"
secretKey := "********************************"
params := map[string]string{
"Nonce": "11886",
"Timestamp": "1465185768",
"Region": "ap-guangzhou",
"SecretId": secretId,
"Version": "2017-03-12",
"Action": "DescribeInstances",
"InstanceIds.0": "ins-09dx96dg",
"Limit": "20",
"Offset": "0",
}

var buf bytes.Buffer
buf.WriteString("GET")
buf.WriteString("cvm.tencentcloudapi.com")
buf.WriteString("/")
buf.WriteString("?")

// sort keys by ascii asc order
keys := make([]string, 0, len(params))
for k, _ := range params {
keys = append(keys, k)
}
sort.Strings(keys)

for i := range keys {
k := keys[i]
buf.WriteString(k)
buf.WriteString("=")
buf.WriteString(params[k])
buf.WriteString("&")
}
buf.Truncate(buf.Len() - 1)

hashed := hmac.New(sha1.New, []byte(secretKey))
hashed.Write(buf.Bytes())

fmt.Println(base64.StdEncoding.EncodeToString(hashed.Sum(nil)))
}
```

PHP

```php
<?php
$secretId = "AKID********************************";
$secretKey = "********************************";
$param["Nonce"] = 11886;//rand();
$param["Timestamp"] = 1465185768;//time();
$param["Region"] = "ap-guangzhou";
$param["SecretId"] = $secretId;
$param["Version"] = "2017-03-12";
$param["Action"] = "DescribeInstances";
$param["InstanceIds.0"] = "ins-09dx96dg";
$param["Limit"] = 20;
$param["Offset"] = 0;

ksort($param);

$signStr = "GETcvm.tencentcloudapi.com/?";
foreach ( $param as $key => $value ) {
$signStr = $signStr . $key . "=" . $value . "&";
}
$signStr = substr($signStr, 0, -1);

$signature = base64_encode(hash_hmac("sha1", $signStr, $secretKey, true));
echo $signature.PHP_EOL;
// need to install and enable curl extension in php.ini
// $param["Signature"] = $signature;
// $url = "https://cvm.tencentcloudapi.com/?".http_build_query($param);
// echo $url.PHP_EOL;
// $ch = curl_init();
// curl_setopt($ch, CURLOPT_URL, $url);
// $output = curl_exec($ch);
// curl_close($ch);
// echo json_decode($output);
```

Ruby

```ruby
# -*- coding: UTF-8 -*-
# require ruby>=2.3.0
require 'time'
require 'openssl'
require 'base64'

secret_id = "AKID********************************"
secret_key = "********************************"

method = 'GET'
```

```
endpoint = 'cvm.tencentcloudapi.com'
data = {
'Action' => 'DescribeInstances',
'InstanceIds.0' => 'ins-09dx96dg',
'Limit' => 20,
'Nonce' => 11886,
'Offset' => 0,
'Region' => 'ap-guangzhou',
'SecretId' => secret_id,
'Timestamp' => 1465185768, # Time.now.to_i
'Version' => '2017-03-12',
}
sign = method + endpoint + '/?'
params = []
data.sort.each do |item|
params << "#{item[0]}=#{item[1]}"
end
sign += params.join('&')
digest = OpenSSL::Digest.new('sha1')
data['Signature'] = Base64.encode64(OpenSSL::HMAC.digest(digest, secret_key, sig
n))
puts data['Signature']

# require 'net/http'
# uri = URI('https://' + endpoint)
# uri.query = URI.encode_www_form(data)
# p uri
# res = Net::HTTP.get_response(uri)
# puts res.body
```

DotNet

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Security.Cryptography;
using System.Text;

public class Application {
public static string Sign(string signKey, string secret)
{
string signRet = string.Empty;
using (HMACSHA1 mac = new HMACSHA1(Encoding.UTF8.GetBytes(signKey)))
{
byte[] hash = mac.ComputeHash(Encoding.UTF8.GetBytes(secret));
signRet = Convert.ToBase64String(hash);
```

```
}
return signRet;
}
public static string MakeSignPlainText(SortedDictionary<string, string> requestPa
rams, string requestMethod, string requestHost, string requestPath)
{
string retStr = "";
retStr += requestMethod;
retStr += requestHost;
retStr += requestPath;
retStr += "?";
string v = "";
foreach (string key in requestParams.Keys)
{
v += string.Format("{0}={1}&", key, requestParams[key]);
}
retStr += v.TrimEnd('&');
return retStr;
}

public static void Main(string[] args)
{
string SECRET_ID = "AKID********************************";
string SECRET_KEY = "********************************";

string endpoint = "cvm.tencentcloudapi.com";
string region = "ap-guangzhou";
string action = "DescribeInstances";
string version = "2017-03-12";
double RequestTimestamp = 1465185768;
// long timestamp = ToTimestamp() / 1000;
// string requestTimestamp = timestamp.ToString();
Dictionary<string, string> param = new Dictionary<string, string>();
param.Add("Limit", "20");
param.Add("Offset", "0");
param.Add("InstanceIds.0", "ins-09dx96dg");
param.Add("Action", action);
param.Add("Nonce", "11886");
// param.Add("Nonce", Math.Abs(new Random().Next()).ToString());

param.Add("Timestamp", RequestTimestamp.ToString());
param.Add("Version", version);

param.Add("SecretId", SECRET_ID);
param.Add("Region", region);
SortedDictionary<string, string> headers = new SortedDictionary<string, string>(p
aram, StringComparer.Ordinal);
```

```
string sigInParam = MakeSignPlainText(headers, "GET", endpoint, "/");
Console.WriteLine(sigInParam);
string sigOutParam = Sign(SECRET_KEY, sigInParam);


Console.WriteLine("GET https://cvm.tencentcloudapi.com");
foreach (KeyValuePair<string, string> kv in headers)
{
Console.WriteLine(kv.Key + ": " + kv.Value);
}
Console.WriteLine("Signature" + ": " + WebUtility.UrlEncode(sigOutParam));
Console.WriteLine();

string result = "https://cvm.tencentcloudapi.com/?";
foreach (KeyValuePair<string, string> kv in headers)
{
result += WebUtility.UrlEncode(kv.Key) + "=" + WebUtility.UrlEncode(kv.Value) +
"&";
}
result += WebUtility.UrlEncode("Signature") + "=" + WebUtility.UrlEncode(sigOutPa
ram);
Console.WriteLine("GET " + result);
}
}
```

NodeJS

```
const crypto = require('crypto');

function get_req_url(params, endpoint){
params['Signature'] = escape(params['Signature']);
const url_strParam = sort_params(params)
return "https://" + endpoint + "/?" + url_strParam.slice(1);
}

function formatSignString(reqMethod, endpoint, path, strParam){
let strSign = reqMethod + endpoint + path + "?" + strParam.slice(1);
return strSign;
}
function sha1(secretKey, strsign){
let signMethodMap = {'HmacSHA1': "sha1"};
let hmac = crypto.createHmac(signMethodMap['HmacSHA1'], secretKey || "");
return hmac.update(Buffer.from(strsign, 'utf8')).digest('base64')
}

function sort_params(params){
```

```
let strParam = "";
let keys = Object.keys(params);
keys.sort();
for (let k in keys) {
//k = k.replace(/_/g, '.');
strParam += ("&" + keys[k] + "=" + params[keys[k]]);
}
return strParam
}

function main(){
const SECRET_ID = "AKID********************************"
const SECRET_KEY = "********************************"

const endpoint = "cvm.tencentcloudapi.com"
const Region = "ap-guangzhou"
const Version = "2017-03-12"
const Action = "DescribeInstances"
const Timestamp = 1465185768
// const Timestamp = Math.round(Date.now() / 1000)
const Nonce = 11886
//const nonce = Math.round(Math.random() * 65535)

let params = {};
params['Action'] = Action;
params['InstanceIds.0'] = 'ins-09dx96dg';
params['Limit'] = 20;
params['Offset'] = 0;
params['Nonce'] = Nonce;
params['Region'] = Region;
params['SecretId'] = SECRET_ID;
params['Timestamp'] = Timestamp;
params['Version'] = Version;

strParam = sort_params(params)

const reqMethod = "GET";
const path = "/";
strSign = formatSignString(reqMethod, endpoint, path, strParam)
console.log(strSign)
console.log("----------------------")

params['Signature'] = sha1(SECRET_KEY, strSign)
console.log(params['Signature'])
console.log("----------------------")

const req_url = get_req_url(params, endpoint)
```

```
console.log(params['Signature'])
console.log("-----------------------")
console.log(req_url)
}
main()
```

Responses

Last updated：2026-05-21 10:25:58

Response for Successful Requests

For example, when calling CAM API (version: 2017-03-12) to view the status of instances (DescribeInstancesStatus), if the request has succeeded, you may see the response as shown below:

```
{
"Response": {
"TotalCount": 0,
"InstanceStatusSet": [],
"RequestId": "b5b41468-520d-4192-b42f-595cc34b6c1c"
}
}
```

- The API will return `Response`, which contains `RequestId`, as long as it processes the request. It does not matter if the request is successful or not.
- RequestId is the unique ID of an API request. Contact us with this ID when an exception occurs.
- Except for the fixed fields, all fields are action-specified. For the definitions of action-specified fields, see the corresponding API documentation. In this example, `TotalCount` and `InstanceStatusSet` are the fields specified by the API `DescribeInstancesStatus`. 0 `TotalCount` means that the requester owns 0 CVM instance so the `InstanceStatusSet` is empty.

Response for Failed Requests

If the request has failed, you may see the response as shown below:

```
{
"Response": {
"Error": {
"Code": "AuthFailure.SignatureFailure",
"Message": "The provided credentials could not be validated. Please ensure your s
ignature is correct."
},
"RequestId": "ed93f3cb-f35e-473f-b9f3-0d451b8b79c6"
}
}
```

- The presence of the `Error` field indicates that the request has failed. A response for a failed request will include `Error`, `Code` and `Message` fields.
- `Code` is the code of the error that helps you identify the cause and solution. There are two types of error codes so you may find the code in either common error codes or API-specified error codes.
- Message explains the cause of the error. Note that the returned messages are subject to service updates. The information the messages provide may not be up-to-date and should not be the only source of reference.
- RequestId is the unique ID of an API request. Contact us with this ID when an exception occurs.

Common Error Codes

If there is an Error field in the response, it means that the API call failed. The Code field in Error indicates the error code. The following table lists the common error codes that all actions can return.

Error Code	Description
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type).
AuthFailure.MFAFailure	MFA failed.
AuthFailure.SecretIdNotFound	The key does not exist.
AuthFailure.SignatureExpire	Signature expired.
AuthFailure.SignatureFailure	Signature error.
AuthFailure.TokenFailure	Token error.
AuthFailure.UnauthorizedOperation	The request does not have CAM authorization.
DryRunOperation	DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.
FailedOperation	Operation failed.
InternalError	Internal error.
InvalidAction	The API does not exist.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
LimitExceeded	Quota limit exceeded.

MissingParameter	A parameter is missing.
NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
ResourceInUse	Resource is in use.
ResourceInsufficient	Insufficient resource.
ResourceNotFound	The resource does not exist.
ResourceUnavailable	Resource is unavailable.
UnauthorizedOperation	Unauthorized operation.
UnknownParameter	Unknown parameter.
UnsupportedOperation	Unsupported operation.
UnsupportedProtocol	HTTPS request method error. Only GET and POST requests are supported.
UnsupportedRegion	API does not support the requested region.

Multi-Network Aggregation Acceleration (Tencent Cloud Jutong) APIs ActivateHardware

Last updated：2026-05-21 10:26:39

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Activate hardware device

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ActivateHardware.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
Hardware.N	Yes	Array of ActivateHardware	Device list to be activated

3. Output Parameters

Parameter Name	Type	Description
HardwareInfo	Array of ActivateHardware	Device information after activation
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Batch Activate Devices

Batch activate devices

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: ActivateHardware
<Common request parameters>

{
"Hardware": [
{
"Vendor": "vendor",
"SN": "AN",
"DeviceName": "name",
"Description": "activateHardware info",
"DataKey": "keys"
}
]
}
```

Output Example

```
{
"Response": {
```

```
"HardwareInfo": [
{
"Vendor": "vendor",
"SN": "AN",
"DeviceName": "name",
"Description": "activateHardware info",
"DataKey": "keys",
"LicensePayMode": 1,
"AccessScope": 1
}
],
"RequestId": "edd378f7-2511-4692-a029-5ca3d22c1884"
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description

InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.DuplicateDeviceName	Device name already exists.
InvalidParameterValue	Parameter value error.
OperationDenied.HardwareHasActivated	Hardware corresponding to SN has been activated
OperationDenied.HardwareNotExist	The hardware corresponding to the input SN does not exist.
OperationDenied.VendorNotRegister	The current account is not yet registered as a manufacturer.

GroupDeleteDevice

Last updated：2026-05-21 10:26:10

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Delete devices in the group

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GroupDeleteDevice.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
GroupId	Yes	String	group ID
DeviceList.N	Yes	Array of String	Device list to be deleted

3. Output Parameters

Parameter Name	Type	Description
DeviceNum	Integer	Number of devices grouped in
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GroupDeleteDevice
<Common request parameters>

{
"DeviceList": [
"mna-test1",
"mna-test2"
],
"GroupId": "group-id1"
}
```

Output Example

```
{
"Response": {
"DeviceNum": 5,
"RequestId": "a1434e98-16e8-41de-9b9b-27805a9cffbf"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

GroupAddDevice

Last updated：2026-05-21 10:26:11

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Add device to already exist group

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GroupAddDevice.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
GroupId	Yes	String	group ID
DeviceList.N	Yes	Array of String	Device list to be added

3. Output Parameters

Parameter Name	Type	Description
DeviceNum	Integer	Number of devices grouped in
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GroupAddDevice
<Common request parameters>

{
"DeviceList": [
"mna-test1",
"mna-test2"
],
"GroupId": "group-id"
}
```

Output Example

```
{
"Response": {
"DeviceNum": 5,
"RequestId": "a1434e98-16e8-41de-9b9b-27805a9cffbf"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

AddL3Conn

Last updated：2026-05-21 10:26:35

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Create an interconnection rule

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: AddL3Conn.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
Cidr1	Yes	String	Set the interconnect CIDR1. Supported ranges: 10.0.0.0 – 10.255.255.255, 172.16.0.0 – 172.31.255.255, 192.168.0.0 – 192.168.255.255.
Cidr2	Yes	String	Set the interconnection CIDR2. Supported ranges: 10.0.0.0 – 10.255.255.255, 172.16.0.0 – 172.31.255.255, 192.168.0.0 – 192.168.255.255.
DeviceId1	Yes	String	Device ID corresponding to CIDR1

DeviceId2	Yes	String	Device ID corresponding to CIDR2
Description	No	String	Rule description

3. Output Parameters

Parameter Name	Type	Description
L3ConnId	String	Interconnection rule ID
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: AddL3Conn
<Common request parameters>

{
"Cidr1": "173.12.0.0/16",
"Cidr2": "173.13.0.0/16",
"DeviceId1": "mna-der44545r",
"DeviceId2": "cde",
"Description": "this is a test rule"
}
```

Output Example

```
{
"Response": {
"L3ConnId": "l3conn-h9boibynmp",
"RequestId": "f0367096-b039-491c-b7eb-76669a2b22cf"
```

```
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

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- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.
OperationDenied.L3CidrOverLap	Interconnection rule CIDR overlap
OperationDenied.L3ConnectionOverSize	Number of interconnection rules exceeds the maximum limit of 150

AddGroup

Last updated：2026-05-21 10:26:37

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Create group

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: AddGroup.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
GroupName	Yes	String	Group name
Description	No	String	Group description

3. Output Parameters

Parameter Name	Type	Description

GroupId	String	Unique ID of the group, only for grouping case-sensitive
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: AddGroup
<Common request parameters>

{
"GroupName": "gname",
"Description": "AddGroup info"
}
```

Output Example

```
{
"Response": {
"RequestId": "a1434e98-16e8-41de-9b9b-27805a9cffbf",
"GroupId": "1a2b3c4d5e"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

AddDevice

Last updated：2026-05-21 10:26:37

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Create new device records

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: AddDevice.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceName	Yes	String	Name of the new device
Remark	No	String	Remark of the created device
DataKey	No	String	base64-encoded key string of the new device, optional. If not filled, automatically generated by the system.
Encrypted	No	Boolean	Whether to set the preset key. true: set preset key. false: Leave the preset key unset.

AccessScope	No	Integer	Access environment. 0: public cloud gateway; 1: private gateway; 2: public cloud gateway and private gateway. By default if left blank, public cloud gateway. specific meaning Public cloud gateway: The device can only integrate with the public cloud gateway (nearby access). Private gateway: The device can only integrate with the already launched private gateway (nearby access or fixed ip integration). Public cloud gateway and private gateway: The device can also integrate with the public cloud gateway and the already launched private gateway (connected to nearby or fixed ip access).
LicensePayMode	No	Integer	license payment method Monthly authorization Permanent license If not specified, it defaults to monthly authorization. To permanently license a device, you need to call the OrderPerLicense API to pay the authorization fee. Otherwise, the device cannot be used.
GroupName	No	String	Device group name. Optional. Reserved parameter. GroupId must be imported when grouping is required.
GroupId	No	String	Device group ID. Optional. If not filled, the default device is not grouped.
FlowTrunc	No	Integer	No traffic processing method for the device. 0: pay-as-you-go, 1: truncate and accelerate

3. Output Parameters

Parameter Name	Type	Description
DataKey	String	base64-format key encrypted by the encryption algorithm
DeviceId	String	device ID
Signature	String	signature string
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request

		will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Create new device

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: AddDevice
<Common request parameters>

{
"DeviceName": "mna-test1",
"Remark": "mna-test1",
"DataKey": "mna-test1",
"Encrypted": "false"
}
```

Output Example

```
{
"Response": {
"RequestId": "527cc5c7-0413-33e9-2adc-632e0f6a9dff",
"DeviceId": "mna-test1",
"DataKey": "dasdfrfwer32e4r",
"Signature": "dasdfrfwer32e4r"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.DuplicateDataKey	Device key already exists.
InternalError.DuplicateDeviceName	Device name already exists.
InternalError.UndefinedEncryptedKey	Preset key not created.
InvalidParameterValue	Parameter value error.

AddHardware

Last updated：2026-05-21 10:26:36

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Add hardware devices, generate inactive hardware devices, and support batch addition

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: AddHardware.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
Hardware.N	Yes	Array of Hardware	List of Hardware

3. Output Parameters

Parameter Name	Type	Description
Hardware	Array of Hardware	Hardware device
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Create a hardware device

Batch create hardware devices

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: AddHardware
<Common request parameters>

{
"Hardware": [
{
"SN": "AN",
"LicenseChargingMode": 1,
"Description": "AddHardware info"
}
]
}
```

Output Example

```
{
"Response": {
"Hardware": [
{
"SN": "AN",
"LicenseChargingMode": 1,
"Description": "AddHardware description"
```

```
"HardwareId": "cpe-9oii2ew1z4"
}
],
"RequestId": "a1434e98-16e8-41de-9b9b-27805a9cffbf"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.
OperationDenied.DuplicateSN	SN already exists

OperationDenied.VendorNotRegister	The current account is not yet registered as a manufacturer.

CreateEncryptedKey

Last updated：2026-05-21 10:26:34

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to configure and refresh preset keys.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateEncryptedKey.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.

3. Output Parameters

Parameter Name	Type	Description
EncryptedKey	String	Preset key

RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Setting a Preset Key

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: CreateEncryptedKey
<Common request parameters>

{}
```

Output Example

```
{
"Response": {
"RequestId": "edd378f7-2511-4692-a029-5ca3d22c1884",
"EncryptedKey": "BgkqhkiG9w0BAQ"
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js

- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.

DeleteL3Conn

Last updated：2026-05-21 10:26:32

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Delete an interconnection rule

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteL3Conn.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
L3ConnIdList.N	Yes	Array of String	List of interconnection rule IDs

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: DeleteL3Conn
<Common request parameters>

{
"L3ConnIdList": [
"lcn-test1"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "bd89e515-20b4-445b-a88d-7355e76f8d22"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

DeleteGroup

Last updated：2026-05-21 10:26:32

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Delete group

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteGroup.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
GroupId	Yes	String	Delete the specified group

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request

		will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: DeleteGroup
<Common request parameters>

{
"GroupId": "group-1"
}
```

Output Example

```
{
"Response": {
"RequestId": "bd89e515-20b4-445b-a88d-7355e76f8d22"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

DeleteDevice

Last updated：2026-05-21 10:26:33

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Delete device info

A maximum of 30 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteDevice.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceId	Yes	String	Delete the device unique ID

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request

		will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Delete a device interface

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: DeleteDevice
<Common request parameters>

{
"DeviceId": "mna-xxx"
}
```

Output Example

```
{
"Response": {
"RequestId": "xxx"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

GetDestIPByName

Last updated：2026-05-21 10:26:28

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Statistics of a single device accessing the target IP address

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetDestIPByName.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceName	Yes	String	Device name
BeginTime	Yes	Integer	Start time.
EndTime	Yes	Integer	End time.
GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Default is 0 if not specified.

3. Output Parameters

Parameter Name	Type	Description
DestIpInfo	Array of DestIpInfo	Target IP info Note: This field may return null, indicating that no valid values can be obtained.
AccessRegion	String	Access region. Value ranges from 'MC' to 'AM'. MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas.
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Query the target IP list based on DeviceName (testdev)

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetDestIPByName
<Common request parameters>

{
"DeviceName": "testdev",
"BeginTime": 1758544656,
"EndTime": 1758544716,
"GatewayType": 0
}
```

Output Example

```
{
"Response": {
"AccessRegion": "MC",
"DestIpInfo": [
{
```

```
"GatewayIp": "",
"GatewaySite": "",
"IpCount": 0,
"IpList": [],
"Time": "1758544620"
},
{
"GatewayIp": "",
"GatewaySite": "",
"IpCount": 0,
"IpList": [],
"Time": "1758544680"
}
],
"RequestId": "33ef661c-3d47-4b67-96a1-d4852daeace6"
}
}
```


5. Developer Resources

SDK

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameterValue	Parameter value error.

GetGroupDetail

Last updated：2026-05-21 10:26:20

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

View group details

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetGroupDetail.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
GroupId	Yes	String	group ID
PageSize	Yes	Integer	Display per page number of records. When PageSize and PageNumber are -1, match all devices by 1 page with no limit entries. Example value: 1.
PageNumber	Yes	Integer	Number of records displayed per page. When PageSize and PageNumber are both -1, match all devices by 1 page with no

			limit entries. Example value: 10.
KeyWord	No	String	Search Keywords

3. Output Parameters

Parameter Name	Type	Description
GroupInfo	GroupInfo	Group basic info
DeviceInfos	Array of DeviceBaseInfo	Device list grouped in
Length	Integer	Total number of devices
TotalPage	Integer	Total pages
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetGroupDetail
<Common request parameters>

{
"GroupId": "cliGrp-xf8rboasb",
"PageSize": "10",
"PageNumber": "1"
}
```

Output Example


```
{
"Response": {
"GroupInfo": {
"GroupId": "cliGrp-xf8rboasb",
"GroupName": "groupname",
"CreateTime": "1711076263000",
"UpdateTime": "1711076263000",
"Description": "GetGroupDetail description"
"DeviceNum": 0
},
"DeviceInfos": [
{
"DeviceId": "mna-detr244",
"DeviceName": "name",
"CreateTime": "1711076263000",
"LastTime": "1711076263000",
"Remark": "mark",
"AccessScope": 0,
"LicensePayMode": 0,
"Payer": 0,
"GroupId": "cliGrp-xf8rboasb",
"GroupName": "name2"
}
],
"Length": 0,
"TotalPage": 0,
"RequestId": "fd429f79-9914-46e7-94c3-c0695ee1c8b9"
}
}
```


5. Developer Resources

SDK

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

GetDevice

Last updated：2026-05-21 10:26:27

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to search device details by specified device ID.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetDevice.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceId	Yes	String	Search for the id of the specified device

3. Output Parameters

Parameter Name	Type	Description
DeviceDetails	DeviceDetails	device details

RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Retrieving device information by specified id

Obtain device basic info and network info

Input Example

```
{
"DeviceId": "mna-xxx"
}
```

Output Example

```
{
"Response": {
"DeviceDetails": {
"BusinessDownRate": 0,
"BusinessUpRate": 443292176.8,
"DeviceBaseInfo": {
"CreateTime": "1662722094000",
"DeviceId": "mna-94p8c5zyst",
"DeviceName": "yusheng-test2",
"LastTime": "1675242602000",
"Remark": "yusheng-test"
},
"DeviceNetInfo": [
{
"DataEnable": false,
"DataRx": 0,
"DataTx": 0,
"DownRate": 463128.799998,
"DownloadLimit": "0",
"NetInfoName": "eth0",
"PublicIp": "9.223.110.232",
"Rat": 0,
"SignalStrength": 0,
"State": 0,
"Type": 0,
```

```
"UpRate": 27040465.6,
"UploadLimit": "0",
"Vendor": 0
},
{
"DataEnable": false,
"DataRx": 0,
"DataTx": 0,
"DownRate": 4415987.2,
"DownloadLimit": "0",
"NetInfoName": "eth1",
"PublicIp": "9.223.96.218",
"Rat": 0,
"SignalStrength": 0,
"State": 0,
"Type": 0,
"UpRate": 428871766.399999,
"UploadLimit": "0",
"Vendor": 0
}
],
"GatewaySite": "gz"
},
"RequestId": "2ca4e2e9-f4a1-4b24-b88a-b7523099c123"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

ModifyDeviceAccessRegions

Last updated：2026-05-21 10:26:09

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to modify device connectivity regions.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ModifyDeviceAccessRegions.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceIds.N	Yes	Array of String	device ID
AllowedRegions.N	No	Array of String	Access region

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Modify device access gateway region

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: ModifyDeviceAccessRegions
<Common request parameters>

{
"DeviceIds": [
"mna-w***bzezug"
],
"AllowedRegions": [
"ap-beijing"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "b5325b8a-349f-44d9-9f1e-2a84ba5e2c84"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

DescribeAccessRegions

Last updated：2026-05-21 10:26:31

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Query the access region list.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeAccessRegions.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.

3. Output Parameters

Parameter Name	Type	Description
RegionList	Array of RegionInfo	Region information list

RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Querying the Available Region List

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: DescribeAccessRegions
<Common request parameters>

{}
```

Output Example

```
{
"Response": {
"RegionList": [
{
"RegionAbbr": "",
"RegionId": "ap-beijing",
"RegionName": "Beijing"
}
],
"RequestId": "f82a3da5-2d49-4689-b8e6-37214feae55a"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

GetL3ConnList

Last updated：2026-05-21 10:26:17

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Retrieve the list of interconnection rules

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetL3ConnList.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
PageSize	Yes	Integer	Display records per page. When both PageSize and PageNumber are -1, match all devices with unlimited entries on one page.
PageNumber	Yes	Integer	Currently viewed page number. When PageSize and PageNumber are both -1, match all devices with unlimited entries on one page.
DeviceId	No	String	Search for groups by DeviceId. Match all groups when empty.

3. Output Parameters

Parameter Name	Type	Description
L3ConnList	Array of L3ConnInfo	List of interconnection rules
Length	Integer	Total number of devices
TotalPage	Integer	Total pages
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetL3ConnList
<Common request parameters>

{
"PageSize": 10,
"PageNumber": 1,
"DeviceId": "mna-2x2tllhb18"
}
```

Output Example

```
{
"Response": {
"L3ConnList": [
{
"L3ConnId": "l3conn-h9boibynmp",
"DeviceId1": "mna-2x2tllhb18",
```

```
"Cidr1": "192.168.1.0/26",
"DeviceId2": "mna-2x2tllhb13",
"Cidr2": "192.168.1.0/26",
"Enable": true,
"Description": "this is descript"
}
],
"Length": 1,
"TotalPage": 1,
"RequestId": "e5b299c7-aaf4-4a5e-9d01-feb63273e347"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.

InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

GetGroupList

Last updated：2026-05-21 10:26:19

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to obtain a group list.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetGroupList.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
PageSize	Yes	Integer	Number of records displayed per page. When both PageSize and PageNumber are -1, match all devices with no limit on a single page. Example value: 10.
PageNumber	Yes	Integer	Currently viewed page number. When both PageSize and PageNumber are -1, match all devices as one page with no limit on entries. Example value: 1.

Keyword	No	String	Search for groups by keyword. Match all groups when empty.

3. Output Parameters

Parameter Name	Type	Description
GroupInfos	Array of GroupInfo	List of Device Information
Length	Integer	Total number of devices
TotalPage	Integer	Total pages
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetGroupList
<Common request parameters>

{
"PageSize": "10",
"PageNumber": "1",
"Keyword": "Keyword"
}
```

Output Example

```
{
"Response": {
```

```
"GroupInfos": [
{
"GroupId": "group-id1",
"GroupName": "gname",
"CreateTime": "1734401551",
"UpdateTime": "1734401551",
"Description": "GetGroupList description"
"DeviceNum": 5
}
],
"Length": 0,
"TotalPage": 0,
"RequestId": "a1434e98-16e8-41de-9b9b-27805a9cffbf"
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description

InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

GetDevices

Last updated：2026-05-21 10:26:26

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to get device information list.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetDevices.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
PageSize	Yes	Integer	Display records per page. When both PageSize and PageNumber are -1, match all devices with unlimited entries on one page.
PageNumber	Yes	Integer	Currently viewed page number. When PageSize and PageNumber are both -1, match all devices with unlimited entries on one page.
Keyword	No	String	Search for a device by keyword (ID or device name). Leave it empty to match all devices.

DeviceType	No	Integer	DeviceType Leave it blank: Return all devices. 1: Your own equipment; 2: Third-party device

3. Output Parameters

Parameter Name	Type	Description
DeviceInfos	Array of DeviceBaseInfo	List of Device Information
Length	Integer	Total number of devices
TotalPage	Integer	Total pages
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetDevices
<Common request parameters>

{
"PageSize": 1,
"PageNumber": 1
}
```

Output Example

```
{
"Response": {
"DeviceInfos": [
{
"AccessScope": 0,
"CreateTime": "1663310188000",
"DeviceId": "mna-w795bzezug",
"DeviceName": "dev2233",
"FlowTrunc": 0,
"GroupId": "",
"GroupName": "",
"LastTime": "1719454676000",
"LicensePayMode": 0,
"Payer": 0,
"Remark": "",
"Sn": "",
"Vendor": ""
}
],
"Length": 899,
"RequestId": "8fbce821-acbb-49db-ad70-345b5d353324",
"TotalPage": 899
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

GetHardwareInfo

Last updated：2026-05-21 10:26:19

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to get hardware device information.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetHardwareInfo.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
Vendor	Yes	String	Vendor name
SN	Yes	String	Device SN serial number

3. Output Parameters

Parameter Name	Type	Description

LicensePayMode	Integer	Authorization validity period of license 0: Monthly authorization 1: Permanent license –Unknown
Payer	Integer	Payer 0: Customer payment 1: Manufacturer payment
SN	String	Hardware Serial Number
Vendor	String	Vendor name
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Obtaining Hardware Device Information

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetHardwareInfo
<Common request parameters>

{
"Vendor": "kainan",
"SN": "123321"
}
```

Output Example

```
{
"Response": {
"LicensePayMode": 0,
"Payer": 1,
"RequestId": "e7c277b9-690f-46a3-910e-09b3aae1ee94",
"SN": "123321",
"Vendor": "kainan"
```

```
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.
OperationDenied.HardwareNotExist	The hardware corresponding to the input SN does not exist.

GetFlowStatisticByRegion

Last updated：2026-05-21 10:26:21

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Retrieve traffic usage data for the specified region and time point

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetFlowStatisticByRegion.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
BeginTime	Yes	Integer	Search start time
EndTime	Yes	Integer	end time
Type	Yes	Integer	Traffic type (1: uplink traffic, 2: downstream traffic, 3: sum of upstream and downstream)
TimeGranularity	Yes	Integer	Time granularity (1: hourly statistics, 2: daily statistics)

GatewayType	Yes	Integer	Gateway type. 0: public cloud gateway; 1: private gateway.
AccessRegion	No	String	Access region. Value ranges from 'MC' to 'AM'. MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas. Leave it blank to represent all regions.

3. Output Parameters

Parameter Name	Type	Description
NetDetails	Array of NetDetails	Traffic details
MaxValue	Float	Search the maximum value of traffic usage in a time period (measurement unit: byte)
AvgValue	Float	Search time period traffic usage average (unit: byte)
TotalValue	Float	Search total traffic usage in the time period (unit: byte)
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Normal scenarios

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetFlowStatisticByRegion
<Common request parameters>

{
"BeginTime": 0,
"EndTime": 0,
"Type": 0,
```

```
"TimeGranularity": 0,
"AccessRegion": "MC",
"GatewayType": 0
}
```

Output Example

```
{
"Response": {
"NetDetails": [
{
"Current": 0,
"Time": "1735259400"
}
],
"MaxValue": 0,
"AvgValue": 0,
"TotalValue": 0,
"RequestId": "bd89e515-20b4-445b-a88d-7355e76f8d22"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.MonitorDataRequestError	Monitor data request error.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameterValue	Parameter value error.

GetFlowStatisticByName

Last updated：2026-05-21 10:26:22

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Retrieve traffic usage data for a specified device Id at a specified time point.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetFlowStatisticByName.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceName	Yes	String	Device name.
BeginTime	Yes	Integer	Search start time
EndTime	Yes	Integer	end time
Type	Yes	Integer	Traffic type (1: uplink traffic, 2: downstream traffic, 3: sum of upstream and downstream)

TimeGranularity	Yes	Integer	Time granularity (1: hourly statistics, 2: daily statistics)
AccessRegion	No	String	Access region. Value ranges from 'MC' to 'AM'. MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas. Leave it blank to represent all regions.
GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Default is 0 if not specified.
DeviceList.N	No	Array of String	Device name list. Used for querying traffic volume across devices. When this field is enabled, DeviceId can be "-1".

3. Output Parameters

Parameter Name	Type	Description
NetDetails	Array of NetDetails	Traffic details
MaxValue	Float	Search the maximum value of traffic usage in a time period (measurement unit: byte)
AvgValue	Float	Search time period traffic usage average (unit: byte)
TotalValue	Float	Search total traffic usage in the time period (unit: byte)
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Query hourly traffic statistics based on DeviceName (test0916)

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetFlowStatisticByName
```

```
<Common request parameters>

{
"DeviceName": "test0916",
"BeginTime": 1757865600,
"EndTime": 1758544927,
"Type": 1,
"TimeGranularity": 1
}
```

Output Example

```
{
"Response": {
"AvgValue": 51145200,
"MaxValue": 51145200,
"NetDetails": [
{
"Current": 51145200,
"Time": "1758024000"
}
],
"RequestId": "3dc9c965-862b-46ea-b80a-0caf4368d0ba",
"TotalValue": 51145200
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.MonitorDataRequestError	Monitor data request error.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameterValue	Parameter value error.

GetFlowStatisticByGroup

Last updated：2026-05-21 10:26:23

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Retrieve traffic usage data for the specified group and time period

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetFlowStatisticByGroup.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
GroupId	Yes	String	group ID
BeginTime	Yes	Integer	Search start time
EndTime	Yes	Integer	end time
Type	Yes	Integer	Traffic type (1: uplink traffic, 2: downstream traffic, 3: sum of upstream and downstream)

TimeGranularity	Yes	Integer	Time granularity (1: hourly statistics, 2: daily statistics)
AccessRegion	No	String	Access region. Value ranges from 'MC' to 'AM'. MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas. Leave it blank to represent all regions.
GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Default is 0 if not specified.
MpApplicationId	No	String	Application ID. No need to use when querying group traffic. When querying application traffic, this field is the application ID. Fill "-1" for GroupId.

3. Output Parameters

Parameter Name	Type	Description
NetDetails	Array of NetDetails	Traffic details
MaxValue	Float	Search the maximum value of traffic usage in a time period (measurement unit: byte)
AvgValue	Float	Search time period traffic usage average (unit: byte)
TotalValue	Float	Search total traffic usage in the time period (unit: byte)
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Retrieve usage statistics based on group

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
```

```
X-TC-Action: GetFlowStatisticByGroup
<Common request parameters>

{
"GroupId": "cliGrp-xf8rboasbh",
"BeginTime": 1711296000,
"EndTime": 1711987200,
"Type": 1,
"TimeGranularity": 2,
"AccessRegion": "MC",
"MpApplicationId": "mna-w795bzezug",
"GatewayType": 0
}
```

Output Example

```
{
"Response": {
"AvgValue": 154434162.5,
"MaxValue": 305576473,
"NetDetails": [
{
"Current": 305576473,
"Time": "1711555200"
},
{
"Current": 3291852,
"Time": "1711641600"
}
],
"RequestId": "e5b650a9-d994-439f-9132-3e5c56054903",
"TotalValue": 308868325
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.MonitorDataRequestError	Monitor data request error.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameterValue	Parameter value error.

GetFlowStatistic

Last updated：2026-05-21 10:26:24

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Retrieve traffic usage data for a specified device Id at a specified time point.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetFlowStatistic.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceId	Yes	String	device ID
BeginTime	Yes	Integer	Search start time
EndTime	Yes	Integer	end time
Type	Yes	Integer	Traffic type (1: uplink traffic, 2: downstream traffic, 3: sum

			of upstream and downstream)
TimeGranularity	Yes	Integer	Time granularity (1: hourly statistics, 2: daily statistics)
AccessRegion	No	String	Access region. Value ranges from 'MC' to 'AM'. MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas. Leave it blank to represent all regions.
GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Default is 0 if not specified.
DeviceList.N	No	Array of String	Device ID list. Used for querying traffic volume across devices. When this field is enabled, DeviceId can be "-1".

3. Output Parameters

Parameter Name	Type	Description
NetDetails	Array of NetDetails	Traffic details
MaxValue	Float	Search the maximum value of traffic usage in a time period (measurement unit: byte)
AvgValue	Float	Search time period traffic usage average (unit: byte)
TotalValue	Float	Search total traffic usage in the time period (unit: byte)
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Retrieve Traffic Usage for Specified id Device

Retrieve traffic usage for the specified id device

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetFlowStatistic
<Common request parameters>

{
"EndTime": 1659514692,
"Type": 1,
"DeviceId": "mna-dev1",
"TimeGranularity": 1,
"BeginTime": 1659513692
}
```

Output Example

```
{
"Response": {
"MaxValue": 51548,
"AvgValue": 15441,
"TotalValue": 656546,
"NetDetails": [
{
"Time": "1659513692",
"Current": 3546545
},
{
"Time": "1659513692",
"Current": 4454864
},
{
"Time": "1659513692",
"Current": 4848941
}
],
"RequestId": ""
}
}
```

Example2 Retrieve the sum of traffic usage for multiple devices

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
```

```
Content-Type: application/json
X-TC-Action: GetFlowStatistic
<Common request parameters>

{
"EndTime": 1659514692,
"Type": 1,
"DeviceId": "",
"DeviceList": [
"mna-dev1",
"mna-dev2"
],
"TimeGranularity": 1,
"BeginTime": 1659513692
}
```

Output Example

```
{
"Response": {
"MaxValue": 51548,
"AvgValue": 15441,
"TotalValue": 656546,
"NetDetails": [
{
"Time": "1659513692",
"Current": 3546545
},
{
"Time": "1659513692",
"Current": 4454864
},
{
"Time": "1659513692",
"Current": 4848941
}
],
"RequestId": ""
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.MonitorDataRequestError	Monitor data request error.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameterValue	Parameter value error.

GetHardwareList

Last updated：2026-05-21 10:26:18

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to get the hardware list of the manufacturer.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetHardwareList.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
PageNumber	Yes	Integer	Page number
PageSize	Yes	Integer	Device quantity on the webpage
Keyword	No	String	Keyword.

3. Output Parameters

Parameter Name	Type	Description
HardwareInfos	Array of HardwareInfo	List of Hardware Information
Length	Integer	Total number of hardware
TotalPage	Integer	Total pages
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetHardwareList
<Common request parameters>

{
"PageNumber": 1,
"PageSize": 1
}
```

Output Example

```
{
"Response": {
"HardwareInfos": [
{
"ActiveTime": "1686554927",
"CreateTime": "1685673786",
"Description": "Test00-00",
"DeviceId": "mna-2x2tllhb18",
"DeviceName": "test-vendor-hardware-00-00",
"FlowTrunc": 0,
```

```
"GroupId": "",
"GroupName": "",
"LicenseChargingMode": 2,
"LicensePayMode": 0,
"Payer": 1,
"SN": "test-vendor-hardware-00",
"VendorDescription": "Test00"
}
],
"Length": 107,
"RequestId": "50f72657-2085-49fe-839f-71f3088c7f0a",
"TotalPage": 107
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description

InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.
OperationDenied.VendorNotRegister	The current account is not yet registered as a manufacturer.

GetMonitorDataByName

Last updated：2026-05-21 10:26:17

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to obtain the download file URL for all monitoring metrics of a single device.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetMonitorDataByName.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceName	Yes	String	Device name.
BeginTime	Yes	Integer	Start time.
EndTime	Yes	Integer	End time.
GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Default is 0 if not specified.

3. Output Parameters

Parameter Name	Type	Description
FilePath	String	File download link
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Acquire monitoring data file download link based on DeviceName (test0916)

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetMonitorDataByName
<Common request parameters>

{
"DeviceName": "test0916",
"BeginTime": 1757865600,
"EndTime": 1758544927
}
```

Output Example

```
{
"Response": {
"FilePath": "https://mpacc-1258344699.cos.ap-shanghai.myqcloud.com/statistics/test0916-2025-09-15%2000%3A00-2025-09-22%2020%3A42.xlsx?x-cos-security-token=jbHT6Au3IyqAzImDJ7OdTkQ4p9KEM7na6ee3e51e8ec37e302783895fd151f13bZ7AsI8iUE1m3lkPZvh4nES34VFP_i5h8Rzc-ktTG4qsVkp4OA2R-eYxnBlRvLSzBFnBXkp-3_AXZPcJVZl9BnR3nmGzyHVuy0pdQXvgFonpYl9R8zg8PmcrKg5xn60WXalm0xkYbEeZYNFFWaUWTI_h0BX4vbm3XxDp-GQ6Q_OADCi_H4kT-uakfDE6fnt8SrP7qlHVLTfLCOTSqvNoaT4sjXmIaR356TIOZQ5D64TN9ifsHu3QFyAHkbZFTwMzmDOHaJEY1OTwDmFO9S3SosA&q-sign-algorithm=sha1&q-ak=AKID-oMDWX77h9wxXqhV_3kJcRLY4WsmvmWtWtvi8wVyjzOZl8sJnnhW0Y77Hra_tbJy&q-sign-time=1758545263%3B1758548863&q-key-time=1758545263%3B1758548863&q-header-list=host&q-url-param-list=x-cos-security-token&q-signature=26276e2bab1c468111b665d2d2a491643dda356e",
```

```
"RequestId": "999228ed-2113-4431-8162-de82508419fd"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.CosRequestError	cos Cloud Object Storage request error.
InternalError.FileIOError	File read/write exception.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameterValue	Parameter value error.

GetMultiFlowStatistic

Last updated：2026-05-21 10:26:16

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Obtain batch device traffic statistics curves

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetMultiFlowStatistic.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceIds.N	Yes	Array of String	Device id list, up to 10 devices at a time
BeginTime	Yes	Integer	1659514436
EndTime	Yes	Integer	1659515000
Type	Yes	Integer	Statistics traffic type (1: uplink traffic, 2: downstream

			traffic, 3: sum of upstream and downstream)
TimeGranularity	Yes	Integer	Statistical time granularity (1: hourly statistics, 2: daily statistics).
AccessRegion	No	String	Access region. Value ranges from 'MC' to 'AM'. MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas. Leave it blank to represent all regions.
GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Default is 0 if not specified.

3. Output Parameters

Parameter Name	Type	Description
FlowDetails	Array of FlowDetails	Batch device traffic information
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Batch device traffic usage

Obtain traffic usage for the specified device list in bulk

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetMultiFlowStatistic
<Common request parameters>

{
"DeviceIds": [
"mna-obzuio2pij",
"mna-ps9x7eako2"
```

```
],
"BeginTime": 1675255591,
"EndTime": 1675860391,
"Type": 1,
"TimeGranularity": 1
}
```

Output Example

```
{
"Response": {
"FlowDetails": [
{
"AvgValue": 26524619322,
"DeviceId": "mna-obzuio2pij",
"MaxValue": 44183705788,
"NetDetails": [
{
"Current": 421334,
"Time": "1675756800"
},
{
"Current": 32279199625,
"Time": "1675760400"
},
{
"Current": 44183705788,
"Time": "1675771200"
},
{
"Current": 29635150541,
"Time": "1675774800"
}
],
"TotalValue": 106098477288
},
{
"AvgValue": 31803650050.5,
"DeviceId": "mna-ps9x7eako2",
"MaxValue": 50892172491,
"NetDetails": [
{
"Current": 22711,
"Time": "1675756800"
},
{
```

```
"Current": 46732569185,
"Time": "1675760400"
},
{
"Current": 29589835815,
"Time": "1675771200"
},
{
"Current": 50892172491,
"Time": "1675774800"
}
],
"TotalValue": 127214600202
}
],
"RequestId": "ffad4f52-505f-4563-9431-b2ca1b5a887e"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.MonitorDataRequestError	Monitor data request error.
InvalidParameterValue	Parameter value error.

GetNetMonitorByName

Last updated：2026-05-21 10:26:14

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to obtain real-time traffic statistics per device.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetNetMonitorByName.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceName	Yes	String	Device name
BeginTime	Yes	Integer	Start time.
EndTime	Yes	Integer	End time.
Metrics	Yes	String	Statistical metric (Uplink rate: "TxRate": bit/s, Downstream rate: "RxRate": bit/s, Packet loss: "Loss": %, Latency: "RTT": ms)

GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Default is 0 if not specified.

3. Output Parameters

Parameter Name	Type	Description
MonitorData	Array of MonitorData	monitoring data
AccessRegion	String	Access region. Valid values: ['MC','AP','EU','AM']. MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Retrieve traffic monitoring information based on DeviceName (testdev)

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetNetMonitorByName
<Common request parameters>

{
"DeviceName": "testdev",
"BeginTime": 1758545194,
"EndTime": 1758545494,
"Metrics": "RxRate"
}
```

Output Example


```
{
"Response": {
"AccessRegion": "MC",
"MonitorData": [
{
"BusinessMetrics": 158.133333,
"SlotNetInfo": [
{
"Current": 7104.8,
"NetInfoName": "rmnet_data5",
"PublicIP": "123.138.183.224:34771"
},
{
"Current": 7331.466667,
"NetInfoName": "wlan0",
"PublicIP": "113.142.183.133:37034"
}
],
"Time": "1758545160"
},
{
"BusinessMetrics": 1329.733333,
"SlotNetInfo": [
{
"Current": 7064.666667,
"NetInfoName": "rmnet_data5",
"PublicIP": "123.138.183.224:34771"
},
{
"Current": 8696.8,
"NetInfoName": "wlan0",
"PublicIP": "113.142.183.133:37034"
}
],
"Time": "1758545220"
},
{
"BusinessMetrics": 497.466667,
"SlotNetInfo": [
{
"Current": 7428.4,
"NetInfoName": "rmnet_data5",
"PublicIP": "123.138.183.224:34771"
},
{
```

```
"Current": 7513.066667,
"NetInfoName": "wlan0",
"PublicIP": "113.142.183.133:37034"
}
],
"Time": "1758545280"
},
{
"BusinessMetrics": 1156.933333,
"SlotNetInfo": [
{
"Current": 9330.933333,
"NetInfoName": "rmnet_data5",
"PublicIP": "123.138.183.224:34771"
},
{
"Current": 8388.133333,
"NetInfoName": "wlan0",
"PublicIP": "113.142.183.133:37034"
}
],
"Time": "1758545340"
},
{
"BusinessMetrics": 3181.866667,
"SlotNetInfo": [
{
"Current": 8754,
"NetInfoName": "rmnet_data5",
"PublicIP": "123.138.183.224:34771"
},
{
"Current": 9718.666667,
"NetInfoName": "wlan0",
"PublicIP": "113.142.183.133:37034"
}
],
"Time": "1758545400"
},
{
"BusinessMetrics": -1,
"SlotNetInfo": [
{
"Current": -1,
"NetInfoName": "rmnet_data5",
"PublicIP": "123.138.183.224:34771"
},
```

```
{
"Current": -1,
"NetInfoName": "wlan0",
"PublicIP": "113.142.183.133:37034"
}
],
"Time": "1758545460"
}
],
"RequestId": "09975f22-b4fc-45a6-81d4-67236cb9e867"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.

InternalError.ControlRequestError	Request controller encounters an error.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameterValue	Parameter value error.
InvalidParameterValue.TimeFuture	Query end time is later than current system time
InvalidParameterValue.TimeSpanExceeded	Query time span exceeds 7 days
InvalidParameterValue.TimeTooEarly	Start time earlier than 30 days ago

GetNetMonitor

Last updated：2026-05-21 10:26:15

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to obtain real-time traffic statistics per device.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetNetMonitor.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceId	Yes	String	device id
BeginTime	Yes	Integer	Start time.
EndTime	Yes	Integer	End time.
Metrics	Yes	String	Statistical metric (Uplink rate: "TxRate": bit/s, Downstream rate: "RxRate": bit/s, Packet Loss: "Loss": %, Latency: "RTT": ms)

GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Defaults to 0 if not specified.

3. Output Parameters

Parameter Name	Type	Description
MonitorData	Array of MonitorData	Monitoring data.
AccessRegion	String	Access region. Value ranges from 'MC' to 'AM' MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Query Device Downstream Rate for Specified Time Period

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetNetMonitor
<Common request parameters>

{
"DeviceId": "mna-yujpsea3v0",
"BeginTime": 1776346200,
"EndTime": 1776346500,
"Metrics": "RxRate"
}
```

Output Example


```
{
"Response": {
"AccessRegion": "MC",
"MonitorData": [
{
"BusinessMetrics": 262585.6,
"SlotNetInfo": [
{
"Current": 285197.866667,
"NetInfoName": "eth1",
"PublicIP": "115.227.8.235:19991"
}
],
"Time": "1776346200"
}
],
"RequestId": "ceb36604-8a38-4147-8cd8-89d905facf52"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameterValue	Parameter value error.
InvalidParameterValue.TimeFuture	Query end time is later than current system time
InvalidParameterValue.TimeSpanExceeded	Query time span exceeds 7 days
InvalidParameterValue.TimeTooEarly	Start time earlier than 30 days ago

GetPublicKey

Last updated：2026-05-21 10:26:14

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to access the public key for signature verification.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetPublicKey.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.

3. Output Parameters

Parameter Name	Type	Description
PublicKey	String	Asymmetric public key
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request

		will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Access the public key.

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetPublicKey
<Common request parameters>

{}
```

Output Example

```
{
"Response": {
"PublicKey": "-----BEGIN RSA Public Key-----\nMIIB\n-----END RSA Public Key-----
",
"RequestId": "edd378f7-2511-4692-a029-5ca3d22c1884"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.

GetStatisticDataByName

Last updated：2026-05-21 10:26:12

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Download traffic data on the usage statistics page

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetStatisticDataByName.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceName	Yes	String	Device name. If not specified, pass "-1".
BeginTime	Yes	Integer	Start time of statistics (seconds).
EndTime	Yes	Integer	Statistics end time (s).
TimeGranularity	Yes	Integer	Aggregation granularity: Hourly statistics

			2: Daily statistics
AccessRegion	No	String	Access region. Value ranges from 'MC' to 'AM'. MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas. Leave it blank to represent all regions.
GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Default is 0 if not specified.
DeviceList.N	No	Array of String	Device name list. Up to 10 devices. Used when downloading traffic volume of multiple devices. At this point, DeviceName can be "-1".
GroupId	No	String	Device group ID. If not specified, do not pass it. Used when downloading data by grouping.
MpApplicationId	No	String	Application ID. Leave blank if no designated application is specified. Used when downloading data by app.

3. Output Parameters

Parameter Name	Type	Description
FilePath	String	File address url
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Obtain the download link for usage statistics based on DeviceName (testdev)

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetStatisticDataByName
<Common request parameters>

{
```

```
"DeviceName": "testdev",
"BeginTime": 1758545194,
"EndTime": 1758545494,
"TimeGranularity": 1
}
```

Output Example

```
{
"Response": {
"FilePath": "https://mpacc-1258344699.cos.ap-shanghai.myqcloud.com/statistics/testdev-2025-09-22%2020%3A46-2025-09-22%2020%3A51.xlsx?x-cos-security-token=TfRjI9hDAEj4c2nMNCQKiC495t11CCzad4e0e6c241aa5cf62b038eed7e49c655XMbo81wiOFLLUV_j-puJ5E9aje5nUOkkzYcnsjUnzckINvTGegHSDluG1j1S8dcGgsfmKeTC1Lwy7MqFaz8SNy70rxYcLPyjXyRBLabas71dCw1T0ExJ7WZ9QVdt_BpN2r4QHEjrrGwgrFMl0G8-WXK5p1K379GIU1EGoFQbtAyarcS7bSY4YZqJJoJLc5xbV06-EhZBmc8xuRWkb9qy7xb5hpvcHIhwVImuLt_kphCN0aqmiAvF8c3SGk_vJfWhNd_oggWwiI7DF7tdivwwQ&q-sign-algorithm=sha1&q-ak=AKIDS0QpMFsyDxyeBVCgef5olc8hdJY8NcM-xjLQ8NHRe_xU69TYvm_fuE4ZS2PQX_NI&q-sign-time=1758545599%3B1758549199&q-key-time=1758545599%3B1758549199&q-header-list=host&q-url-param-list=x-cos-security-token&q-signature=e615939623f175b592937beff2f5071e25c27d56",
"RequestId": "3337c8e8-9f5d-4d1f-93e7-0180e3f37ce4"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.FileIOError	File read/write exception.
InternalError.MonitorDataRequestError	Monitor data request error.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameter	Parameter error.

GetStatisticData

Last updated：2026-05-21 10:26:13

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Download traffic data on the usage statistics page

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetStatisticData.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceId	Yes	String	Device ID. If not specified, pass "-1".
BeginTime	Yes	Integer	Start time of statistics (seconds).
EndTime	Yes	Integer	Statistics end time (s).
TimeGranularity	Yes	Integer	Aggregation granularity: Hourly statistics

			2: Daily statistics
AccessRegion	No	String	Access region. Value ranges from 'MC' to 'AM'. MC=Chinese mainland AP=Asia Pacific EU=Europe AM=Americas. Leave it blank to represent all regions.
GatewayType	No	Integer	Gateway type. 0: public cloud gateway; 1: private gateway. Default is 0 if not specified.
DeviceList.N	No	Array of String	Device ID list. Up to 10 devices. Used when downloading total traffic of multiple devices. At this point, DeviceId can be "-1".
GroupId	No	String	Device group ID. If not specified, do not pass it. Used when downloading data by grouping.

3. Output Parameters

Parameter Name	Type	Description
FilePath	String	File address url
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Retrieve the usage statistics file of specified id device traffic

Retrieve traffic statistics

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetStatisticData
<Common request parameters>

{
"EndTime": 1659514692,
```

```
"DeviceId": "mna-test1",
"TimeGranularity": 1,
"BeginTime": 1659513692,
"AccessRegion": "MC",
"GatewayType": 0
}
```

Output Example

```
{
"Response": {
"RequestId": "test-req",
"FilePath": "http://geekyang-cos-1257943044.cos-internal.ap-guangzhou.tencentcos.cn/test/175527768616861696.xlsx"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.FileIOError	File read/write exception.
InternalError.MonitorDataRequestError	Monitor data request error.
InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InvalidParameter	Parameter error.

GetVendorHardware

Last updated：2026-05-21 10:26:11

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to get the hardware device list of the manufacturer.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetVendorHardware.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
PageNumber	Yes	Integer	Page number
PageSize	Yes	Integer	Page count
Keyword	No	String	Keyword.
Status	No	Integer	Activation status Empty: All;

			1: To be activated. 2: Activated;

3. Output Parameters

Parameter Name	Type	Description
VendorHardware	Array of VendorHardware	List of Hardware Information
Length	Integer	Total number of devices
TotalPage	Integer	Total pages
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 View Equipment by Manufacturer

Manufacturer view device

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetVendorHardware
<Common request parameters>

{
"PageNumber": 1,
"PageSize": 1
}
```

Output Example

```
{
"Response": {
"Length": 1,
"RequestId": "728a4c82-b31c-4b32-9cee-3ba1fdd1903c",
"TotalPage": 2,
"VendorHardware": [
{
"CreateTime": "1685591205",
"Description": "",
"DeviceId": "",
"Payer": 0,
"HardwareId": "cpe-5n9n3o63t2",
"LicenseChargingMode": 2,
"LicensePayMode": -1,
"SN": "cloud-sn",
"Status": 1
}
]
}
}
```


Example2 Retrieve Vendor Equipment List

Retrieve the manufacturer device list

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetVendorHardware
<Common request parameters>

{
"PageNumber": 1,
"PageSize": 10,
"Keyword": "keywords",
"Status": 0
}
```

Output Example


```
{
"Response": {
"VendorHardware": [
```

```
{
"HardwareId": "cpe-2ycsnymh2u",
"SN": "cpe-sn-04",
"CreateTime": "1685449404",
"Status": 0,
"Payer": 0,
"ActiveTime": "1685449404",
"Description": "this is descript",
"DeviceId": "mna-dev1",
"LicenseChargingMode": 0,
"LicensePayMode": -1,
"LastOnlineTime": "1685449404"
}
],
"Length": 1,
"TotalPage": 1,
"RequestId": "728a4c82-b31c-4b32-9cee-3ba1fdd1903c"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.
OperationDenied.VendorNotRegister	The current account is not yet registered as a manufacturer.

UpdateL3Switch

Last updated：2026-05-21 10:25:59

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Update the interconnection rule switch

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateL3Switch.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
L3ConnId	Yes	String	Interconnection rule ID
Enable	No	Boolean	Interconnection rule switch

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetTenant
<Common request parameters>

{
"L3ConnId": "id",
"Enable": true
}
```

Output Example

```
{
"Response": {
"RequestId": "7fa2c35a-ecca-454b-9521-65e17601143e"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

UpdateL3Conn

Last updated：2026-05-21 10:26:00

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Update the interconnection rule remark

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateL3Conn.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
L3ConnId	Yes	String	Interconnection rule ID
Description	No	String	Interconnection rule remark

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: UpdateL3Conn
<Common request parameters>

{
"L3ConnId": "l3conn-c0rkbqhig8",
"Description": "this is descript"
}
```

Output Example

```
{
"Response": {
"RequestId": "7ab57398-d79f-4195-b0d4-3aef1e43b9c7"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

UpdateL3Cidr

Last updated：2026-05-21 10:26:01

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Update the interconnection rule CIDR

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateL3Cidr.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
L3ConnId	Yes	String	Interconnection rule ID
Cidr1	Yes	String	Interconnection rule CIDR
DeviceId1	No	String	interworking device ID
DeviceId2	No	String	interworking device ID
Cidr2	No	String	Interconnection rule CIDR

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetTenant
<Common request parameters>

{
"L3ConnId": "l3conn-c0rkbqhig",
"DeviceId1": "mna-f8v7e6o432",
"Cidr1": "192.168.0.16/28",
"DeviceId2": "mna-f8v7e6o43g",
"Cidr2": "192.168.0.16/28"
}
```

Output Example

```
{
"Response": {
"RequestId": "7ab57398-d79f-4195-b0d4-3aef1e43b9c7"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

UpdateGroup

Last updated：2026-05-21 10:26:03

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Update group remark

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateGroup.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
GroupId	Yes	String	group ID
Description	No	String	Group remark

3. Output Parameters

Parameter Name	Type	Description

RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: UpdateGroup
<Common request parameters>

{
"GroupId": "cliGrp-xf8rboasbh",
"Description": "this is descript"
}
```

Output Example

```
{
"Response": {
"RequestId": "bcc2c1d2-be38-4249-a50b-d9c487a36354"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go

- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.

UpdateDevice

Last updated：2026-05-21 10:26:03

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Update device information

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateDevice.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
DeviceId	Yes	String	Device ID
DeviceName	No	String	Device name.
Remark	No	String	device Remarks
UpdateNetInfo.N	No	Array of	Update device network info

		UpdateNetInfo	
FlowTrunc	No	Integer	No traffic processing method for the device. 0: pay-as-you-go, 1: truncate and accelerate

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Updating a device

Update device

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: UpdateDevice
<Common request parameters>

{
"DeviceId": "mna-yesydf",
"DeviceName": "name1",
"Remark": "remarks",
"UpdateNetInfo": [
{
"Type": 0,
"DataEnable": true,
"UploadLimit": 1,
"DownloadLimit": 1,
"NetInfoName": "netname"
}
]
}
```

Output Example

```
{
"Response": {
"RequestId": "a400ac72-8f93-4340-a862-f74b56942703"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.DuplicateDeviceName	Device name already exists.
InvalidParameterValue	Parameter value error.

UpdateHardware

Last updated：2026-05-21 10:26:02

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Refresh hardware info

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateHardware.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
HardwareId	Yes	String	Hardware ID
SN	No	String	Hardware Serial Number
Description	No	String	device Remarks

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Refresh hardware info

Refresh hardware info

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: UpdateHardware
<Common request parameters>

{
"HardwareId": "cpe-6zmf86knqu",
"SN": "adsqda",
"Description": "this is descript"
}
```

Output Example

```
{
"Response": {
"RequestId": "4ff707e0-c87a-6cff-5c65-93f21e212a81"
}
}
```

Example2 Example

This example shows you the example.

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
```

```
Content-Type: application/json
X-TC-Action: UpdateHardware
<Common request parameters>

{
"HardwareId": "cpe-53g4emz6zc",
"SN": "dd"
}
```

Output Example

```
{
"Response": {
"RequestId": "004fa540-6023-46a1-8f92-bcf24d74e24f"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InternalError.ControlRequestError	Request controller encounters an error.
InvalidParameterValue	Parameter value error.
OperationDenied.DuplicateSN	SN already exists
OperationDenied.VendorNotRegister	The current account is not yet registered as a manufacturer.

OrderPerLicense

Last updated：2026-05-21 10:26:07

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Purchase a single-use License

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: OrderPerLicense.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
DeviceId	Yes	String	Device ID for purchasing a permanent License. If it is an unactivated device from the manufacturer, use HardwareId.
Type	Yes	Integer	Device type. 0: SDK, 1: CPE. Enter 0 when creating or activating a device as a user. Enter 1 when creating a device to be activated as a manufacturer.
RollBack	No	Boolean	Rollback or not (delete device) after purchase fail, default false. If the device is bound to a currently effective traffic

			package, rollback is not allowed.
AutoVoucher	No	Boolean	Whether to automatically select voucher. Default false. Selection strategy for multiple vouchers: Deduct vouchers by this priority – voucher that can offset the total amount of the Payment Order, voucher with the earliest Expiration, voucher with the maximum deductible amount, voucher with the minimum balance, cash voucher. Only one voucher can be deducted at most.
VoucherIds.N	No	Array of String	Designated voucher ID. This parameter is invalid when selecting voucher automatically. Only one voucher can be input. Note: If the designated voucher does not meet the order deduction conditions, proceed with normal payment without deducting the voucher.

3. Output Parameters

Parameter Name	Type	Description
ResourceId	String	Resource ID of the single-use License
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: OrderPerLicense
<Common request parameters>

{
"DeviceId": "mna-devid",
```

```
"Type": 0,
"AutoVoucher": true,
"VoucherIds": [
"v-1"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "1206563f-f13f-4647-aaa8-37fa86954cc4-1",
"ResourceId": "56d11777-50f7-4c60-9c89-e7076c8529a9-0"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.TransactionException	Transaction process exception
InternalError	Internal error.
InvalidParameter	Parameter error.
OperationDenied	Operation denied.
OperationDenied.DeviceNotFound	The device does not exist or is currently unavailable.
OperationDenied.InsufficientBalance	Insufficient balance
OperationDenied.NotAllowedToPay	No Payment Permission
OperationDenied.RepeatPurchase	Repeat purchase
OperationDenied.UnauthorizedUser	Not identity verified
UnauthorizedOperation	Unauthorized operation.
UnauthorizedOperation.NoPermission	Service permission not verified

OrderFlowPackage

Last updated：2026-05-21 10:26:08

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Purchase a Prepaid Traffic Package

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: OrderFlowPackage.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
PackageType	Yes	String	Traffic package specification type. Values are as follows: DEVICE_1_FLOW_20G,DEVICE_2_FLOW_50G, DEVICE_3_FLOW_100G, DEVICE_5_FLOW_500G represents traffic packages of 20G, 50G, 100G, and 500G gear selection. Gear selection also impacts the bandwidth cap of the data transfer plan. 20G: Bind up to 1 device.

			50G: Bind up to 2 devices. 100G: Bind up to 3 devices. 500G: Bind up to 5 devices.
DeviceList.N	Yes	Array of String	Device ID list bound to the data transfer plan. Number of bundled instances depends on the specification tiers of the plan. 20G: Bind up to 1 device. 50G: Bind up to 2 devices. 100G: Bind up to 3 devices. 500G: Bind up to 5 devices.
AutoRenewFlag	Yes	Boolean	Whether the service is automatically renewed conflicts with traffic truncation. You can only enable one option.
PackageRegion	Yes	Integer	Region flag. 0: Chinese mainland, 1: outside the Chinese mainland
FlowTruncFlag	No	Boolean	Whether traffic truncation is enabled. This option conflicts with auto renewal.
AutoVoucher	No	Boolean	Whether to automatically select voucher. Default false. Selection strategy for multiple vouchers: Deduct vouchers by this priority – voucher that can offset the total amount of the Payment Order, voucher with the earliest Expiration, voucher with the maximum deductible amount, voucher with the minimum balance, cash voucher. Only one voucher can be deducted at most.
VoucherIds.N	No	Array of String	Designated voucher ID. This parameter is invalid when selecting voucher automatically. Only one voucher can be input. Note: If the designated voucher does not meet the order deduction conditions, proceed with normal payment without deducting the voucher.

3. Output Parameters

Parameter Name	Type	Description
ResourceId	String	Unique resource ID of the data transfer plan
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request

		will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: OrderFlowPackage
<Common request parameters>

{
"PackageType": "DEVICE_1_FLOW_20G",
"DeviceList": [
"mna-test1",
"mna-test2"
],
"AutoRenewFlag": true,
"PackageRegion": 1
}
```

Output Example

```
{
"Response": {
"RequestId": "1206563f-f13f-4647-aaa8-37fa86954cc4-1",
"ResourceId": "56d11777-50f7-4c60-9c89-e7076c8529a9-0"
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

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- Tencent Cloud SDK 3.0 for Java
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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.TransactionException	Transaction process exception
InternalError	Internal error.
InvalidParameter	Parameter error.
LimitExceeded	The quota limit is exceeded.
OperationDenied	Operation denied.
OperationDenied.InsufficientBalance	Insufficient balance
OperationDenied.NotAllowedToPay	No Payment Permission
OperationDenied.UnauthorizedUser	Not identity verified
ResourceInUse	The resource is occupied.
UnauthorizedOperation	Unauthorized operation.
UnauthorizedOperation.NoPermission	Service permission not verified
UnauthorizedOperation.UnopenedLiveService	Live stream service not activated

SetNotifyUrl

Last updated：2026-05-21 10:26:06

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to set user traffic alarm information. Use this API setting to configure the data transfer plan alarm threshold as well as the callback url and key when an alarm is generated.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: SetNotifyUrl.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
NotifyUrl	Yes	String	Alarm notification callback url
CallbackKey	Yes	String	Alarm notification callback key
AlarmValue	No	Integer	Alarm threshold of the data transfer plan

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: SetNotifyUrl
<Common request parameters>

{
"AlarmValue": 20,
"NotifyUrl": "http://ip:port/callurl",
"CallbackKey": "xd23y5cb89bx23432"
}
```

Output Example

```
{
"Response": {
"RequestId": "1206563f-f13f-4647-aaa8-37fa86954cc4-1"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InvalidParameter	Parameter error.
OperationDenied	Operation denied.
OperationDenied.IllegalRequest	Invalid request, might be replay attack or forged attack.

ModifyPackageRenewFlag

Last updated：2026-05-21 10:26:08

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Auto renewal of data transfer plans can be enabled or disabled, unaffected by ongoing effective plans in the current cycle.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ModifyPackageRenewFlag.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
ResourceId	Yes	String	Unique resource ID of the data transfer plan
RenewFlag	Yes	Boolean	Auto-renewal flag. true represents auto-renewal, false represents no auto-renewal.

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: CancelFlowPackage
<Common request parameters>

{
"ResourceId": "56d11777-50f7-4c60-9c89-e7076c8529a9-0",
"RenewFlag": false
}
```

Output Example

```
{
"Response": {
"RequestId": "1206563f-f13f-4647-aaa8-37fa86954cc4-1"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InvalidParameter	Parameter error.
OperationDenied	Operation denied.
OperationDenied.IllegalRequest	Invalid request, might be replay attack or forged attack.
OperationDenied.ModifiedOrRenewed	The resource package has been modified or renewed
OperationDenied.TruncFlagOn	Truncation is enabled
ResourceNotFound	The resource does not exist.
ResourceUnavailable	Resources are unavailable.

GetFlowAlarmInfo

Last updated：2026-05-21 10:26:25

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to query user traffic alarm settings based on AppId, including threshold, callback url and key.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetFlowAlarmInfo.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.

3. Output Parameters

Parameter Name	Type	Description
AlarmValue	Integer	Alarm threshold of the data transfer plan

NotifyUrl	String	Alarm notification callback url
CallbackKey	String	Alarm notification callback key
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetFlowAlarmInfo
<Common request parameters>

{}
```

Output Example

```
{
"Response": {
"AlarmValue": 20,
"NotifyUrl": "http://ip:port/callurl",
"CallbackKey": "xd23y5cb89bx23432",
"RequestId": "1206563f-f13f-4647-aaa8-37fa86954cc4-1"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InvalidParameter	Parameter error.
OperationDenied.IllegalRequest	Invalid request, might be replay attack or forged attack.

GetFlowPackages

Last updated：2026-05-21 10:26:24

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Retrieve the data transfer plan list

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetFlowPackages.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
PageNumber	Yes	Integer	Page number, starting from 1.
PageSize	Yes	Integer	Number of Entry Per Page
ResourceId	No	String	Unique resource ID of the data transfer plan
DeviceId	No	String	Device ID bound to the data transfer plan

Status	No	Integer	Traffic packet status. 0: Not in effect, 1: Within the validity period, 2: Expired.

3. Output Parameters

Parameter Name	Type	Description
PackageList	Array of FlowPackageInfo	Data Transfer Plan List
Total	Integer	Total number.
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetFlowPackages
<Common request parameters>

{
"PageNumber": 1,
"PageSize": 1
}
```

Output Example

```
{
"Response": {
"PackageList": [
{
```

```
"ActiveTime": 1734613941,
"AppId": 251198806,
"CapacityRemain": 50000,
"CapacityRemainPrecise": 50000,
"CapacitySize": 50000,
"CreateTime": 1734613920,
"DeviceList": [
"mna-6t5t54hcry",
"mna-s72mu68gh3"
],
"ExpireTime": 1737292340,
"ModifyStatus": 0,
"PackageType": "DEVICE_2_FLOW_50G",
"RenewFlag": true,
"ResourceId": "live-jjc000eABvgr_qt",
"Status": 1,
"TruncFlag": false
}
],
"RequestId": "e6972818-74b2-4228-a5ec-70c11e37fe6c",
"Total": 506
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InvalidParameter	Parameter error.
OperationDenied	Operation denied.

UpdateApplicationKey

Last updated：2026-05-21 10:26:04

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Update application key

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateApplicationKey.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
MpApplicationKey	Yes	String	base64 key string of the application
MpApplicationId	Yes	String	Application ID

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Update Application Key

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: UpdateApplicationKey
<Common request parameters>

{
"MpApplicationKey": "mna-test1",
"MpApplicationId": "mna-test1"
}
```

Output Example

```
{
"Response": {
"RequestId": "527cc5c7-0413-33e9-2adc-632e0f6a9dff"
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.

UpdateApplicationInfo

Last updated：2026-05-21 10:26:05

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Update application information

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateApplicationInfo.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
MpApplicationId	Yes	String	Application ID
MpApplicationName	No	String	Application name of the created app
Remark	No	String	Remark of the created device
AccessScope	No	Integer	Access environment. 0: public cloud gateway; 1: private gateway; 2: public cloud gateway and private gateway. By default if left blank, public cloud gateway is selected.

			Specific meaning: Public cloud gateway: The device can only connect to public cloud gateway (Proximity access). Private gateway: The device can only connect to already launched private gateway (Proximity access or fixed ip access). Public cloud gateway and private gateway: The device can also connect to both public cloud gateway and already launched private gateway (Proximity access or fixed ip access).

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Update Application Information

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: UpdateApplicationInfo
<Common request parameters>

{
"MpApplicationName": "mna-test1",
"MpApplicationId": "mna-test1",
"Remark": "mna-test1",
"AccessScope": 0
}
```

Output Example

```
{
"Response": {
```

```
"RequestId": "527cc5c7-0413-33e9-2adc-632e0f6a9dff"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.

ReportOrder

Last updated：2026-05-21 10:26:06

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Users report custom order information, and the Multiple Network Acceleration service saves the information related to.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ReportOrder.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
OrderId	Yes	String	Order number unique identifier
ProjectId	No	String	Project ID
PackageType	No	String	Usage type
ReportMonth	No	String	Report month, current month by default

3. Output Parameters

Parameter Name	Type	Description
OrderInfo	OrderInfo	Order information
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Report order information

For user report of custom order information, Multiple Network Acceleration service saves information related to.

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: ReportOrder
<Common request parameters>

{
"OrderId": "100003848",
"ProjectId": "4002428",
"PackageType": "pack_1",
"ReportMonth": "2025-08"
}
```

Output Example

```
{
"Response": {
"RequestId": "3f00ee83-0ce6-4148-86c5-e3e3dc44920b",
"OrderInfo": {
"OrderId": "100003848",
"ProjectId": "4002428",
"PackageType": "pack_1",
"ReportMonth": "2025-08"
}
```

```
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.

GetDevicePayMode

Last updated：2026-05-21 10:26:26

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to obtain the payment mode of a device.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetDevicePayMode.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
DeviceIdList.N	Yes	Array of String	Device ID list

3. Output Parameters

Parameter Name	Type	Description
Result	Array of DevicePayModeInfo	Result Information
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Example 1

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetDevicePayMode
<Common request parameters>

{
"DeviceIdList": [
"mna-test1",
"mna-test2",
"mna-test3"
]
}
```

Output Example

```
{
"Response": {
"Result": [
{
"DeviceId": "mna-test1",
"PayMode": 1,
"PayModeDesc": "50G data transfer plan"
"ResourceId": "56d11777-50f7-4c60-9c89-e7076c8529a9-0"
},
{
```

```
"DeviceId": "mna-test2",
"PayMode": 1,
"PayModeDesc": "20G data transfer plan"
"ResourceId": "56d11777-50f7-4c60-9c89-e7076c8529a9-0"
},
{
"DeviceId": "mna-test3",
"PayMode": 0,
"PayModeDesc": "Pay-as-you-go by traffic"
}
],
"RequestId": "1206563f-f13f-4647-aaa8-37fa86954cc4-1"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description

InternalError	Internal error.
InvalidParameter	Parameter error.
OperationDenied	Operation denied.
OperationDenied.DeviceNotFound	The device does not exist or is currently unavailable.

GetApplication

Last updated：2026-05-21 10:26:29

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to query applications.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetApplication.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
MpApplicationId	No	String	Application ID.

3. Output Parameters

Parameter Name	Type	Description
MpApplicationId	String	Application ID

MpApplicationKey	String	base64-format key encrypted with the encryption algorithm
MpApplicationName	String	Application name
Remark	String	Device remark
AccessScope	Integer	Access environment. 0: public cloud gateway; 1: private gateway; 2: public cloud gateway and private gateway. By default if left blank, public cloud gateway is selected. Specific meaning: Public cloud gateway: The device can only connect to public cloud gateway (Proximity access). Private gateway: The device can only connect to already launched private gateway (Proximity access or fixed ip access). Public cloud gateway and private gateway: The device can also connect to both public cloud gateway and already launched private gateway (Proximity access or fixed ip access).
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Querying an application

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GetApplication
<Common request parameters>

{
"MpApplicationId": "mna-94p8c5zyst"
}
```

Output Example

```
{
"Response": {
"RequestId": "527cc5c7-0413-33e9-2adc-632e0f6a9dff",
"MpApplicationId": "mna-test1",
"MpApplicationKey": "dasdfrfwer32e4r",
```

```
"MpApplicationName": "mna-test1"
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InvalidParameter	Parameter error.
OperationDenied	Operation denied.

GetActiveDeviceCount

Last updated：2026-05-21 10:26:29

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Number of active devices statistics

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetActiveDeviceCount.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
Period	No	Integer	Query granularity. Valid values: 0: day, 1: week, 2: month. Default is day.
StartTime	No	Integer	Start time. In seconds.
EndTime	No	Integer	End time. In seconds.
DevGroup	No	String	device group, if not passed, query all

LicenseType	No	Integer	License type. If not passed, query all. 1: Tenant monthly payment, 2: Manufacturer monthly payment, 3: Permanent license.

3. Output Parameters

Parameter Name	Type	Description
ActiveDeviceList	Array of ActiveDeviceList	Activate device statistics
Period	Integer	Query granularity. Valid values: 0: day, 1: week, 2: month. Default is day.
StartTime	String	Start time.
EndTime	String	End time.
DevGroup	String	device group
LicenseType	String	License type. If not passed, query all. 1: Tenant monthly payment, 2: Manufacturer monthly payment, 3: Permanent license.
AppId	String	tenant ID
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Number of Active Devices Statistics

Query the number of active devices statistics

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
```

```
X-TC-Action: GetActiveDeviceCount
<Common request parameters>

{
"Period": 0,
"StartTime": 1732176361,
"EndTime": 1732176362,
"DevGroup": "comollit",
"LicenseType": 3
}
```

Output Example

```
{
"Response": {
"ActiveDeviceList": [
{
"Count": 1,
"Time": "2024-11-20"
}
],
"DevGroup": "group1",
"EndTime": "2024-11-20",
"LicenseType": "1",
"Period": 0,
"StartTime": "2024-11-20",
"RequestId": "3c140219-cfe9-470e-b241-907877d6fb03"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET

- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InvalidParameterValue	Parameter value error.

DownloadActiveDeviceCount

Last updated：2026-05-21 10:26:30

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

Download the number of active devices statistics

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DownloadActiveDeviceCount.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
Period	No	Integer	Query granularity. Valid values: 0: day, 1: week, 2: month. Default is day.
StartTime	No	Integer	Start time. In seconds.
EndTime	No	Integer	End time. In seconds.
DevGroup	No	String	device group, if not passed, query all

LicenseType	No	Integer	License type. If not passed, query all. 1: Tenant monthly payment, 2: Manufacturer monthly payment, 3: Permanent license.

3. Output Parameters

Parameter Name	Type	Description
FilePath	String	URL address
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Download Active Device Statistics

Download the number of active devices statistics

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: DownloadActiveDeviceCount
<Common request parameters>

{
"Period": 0,
"StartTime": 1732176361,
"EndTime": 1732176362,
"DevGroup": "comollit",
"LicenseType": 3
}
```

Output Example

```
{
"Response": {
```

```
"FilePath": "http://cos.com",
"RequestId": "3c140219-cfe9-470e-b241-907877d6fb03"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
InternalError	Internal error.
InvalidParameterValue	Parameter value error.

DeleteApplication

Last updated：2026-05-21 10:26:34

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to delete applications

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteApplication.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
MpApplicationIdList.N	Yes	Array of DelApplicationList	Application ID list

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 This API is used to delete the applications.

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: DeleteApplication
<Common request parameters>

{
"MpApplicationIdList": [
{
"MpApplicationId": "test1"
},
{
"MpApplicationId": "test2"
}
]
}
```

Output Example

```
{
"Response": {
"RequestId": "527cc5c7-0413-33e9-2adc-632e0f6a9dff"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.

AddApplication

Last updated：2026-05-21 10:26:38

1. API Description

Domain name for API request: mna.intl.tencentcloudapi.com.

This API is used to create an application

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: AddApplication.
Version	Yes	String	Common Params. The value used for this API: 2021-01-19.
Region	No	String	Common Params. This parameter is not required for this API.
MpApplicationName	Yes	String	Application name of the created app
Remark	No	String	Remark of the created device
MpApplicationKey	No	String	base64 key string of the new application, optional, automatically generated by the system if not filled
AccessScope	No	Integer	Access environment. 0: public cloud gateway; 1: private gateway; 2: public cloud gateway and private gateway.

			By default if left blank, public cloud gateway is selected. Specific meaning: Public cloud gateway: The device can only connect to public cloud gateway (Proximity access). Private gateway: The device can only connect to already launched private gateway (Proximity access or fixed ip access). Public cloud gateway and private gateway: The device can also connect to both public cloud gateway and already launched private gateway (Proximity access or fixed ip access).

3. Output Parameters

Parameter Name	Type	Description
MpApplicationId	String	Application ID
MpApplicationKey	String	base64-format key encrypted with the encryption algorithm
MpApplicationName	String	Application name
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Create an application

Input Example

```
POST / HTTP/1.1
Host: mna.intl.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: AddApplication
<Common request parameters>

{
"MpApplicationName": "mna-test1",
"Remark": "mna-test1",
"MpApplicationKey": "mna-test1",
```

```
"AccessScope": 0
}
```

Output Example

```
{
"Response": {
"RequestId": "527cc5c7-0413-33e9-2adc-632e0f6a9dff",
"MpApplicationId": "mna-test1",
"MpApplicationKey": "dasdfrfwer32e4r",
"MpApplicationName": "mna-test1"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.

Data Types

Last updated：2026-05-21 10:26:40

ActivateHardware

Activate device

Used by actions: ActivateHardware.

Name	Type	Required	Description
Vendor	String	Yes	Vendor name
SN	String	Yes	Device SN serial number
DeviceName	String	Yes	Device name.
Description	String	No	Remarks
DataKey	String	No	device key
AccessScope	Integer	No	Access environment. 0: public cloud gateway; 1: private gateway; 2: public cloud gateway and private gateway. By default if left blank, public cloud gateway is selected. Specific meaning: Public cloud gateway: device can only integrate with public cloud gateway (nearby access). Private gateway: device can only integrate with private gateway that has been launched (nearby access or fixed ip). Public cloud gateway and private gateway: device can also integrate with public cloud gateway and private gateway that has been launched (nearby access or fixed ip).
LicensePayMode	Integer	No	When the payer is the tenant, the tenant license payment method is available. Monthly authorization 1: Permanent license If not passed, it defaults to monthly authorization. This parameter is invalid when the manufacturer is the payer.
GroupId	String	No	device group ID
GroupName	String	No	Device group name. Reserved parameter. GroupId must be imported when grouping is required.

FlowTrunc	Integer	No	No traffic processing method for the device. 0: pay-as-you-go, 1: truncate and accelerate
DeviceId	String	No	Device ID after activation

ActiveDeviceList

Activated device statistics

Used by actions: GetActiveDeviceCount.

Name	Type	Description
Count	Integer	Quantity.
Time	String	Time

DelApplicationList

Application ID list

Used by actions: DeleteApplication.

Name	Type	Required	Description
MpApplicationId	String	Yes	Application ID.

DestIpInfo

Target IP info

Used by actions: GetDestIPByName.

Name	Type	Description
Time	String	Time: s
GatewayIp	String	Gateway IP Note: This field may return null, indicating that no valid values can be obtained.

GatewaySite	String	gateway address Note: This field may return null, indicating that no valid values can be obtained.
IpCount	Integer	Number of target IPs Note: This field may return null, indicating that no valid values can be obtained.
IpList	Array of String	Target IP list Note: This field may return null, indicating that no valid values can be obtained.

DeviceBaseInfo

basic device information

Used by actions: GetDevice, GetDevices, GetGroupDetail.

Name	Type	Description
DeviceId	String	Unique ID of the device
DeviceName	String	Device name
CreateTime	String	The time when the device is created, in ms
LastTime	String	Last online time of the device, in ms
Remark	String	Remark of the device
AccessScope	Integer	Access environment. 0: public cloud gateway; 1: private gateway; 2: public cloud gateway and private gateway. Defaults to public cloud gateway. Specific meaning: Public cloud gateway: The device can only access the public cloud gateway (nearby access). Private gateway: The device can only access the already launched private gateway (nearby access or fixed ip access). Public cloud gateway and private gateway: The device can also access both the public cloud gateway and the already launched private gateway (nearby access or fixed ip access).
LicensePayMode	Integer	license authorization validity period 0: monthly authorization 1: permanent license

Payer	Integer	Payment party 0: Manufacturer pays 1: Customer pays
GroupId	String	device group ID
GroupName	String	Device group name
FlowTrunc	Integer	Device data transfer plan processing method, 0: pay-as-you-go, 1: truncate acceleration
Sn	String	Device sn
Vendor	String	Manufacturer
AllowedRegions	Array of String	Access region list.

DeviceDetails

device details

Used by actions: GetDevice.

Name	Type	Description
DeviceBaseInfo	DeviceBaseInfo	Device basic info
DeviceNetInfo	Array of DeviceNetInfo	Device network info
GatewaySite	String	Aggregate server address
BusinessDownRate	Float	Downlink Rate
BusinessUpRate	Float	Business-wise uplink rate

DeviceNetInfo

Device network status information

Used by actions: GetDevice.

Name	Type	Description
Type	Integer	Network type: Data 1:Wi-Fi 2: Wired
DataEnable	Boolean	Enable or disable.
UploadLimit	String	Uplink speed limit
DownloadLimit	String	Downstream speed limit
DataRx	Integer	receive real-time speed
DataTx	Integer	Send real-time speed
Vendor	Integer	Operator type: 1: CMCC; 2: CTCC 3: CUCC
State	Integer	Connection status: 0: connectionless 1: Connecting 2: Connected
PublicIp	String	Public IP address
SignalStrength	Integer	Signal strength/Measurement unit: dbm
Rat	Integer	Data network type: -1: Invalid value. 2:2G 3:3G 4:4G 5:5G
NetInfoName	String	NIC Name
DownRate	Float	Downstream real-time rate (floating-point type replaces the integer type of the previous version DataRx).
UpRate	Float	Uplink real-time rate (floating-point type replaces the integer of the previous version TxRate)

DevicePayModeInfo

Device payment mode info

Used by actions: GetDevicePayMode.

Name	Type	Description
DeviceId	String	device ID
PayMode	Integer	Payment mode. Prepaid Traffic Package 0: Pay-as-you-go by traffic
PayModeDesc	String	Payment mode description.
ResourceId	String	Traffic package ID. Only available when the payment mode is package type.

FlowDetails

Device traffic information

Used by actions: GetMultiFlowStatistic.

Name	Type	Description
NetDetails	Array of NetDetails	Traffic data point
DeviceId	String	device ID
MaxValue	Float	Maximum value of traffic (measurement unit: bytes)
AvgValue	Float	Average traffic (unit: bytes)
TotalValue	Float	Total traffic (unit: bytes)

FlowPackageInfo

Traffic package information

Used by actions: GetFlowPackages.

Name	Type	Description

ResourceId	String	Unique resource ID of the data transfer plan
AppId	Integer	User AppId belonging to the data transfer plan
PackageType	String	Traffic package specification type. Values are as follows: DEVICE_1_FLOW_20G,DEVICE_2_FLOW_50G, DEVICE_3_FLOW_100G, DEVICE_5_FLOW_500G represents traffic packages of 20G, 50G, 100G, and 500G gear selection. Gear selection also impacts the bandwidth cap of the data transfer plan. 20G: Bind up to 1 device. 50G: Bind up to 2 devices. 100G: Bind up to 3 devices. 500G: Bind up to 5 devices.
Status	Integer	Traffic packet status. 0: Inactive, 1: Within validity period, 2: Expired.
CreateTime	Integer	Purchase time, Unix timestamp format, unit: second
ActiveTime	Integer	Effective time, Unix Timestamp Format, unit: second
ExpireTime	Integer	Expiration time, Unix Timestamp Format, unit: second
DeviceList	Array of String	Device ID list bound to the data transfer plan
CapacitySize	Integer	Total traffic plan capacity (unit: MB)
CapacityRemain	Integer	Remaining data transfer plan, unit: MB
RenewFlag	Boolean	Auto-renewal flag. true represents auto-renewal, false represents no auto-renewal.
ModifyStatus	Integer	Resource package change status: 0: No change; 1: Changing; 2: Changed or renewed
TruncFlag	Boolean	Traffic truncation flag. true to enable traffic truncation, false to disable traffic truncation.
CapacityRemainPrecise	Integer	Precise remaining data transfer plan, unit: MB

GroupInfo

Basic info of the group

Used by actions: GetGroupDetail, GetGroupList.

Name	Type	Required	Description
GroupId	String	No	group ID
GroupName	String	No	Group name
CreateTime	String	No	The time when the group is created, in ms.
UpdateTime	String	No	The time when the group is updated, in ms.
Description	String	No	Group description
DeviceNum	Integer	No	Number of devices grouped in

Hardware

Create Hardware input parameters

Used by actions: AddHardware.

Name	Type	Required	Description
SN	String	Yes	Hardware Serial Number
LicenseChargingMode	Integer	Yes	license billing mode: 1. Tenant payment 2: Manufacturer monthly payment 3: Manufacturer permanent license
Description	String	No	Device description
HardwareId	String	No	Hardware ID. No need to pass as an input parameter.

HardwareInfo

Hardware Information

Used by actions: GetHardwareList.

Name	Type	Description

DeviceId	String	device ID
DeviceName	String	Device name.
ActiveTime	String	Activation time
LastOnlineTime	String	Last online time
Description	String	Remarks
VendorDescription	String	vendor remarks
LicenseChargingMode	Integer	License billing mode: 1. Tenant monthly payment 2. Manufacturer monthly payment 3. Permanent license. Note: This parameter will be subsequently deprecated. Please use LicensePayMode and Payer for new access.
CreateTime	String	Creation time.
SN	String	Hardware Serial Number
LicensePayMode	Integer	Authorization validity period of license 0: Monthly authorization 1: Permanent license
Payer	Integer	Payer 0: Customer payment 1: Manufacturer payment
GroupId	String	device group ID
GroupName	String	Device group name
FlowTrunc	Integer	No traffic processing method for the device. 0: pay-as-you-go, 1: truncate and accelerate

L3ConnInfo

Layer 3 interconnection rule information

Used by actions: GetL3ConnList.

Name	Type	Required	Description
L3ConnId	String	No	Interconnection rule ID

DeviceId1	String	No	interworking device ID
Cidr1	String	No	Interconnection rule CIDR
DeviceId2	String	No	interworking device ID
Cidr2	String	No	Interconnection rule CIDR
Enable	Boolean	No	Rule Enable Status
Description	String	No	Interconnection rule description

MonitorData

Traffic monitoring metrics

Used by actions: GetNetMonitor, GetNetMonitorByName.

Name	Type	Description
Time	String	Time point: s
BusinessMetrics	Float	Business Metric (bps/ms/%)
SlotNetInfo	Array of SlotNetInfo	Network interface status info

NetDetails

Network details

Used by actions: GetFlowStatistic, GetFlowStatisticByGroup, GetFlowStatisticByName, GetFlowStatisticByRegion, GetMultiFlowStatistic.

Name	Type	Description
Current	Float	Traffic volume (byte)
Time	String	Time point, unit: s

OrderInfo

Return the reported order information

Used by actions: ReportOrder.

Name	Type	Description
Uin	String	Account uin of the parent account
ProjectId	String	Project ID
PackageType	String	Usage type
OrderId	String	Order number unique identifier
ReportMonth	String	Report month, current month by default
Updated	String	Data update time

RegionInfo

This data structure displays available region information.

Used by actions: DescribeAccessRegions.

Name	Type	Required	Description
RegionId	String	No	Region ID.
RegionName	String	No	Region name.
RegionAbbr	String	No	English abbreviation of the region.

SlotNetInfo

NIC traffic metric data

Used by actions: GetNetMonitor, GetNetMonitorByName.

Name	Type	Description
NetInfoName	String	NIC Name
PublicIP	String	Public IP address

Current	Float	Metric data (bps/ms/%)

UpdateNetInfo

Update device network status information

Used by actions: UpdateDevice.

Name	Type	Required	Description
Type	Integer	No	Network type: Data 1:Wi-Fi
DataEnable	Boolean	No	Enable or disable.
UploadLimit	Integer	No	Uplink speed limit: bit
DownloadLimit	Integer	No	Downstream speed limit: bit.
NetInfoName	String	No	NIC Name

VendorHardware

Manufacturer Hardware Information

Used by actions: GetVendorHardware.

Name	Type	Description
HardwareId	String	Hardware id
SN	String	Hardware Serial Number
CreateTime	String	Creation time.
Status	Integer	Activation status, empty: all; 1: to be activated; 2: activated
ActiveTime	String	Activation time
Description	String	vendor remarks
DeviceId	String	Device ID

LicenseChargingMode	Integer	License billing mode: 1. Tenant monthly payment 2. Manufacturer monthly payment 3. Permanent license. Note: When the device is paid by the tenant and inactive (not selected for monthly or permanent payment), this parameter returns 1, indicating only that the tenant has paid. This parameter will be subsequently deprecated. For new access, please use LicensePayMode and Payer.
LastOnlineTime	String	Last online time
LicensePayMode	Integer	Authorization validity period Monthly authorization 1: Permanent license –Unknown
Payer	Integer	Payer 0: Customer payment 1: Manufacturer payment

Error Codes

Last updated：2026-05-21 10:26:41

Feature Description

If there is an Error field in the response, it means that the API call failed. For example:

```
{
"Response": {
"Error": {
"Code": "AuthFailure.SignatureFailure",
"Message": "The provided credentials could not be validated. Please check your signature is correct."
},
"RequestId": "ed93f3cb-f35e-473f-b9f3-0d451b8b79c6"
}
}
```

Code in Error indicates the error code, and Message indicates the specific information of the error.

Error Code List

Common Error Codes

Error Code	Description
ActionOffline	This API has been deprecated.
AuthFailure.InvalidAuthorization	`Authorization` in the request header is invalid.
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type).
AuthFailure.MFAFailure	MFA failed.
AuthFailure.SecretIdNotFound	Key does not exist. Check if the key has been deleted or disabled in the console, and if not, check if the key is correctly entered. Note that whitespaces should not exist before or after the key.

AuthFailure.SignatureExpire	Signature expired. Timestamp and server time cannot differ by more than five minutes. Please ensure your current local time matches the standard time.
AuthFailure.SignatureFailure	Invalid signature. Signature calculation error. Please ensure you've followed the signature calculation process described in the Signature API documentation.
AuthFailure.TokenFailure	Token error.
AuthFailure.UnauthorizedOperation	The request is not authorized. For more information, see the CAM documentation.
DryRunOperation	DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.
FailedOperation	Operation failed.
InternalError	Internal error.
InvalidAction	The API does not exist.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidRequest	The multipart format of the request body is incorrect.
IpInBlacklist	Your IP is in uin IP blacklist.
IpNotInWhitelist	Your IP is not in uin IP whitelist.
LimitExceeded	Quota limit exceeded.
MissingParameter	A parameter is missing.
NoSuchProduct	The product does not exist.
NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
RequestLimitExceeded.GlobalRegionUinLimitExceeded	Uin exceeds the frequency limit.

RequestLimitExceeded.IPLimitExceeded	The number of ip requests exceeds the frequency limit.
RequestLimitExceeded.UinLimitExceeded	The number of uin requests exceeds the frequency limit.
RequestSizeLimitExceeded	The request size exceeds the upper limit.
ResourceInUse	Resource is in use.
ResourceInsufficient	Insufficient resource.
ResourceNotFound	The resource does not exist.
ResourceUnavailable	Resource is unavailable.
ResponseSizeLimitExceeded	The response size exceeds the upper limit.
ServiceUnavailable	Service is unavailable now.
UnauthorizedOperation	Unauthorized operation.
UnknownParameter	Unknown parameter.
UnsupportedOperation	Unsupported operation.
UnsupportedProtocol	HTTP(S) request protocol error; only GET and POST requests are supported.
UnsupportedRegion	API does not support the requested region.

Service Error Codes

Error Code	Description
FailedOperation.TransactionException	Transaction process exception
InternalError.ControlRequestError	Request controller encounters an error.
InternalError.CosRequestError	cos Cloud Object Storage request error.
InternalError.DuplicateDataKey	Device key already exists.
InternalError.DuplicateDeviceName	Device name already exists.
InternalError.FileIOError	File read/write exception.
InternalError.MonitorDataRequestError	Monitor data request error.

InternalError.NetworkInfoRequestError	Zhiyan traffic data request error.
InternalError.UndefinedEncryptedKey	Preset key not created.
InvalidParameterValue.TimeFuture	Query end time is later than current system time
InvalidParameterValue.TimeSpanExceeded	Query time span exceeds 7 days
InvalidParameterValue.TimeTooEarly	Start time earlier than 30 days ago
OperationDenied	Operation denied.
OperationDenied.DeviceNotFound	The device does not exist or is currently unavailable.
OperationDenied.DuplicateSN	SN already exists
OperationDenied.HardwareHasActivated	Hardware corresponding to SN has been activated
OperationDenied.HardwareNotExist	The hardware corresponding to the input SN does not exist.
OperationDenied.IllegalRequest	Invalid request, might be replay attack or forged attack.
OperationDenied.InsufficientBalance	Insufficient balance
OperationDenied.L3CidrOverLap	Interconnection rule CIDR overlap
OperationDenied.L3ConnectionOverSize	Number of interconnection rules exceeds the maximum limit of 150
OperationDenied.ModifiedOrRenewed	The resource package has been modified or renewed
OperationDenied.NotAllowedToPay	No Payment Permission
OperationDenied.RepeatPurchase	Repeat purchase
OperationDenied.TruncFlagOn	Truncation is enabled
OperationDenied.UnauthorizedUser	Not identity verified
OperationDenied.VendorNotRegister	The current account is not yet registered as a manufacturer.
UnauthorizedOperation.NoPermission	Service permission not verified
UnauthorizedOperation.UnopenedLiveService	Live stream service not activated