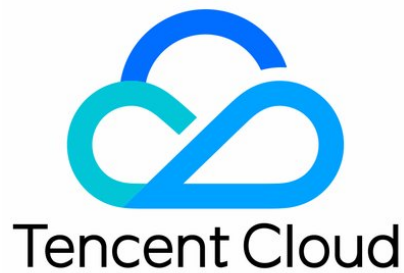


Tencent Kubernetes Engine

API documentation

Product Documentation



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API documentation

History

Last updated : 2019-09-09 11:46:15

Release 3

Release time: April 28, 2019 15:37:22

Release updates:

Improvements on the existing documents.

New APIs:

- [CreateCluster](#)

Modified APIs:

- [DescribeClusterInstances](#)
 - **Modified input parameters:** Instancelds

New data structures:

- [ClusterAdvancedSettings](#)
- [ClusterBasicSettings](#)
- [ClusterCIDRSettings](#)
- [ExistedInstancesForNode](#)
- [ExistedInstancesPara](#)
- [RunInstancesForNode](#)

Modified data structures:

- [Cluster](#)
 - New members: ProjectId

Release 2

Release time: February 22, 2019 15:16:39

Release updates:

Improvements on the existing documents.

Modified APIs:

- [DescribeClusters](#)
 - New input parameters: Filters

New data structures:

- [Filter](#)

Modified data structures:

- [Cluster](#)
 - New members: ClusterNodeNum
 - **Modify members:** ClusterDescription
- [ClusterNetworkSettings](#)
 - New members: Ipv6
 - **Deleted members:** IPV6

Release 1

Release time: December 24, 2018 17:32:12

Release updates:

Improvements on the existing documents.

New APIs:

- [AddExistedInstances](#)
- [DeleteClusterInstances](#)
- [DescribeClusterInstances](#)
- [DescribeClusters](#)

New data structures:

- [Cluster](#)
- [ClusterNetworkSettings](#)
- [EnhancedService](#)
- [Instance](#)
- [InstanceAdvancedSettings](#)
- [LoginSettings](#)
- [RunMonitorServiceEnabled](#)
- [RunSecurityServiceEnabled](#)

Introduction

Last updated : 2019-09-09 11:36:29

Tencent Kubernetes Engine (TKE) make it easy for you to build, operate, and manage container clusters by utilizing Tencent Cloud computing, networking, storage, monitoring, and security capabilities. With TKE, you can also upgrade development mode, change applications delivery method, and reconfigure data management. In addition, TKE simplifies cluster management and allows you to quickly deploy your applications, helping you move your business to Tencent Cloud.

API Category

Last updated : 2019-09-09 11:46:15

Cluster APIs

API Name	Description
AddExistedInstances	Adds one or more existing instances to a cluster
CreateCluster	Creates a cluster
DeleteClusterInstances	Deletes one ore more nodes from a cluster
DescribeClusterInstances	Queries information of one or more nodes in the cluster
DescribeClusters	Queries cluster list

Making API Requests

Request Structure

Last updated : 2019-09-09 11:36:29

1. Service Address

In this product, your API requests are routed to the nearest server via the domain name `tke.tencentcloudapi.com`. You can also access APIs using the domain name for specified region, such as `tke.ap-guangzhou.tencentcloudapi.com` for Guangzhou region.

It is recommended to use the domain name for accessing the nearest server. When you call an API, this domain name is automatically resolved to a server in a region **nearest** to the client 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, with the result same as that of using "`tke.ap-guangzhou.tencentcloudapi.com`".

Note: For business sensitive to latency, it is recommended to specify domain names containing the region.

The supported domain names are listed as below:

Region	Domain Name
Accessing the nearest server (recommended, and is only for non-Finance regions)	<code>tke.tencentcloudapi.com</code>
South China (Guangzhou)	<code>tke.ap-guangzhou.tencentcloudapi.com</code>
East China (Shanghai)	<code>tke.ap-shanghai.tencentcloudapi.com</code>
North China (Beijing)	<code>tke.ap-beijing.tencentcloudapi.com</code>
Southwest China (Chengdu)	<code>tke.ap-chengdu.tencentcloudapi.com</code>
Southwest China (Chongqing)	<code>tke.ap-chongqing.tencentcloudapi.com</code>
Southeast Asia (Hong Kong)	<code>tke.ap-hongkong.tencentcloudapi.com</code>
Southeast Asia (Singapore)	<code>tke.ap-singapore.tencentcloudapi.com</code>
Asia Pacific (Bangkok)	<code>tke.ap-bangkok.tencentcloudapi.com</code>
Asia Pacific (Mumbai)	<code>tke.ap-mumbai.tencentcloudapi.com</code>
Asia Pacific (Seoul)	<code>tke.ap-seoul.tencentcloudapi.com</code>
Asia Pacific (Tokyo)	<code>tke.ap-tokyo.tencentcloudapi.com</code>
Eastern U.S. (Virginia)	<code>tke.na-ashburn.tencentcloudapi.com</code>
Western U.S. (Silicon Valley)	<code>tke.na-siliconvalley.tencentcloudapi.com</code>
North America (Toronto)	<code>tke.na-toronto.tencentcloudapi.com</code>
Europe (Frankfurt)	<code>tke.eu-frankfurt.tencentcloudapi.com</code>
Europe (Moscow)	<code>tke.eu-moscow.tencentcloudapi.com</code>

Note: Finance regions and non-Finance regions are isolated from each other. Therefore, when you access the services in a finance region (the common parameter Region is finance region), you need to specify a domain name containing the region specified in the Region field.

Finance Region	Domain Name
East China (Shanghai Finance)	tke.ap-shanghai-fsi.tencentcloudapi.com
South China (Shenzhen Finance)	tke.ap-shenzhen-fsi.tencentcloudapi.com

2. Communication Protocol

All the TencentCloud APIs communicate via HTTPS, providing highly secure communications tunnels.

3. Request Methods

Supported HTTP request methods:

- POST (recommended)
- GET

Content-Type supported by POST request:

- application/json (recommended). The TC3-HMAC-SHA256 signature method is required.
- application/x-www-form-urlencoded. The HmacSHA1 or HmacSHA256 signature method is required.
- multipart/form-data (supported only in some APIs). The TC3-HMAC-SHA256 signature method is required.

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 method is used, and to 10 MB when TC3-HMAC-SHA256 is used.

4. Character Encoding

UTF-8 encoding is always used.

Common Params

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The common parameters are used to authenticate the user and API. If not necessary, these parameters are not described in individual API documents. However, they have to be carried by each request to initiate properly.

Signature Method v3

When using TC3-HMAC-SHA256 to sign your requests, you should include all common parameters in the HTTP header as shown below:

Parameter Name	Type	Required	Description
X-TC-Action	String	Yes	API name of the action. For the valid values, see the description of the common input parameter "Action" in the API documentation. For example, the value of the CVM instance list querying API is DescribeInstances.
X-TC-Region	String	Yes	Region parameter. It identifies the region of related resources of this action. 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. It records the time when an API request is initiated. For example, 1529223702. Note: A greater-than-5-minute difference between your local current time and the API server time can cause your signature to expire.
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=AKIDEXAMPLE/Date/service/tc3_request, SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc963176630326f1024 Here, - TC3-HMAC-SHA256: Signature method, currently fixed as this value; - Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date is a date in UTC time, and this value must be matched the value of X-TC-Timestamp (a common parameter) in UTC time format; service is the name of the product/service (e.g., cvm) you called; - 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.

Assume that you want to query the list of CVM instances in the Guangzhou region, structure a request that consists of the request URL, the request header and request body as follows:

Sample of an HTTP GET request:

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

```
Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/2018-10-09/cvm/tc3_request, SignedHeaders=content-type;host, Signature=5da7a33f6993f0614b047e5df4582db9e9bf4672ba50567dba16c6ccf174c474
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
```

Sample of an HTTP POST (application/json) request:

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

```
Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request, SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b13162d9279b0855cfba6789a8edb4c
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}
```

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

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

```
Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request, SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b13162d9279b0855cfba6789a8edb4c
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--
```

Signature Method v1

When using HmacSHA1 or HmacSHA256 to sign your requests, you should include all common parameters in the HTTP header as shown below:

Parameter Name	Type	Required	Description
Action	String	Yes	API name of the action. For the valid values, see the description of the common input parameter "Action" in the API documentation. For example, the value of the CVM instance list querying API is DescribeInstances.
Region	String	Yes	A parameter for specifying the region of the operated data. For the valid regions, see the description of the common input parameter "Region" in the API documentation. Note: This parameter is not required by some APIs and will not be in effect when using these APIs. You can find the detailed information about optional parameters in the API documentation.
Timestamp	Integer	Yes	The current UNIX timestamp. It records the time when an API request is initiated. For example, 1529223702. Note: If the difference between this value and the current time is too large, your signature will be expired.
Nonce	Integer	Yes	A random positive integer used in conjunction with Timestamp to prevent replay attacks
SecretId	String	Yes	You can obtain your SecretId here TencentCloud API Key . A SecretId is a unique identifier of a SecretKey which is used to generate a signature for your request.
Signature	String	Yes	The signature added in the HTTP request for verifying the identity of the requester. The signature is calculated based on the actual input parameters.
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	Keyed hash algorithm that is used to create a signature. You may use either HmacSHA256 or HmacSHA1. However, you only use HmacSHA256 when specified.
Token	String	No	The token that is used along with the temporary key to generate the temporary certificate. You need to obtain the temporary key and token by calling the CAM API. A token is not required when a long-term key is being used.

Assume that you want to query the list of Cloud Virtual Machine instances in the Guangzhou region, structure a request that consists of the request URL, the request header and request body as follows:

Sample of an HTTP GET request:

```
https://cvm.tencentcloudapi.com/?Action=DescribeInstances&Version=2017-03-12&SignatureMethod=HmacSHA256&Timestamp=1527672334&Signature=37ac2f4fde00b0ac9bd9ead9eb459b1bbee224158d66e7ae5fcadb70b2d181d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKIDEXAMPLE
```

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

Sample of an HTTP POST request:

```
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=37ac2f4fde00b0ac9bd9ead9b459b1bb1bee224158d66e7ae5fcadb70b2d181d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKIDEXAMPLE

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
Asia Pacific (Bangkok)	ap-bangkok
North China (Beijing)	ap-beijing
Southwest China (Chengdu)	ap-chengdu
Southwest China (Chongqing)	ap-chongqing
South China (Guangzhou)	ap-guangzhou
Southeast Asia (Hong Kong)	ap-hongkong
Asia Pacific (Mumbai)	ap-mumbai
Asia Pacific (Seoul)	ap-seoul
East China (Shanghai)	ap-shanghai
East China (Shanghai Finance)	ap-shanghai-fsi
South China (Shenzhen Finance)	ap-shenzhen-fsi
Southeast Asia (Singapore)	ap-singapore
Asia Pacific (Tokyo)	ap-tokyo
Europe (Frankfurt)	eu-frankfurt
Europe (Moscow)	eu-moscow
Eastern U.S. (Virginia)	na-ashburn
Western U.S. (Silicon Valley)	na-siliconvalley
North America (Toronto)	na-toronto

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; acts like a username.
- SecretKey: Used to authenticate the API caller; act like a password
- **You must keep your security credentials safe and do not disclose them to third parties; if they are disclosed, please disable them as soon as possible.**

You can apply for the security credentials in 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 pair of SecretId/SecretKey.

Using the Resources for Developers

TencentCloud API comes with SDKs for seven commonly used programming languages, including [Python](#), [Java](#), [PHP](#), [Go](#), [NodeJS](#), [.NET](#), and [C++](#). 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 Method

Compatible with the previous HmacSHA1 and HmacSHA256 signature methods, the TC3-HMAC-SHA256 signature method is more secure and supports larger requests and JSON format with better performance. It is recommended to use it 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 calculating. We choose 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 makes it able 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 AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE and Gu5t9xGARNpq86cd98joQYCN3EXAMPLE, respectively, if you want to view the status of the CVM instance named "unnamed" in the Guangzhou region 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=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=72e494ea809ad7a8c8f7a4507b9bddcbaa8e581f516e8da2f66e2c5a96525168" \
-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": [{"\u672a\u547d\u540d"}, {"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 <code>POST</code> .
CanonicalURI	URI parameter. Slash ("/") is used for API 3.0.
CanonicalQueryString	Query string in the URL of the originating HTTP request. It is always an empty string "" for the POST request, and the string after the question mark ("?") in URL for the GET request such as <code>Limit=10&Offset=0</code> . Note: CanonicalQueryString must be URL-encoded.

Field Name	Explanation
CanonicalHeaders	<p>HTTP Headers 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.</p> <p>Splicing rules:</p> <ol style="list-style-type: none"> Both the key and value of the header should be converted to lowercase with the leading and trailing spaces removed, so they are spliced in the format of key:value\n format; If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase). <p>The calculation result in this example is <code>content-type:application/json; charset=utf-8\nhost:cvm.tencentcloudapi.com\n</code>.</p> <p>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.</p>
SignedHeaders	<p>HTTP Headers for signature calculation, indicating which headers of the request participate in the signature process (they must correspond to the headers in CanonicalHeaders one-to-one). content-type and host are required headers.</p> <p>Concatenation rules:</p> <ol style="list-style-type: none"> Both the key and value of the header should be converted to lowercase; If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase) and separated by semicolons (;). <p>The value in this example is <code>content-type;host</code></p>
HashedRequestPayload	<p>Hash value of the request payload (i.e., the body, such as <code>{"Limit": 1, "Filters": [{"Values": [{"\u672a\u547d\u540d"}, {"Name": "instance-name"}]}</code> in this example). The pseudocode for calculation is <code>Lowercase(HexEncode(Hash.SHA256(RequestPayload)))</code> 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.</p> <p>The calculation result in this example is <code>35e9c5b0e3ae67532d3c9f17ead6c90222632e5b1ff7f6e89887f1398934f064</code>.</p>

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
35e9c5b0e3ae67532d3c9f17ead6c90222632e5b1ff7f6e89887f1398934f064
```

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	Description
Algorithm	Signature algorithm, which is always <code>TC3-HMAC-SHA256</code> currently.
RequestTimestamp	Request timestamp, i.e., the value of the common parameter <code>X-TC-Timestamp</code> in the request header, which is the UNIX timestamp of the current time in seconds, such as <code>1551113065</code> in this example.
CredentialScope	Scope of the credential in the format of <code>Date/service/tc3_request</code> , including the date, requested service and termination string (<code>tc3_request</code>). Date is a date in UTC time, whose value should match the UTC date converted by the common parameter <code>X-TC-Timestamp</code> ; service is the product name, which should match the domain name of the product called. The calculation result in this example is <code>2019-02-25/cvm/tc3_request</code> .
HashedCanonicalRequest	Hash value of the <code>CanonicalRequest</code> string concatenated in the steps above. The pseudocode for calculation is <code>Lowercase(HexEncode(Hash.SHA256(CanonicalRequest)))</code> . The calculation result in this example is <code>5ffe6a04c0664d6b969fab9a13bdab201d63ee709638e2749d62a09ca18d7031</code> .

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 in the daytime 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 current system time, and it should be ensured that the system time and standard time are synced; if the difference is over five minutes, the call will definitely fail. If the time difference exists for a long time, it may cause the requests to definitely fail after running for a period of time, with a signature expiration error returned.

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

```
TC3-HMAC-SHA256
1551113065
2019-02-25/cvm/tc3_request
5ffe6a04c0664d6b969fab9a13bdab201d63ee709638e2749d62a09ca18d7031
```

3. Calculating the Signature

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

```
SecretKey = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE"
SecretDate = HMAC_SHA256("TC3" + SecretKey, Date)
SecretService = HMAC_SHA256(SecretDate, Service)
SecretSigning = HMAC_SHA256(SecretService, "tc3_request")
```

Field Name	Description
SecretKey	The original <code>SecretKey</code> , i.e., <code>Gu5t9xGARNpq86cd98joQYCN3EXAMPLE</code> .

Field Name	Description
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	Description
Algorithm	Signature algorithm, which is always TC3-HMAC-SHA256 .
SecretId	The SecretId in the key pair, i.e., AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE .
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 72e494ea809ad7a8c8f7a4507b9bddcbaa8e581f516e8da2f66e2c5a96525168 .

Based on the above rules, the value in the example is:

```
TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/2019-02-25/cvm/tc3_request, SignedHeaders=
content-type;host, Signature=72e494ea809ad7a8c8f7a4507b9bddcbaa8e581f516e8da2f66e2c5a96525168
```

The final complete call information is as follows:

```
POST https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/2019-02-25/cvm/tc3_request, Si
gnedHeaders=content-type;host, Signature=72e494ea809ad7a8c8f7a4507b9bddcbaa8e581f516e8da2f66e2c5a96525168
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": ["\u672a\u547d\u540d"], "Name": "instance-name"}]}
```

5. Signature Demo

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 = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE";
    private final static String SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE";
    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" + "host:" + host + "\n";
        String signedHeaders = "content-type;host";

        String payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"\\u672a\\u547d\\u540d\"], \"Name\": \"instance-name\"}]";
        String hashedRequestPayload = sha256Hex(payload);
        String canonicalRequest = httpRequestMethod + "\n" + canonicalUri + "\n" + canonicalQueryString + "\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, stringToSign)).toLowerCase();
System.out.println(signature);

// ***** Step 4: Concatenate the Authorization *****
String authorization = algorithm + " " + "Credential=" + SECRET_ID + "/" + credentialScope + ", "
+ "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 parameter
secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE"

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": [{"Name": "instance-name", "Values": [u"unnamed"]}]}

# ***** 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")).hexdigest()
string_to_sign = (algorithm + "\n" +
str(timestamp) + "\n" +
credential_scope + "\n" +
hashed_canonical_request)
print(string_to_sign)

# ***** Step 3: Calculate the signature *****
# Calculate the signature summary function
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.sha256).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 + '"')
```

Signature Failure

The following error codes for signature failure exist based on the actual conditions. Please cope with 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 there're missing/unnecessary characters.
AuthFailure.SignatureFailure	Signature error. It may be that the signature was wrongly calculated, the signature does not match the content actually sent, or the SecretKey of the key is incorrect.
AuthFailure.TokenFailure	Error with the token of the temporary certificate.
AuthFailure.InvalidSecretId	Invalid key (not TencentCloud API key type).

Signature

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TencentCloud API authenticates each access request, i.e. each request needs to include signature information (Signature) in the common request 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, please go to the [TencentCloud API Key](#) page to apply for them; otherwise, you cannot call 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 include SecretId and SecretKey:

- SecretId is used to identify the API caller.
- 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 in the following steps:

1. Log in to the [Tencent Cloud Console](#).
2. Go to the [TencentCloud API Key](#) page
3. On the [TencentCloud API Key](#) page, click **Create** to create a pair of SecretId/SecretKey

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

2. Generating Signature String

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

Assume that the SecretId and SecretKey are:

- SecretId: AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE
- SecretKey: Gu5t9xGARNpq86cd98joQYCN3EXAMPLE

Note: This is just a sample here. For actual operations, use your real 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	AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE
Timestamp	Current timestamp	1465185768
Nonce	A random positive integer	11886
Region	Region where the instance is located	ap-guangzhou

Parameter Name	Description	Parameter Value
InstanceIds.0	ID of the instance to query	ins-09dx96dg
Offset	Offset value	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' : 'AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE',
  'Timestamp' : 1465185768,
  'Version': '2017-03-12',
}
```

When developing in another programming language, you can sort these sample parameters and it would work as long as you get 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=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE&Timestamp=1465185768&Version=2017-03-12
```

2.3. Concatenating the Signature Original String

This step generates a signature original string, which 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: That is 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 sample is:

```
GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceId=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmlPx3EXAMPLE&Timestamp=1465185768&Version=2017-03-12
```

2.4. Generating the 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 string using Base64 to obtain the final signature string.

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

```
$secretKey = 'Gu5t9xGARNpq86cd98joQYCN3EXAMPLE';
$srcStr = 'GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceId=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmlPx3EXAMPLE&Timestamp=1465185768&Version=2017-03-12';
$signStr = base64_encode(hash_hmac('sha1', $srcStr, $secretKey, true));
echo $signStr;
```

The final signature is:

```
EliP9YW3pW28FpsEdkXt/+WcGel=
```

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

3. Encoding Signature String

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

For example, if the signature generated in the previous step is EliP9YW3pW28FpsEdkXt/+WcGel=, the final signature request parameter (Signature) is EliP9YW3pW28FpsEdkXt/+WcGel=, 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 for percent-encoding of 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 error codes for signature failure exist based on the actual conditions. Please cope with the errors accordingly.

Error Code	Error description
AuthFailure.SignatureExpire	Signature expired
AuthFailure.SecretIdNotFound	The key does not exist
AuthFailure.SignatureFailure	Signature error
AuthFailure.TokenFailure	Token error
AuthFailure.InvalidSecretId	Invalid key (not 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](#)
- [JavaScript](#)
- [.NET](#)

In order to explain the signing process more clearly, the process described above is implemented below with a real-world programming language as an example. The request domain name, called API and parameter values in the sample are used here. The code here is only for explaining the signature process and not universal. For actual development, please use the SDK as much as possible.

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=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE&Signature=ElIP9YW3pW28FpsEdkXt/+WcGel=&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, the URLs generated may be different in the order of the parameters during each execution with different or even the same programming languages, but this does not affect the correctness. As long as all parameters are in place and the signature is calculated correctly, it would be okay.

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 difference 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.getAlgorithm());
        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. TreeMap 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 UnsupportedEncodingException {
        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 is used for auto-sorting.
        // A random numbers 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", "AKIDz8krbsJ5yKBZQpn74WFkmlPx3EXAMPLE"); // 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); // Service parameter
        params.put("Offset", 0); // Service parameter
        params.put("InstanceId.0", "ins-09dx96dg"); // Service parameter
        params.put("Signature", sign(getStringToSign(params), "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE", "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 = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE"

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',
        'InstanceId.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 calling would occur here which may incur fees after success
    # resp = requests.get("https://" + endpoint, params=data)
    # print(resp.url)
```

Responses

Last updated : 2019-09-09 11:36:30

Response for Successful Requests

For example, when calling CVM API DescribeInstancesStatus (version 2017-03-12), if this request is successfully, the response is as followed:

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

- Response and its RequestId are common fields and are always returned as long as the API request is processed, regardless of whether the request is successful or not.
- RequestId is for identifying an API request. If an API exception occurs, please contact us with RequestId which helps locate the cause of the error.
- Any fields other than the common fields are API-specific fields. For more information on such fields, see the relevant API documentation. In this example, TotalCount and InstanceStatusSet are specific to the API DescribeInstancesStatus. Since the user who initiated the request does not have a CVM instance yet, 0 is returned for TotalCount and InstanceStatusSet is left empty.

Response for Failed Requests

If the request fails, the response is as follows:

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

- Error indicates request failure. Its two fields, Code and Message, will be returned in case of failure.
- Code indicates the error code. When an error occurs with the request, you can use the error code to find the cause and solution for the error in the list of common error codes or API-specific error codes.
- Message describes the cause of the error. It may be updated without notice.
- RequestId is for identifying an API request. If an API exception occurs, please contact us with RequestId which helps locate the cause of the error.

Common Error Codes

When you see the Error field in the response, it means that your request has failed; the Code field indicates the error code. The following are common error codes that all requests can return.

Error Code	Description
AuthFailure.InvalidSecretId	Invalid key (not TencentCloud API key type).
AuthFailure.MFAFailure	MFA failure
AuthFailure.SecretIdNotFound	Key does not exist.
AuthFailure.SignatureExpire	Signature expired
AuthFailure.SignatureFailure	Invalid signature.
AuthFailure.TokenFailure	Invalid token.
AuthFailure.UnauthorizedOperation	No 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	API does not exist.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
LimitExceeded	Quota limit is exceeded.
MissingParameter	A parameter is missing
NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The request rate limit is exceeded
ResourceInUse	Resource is occupied.
ResourceInsufficient	Insufficient resource.
ResourceNotFound	Resource does not exist.
ResourceUnavailable	Resource is unavailable
UnauthorizedOperation	Unauthorized operation
UnknownParameter	Unknown parameter
UnsupportedOperation	Unsupported operation
UnsupportedProtocol	Unsupported HTTP(S) request protocol. Only GET and POST requests are supported.
UnsupportedRegion	Unsupported region

Cluster APIs

CreateCluster

Last updated : 2019-09-09 11:36:31

1. API Description

API domain name: tke.tencentcloudapi.com.

This API creates a Cluster.

API request rate limit: 20 requests/sec.

Note: This API supports financial regions. As financial regions and non-financial regions are isolated, if a financial region, such as ap-shanghai-fsi, is assigned to the common parameter `Region`, we recommend you include that financial region in your domain name, such as tke.ap-shanghai-fsi.tencentcloudapi.com.

2. Input Parameters

The following parameters are required for requesting this API, including action-specific parameters and common parameters. For more information about common parameters for all requests, see [Common Request Parameters](#).

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The name of this API: CreateCluster
Version	Yes	String	Common parameter. The version of this API: 2018-05-25
Region	Yes	String	Common parameter. For more information, see the list of regions supported by the product.
ClusterCIDRSettings	Yes	ClusterCIDRSettings	Cluster container network configuration information
ClusterType	Yes	String	Cluster type. MANAGED_CLUSTER: managed cluster; INDEPENDENT_CLUSTER: independent cluster.
RunInstancesForNode.N	No	Array of RunInstancesForNode	Pass-through parameter for CVM instance creation, which is in the format of a JSON string. For more information, see the API for creating a CVM instance .
ClusterBasicSettings	No	ClusterBasicSettings	Basic configuration information of a cluster
ClusterAdvancedSettings	No	ClusterAdvancedSettings	Advanced configuration information of a cluster
InstanceAdvancedSettings	No	InstanceAdvancedSettings	Additional information need to be specified for the CVM instance
ExistedInstancesForNode.N	No	Array of ExistedInstancesForNode	Configuration information of existing instances

3. Output Parameters

Parameter Name	Type	Description
ClusterId	String	Cluster ID
RequestId	String	Unique ID of the request. Each request returns a unique ID. The RequestId is required to troubleshoot issues.

4. Samples

Sample 1. Creating a Managed Cluster

Create a managed cluster

Input Sample Code

```
https://tke.tencentcloudapi.com/?Action=CreateCluster
&ClusterType=MANAGED_CLUSTER
&ClusterCIDRSettings.ClusterCIDR=10.4.0.0/14
&RunInstancesForNode.0.NodeRole=WORKER
&RunInstancesForNode.0.RunInstancesPara.0={"VirtualPrivateCloud":{"SubnetId":"subnet-xxx","VpcId":"vpc-xxx"},"Placement":{"Zone":"ap-region-1","ProjectId":1032509},"InstanceType":"S3.LARGE8","SystemDisk":{"DiskType":"CLOUD_PREMIUM"},"DataDisks":[{"DiskType":"CLOUD_PREMIUM","DiskSize":50}],"InstanceCount":1,"InternetAccessible":{"PublicIpAssigned":true,"InternetMaxBandwidthOut":1},"LoginSettings":{"Password":"YourPassword"},"UserData":"lyEvYmluL3NoCgplY2hvlGFhYQo="}
&<Common request parameters>
```

Output Sample Code

```
{
  "Response": {
    "ClusterId": "cls-xxx",
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

Sample 2. Creating an Independent Cluster

Create an independent cluster

Input Sample Code

```
https://tke.tencentcloudapi.com/?Action=CreateCluster
&ClusterType=INDEPENDENT_CLUSTER
&ClusterCIDRSettings.ClusterCIDR=10.4.0.0/14
&RunInstancesForNode.0.NodeRole=MASTER_ETCD
&RunInstancesForNode.0.RunInstancesPara.0={"VirtualPrivateCloud":{"SubnetId":"subnet-xxx","VpcId":"vpc-xxx"},"Placement":{"Zone":"ap-region-1","ProjectId":1032509},"InstanceType":"S3.LARGE8","SystemDisk":{"DiskType":"CLOUD_PREMIUM"},"DataDisks":[{"DiskType":"CLOUD_PREMIUM","DiskSize":50}],"InstanceCount":3,"InternetAccessible":{"PublicIpAssigned":true,"InternetMaxBandwidthOut":1},"LoginSettings":{"Password":"YourPassword"},"UserData":"lyEvYmluL3NoCgplY2hvlGFhYQo="}
&RunInstancesForNode.1.NodeRole=WORKER
&RunInstancesForNode.1.RunInstancesPara.0={"VirtualPrivateCloud":{"SubnetId":"subnet-xxx","VpcId":"vpc-xxx"},"Placement":
```

```
{
  "Zone": "ap-region-1",
  "ProjectId": "1032509",
  "InstanceType": "S3.LARGE8",
  "SystemDisk": {
    "DiskType": "CLOUD_PREMIUM"
  },
  "DataDisks": [
    {
      "DiskType": "CLOUD_PREMIUM",
      "DiskSize": 50
    }
  ],
  "InstanceCount": 1,
  "InternetAccessible": {
    "PublicIpAssigned": true,
    "InternetMaxBandwidthOut": 1
  },
  "LoginSettings": {
    "Password": "YourPassword",
    "UserData": "lyEvYmluL3NoCgplY2hvlGFhYQo="
  }
}
&<Common request parameters>
```

Output Sample Code

```
{
  "Response": {
    "ClusterId": "cls-xxx",
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

5. Resources for Developers

API Explorer

This tool allows online call, signature authentication, SDK code generation and quick search of APIs to greatly improve the efficiency of using TencentCloud APIs.

- [API 3.0 Explorer](#)

SDK

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- [Tencent Cloud SDK 3.0 for NodeJS](#)
- [Tencent Cloud SDK 3.0 for .NET](#)

Command line tools

- [Tencent Cloud CLI 3.0](#)

6. Error Codes

The following error codes are API business logic-related. For other error codes, see [Common Error Codes](#).

Error Code	Description
InternalServerError	Internal error.
InternalServerError.AccountUserNotAuthenticated	The account has not been authenticated.
InternalServerError.CidrConflictWithOtherCluster	The CIDR conflicts with a CIDR of another cluster.
InternalServerError.CidrConflictWithOtherRoute	The CIDR conflicts with another route.

Error Code	Description
InternalError.CidrConflictWithVpcCidr	The CIDR conflicts with the VPC.
InternalError.CidrConflictWithVpcGlobalRoute	The CIDR conflicts with the global route.
InternalError.CidrInvalid	Invalid CIDR.
InternalError.CidrMaskSizeOutOfRange	Invalid CIDR mask.
InternalError.CreateMasterFailed	Cluster creation failed.
InternalError.CvmCommon	Error creating a node by CVM.
InternalError.Db	Database error.
InternalError.DbAffectedRows	Database effective function error.
InternalError.InitMasterFailed	Master node initialization failed.
InternalError.InvalidPrivateNetworkCidr	Invalid CIDR.
InternalError.Param	Param.
InternalError.PublicClusterOpNotSupport	The cluster does not support the current operation.
InternalError.QuotaMaxClsLimit	Quota limit is exceeded.
InternalError.QuotaMaxNodLimit	Quota limit is exceeded.
InternalError.UnexceptedInternal	UnexceptedInternal.
InternalError.VpcCommon	VPC error.
InternalError.VpcRecodrNotFound	No VPC record found.
InvalidParameter	Invalid parameter.
LimitExceeded	Quota limit is exceeded.

DescribeClusterInstances

Last updated : 2019-09-09 11:36:31

1. API Description

API domain name: tke.tencentcloudapi.com.

This API describes node instance information for the specified cluster.

API request rate limit: 20 requests/sec.

Note: This API supports financial regions. As financial regions and non-financial regions are isolated, if a financial region, such as ap-shanghai-fsi, is assigned to the common parameter `Region`, we recommend you include that financial region in your domain name, such as tke.ap-shanghai-fsi.tencentcloudapi.com.

2. Input Parameters

The following parameters are required for requesting this API, including action-specific parameters and common parameters. For more information about common parameters for all requests, see [Common Request Parameters](#).

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The name of this API: DescribeClusterInstances
Version	Yes	String	Common parameter. The version of this API: 2018-05-25
Region	Yes	String	Common parameter. For more information, see the list of regions supported by the product.
ClusterId	Yes	String	Cluster ID
Offset	No	Integer	Offset; default is 0
Limit	No	Integer	Maximum number of output entries; default is 20
InstanceIds.N	No	Array of String	List of node instances IDs to be queried (by default, this parameter is left blank, indicating that querying all node instances in the cluster)

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Total number of instances in the cluster
InstanceSet	Array of Instance	List of instances in the cluster

Parameter Name	Type	Description
RequestId	String	Unique ID of the request. Each request returns a unique ID. The RequestId is required to troubleshoot issues.

4. Samples

Sample 1. Querying Cluster Instance Information

Query cluster instance information

Input Sample Code

```
https://tke.tencentcloudapi.com/?Action=DescribeClusterInstances
&&ClusterId=cls-xxxxxx
&&<Common request parameters>
```

Output Sample Code

```
{
  "Response": {
    "TotalCount": 1,
    "InstanceSet": [
      {
        "InstanceId": "ins-gsk7l6vw",
        "InstanceRole": "WORKER",
        "InstanceState": "running",
        "FailedReason": "",
        "InstanceAdvancedSettings": {
          "Unschedulable": 0
        }
      }
    ],
    "RequestId": "82f2fe9c-c5fa-4077-9236-f1341180a696"
  }
}
```

5. Resources for Developers

API Explorer

This tool provides various capabilities such as online call, signature verification, SDK code generation, and quick API retrieval that significantly reduce the difficulty of using TencentCloud API.

- [API 3.0 Explorer](#)

SDK

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- [Tencent Cloud SDK 3.0 for NodeJS](#)
- [Tencent Cloud SDK 3.0 for .NET](#)

Command line tools

- [Tencent Cloud CLI 3.0](#)

6. Error Codes

The following error codes are API business logic-related. For other error codes, see [Common Error Codes](#).

Error Code	Description
FailedOperation	Operation failed.
InternalError	Internal error.
InternalError.Db	Database error.
InternalError.DbAffectedRows	Database effective function error.
InternalError.InitMasterFailed	Master node initialization failed.
InternalError.Param	Param.
InternalError.PublicClusterOpNotSupport	The cluster does not support the current operation.
InvalidParameter	Invalid parameter.
LimitExceeded	Quota limit is exceeded.

DescribeClusters

Last updated : 2019-09-09 11:36:31

1. API Description

API domain name: tke.tencentcloudapi.com.

This API describes the cluster list.

API request rate limit: 20 requests/sec.

Note: This API supports financial regions. As financial regions and non-financial regions are isolated, if a financial region, such as ap-shanghai-fsi, is assigned to the common parameter `Region`, we recommend you include that financial region in your domain name, such as tke.ap-shanghai-fsi.tencentcloudapi.com.

2. Input Parameters

The following parameters are required for requesting this API, including action-specific parameters and common parameters. For more information about common parameters for all requests, see [Common Request Parameters](#).

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The name of this API: DescribeClusters
Version	Yes	String	Common parameter. The version of this API: 2018-05-25
Region	Yes	String	Common parameter. For more information, see the list of regions supported by the product.
ClusterIds.N	No	Array of String	List of cluster IDs (if this parameter is empty, all clusters under the account are obtained)
Offset	No	Integer	Offset; default is 0
Limit	No	Integer	Maximum number of output entries; default is 20
Filters.N	No	Array of Filter	Filter. Currently, only ClusterName is supported

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Total number of clusters
Clusters	Array of Cluster	Cluster information list

Parameter Name	Type	Description
RequestId	String	Unique ID of the request. Each request returns a unique ID. The RequestId is required to troubleshoot issues.

4. Samples

Sample 1. Querying the Cluster List

Describing a cluster list.

Input Sample Code

```
https://tke.tencentcloudapi.com/?Action=DescribeClusters
&<Common request parameters>
```

Output Sample Code

```
{
  "Response": {
    "TotalCount": 1,
    "Clusters": [
      {
        "ClusterId": "cls-xxxxxxx",
        "ClusterName": "Cluster",
        "ClusterDescription": "",
        "ClusterVersion": "1.10.5",
        "ClusterOs": "ubuntu16.04.1 LTSx86_64",
        "ClusterType": "INDEPENDENT_CLUSTER",
        "ClusterNetworkSettings": {
          "ClusterCIDR": "10.211.0.0/16",
          "IgnoreClusterCIDRConflict": false,
          "MaxNodePodNum": 256,
          "MaxClusterServiceNum": 256,
          "Ipv6": false,
          "VpcId": "vpc-xxxxxx"
        },
        "ClusterNodeNum": 3
      }
    ],
    "RequestId": "a1be36f0-1aa4-4af2-a289-da021bcef89f"
  }
}
```

5. Resources for Developers

API Explorer

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Command line tools

- [Tencent Cloud CLI 3.0](#)

6. Error Codes

The following error codes are API business logic-related. For other error codes, see [Common Error Codes](#).

Error Code	Description
InternalError	Internal error.
InternalError.Db	Database error.
InternalError.DbAffectedRows	Database effective function error.
InternalError.Param	Param.
InternalError.PublicClusterOpNotSupport	The cluster does not support the current operation.
InternalError.QuotaMaxClsLimit	Quota limit is exceeded.
InternalError.QuotaMaxNodLimit	Quota limit is exceeded.
InvalidParameter	Invalid parameter.
LimitExceeded	Quota limit is exceeded.
ResourceNotFound	Resource does not exist.

DeleteClusterInstances

Last updated : 2019-09-09 11:35:56

1. API Description

API domain name: tke.tencentcloudapi.com.

This API deletes one or more instances from the specified cluster.

API request rate limit: 20 requests/sec.

Note: This API supports financial regions. As financial regions and non-financial regions are isolated, if a financial region, such as ap-shanghai-fsi, is assigned to the common parameter `Region`, we recommend you include that financial region in your domain name, such as tke.ap-shanghai-fsi.tencentcloudapi.com.

2. Input Parameters

The following parameters are required for requesting this API, including action-specific parameters and common parameters. For more information about common parameters for all requests, see [Common Request Parameters](#).

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The name of this API: DeleteClusterInstances
Version	Yes	String	Common parameter. The version of this API: 2018-05-25
Region	Yes	String	Common parameter. For more information, see the list of regions supported by the product.
ClusterId	Yes	String	Cluster ID
InstanceIds.N	Yes	Array of String	List of instance IDs
InstanceDeleteMode	No	String	Policy used for deleting instances in the cluster: <code>terminate</code> : terminate the instance. It's available only for pay-as-you-go CVM instances; <code>retain</code> : only remove it from the cluster. The instance will be retained.

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	Unique ID of the request. Each request returns a unique ID. The RequestId is required to troubleshoot issues.

4. Samples

Sample 1. Deleting an Instance from a Cluster

Delete an instance from a cluster

Input Sample Code

```
https://tke.tencentcloudapi.com/?Action=DeleteClusterInstances
&ClusterId=cls-xxxxxx
&InstanceIds.0=ins-xxxxx
&InstanceDeleteMode=terminate
&<Common request parameters>
```

Output Sample Code

```
{
  "Response": {
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

5. Resources for Developers

API Explorer

This tool allows online call, signature authentication, SDK code generation and quick search of APIs to greatly improve the efficiency of using TencentCloud APIs.

- [API 3.0 Explorer](#)

SDK

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- [Tencent Cloud SDK 3.0 for NodeJS](#)
- [Tencent Cloud SDK 3.0 for .NET](#)

Command line tools

- [Tencent Cloud CLI 3.0](#)

6. Error Codes

The following error codes are API business logic-related. For other error codes, see [Common Error Codes](#).

Error Code	Description
------------	-------------

Error Code	Description
InternalError	Internal error.
InternalError.Db	Database error.
InternalError.DbAffectedRows	Database effective function error.
InternalError.Param	Param.
InternalError.PublicClusterOpNotSupport	The cluster does not support the current operation.
InvalidParameter	Invalid parameter.
LimitExceeded	Quota limit is exceeded.

AddExistedInstances

Last updated : 2019-09-09 11:45:44

1. API Description

API domain name: tke.tencentcloudapi.com.

This API adds one or more existing CVM instances to the specified cluster.

API request rate limit: 20 requests/sec.

Note: This API supports financial regions. As financial regions and non-financial regions are isolated, if a financial region, such as ap-shanghai-fsi, is assigned to the common parameter `Region`, we recommend you include that financial region in your domain name, such as tke.ap-shanghai-fsi.tencentcloudapi.com.

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 parameter. The name of this API: AddExistedInstances
Version	Yes	String	Common parameter. The version of this API: 2018-05-25
Region	Yes	String	Common parameter. For more information, see the list of regions supported by the product.
ClusterId	Yes	String	Cluster ID
InstanceIds.N	Yes	Array of String	Instance list
InstanceAdvancedSettings	No	InstanceAdvancedSettings	Additional parameters need to be specified for the CVM instance
EnhancedService	No	EnhancedService	Enable or disable enhanced services, including Cloud Security, Cloud Monitoring. If this parameter is not specified, Cloud Monitoring and Cloud Security will be enabled by default
LoginSettings	No	LoginSettings	Login to Node. Currently, you can only use password or a single KeyId to login to the node.
SecurityGroupIds.N	No	Array of String	Security group of the instance. You may find this parameter in <code>sgId</code> returned by API <code>DescribeSecurityGroups</code> . If this parameter is not specified, the default security group is bound (currently, you can configure only one single <code>sgId</code>)

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	Unique ID of the request. Each request returns a unique ID. The RequestId is required to troubleshoot issues.

4. Samples

Sample 1. Adding an Existing CVM Instance to a Cluster

Add an existing CVM instance to a cluster

Input Sample Code

```
https://tke.tencentcloudapi.com/?Action=AddExistedInstances
&ClusterId=cls-xxxxxx
&InstanceIds.0=ins-xxxxx
&<Common request parameters>
```

Output Sample Code

```
{
  "Response": {
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

5. Resources for Developers

API Explorer

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- [Tencent Cloud SDK 3.0 for NodeJS](#)
- [Tencent Cloud SDK 3.0 for .NET](#)

Command line tools

- [Tencent Cloud CLI 3.0](#)

6. Error Codes

The following error codes are API business logic-related. For other error codes, see [Common Error Codes](#).

Error Code	Description
InternalServerError	Internal error.
InternalServerError.Db	Database error.
InternalServerError.DbAffectedRows	Database effective function error.
InternalServerError.Param	Param.
InvalidParameter	Invalid parameter.
LimitExceeded	Quota limit is exceeded.

Data Types

Last updated : 2019-09-09 11:36:31

Cluster

Cluster data structure

Referenced by: DescribeClusters.

Name	Type	Description
ClusterId	String	Cluster ID
ClusterName	String	Cluster name
ClusterDescription	String	Cluster description
ClusterVersion	String	Cluster version (the default value is 1.10.5)
ClusterOs	String	Cluster OS. Valid values: Centos7.2x86_64, ubuntu16.04.1 LTSx86_64. Default value: ubuntu16.04.1 LTSx86_64
ClusterType	String	Cluster type. MANAGED_CLUSTER: managed cluster; INDEPENDENT_CLUSTER: independent cluster.
ClusterNetworkSettings	ClusterNetworkSettings	Cluster network parameters
ClusterNodeNum	Integer	Current number of nodes in the cluster
ProjectId	Integer	Project ID of the cluster

ClusterAdvancedSettings

Advanced configuration of a cluster

Referenced by: CreateCluster.

Name	Type	Required	Description
IPVS	Boolean	No	Whether to enable IPVS
AsEnabled	Boolean	No	Whether to enable cluster node scaling

ClusterBasicSettings

Describes the basic configuration information of a cluster

Referenced by: CreateCluster.

Name	Type	Required	Description
------	------	----------	-------------

Name	Type	Required	Description
ClusterOs	String	No	Cluster OS. Valid values: Centos7.2x86_64, ubuntu16.04.1 LTSx86_64. Default value: ubuntu16.04.1 LTSx86_64
ClusterVersion	String	No	Cluster version; the default value is 1.10.5
ClusterName	String	No	Cluster name
ClusterDescription	String	No	Cluster description
VpcId	String	No	VPC ID in the format of vpc-xxx, which is required when an empty managed cluster is created
ProjectId	Integer	No	Project ID of new resources in the cluster

ClusterCIDRSettings

Cluster container network parameters

Referenced by: CreateCluster.

Name	Type	Required	Description
ClusterCIDR	String	Yes	A CIDR that is used to assign containers and service IPs for the cluster, and its value should not conflict with VPC's CIDR or CIDRs of other clusters within the same VPC
IgnoreClusterCIDRConflict	Boolean	No	Whether to ignore the error caused by the value of ClusterCIDR conflicting with VPC's CIDR or CIDRs of other clusters within the same VPC. Default is No
MaxNodePodNum	Integer	No	Maximum number of pods per node in the cluster
MaxClusterServiceNum	Integer	No	Maximum number of services in the cluster

ClusterNetworkSettings

Cluster network parameters

Referenced by: DescribeClusters.

Name	Type	Required	Description
ClusterCIDR	String	Yes	A CIDR that is used to assign containers and service IPs for the cluster, and its value should not conflict with VPC's CIDR or CIDRs of other clusters within the same VPC
IgnoreClusterCIDRConflict	Boolean	No	Whether to not ignore the error caused by the value of ClusterCIDR conflicting with VPC's CIDR or CIDRs of other clusters within the same VPC. Default is No
MaxNodePodNum	Integer	No	Maximum number of pods per node in the cluster (default is 256)

Name	Type	Required	Description
MaxClusterServiceNum	Integer	No	Maximum number of services in the cluster (default is 256)
Ipv6	Boolean	No	Whether to enable IPV6. Default is No
VpcId	String	No	VPC ID of the cluster (which is required when an empty cluster is created; otherwise, it is automatically set to be the same as that of cluster nodes)

EnhancedService

The information of enhanced services of this instance, such as Cloud Security, Cloud Monitor and other instance agents.

Referenced by: AddExistedInstances, CreateCluster.

Name	Type	Required	Description
SecurityService	RunSecurityServiceEnabled	No	Whether to enable Cloud Security. If this parameter is not specified, Cloud Security will be enabled by default.
MonitorService	RunMonitorServiceEnabled	No	Whether to enable Cloud Monitor. If this parameter is not specified, Cloud Monitor will be enabled by default.

ExistedInstancesForNode

Configuration parameters of existing nodes in different roles

Referenced by: CreateCluster.

Name	Type	Required	Description
NodeRole	String	Yes	The role the Node plays. Valid values: MASTER_ETCD, WORKER. You only need to specify a value for MASTER_ETCD only when creating an independent cluster (INDEPENDENT_CLUSTER).
ExistedInstancesPara	ExistedInstancesPara	Reinstallation parameters of existing instances	

ExistedInstancesPara

Reinstallation parameters of existing instances

Referenced by: CreateCluster.

Name	Type	Required	Description
InstanceIds	Array of String	Yes	Cluster ID

Name	Type	Required	Description
InstanceAdvancedSettings	InstanceAdvancedSettings	No	Additional parameters need to be specified for the CVM instance
EnhancedService	EnhancedService	No	Enable or disable enhanced services, including Cloud Security, Cloud Monitoring. If this parameter is not specified, Cloud Monitoring and Cloud Security will be enabled by default
LoginSettings	LoginSettings	No	Login to Node. Currently, you can only use password or a single KeyId to login to the node.
SecurityGroupIds	Array of String	No	Security group of the instance. You may find this parameter in <code>sgId</code> returned by API <code>DescribeSecurityGroups</code> . If this parameter is not specified, the default security group is bound (currently, you can configure only one single <code>sgId</code>)

Filter

Filter

Referenced by: `DescribeClusters`.

Name	Type	Required	Description
Name	String	Yes	Attribute name. The logical relationship among multiple <code>Filters</code> is AND.
Values	Array of String	Yes	Attribute values. If a <code>Filter</code> has multiple <code>Values</code> , the logical relationship among these <code>Values</code> is OR.

Instance

Cluster instance information

Referenced by: `DescribeClusterInstances`.

Name	Type	Description
InstanceAdvanceSettings	InstanceAdvancedSettings	Advanced settings for the instance
InstanceId	String	Instance ID
InstanceRole	String	Node role. Values include MASTER, WORKER, ETCD, MASTER_ETCD and ALL. The default value is WORKER.
FailedReason	String	Reason for instance exception (or initialization)
InstanceState	String	Instance status (running, initializing, or failed)

InstanceAdvancedSettings

Describes the configuration and information related to the K8s cluster.

Referenced by: AddExistedInstances, CreateCluster, DescribeClusterInstances.

Name	Type	Required	Description
MountTarget	String	No	Data disk mounting point. No data disk is mounted by default. Formatted data disks in ext3, ext4, or XFS file system will be mounted directly, while data disks in other file systems and unformatted data disks will be automatically formatted as ext4 and mounted. Please back up your data in advanced. This setting is only applicable to CVM instances with only ONE data disk.
DockerGraphPath	String	No	Specified value of dockerd --graph. The default value is /var/lib/docker
UserScript	String	No	Base64-encoded user script, which will be executed after the K8s component starts running. It should be ensured that the script's reentrant and retry logics work properly. The script and its generated log files can be checked in the node's /data/ccs_userscript/ path. If you want to initialize nodes before adding them to the scheduling list, you can use this parameter together with the unschedulable parameter. After the final initialization of userScript is completed, add the <code>kubectl uncordon nodename -- kubeconfig=/root/.kube/config</code> command to enable the node for scheduling
Unschedulable	Integer	No	Whether the added node is schedulable. 0: schedulable (default value); other values: unschedulable. After the node initialization is completed, you can run <code>kubectl uncordon nodename</code> to enable this node for scheduling.

LoginSettings

The configuration and information related to instance login.

Referenced by: AddExistedInstances, CreateCluster.

Name	Type	Required	Description
Password	String	No	<p>Login password of the instance. The rule of password varies by OS:</p> <ul style="list-style-type: none"> For Linux instances, the password must be a combination of 8-16 characters in at least two of the following types: [a-z, A-Z], [0-9], and [() ~ ! @ # \$ % ^ & * - + = &#124; { } [] : ; ' , . ? /]. <p>For Windows instances, the password must be a combination of 12-16 characters in at least three of the following types: [a-z], [A-Z], [0-9] and [() ~ ! @ # \$ % ^ & * - + = { } [] : ; ' , . ? /].</p> <p>If this parameter is not specified, a password is randomly generated and sent to you via the internal message. Note: This field may return null, indicating that no valid values can be obtained.</p>
KeyIds	Array of String	No	<p>List of key IDs. When an instance is associated with a key pair, it can be accessed using the corresponding private key. KeyId can be obtained through the DescribeKeyPairs API. A key and a password cannot be specified at the same time. Key-pair login is not applicable to Windows instances. You can specify only one key when purchasing an instance. Note: This field may return null, indicating that no valid values can be obtained.</p>

Name	Type	Required	Description
KeepImageLogin	String	No	<p>Whether to keep the original login settings for the image. You cannot specify this parameter when Password or KeyIds.N is specified. Valid values:</p> <ul style="list-style-type: none"> TRUE: Keep the login settings for the image. This is only applicable when you create an instance using a custom image, shared image, or a image imported from external resources. FALSE: Do not keep the login settings for the image <p>Default value: FALSE. Note: This field may return null, indicating that no valid values can be obtained.</p>

RunInstancesForNode

Node configuration parameters of different roles

Referenced by: CreateCluster.

Name	Type	Required	Description
NodeRole	String	Yes	The role the Node plays. Valid values: MASTER_ETCD, WORKER. You only need to specify a value for MASTER_ETCD only when creating an independent cluster (INDEPENDENT_CLUSTER).
RunInstancesPara	Array of String	Yes	A JSON string passed through when create a CVM instance. For more information, see the API for creating a CVM instance . You only need to pass in a parameter other than the common parameters, where ImageId should be replaced with the ID of the image corresponding to the TKE cluster OS.

RunMonitorServiceEnabled

Information on the Cloud Monitor service.

Referenced by: AddExistedInstances, CreateCluster.

Name	Type	Required	Description
Enabled	Boolean	No	<p>Whether to enable Cloud Monitor. Valid values:</p> <ul style="list-style-type: none"> TRUE: Yes FALSE: No <p>Default value: TRUE.</p>

RunSecurityServiceEnabled

Information on the Cloud Security service

Referenced by: AddExistedInstances, CreateCluster.

Name	Type	Required	Description
------	------	----------	-------------

Name	Type	Required	Description
Enabled	Boolean	No	Whether to enable Cloud Security . Valid values: <ul style="list-style-type: none">• TRUE: Yes• FALSE: No Default value: TRUE.

Error Codes

Last updated : 2019-09-09 11:36:32

Feature Description

If the Error field exists in the returned result, it means 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 the Error field indicates the error code, and Message indicates the error message.

Error Codes

Common Error Codes

Error Code	Description
AuthFailure.InvalidSecretId	Invalid key (not TencentCloud API key type).
AuthFailure.MFAFailure	MFA failure
AuthFailure.SecretIdNotFound	Key does not exist. Check whether the key has been deleted or disabled in the console, and if not, check whether the key is correctly entered. Note that there shall be no space before or after the key.
AuthFailure.SignatureExpire	Signature expired. The difference between the timestamp and the server time cannot exceed 5 minutes. Check whether the local time is synced with the standard time.
AuthFailure.SignatureFailure	Invalid signature. Signature calculating error. Check the signature calculating process by referring to the documentation about API authentication in the calling method.
AuthFailure.TokenFailure	Invalid token.
AuthFailure.UnauthorizedOperation	The request is not authorized. For more information, see the authentication description in 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	API does not exist.

Error Code	Description
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
LimitExceeded	Quota limit is exceeded.
MissingParameter	A parameter is missing
NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The request rate limit is exceeded
ResourceInUse	Resource is occupied.
ResourceInsufficient	Insufficient resource.
ResourceNotFound	Resource does not exist.
ResourceUnavailable	Resource is unavailable
UnauthorizedOperation	Unauthorized operation
UnknownParameter	Unknown parameter
UnsupportedOperation	Unsupported operation
UnsupportedProtocol	Unsupported HTTP(S) request protocol. Only GET and POST requests are supported.
UnsupportedRegion	Unsupported region

Service Error Codes

Error Code	Description
FailedOperation	Operation failed.
InternalError	Internal error.
InternalError.AccountUserNotAuthenticated	The account has not been authenticated.
InternalError.CidrConflictWithOtherCluster	The CIDR conflicts with a CIDR of another cluster.
InternalError.CidrConflictWithOtherRoute	The CIDR conflicts with another route.
InternalError.CidrConflictWithVpcCidr	The CIDR conflicts with the VPC.
InternalError.CidrConflictWithVpcGlobalRoute	The CIDR conflicts with the global route.
InternalError.CidrInvalid	Invalid CIDR.
InternalError.CidrMaskSizeOutOfRange	Invalid CIDR mask.
InternalError.CreateMasterFailed	Cluster creation failed.
InternalError.CvmCommon	Error creating a node by CVM.
InternalError.Db	Database error.

Error Code	Description
InternalError.DbAffectedRows	Database effective function error.
InternalError.InitMasterFailed	Master node initialization failed.
InternalError.InvalidPrivateNetworkCidr	Invalid CIDR.
InternalError.Param	Param.
InternalError.PublicClusterOpNotSupport	The cluster does not support the current operation.
InternalError.QuotaMaxClsLimit	Quota limit is exceeded.
InternalError.QuotaMaxNodLimit	Quota limit is exceeded.
InternalError.UnexceptedInternal	UnexceptedInternal.
InternalError.VpcCommon	VPC error.
InternalError.VpcRecodrNotFound	No VPC record found.
InvalidParameter	Invalid parameter.
LimitExceeded	Quota limit is exceeded.
ResourceNotFound	Resource does not exist.

容器服务 API 2017

Overview

Last updated : 2018-07-16 19:11:27

1. Cluster Related APIs

Function	Action ID	Description
Query Cluster List	DescribeCluster	Query cluster list
Create Cluster	CreateCluster	Create cluster
Delete Cluster	DeleteCluster	Delete cluster
Query Cluster Node List	DescribeClusterInstances	Query cluster nodes and return information of the nodes in the cluster
Add Cluster Node	AddClusterInstances	Add nodes for cluster
Delete Cluster Node	DeleteClusterInstances	Delete nodes in the cluster
Add Existing CVM to Cluster	AddClusterInstancesFromExistedCvm	Add existing CVMs to cluster

2. Service Related APIs

Function	Action ID	Description
Query Service List	DescribeClusterService	Query service list. Lists returned from this API only include general information of the services
Query Service Details	DescribeClusterServiceInfo	Query detailed information of a single service
Create Service	CreateClusterService	Create service
Modify Service	ModifyClusterService	Update service
Delete Service	DeleteClusterService	Delete service
Modify Service Description	ModifyServiceDescription	Modify service description
Acquire Service Event List	DescribeServiceEvent	Query list of events occurred for the service within the last hour
Resume Service Update	ResumeClusterService	Resume paused service update operation
Pause Service Update	PauseClusterService	Pause service update operation

Function	Action ID	Description
Rollback Service	RollBackClusterService	Restore the service back to the configuration prior to update (to the previous configuration only)

3. Pod Related APIs

Function	Action ID	Description
Query Pod List	DescribeServiceInstance	Query the list of service pods
Modify Pod Number	ModifyServiceReplicas	Modify the number of containers for the service
Delete Pod	DeleteInstances	Delete pods

4. Namespace Related APIs

Function	Action ID	Description
Query Cluster Namespace	DescribeClusterNameSpaces	Query cluster namespaces
Create Cluster Namespace	CreateClusterNamespace	Create namespaces
Delete Cluster Namespace	DeleteClusterNamespace	Delete namespaces

Calling Method

Request Structure

Common Request Parameters

Last updated : 2017-12-11 15:45:35

Common request parameters are the request parameters that are used by every API. Unless it is necessary, these parameters will not be described in the separate documents for each API. However, **they need to be included in each request**. The first letter of common request parameters are capitalized, to distinguish them from API request parameters.

Common request parameters are listed below:

Parameter	Required	Description	Type
Action	Yes	The API name to be called. For example, if you want to call the DescribeInstances API, then the Action parameter is DescribeInstances.	String
Region	No	This parameter indicates the region you want to operate the instances. The values for the region parameter are: Beijing:ap-beijing, Guangzhou:ap-guangzhou, Shanghai:ap-shanghai, Hong Kong:ap-hongkong, Toronto:na-toronto, Silicon Valley:na-siliconvalley, Singapore:ap-singapore, Shanghai Finance:ap-shanghai-fsi, Shenzhen Finance:ap-shenzhen-fsi, Guangzhou open zone: ap-guangzhou-open Click to view all Regions and Availability Zones , click to view DescribeRegions API introduce. Note: 1. This parameter is required for most cases. If it is not required, we will state that in the corresponding API doc. 2. Some regions are in trial period and only open for authorized users.	String
Timestamp	Yes	Current UNIX timestamp, which records the time when an API request is originated.	UInt
Nonce	Yes	A random positive integer, used in conjunction with timestamp to prevent playback attacks.	UInt
SecretId	Yes	The SecretId that indicates the identity requested on the Cloud API key . A SecretId corresponds to a unique SecretKey, which is used to generate a request signature. For details, refer to the Signature Mode page.	String
Signature	Yes	Request signature, used to verify the legitimacy of the request, the system automatically generated based on input parameters. For details, refer to the Signature Mode page.	String

For example, if you want to query the CVM instance list in Guangzhou, the request link should be:

<https://cvm.api.qcloud.com/v2/index.php?>

```
Action=DescribeInstances
&SecretId=xxxxxxx
&Region=ap-guangzhou
&Timestamp=1465055529
&Nonce=59485
&Signature=mysignature
&<API request parameters>
```

A complete request requires two types of request parameters: public request parameters and API request parameters. Only the aforementioned six public request parameters are listed here. For more information about API request parameters, refer to the [API request parameters](#) section.

Returned Results

Result for Failed Requests

Last updated : 2017-12-15 16:33:37

If the API call fails, the error code is not 0, and the message field displays error details. You can query specific error information based on the codes and message fields on the [Error codes](#) page.

Example of a returned error:

```
{  
  "code": 5100,  
  "message": "(100004) projectId is incorrect",  
}
```

Signature

Last updated : 2018-07-06 17:40:39

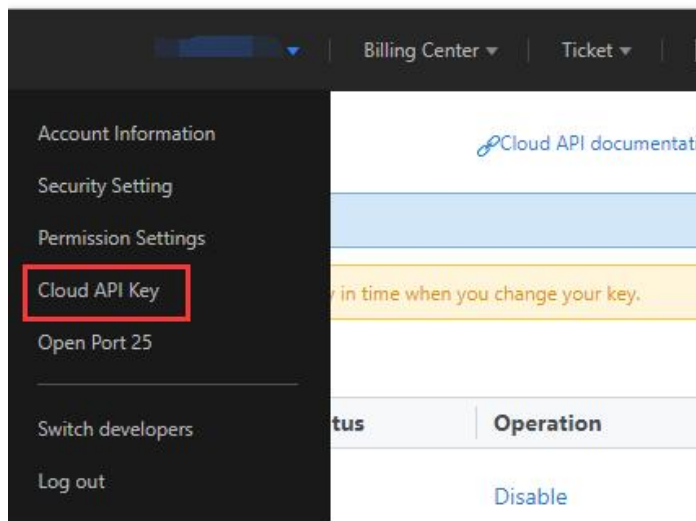
Tencent Cloud API will authenticate each access request, so each request is required to include the signature information in the common request parameter for user authentication. The Signature is generated with the user's security credential, which consists of a SecretId and a SecretKey. Users who have no security credential can apply for a credential on the Tencent Cloud. Otherwise, the Cloud API cannot be called.

1. Applying for Security Credential

Before using the Cloud API for the first time, a user needs to apply for a security credential on the Tencent Cloud CVM console. A security credential consists of a SecretId, which identifies the API caller, and a SecretKey, which is used to encrypt the signature string and verify the signature string on the server. Users must strictly keep their SecretKeys confidential to avoid disclosure.

To apply for a security credential, please proceed as follows:

- 1) Log in to the [Tencent Cloud Console](#).
- 2) Select account name in the top right corner on the navigation bar, and choose "Cloud API Key" in the drop-down box to access the Cloud API key management page.



- 3) On the [Cloud API Key Management](#) page, click "New" to create a pair of SecretId/SecretKey. Each account can have two pairs of SecretId/SecretKey at most.

2. Generating Signature String

With the SecretID and SecretKey, a signature string can be generated. The following is the detailed process for generating a signature string.

If a user has the following SecretId and SecretKey:

```
SecretId: AKIDz8krbsJ5yKBZQpn74WFkmlPx3gnPhESA
SecretKey: Gu5t9xGARNpq86cd98joQYCN3Cozk1qA
```

Note: This is just an example. Please proceed with your actual SecretId and SecretKey!

Take [Query Instance List](#) (DescribeInstances) as an example. The possible request parameters are as follows when this API is called:

Parameter name	Description	Parameter Value
Action	Method name	DescribeInstances
SecretId	Key ID	AKIDz8krbsJ5yKBZQpn74WFkmlPx3gnPhESA
Timestamp	Current timestamp	1465185768
Nonce	Random positive integer	11886
Region	Indicate the region where the instance is located	gz
instanceIds.0	ID of the instance to be queried	ins-09dx96dg
offset	Offset value	0
limit	Maximum number of output values	20

According to the above table, among the request parameters, there are only 5 common request parameters (Action, SecretId, Timestamp and Nonce), instead of 6 ones as described in "Common Request Parameters". Actually, Region is not mandatory for CDN, and Signature (the sixth one) is generated from other parameters (including the instruction request parameters) using the following procedure:

2.1. Sorting Parameters

First, sort all request parameters in ascending lexicographical order by their names, just like sorting words in a dictionary in ascending alphabetical order or numerical order. That is to say, sort the parameters by their first letters, and then sort the parameters with the same first letter by their second letters, and so on. You can complete the sorting with the relevant sorting functions in programming language, such as the ksort function in PHP. The sorting result of the above sample parameters is as follows:

```
{
  'Action' : 'DescribeInstances',
  'Nonce' : 11886,
  'Region' : 'gz',
  'SecretId' : 'AKIDz8krbsJ5yKBZQpn74WFkmlPx3gnPhESA',
  'Timestamp' : 1465185768,
  'instanceIds.0' : 'ins-09dx96dg',
  'limit' : 20,
  'offset' : 0,
}
```

Any other programming language can be used to sort these parameters as long as the same result is produced.

2.2. Generating Request String

This step is used to generate a request string.

Format the above sorted parameters as "parameter name=parameter value". Take the parameter "Action" as an example. If the parameter value is "DescribeInstances", the resulting format will be "Action=DescribeInstances".

Note: 1. "Parameter value" is the original value instead of url encoded value. 2. If the input parameter contains an underscore "_", you need to convert it to "%".

Then, joint the formatted parameters together using "&" to generate the final request string:

```
Action=DescribeInstances&Nonce=11886&Region=gz&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA&Timestamp=1465185768&instanceIds.0=ins-09dx96dg&limit=20&offset=0
```

2.3. Generating Original Signature String

This step is used to generate an original signature string.

The original signature string is composed of the following parameters:

- 1) Request method: POST and GET methods are supported. In this case, we use a GET request. Note that the method must be in uppercase.
- 2) Request CVM: The request domain for [View List of Instances](#) (DescribeInstances) is cvm.api.qcloud.com. The actual request domain varies depending on the module to which the API belongs. For more information, refer to the descriptions of each API.
- 3) Request path: The request path of Cloud API is always /v2/index.php.
- 4) Request string: This is the request string generated in the previous step.

Combination rule of original signature string:

```
Request method + Request CVM + Request path + ? + Request string
```

The combination result is as follows:

```
GETcvm.api.qcloud.com/v2/index.php?Action=DescribeInstances&Nonce=11886&Region=gz&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA&Timestamp=1465185768&instanceIds.0=ins-09dx96dg&limit=20&offset=0
```

2.4. Generating Signature String

This step is used to generate a signature string.

Sign the **original signature string** obtained in the previous step using HMAC-SHA1 algorithm, and then encode the signature string using Base64 to obtain the final signature string.

For example, the codes are as follows if written in PHP:

```
$secretKey = 'Gu5t9xGARNpq86cd98joQYCN3Cozk1qA';  
$srcStr = 'GETcvm.api.qcloud.com/v2/index.php?Action=DescribeInstances&Nonce=11886&Region=gz&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA&Timestamp=1465185768&instanceIds.0=ins-09dx96dg&limit=20&offset=0';  
$signStr = base64_encode(hash_hmac('sha1', $srcStr, $secretKey, true));  
echo $signStr;
```

The final signature string is as follows:

```
NSI3UqqD99b/UJb4tbG/xZpRW64=
```

When another programming language is used, you can perform the signature verification using the original signature string in the above example as long as the resulting signature string is identical to the one in the example.

3. Encoding Signature String

The generated signature string cannot be directly used as a request parameter, and needs to be encoded with URL encoding.

Note: If the GET method is used, all request parameters need to be encoded with URL encoding.

For example, the signature string generated in the previous step is: NSI3UqqD99b/UJb4tbG/xZpRW64=. When encoded, it should be: NSI3UqqD99b/UJb4tbG/xZpRW64=. The resulting signature string request parameter (Signature) is NSI3UqqD99b/UJb4tbG/xZpRW64=, which will be used to generate the final request URL.

Cluster APIs

Creating Clusters

Last updated : 2018-07-23 15:33:24

1. API Description

This API (CreateCluster) is used to create clusters.

Domain name for API request: `ccs.api.qcloud.com` .

- When creating a cluster, you need to specify the number and configuration of nodes (CVMs) in the cluster.
- All nodes in the cluster are HDD cloud disks.
- By default, you can only create 5 clusters with an account. Apply for an increase in your quota by [submitting a ticket](#).
- A cluster can only contain a maximum of 20 nodes. [Submit a ticket](#) to request an increase in your quota, which should also be subject to the limit on the total number ([Learn more](#)).
- For more information on **limitations on the ratio** of CPU to memory, please see [here](#).
- After a node has been created, you can change the bandwidth using the API [UpdateInstanceBandwidthHour](#). **The public network bandwidth is 0 by default if not specified.**
- Supported node types (**the models purchased in each availability zone are different**). For more information, please see [CVM Instance Configuration](#):

2. Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Type	Required
clusterName	Cluster name	String	Yes
clusterDesc	Cluster description	String	No
clusterCIDR	CIDR used to assign cluster containers and service IPs, which should not conflict with VPC CIDR or other cluster CIDRs within the same VPC	String	Yes
ignoreClusterCIDRConflict	Whether to ignore ClusterCIDR conflict error. Default is 0. 0: Do not ignore (an error is returned) 1: Ignore (continue to create)	Int	No
zoneId	Availability zone. Enter the Zone field returned via the API Query Availability Zone .	String	Yes
goodsNum	The number of nodes purchased. Maximum is 100.	Int	Yes
cpu	Number of CPU cores. For more information on CPU limit, please see above.	Int	Yes
mem	Memory size (in GB). For more information on memory limit, please see above.	Int	Yes

Parameter Name	Description	Type	Required
osName	System name. Centos7.2x86_64 or ubuntu16.04.1 LTSx86_64, which is used by all nodes in the cluster and also automatically used for additional nodes.	String	Yes
instanceType	For more information, please see CVM Instance Configuration . Default value: S1.SMALL1	String	No
cvmType	Node type PayByHour: Postpaid (default) PayByMonth: Prepaid	String	No
renewFlag	Prepaid auto renewal flag. Value range: <ul style="list-style-type: none"> NOTIFY_AND_AUTO_RENEW: Notify expiry and renew automatically NOTIFY_AND_MANUAL_RENEW: Notify expiry but not renew automatically DISABLE_NOTIFY_AND_MANUAL_RENEW: Neither notify expiry nor renew automatically Default: NOTIFY_AND_AUTO_RENEW. If this parameter is specified as NOTIFY_AND_AUTO_RENEW, the instance is automatically renewed on a monthly basis upon its expiration when the account balance is sufficient. For more information, please see InstanceChargePrepaid .	String	No
bandwidthType	Bandwidth type Prepaid CVMs: PayByMonth: Bill by bandwidth usage time. PayByTraffic: Bill by traffic Postpaid CVMs: PayByHour: Bill by bandwidth usage time. PayByTraffic: Bill by traffic For more information on the difference between the network billing methods, please see Purchase Network Bandwidth .	String	Yes
bandwidth	Public network bandwidth (in Mbps), or the peak public network bandwidth when bandwidth type is "Bill-by-traffic"	Int	Yes
wanIp	Whether to enable the public IP 0: Do not enable 1: Enable (default) If bandwidth is greater than 0, you're free to choose whether to enable the public IP. If bandwidth is 0, the public IP is not assigned.	Int	No
vpclId	VPC ID. Enter the unVpclId (unified VPC ID) field returned via the API Query VPC List .	String	Yes
subnetId	Subnet ID. Enter the unSubnetId (unified subnet ID) field returned via the API Query Subnet List .	String	Yes
isVpcGateway	Whether the Public Gateway is used. The public gateway can be used only when it has a public IP and resides in VPC. 0: Non-public gateway 1: Public gateway	Int	Yes
rootSize	System disk size. For Linux, the value range is 20 to 50 GB, and the increment is 1 GB.	Int	Yes

Parameter Name	Description	Type	Required
rootType	Type of system disk. For more information on the limits of system disk type, please see CVM Instance Configuration . Value range: <ul style="list-style-type: none"> LOCAL_BASIC: Local disk LOCAL_SSD: Local SSD disk CLOUD_BASIC: HDD cloud disk CLOUD_SSD: SSD cloud disk Default: CLOUD_BASIC.	String	No
storageSize	Data disk size (in GB). The increment is 10. 0 means that no data disk is needed. For information on the maximum disk size, please see Overview of Data Disk Products .	Int	Yes
storageType	Type of data disk. For more information on the limits of data disk type, please see CVM Instance Configuration . Value range: <ul style="list-style-type: none"> LOCAL_BASIC: Local disk LOCAL_SSD: Local SSD disk CLOUD_BASIC: HDD cloud disk CLOUD_PREMIUM: Premium cloud storage CLOUD_SSD: SSD cloud disk Default: CLOUD_BASIC.	String	No
password	Node password. It is generated randomly if not set, and is sent via internal message. The node password must be a combination of 8-16 characters comprised of at least two of the following types: [a-z, A-Z], [0-9] and [() & # 96; ~ ! @ # \$ % ^ & * - + = & #124; { } [] ; ' < > , . ? /]	String	No
keyId	Key ID . You can use the key to log in to the node after the key is associated. "keyId" can be obtained via the API Query Key . Key and password cannot be specified at the same time, and specifying key is not allowed in Windows.	String	No
period	Usage period purchased for a prepaid node (in month). When cvmType is PayByMonth, this parameter is required.	Int	No
sgId	Security group ID. No security group is associated by default. Enter the sgId field returned via the API Query Security Group List .	String	No
masterSubnetId	Cluster master occupies the IP of a VPC subnet. This parameter specifies the subnet in which the IP occupied by Master resides. The subnet must be located in the same VPC as the cluster.	String	No

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed. For more information, please see Returned Failure Result .	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String

Parameter Name	Description	Type
message	Module error message description depending on API. For more information, please see Returned Failure Result .	String
requestId	Task ID	Int
clusterId	Cluster ID	Int

4. Example

Input

```
https://domain/v2/index.php?Action=CreateCluster
&imageId=1
&bandwidth=1
&cpu=1
&mem=2
&storageType=1
&storageSize=50
&goodsNum=1
&zoneId=1
&vpcId=vpc-8e0ypm3z
&subnetId=subnet-3lzkspo
&other common parameters
```

Output

```
{
  "code" : 0,
  "message" : "ok",
  "codeDesc": "Success",
  "data":{
    "clusterId":"cluster-xxxx",
    "requestId":11333
  }
}
```

Adding Cluster Nodes

Last updated : 2018-08-23 11:42:01

1. API Description

This API (AddClusterInstances) is used to add nodes for a cluster.

Domain name for API request: `ccs.api.qcloud.com` .

- This API can be called only when the status of a cluster is Running.
- `vpclid` is required when you create a cluster. To add a node (CVM), you only need to pass `subnetId`.
- All nodes under a cluster share the same operating system name (`osName`). You do not need to specify another name.
- All nodes in the cluster are HDD cloud disks.
- A cluster can only contain a maximum of 20 nodes. [Submit a ticket](#) to request an increase in your quota, which should also be subject to the limit on the total number as described in the [Restrictions on CVM Instance Purchase](#).
- For more information on **limitations on the ratio** of CPU to memory, please see [CVM Instance Configuration](#).
- After a node has been created, you can change the bandwidth using the API [UpdateInstanceBandwidthHour](#). **The public network bandwidth is 0 by default if not specified.**
- Supported node types (**the models purchased in each availability zone are different**). For more information, please see [CVM Instance Configuration](#).

2. Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Type	Required
<code>clusterId</code>	Cluster ID. Enter the <code>clusterId</code> field returned via the API Query Cluster List .	String	Yes
<code>clusterDesc</code>	Cluster description	String	No
<code>zoneId</code>	Availability zone. Enter the <code>Zone</code> field returned via the API Query Availability Zone .	String	Yes
<code>cpu</code>	Number of CPU cores. For more information on CPU limit, please see above.	Int	Yes
<code>mem</code>	Memory size (in GB). For more information on memory limit, please see above.	Int	Yes
<code>instanceType</code>	For more information, please see CVM Instance Configuration . Default value: <code>S1.SMALL1</code>	String	No
<code>cvmType</code>	CVM type. PayByHour: Postpaid (default) PayByMonth: Prepaid	String	No

Parameter Name	Description	Type	Required
renewFlag	<p>Prepaid auto renewal flag. Value range:</p> <ul style="list-style-type: none"> NOTIFY_AND_AUTO_RENEW: Notify expiry and renew automatically NOTIFY_AND_MANUAL_RENEW: Notify expiry but not renew automatically DISABLE_NOTIFY_AND_MANUAL_RENEW: Neither notify expiry nor renew automatically <p>Default: NOTIFY_AND_AUTO_RENEW. If this parameter is specified as NOTIFY_AND_AUTO_RENEW, the instance is automatically renewed on a monthly basis upon its expiration when the account balance is sufficient. For more information, please see InstanceChargePrepaid.</p>	String	No
bandwidthType	<p>Bandwidth type</p> <p>Prepaid CVMs: PayByMonth: Bill by bandwidth usage time. PayByTraffic: Bill by traffic</p> <p>Postpaid CVMs: PayByHour: Bill by bandwidth usage time. PayByTraffic: Bill by traffic</p> <p>For more information on the difference between the network billing methods, please see Purchase Network Bandwidth.</p>	String	Yes
bandwidth	Public network bandwidth (in Mbps), or the peak public network bandwidth when bandwidth type is "Bill-by-traffic"	Int	Yes
wanIp	<p>Whether to enable the public IP</p> <p>0: Do not enable</p> <p>1: Enable (default)</p> <p>If bandwidth is greater than 0, you're free to choose whether to enable the public IP. If bandwidth is 0, the public IP is not assigned.</p>	Int	No
subnetId	Subnet ID. Enter the unSubnetId (unified subnet ID) field returned via the API Query Subnet List .	String	Yes
isVpcGateway	<p>Whether the Public Gateway is used. The public gateway can be used only when it has a public IP and resides in VPC.</p> <p>0: Non-public gateway</p> <p>1: Public gateway</p>	Int	Yes
storageSize	Data disk size (in GB). The increment is 10. 0 means that no data disk is needed. For information on the maximum disk size, please see Overview of Data Disk Products .	Int	Yes
storageType	<p>Type of data disk. For more information on the limits of data disk type, please see CVM Instance Configuration. Value range:</p> <ul style="list-style-type: none"> LOCAL_BASIC: Local disk LOCAL_SSD: Local SSD disk CLOUD_BASIC: HDD cloud disk CLOUD_PREMIUM: Premium cloud storage CLOUD_SSD: SSD cloud disk <p>Default: CLOUD_BASIC.</p>	String	No
rootSize	System disk size (in GB). For Linux, the value range is 20 to 50 GB, and the increment is 1 GB.	Int	Yes

Parameter Name	Description	Type	Required
rootType	Type of system disk. For more information on the limits of system disk type, please see CVM Instance Configuration . Value range: <ul style="list-style-type: none"> LOCAL_BASIC: Local disk LOCAL_SSD: Local SSD disk CLOUD_BASIC: HDD cloud disk CLOUD_SSD: SSD cloud disk Default: CLOUD_BASIC.	String	No
goodsNum	The number of nodes purchased. Default is 1, and maximum is 100.	Int	Yes
password	Node password. It is generated randomly if not set, and is sent via internal message. The password must be a combination of 8-16 characters comprised of at least two of the following types: [a-z, A-Z], [0-9] and [() & # 96; ~ ! @ # \$ % ^ & * - + = & #124; { } [] ; ; ' < > , . ? /]	String	No
keyId	Key ID. You can use the key to log in to the node after the key is associated. "keyId" can be obtained via the API Query Key . Key and password cannot be specified at the same time, and specifying key is not allowed in Windows.	String	No
period	Usage period purchased for a prepaid node (in month). When cvmType is PayByMonth, this parameter is required.	Int	No
sgId	Security group ID. No security group is associated by default. Enter the sgId field returned via the API Query Security Group List .	String	No

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String
instanceIds	ID of the created node	Int
requestId	Task ID	Int

4. Example

Input

```
https://domain/v2/index.php?Action=AddClusterInstances
&clusterId=clus-xxxxx
&expandInstanceNum=1
&other common parameters
```

Output

```
{
  "code" : 0,
  "message" : "ok",
  "codeDesc": "Success",
  "data":{
    "instanceIds":["ins-xxxxxx","ins-xxxxxx"],
    "requestId":11333
  }
}
```

Adding Existing CVMs to the Clusters

Last updated : 2018-06-13 14:54:26

1. API Description

This API (AddClusterInstancesFromExistedCvm) is used to add existing CVMs to a cluster.

Domain for API request: ccs.api.qcloud.com

- This API can be called only when "status" of cluster is "Running".
- This API can be called only when the status of current CVM is "Normal" or "Shut down". For more information, please see the list of instance statuses in [DescribeInstances](#) API.
- The current CVM will be reinstalled, and the system is the same as the one specified when the cluster is created. Please ensure that there is no important file in the system disk.
- The added CVMs and the current cluster must locate in the same VPC.
- The added CVMs must belong to the default project.

2. Input Parameters

The following request parameter list only provides API request parameters. For other parameters, please see [Common Request Parameters](#).

Parameter Name	Required	Type	Description
clusterId	Yes	String	Cluster ID. You can obtain this ID from the <code>clusterId</code> returned by the DescribeCluster API.
instanceIds	Yes	String	Enter the unInstanceId (instance ID) field returned via DescribeInstances API .
password	No	String	Instance password. It will be generated randomly if not set, and be sent via internal message. Linux instance's password should be a combination of 8-16 characters comprised of at least two of the following types: letters [a-z, A-Z], numbers [0-9], and special characters [() ` ~ ! @ # \$ % ^ & - + = / { } [] ; : ' < > , . ? /]. <i>Windows instance's password should be a combination of 12-16 characters comprised of at least three of the following types: lowercase letters [a-z], uppercase letters [A-Z], numbers [0-9] and special characters [() ` ~ ! @ # \$ % ^ & - + = { } [] ; : ' , . ? /].</i>
keyId	No	String	Key ID. You can use the key to log in to the instance after the key is associated. "keyId" can be obtained through DescribeKeyPairs API. Key and password cannot both be specified, and specifying key is not supported by Windows operating systems.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code. 0: Successful. Other values: Failed

Parameter Name	Type	Description
message	String	Module error message description depending on API. For more information, please see Module Error Codes on Error Codes page.
succlnstanceids	Obj Array	List of CVMs added to the cluster successfully
faiilnstanceids	Obj Array	List of CVMs failed to be added to the cluster

Details of "faiilnstanceids" field

Parameter Name	Type	Description
instanceid	String	Instance ID
message	String	Reason for failure

4. Example

Input

```
https://domain/v2/index.php?Action=AddClusterInstancesFromExistedCvm&clusterId=clus-xxxxx&instanceids.0=ins-xxxxxx&instanceids.1=ins-xxxxxx
```

Output

```
{
  "code" : 0,
  "message" : "ok",
  "data" {
    "succlnstanceids":["ins-xxxxxx","ins-xxxxxx"],
  }
}
```

Cluster Autoscaler APIs

Create Cluster Scaling Group

Last updated : 2018-06-01 09:33:53

API Description

This API (CreateClusterAsg) is used to create a cluster scaling group.

Domain name for API request:

```
ccs.api.qcloud.com
```

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	Yes	String
instanceId	Reference CVM, which must be a node in the cluster. Enter the instanceId field returned by the API Query Cluster Node List . The launch configuration for scale-up is generated based on this node's configuration (including vCPU, memory, model, VPC, subnet, system disk, type and size of data disk, bandwidth, billing method of bandwidth, whether to assign public IP, etc.).	Yes	String
minSize	The minimum size of a scaling group	Yes	Int
maxSize	The maximum size of a scaling group, which itself is limited for auto scaling. For more information, please see AS documentation.	Yes	Int
password	Node password. It is generated randomly if not set, and sent via internal message. It must be a combination of 8-16 characters comprised of at least two of the following types: uppercase/lowercase letters (a-z, A-Z), numbers (0-9), and special characters (() ` ~ ! @ # \$ % ^ & * - + = { } [] ; : ' < > , . ? /).	No	String
keyId	Key ID. You can use the key to log in to the node after it is associated. The keyId can be obtained through the API Query key . Key and password cannot both be specified.	No	String
label	label	No	Array
autoScalingGroupName	Scaling group name, which must be unique and is automatically generated if not specified.	No	String
launchConfigurationName	Launch configuration name, which must be unique and is automatically generated if not specified.	No	String

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String

Example

Input

```
https://domain/v2/index.php?Action=CreateClusterAsg
&clusterId=cls-xxxxxxx
&instanceId=ins-xxxxxxx
&password=yourpass
&minSize=0
&maxSize=10
&label.yourkey=yourval
&autoScalingGroupName=yourasgname
&launchConfigurationName=yourlcname
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "requestId": 4411
  }
}
```

Enable Cluster Scaling Group

Last updated : 2018-06-01 09:57:30

API Description

This API (enableClusterAsg) is used to enable a disabled cluster scaling group.

Domain name for API request:

```
ccs.api.qcloud.com
```

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	Yes	String
autoScalingGroupIds	Scaling group ID list	Yes	Array

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String

Example

Input

```
https://domain/v2/index.php?Action=EnableClusterAsg
&clusterId=cls-xxxxxxx
&autoScalingGroupIds.0=asg-xxxxxxx
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success",  
  "data": {  
  }  
}
```


Query the List of Cluster Scaling Group

Last updated : 2018-06-01 09:56:13

API Description

This API (DescribeClusterAsg) is used to query the information of a cluster scaling group.

Domain name for API request:

`ccs.api.qcloud.com`

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	No	String
autoScalingGroupId	Scaling group ID	No	String
status	Scaling group status. For more information, please see the status list.	No	String
offset	Offset. Default is 0.	No	Int
limit	The maximum number of entries outputted. Default is 20.	No	Int

Status List

Status	Description
disabled	Disabled
disabling	Disabling
enabled	Enabled
enabling	Enabling
updating	Updating

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int

Parameter Name	Description	Type
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String
data	Scaling group information. Details are shown below.	Array

"data" is composed as follows:

Parameter Name	Description	Type
totalCount	Total number of results	Int
asgInfo	List of scaling groups. Details are shown below.	Array

Each scaling group in asgInfo is composed as follows:

Field	Description	Type
autoScalingGroupId	Scaling group ID	String
autoScalingGroupName	Scaling group name	String
clusterId	Cluster ID	String
status	Scaling group status	String
scaleDownEnabled	Whether to enable scale-down	Bool
minSize	The minimum size of a scaling group	Int
maxSize	The maximum size of a scaling group	Int
instanceNum	The number of CVMs in a scaling group	Int
desiredCapacity	The desired number of CVMs in a scaling group	Int
label	The label of the CVM in the scaling group	Array
launchConfigurationId	Launch configuration ID	String
launchConfigurationName	Launch configuration name	String

Example

Input

```
https://domain/v2/index.php?Action=DescribeClusterAsg
&clusterId=cls-xxxxxxx
&autoScalingGroupId=asg-xxxxxxx
&status=enabled
&offset=0
```

```
&limit=20  
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success",  
  "data": {  
    "totalCount": 1,  
    "asgInfo": [  
      {  
        "autoScalingGroupId": "asg-xxxxxxx",  
        "autoScalingGroupName": "cls-xxxxxxx-g1867619587",  
        "clusterId": "cls-xxxxxxx",  
        "status": "enabled",  
        "scaleDownEnabled": false,  
        "label": [],  
        "minSize": 0,  
        "maxSize": 5,  
        "instanceNum": 0,  
        "desiredCapacity": 1,  
        "launchConfigurationId": "asc-xxxxxxx",  
        "launchConfigurationName": "cls-xxxxxxx-c123109984"  
      }  
    ]  
  }  
}
```

Enable or Disable Reduce Capacity

Last updated : 2018-07-16 16:13:32

API Description

This API (ModifyClusterAsgScaleDown) is used to specify whether to scale down a cluster scaling group. Scale-down is specific to clusters, and applies to all scaling groups in the cluster once enabled.

Domain name for API request:

```
ccs.api.qcloud.com
```

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	Yes	String
scaleDownEnabled	Whether to enable scale-down. Enable if it is not 0	Yes	Int

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned	String
message	Module error message description depending on API	String

Example

Input

```
https://domain/v2/index.php?Action=ModifyClusterAsgScaleDown
&clusterId=cls-xxxxxxx
&scaleDownEnabled=1
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success",  
  "data": {  
    "requestId": 4411  
  }  
}
```

Modify the Max and Min Value and Label

Last updated : 2018-06-01 09:42:01

API Description

This API (ModifyClusterAsgRange) is used to modify the maximum size, minimum size and label of a cluster scaling group. The label is modified by resetting it.

Domain name for API request:

```
ccs.api.qcloud.com
```

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	Yes	String
autoScalingGroupId	Scaling group ID	Yes	String
minSize	The minimum size of a scaling group	No	Int
maxSize	The maximum size of a scaling group, which itself is limited for auto scaling. For more information, please see AS documentation.	No	Int
label	label	No	Array

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String

Example

Input

```
https://domain/v2/index.php?Action=ModifyClusterAsgRange
&clusterId=cls-xxxxxxx
&autoScalingGroupId=asg-xxxxxxx
&maxSize=10
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "requestId": 4411
  }
}
```

Modify Cluster Scaling Group Label

Last updated : 2018-05-31 17:52:44

API Description

This API (ModifyClusterAsgLabel) is used to modify the label of a cluster scaling group. Only the key in the label passed is modified, and the original key in the label remains unchanged.

Domain name for API request:

```
ccs.api.qcloud.com
```

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	Yes	String
autoScalingGroupId	Scaling group ID	Yes	String
label	label	No	Array

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String

Example

Input

```
https://domain/v2/index.php?Action=ModifyClusterAsgLabel
&clusterId=cls-xxxxxxx
&autoScalingGroupId=asg-xxxxxxx
&label.key=val
&other common parameters
```


Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success",  
  "data": null  
}
```

Reset Cluster Scaling Group Label

Last updated : 2018-06-01 09:48:06

API Description

This API (ResetClusterAsgLabel) is used to reset the label of a cluster scaling group. The passed label completely replaces the existing label of the scaling group.

Domain name for API request:

```
ccs.api.qcloud.com
```

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	Yes	String
autoScalingGroupId	Scaling group ID	Yes	String
label	label	No	Array

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String

Example

Input

```
https://domain/v2/index.php?Action=ResetClusterAsgLabel
&clusterId=cls-xxxxxxx
&autoScalingGroupId=asg-xxxxxxx
&label.key=val
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success",  
  "data": null  
}
```

Disable Cluster Scaling Group

Last updated : 2018-06-01 09:32:01

API Description

This API (DisableClusterAsg) is used to disable an enabled cluster scaling group. Auto scaling is not supported for disabled scaling groups.

Domain name for API request:

```
ccs.api.qcloud.com
```

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	Yes	String
autoScalingGroupIds	Scaling group ID list	Yes	Array

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String

Example

Input

```
https://domain/v2/index.php?Action=DisableClusterAsg
&clusterId=cls-xxxxxxx
&autoScalingGroupIds.0=asg-xxxxxxx
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
  }
}
```

Delete Cluster Scaling Group Label

Last updated : 2018-06-01 09:42:45

API Description

This API (DeleteClusterAsgLabel) is used to delete a cluster scaling group label.

Domain name for API request:

```
ccs.api.qcloud.com
```

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	Yes	String
autoScalingGroupId	Scaling group ID	Yes	String
labelKeys	List of keys of the labels to be deleted	Yes	Array

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String

Example

Input

```
https://domain/v2/index.php?Action=DeleteClusterAsgLabel
&clusterId=cls-xxxxxxx
&autoScalingGroupId=asg-xxxxxxx
&labelKeys.0=key
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success",  
  "data": null  
}
```

Delete Cluster Scaling Group Label

Last updated : 2018-06-01 09:35:32

API Description

This API (DeleteClusterAsg) is used to delete a cluster scaling group. Deleting a scaling group will terminate the CVMs in the scaling group. Please proceed with caution.

Domain name for API request:

```
ccs.api.qcloud.com
```

Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Required	Type
clusterId	Cluster ID. Enter the clusterId field returned by the API Query Cluster List	Yes	String
autoScalingGroupIds	Scaling group ID list	Yes	Array

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String

Example

Input

```
https://domain/v2/index.php?Action=DeleteClusterAsg
&clusterId=cls-xxxxxxx
&autoScalingGroupIds.0=asg-xxxxxxx
&other common parameters
```

Output


```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success",  
  "data": {  
  }  
}
```

Image Repository APIs

Creating an Image Repository

Last updated : 2019-08-23 15:21:16

1. API Description

This API (CreateRepository) creates an image repository.

API domain name: `ccr.api.qcloud.com`

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Image repository name	String	Yes
public	Whether the image repository is public: 1: Public; 0: Private	Uint	Yes
description	Description of the image repository	String	No

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=CreateRepository
&reponame=test/kube_test
&public=1
&description=test
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success"  
}
```

Deleting Repositories in Batches

Last updated : 2019-08-23 15:21:49

1. API Description

This API (BatchDeleteRepository) deletes the specified in batches.

API domain name: ccr.api.qcloud.com

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponames	Array of repository names	Object Array	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=BatchDeleteRepository
&reponames.0=test/kube_test
&reponames.1=test/kube_test1
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success"
}
```

Querying Image Repository Info

Last updated : 2019-08-23 15:22:22

1. API Description

This API (GetRepositoryInfo) gets the information of the specified repository.

API domain name: ccr.api.qcloud.com

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
creationTime	Time when the repository is created	String
description	Repository description	String
favorCount	The number of times a repository is added to Favorites	String
isQcloudOfficial	Whether the repository is Tencent Cloud official repository. true: Yes; false: No	Bool
isUserFavor	Whether the use has added the repository to Favorites list. true: Yes; false: No	Bool
public	Whether it is a public repository. 1: Public; 0: Private	UInt
pullCount	Number of times the repository was pulled	UInt
reponame	Repository name	String
reptype	Repository type QCLOUD HUB: Tencent Cloud repository DOCKER HUB: DockerHub image	String

4. Samples

Input

```
https://domain/v2/index.php?Action=GetRepositoryInfo
&reponame=test/kube_test
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "creationTime": "2017-12-28 11:00:10",
    "description": "",
    "favorCount": 0,
    "isQcloudOfficial": false,
    "isUserFavor": false,
    "public": 0,
    "pullCount": 0,
    "reponame": "test/kube_test",
    "repotype": "QCLOUD HUB"
  }
}
```

Querying the Existence of an Image Repository

Last updated : 2019-08-23 15:23:06

1. API Description

This API (RepositoryisExists) queries the existence of an image repository.

API domain name: ccr.api.qcloud.com

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
isExist	Whether the repository exists. true: Exist; false: Not exist	Bool

4. Samples

Input

```
https://domain/v2/index.php?Action=RepositoryisExists
&reponame=repo-xxx
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "isExist": true
  }
}
```

```
}  
}
```


Querying Tencent Hub Repository List

Last updated : 2019-08-23 15:19:55

API Description

This API (GetRepositoryList) queries the list of TencentHub public repositories, including all Tencent Cloud official repositories and public repositories provided by users.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
offset	Offset. Default is 0.	Uint	No
limit	Maximum number of returned results. Defaults is 20, and maximum is 100.	Uint	No
reponame	Name of the repository to be queried. All repositories will be queried if no value is assigned.	String	No
orderby	Sort-by field. If this parameter is left blank, the repository will be sorted randomly. official: Sort by official image status pullCount: Sort by number of downloads	String	No
Order	Ascending or descending order. The default value is desc, but you can also choose asc	String	No

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
repoInfo	Repository information	Object Array

"repoInfo" is composed as follows:

Parameter Name	Description	Type
reponame	Repository name	String
reptype	Repository type QCLOUD HUB: Tencent Cloud repository DOCKER HUB: DockerHub image	String
tagCount	Number of tags	Int
public	Whether the repository is public. 1: Public; 0: Private	Int
isUserFavor	Whether the user has added this repository to Favorites. true: Yes; false: No	Bool
isQcloudOfficial	Whether the repository is Tencent Cloud official repository. true: Yes; false: No	Bool
favorCount	The number of times a repository is added to Favorites by all users	Int
pullCount	Number of times the repository was downloaded	Int
description	Description	String
creationTime	Creation time	String
updateTime	Update time	String

Samples

Input

```
https://domain/v2/index.php?Action=TencentHub
&offset=0
&limit=20
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "totalCount": 1,
    "privilegeFiltered": false,
    "repoInfo": [
      {
        "reponame": "test/kubetest",
        "reptype": "QCLOUD HUB",
        "tagCount": 2,
        "public": 0,
        "isUserFavor": false,
        "isQcloudOfficial": false,
        "favorCount": 0,

```

```
"pullCount": 5137,  
"description": "",  
"creationTime": "2017-09-12 13:02:58",  
"updateTime": "2018-02-28 14:26:06"  
}  
]  
}  
}
```

Modifying the Description of an Image Repository

Last updated : 2019-08-23 15:21:55

1. API Description

This API (UpdateRepositoryDesc) modifies the description of the specified image repository.

API domain name: ccr.api.qcloud.com

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes
description	Repository description	String	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=UpdateRepositoryDesc
&reponame=test/kube_test
&description=test
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success"
}
```


Modifying the Access Attribute of an Image Repository

Last updated : 2019-08-23 15:22:02

1. API Description

This API (UpdateRepositoryPublic) modifies the attributes for accessing the specified image repository'

API domain name: `ccr.api.qcloud.com`

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes
public	Whether the repository is available to the public: 0: Private; 1: Public	Int	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=UpdateRepositoryPublic
&reponame=test/kube_test
&public=0
&other common parameters
```

Output

```
{
  "code": 0,
  "message": ""
```

```
"codeDesc": "Success"  
}
```

Getting Tag List

Last updated : 2019-08-23 15:22:36

1. API Description

This API (GetTagList) gets the image tag list.

API domain name: ccr.api.qcloud.com

2. Input Parameters

The list below contains only the API request parameters. For the complete common parameter list, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes
offset	Offset. Default is 0.	Uint	No
limit	Maximum number of returned results. Defaults is 20, and maximum is 100.	Uint	No
tag	Tag name used for search	String	No

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
reponame	Repository name	String
server	Domain name of an image repository	String
tagCount	Number of tags	Int
tagInfo	Tag list. Results are sorted in descending order by pushTime	Object Array

"tag" is composed as follows:

Parameter Name	Description	Type
repo_name	The name of the repository of the corresponding tag	String

Parameter Name	Description	Type
tagName	Tag name	String
tagId	Tag ID	String
imageId	Image ID	String
size	Image size	String
creationTime	Creation time	String
updateTime	Update time	String
author	Image creator	String
architecture	CPU architecture	String
dockerVersion	Docker client tag	String
os	Operating system	String
pushTime	Push time	String
sizeByte	Image size (in bytes)	Int
## 4. Samples		
Input		

```
https://domain/v2/index.php?Action=GetTagList
&reponame=test/kubetest
&offset=0
&limit=20
&tag=nginx_v1
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "reponame": "test/kubetest",
    "server": "ccr.ccs.tencentyun.com",
    "tagCount": 1,
    "tagInfo": [
      {
        "repo_name": "kubetest",
        "tagName": "nginx_v1",
        "tagId": "sha256:5fbb3629fba1c7c875015c9cb4c27f1d9e8e92d2f027f09b6eda35ff952323a1",
        "imageId": "sha256:146c8220814be5f07a03b0b0b1e352ce42278684266d95670bf3e11225441b70",
        "size": "59 MB",
        "creationTime": "2017-09-12 15:30:23 +0800 CST",
        "updateTime": "2017-10-25 16:33:51 +0800 CST",
        "author": ""
      }
    ]
  }
}
```

```
"architecture": "amd64",  
"dockerVersion": "1.12.5",  
"os": "linux",  
"pushTime": "2017-09-12 15:33:39 +0800 CST",  
"sizeByte": 59229024  
}  
]  
}  
}
```

Deleting Tags in Batches

Last updated : 2019-08-23 15:21:42

1. API Description

This API (BatchDeleteTag) deletes the specified tags in batches.

API domain name: ccr.api.qcloud.com

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes
tags	Tag array	Object Array	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=BatchDeleteTag
&reponame=test/kube_test
&tags.0="nginx_v1"
&tags.1="nginx_v2"
&other common parameters
```

Output

```
{
  "code": 0,
  "message": ""
```

```
"codeDesc": "Success"  
}
```

Copying an Image Tag

Last updated : 2019-08-23 15:21:30

1. API Description

This API (DuplicateImage) duplicates the specified an image tag.

API domain name: ccr.api.qcloud.com

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
src_image	Source image name (domain not included). For example: tencentyun/foo:v1	String	Yes
dest_image	Destination image name (domain not included). For example: tencentyun/foo:latest	String	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=DuplicateImage
&src_image=tencentyun/foo:v1
&dest_image=tencentyun/foo:latest
&other common parameters
```

Output

```
{
  "code": 0,
  "message": ""
```

```
"codeDesc": "Success"  
}
```

Setting the Auto Deletion Policy for Repository Tags

Last updated : 2019-08-23 15:22:58

1. API Description

This API (SetAutoDelStrategy) sets the auto deletion policy when the number of repository tags exceeds the upper limit. Tags are automatically deleted when the quota limit is reached.

API domain name: `ccr.api.qcloud.com`

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes
type	Policy type keep_last_days: keep last how many days data. keep_last_nums: keep how many the most recent data points.	String	Yes
val	Policy value	Int	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=SetAutoDelStrategy
&reponame=test/kube_test
&type=keep_last_nums
&val=10
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success"  
}
```


Getting Repository Tag Retention Policy

Last updated : 2019-08-23 15:22:44

1. API Description

This API (GetAutoDelStrategy) is used to obtain the auto deletion strategy for repository tag.

Domain name for API request: `ccr.api.qcloud.com` .

2. Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String
totalCount	Number of strategies	Int
strategyInfo	List of strategy details	Object Array

"strategyInfo" is composed as follows:

Parameter Name	Description	Type
username	User name of an image repository	String
reponame	Repository name	String
type	Strategy type keep_last_days: Retain the data of last few days keep_last_nums: Retain a specified amount of recent data	String
value	Strategy value	Int
valid	Whether the strategy is valid. 1: Valid; 0: Invalid	Int

Parameter Name	Description	Type
creation_time	Time when the strategy is created	String

4. Example

Input

```
https://domain/v2/index.php?Action=GetAutoDelStrategy
&reponame=test/kube_test
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "strategyInfo": [
      {
        "username": "100001066666",
        "repo_name": "test/kube_test",
        "type": "keep_last_nums",
        "value": 10,
        "valid": 1,
        "creation_time": "2018-03-07T16:53:23+08:00"
      }
    ],
    "totalCount": 1
  }
}
```

Disabling Auto Deletion Policy for Repository Tags

Last updated : 2019-08-23 15:21:07

1. API Description

This API (CloseAutoDelStrategy) disables the auto deletion policy when the number of repository tags exceeds the upper limit.

API domain name: `ccr.api.qcloud.com`

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=CloseAutoDelStrategy
&reponame=test/kube_test
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success"
}
```

Adding a Trigger

Last updated : 2019-08-23 15:22:28

1. API Description

This API (AddUpdateServiceTrigger) is used to add a trigger.

Domain name for API request: `ccr.api.qcloud.com` .

2. Input Parameters

The following request parameter list only provides API request parameters. Other parameters can be found in [Common Request Parameters](#).

Parameter Name	Description	Type	Required
triggerName	Trigger name	String	Yes
reponame	Name of the repository bound with the trigger	String	Yes
invokeMethod	Trigger method	String	Yes
invokeExpr	The expression of the trigger method	String	No
serviceName	Service name	String	Yes
clusterId	Cluster ID	String	Yes
namespace	Namespace	String	Yes
containerName	Container name	String	Yes
clusterRegion	Region of the cluster	Int	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.	String
message	Module error message description depending on API	String

4. Example

Input

```
https://domain/v2/index.php?Action=AddUpdateServiceTrigger
&triggerName=trigger_test
&reponame=test/kube_test
&invokeMethod=taglist
&invokeExpr=v1;v2
&serviceName=nginx-test
&clusterId=cls-xxxxxx
&namespace=default
&containerName=nginx-test
&clusterRegion=1
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success"
}
```

Getting a Trigger

Last updated : 2019-08-23 15:22:52

1. API Description

This API (ListTrigger) gets a list of trigger.

API domain name: `ccr.api.qcloud.com`

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
triggerName	Specify this parameter to get details of a trigger. You can perform an exact match search.	String	No
offset	Data offset. Default is 0	Int	No
limit	Maximum number of returned data entries. Default is 20	Int	No
reponame	Name of the repository bound with the trigger	String	No

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
totalCount	Number of query results	Int
triggerInfo	Trigger information	Object Array

"triggerInfo" is composed as follows:

Parameter Name	Description	Type
triggerName	Name of the trigger to be updated	String

Parameter Name	Description	Type
repoName	Name of the repository bound with the trigger	String
invokeSource	Cause of trigger. The value is always set to "IMAGE_PUSH", which means the trigger is initiated by image push	String
invokeAction	Trigger action. The value is always set to "SERVICE_UPDATE", which means to update the service	String
createTime	Time when the trigger is created	String
updateTime	Time when the trigger is updated	String
invokeCondition	Triggering condition	Object
invokePara	Trigger parameter	Object

"invokeCondition" is composed as follows:

Parameter Name	Description	Type
invokeMethod	Trigger all: All taglist: Specified tag regex: Regular expression	String
invokeExpr	The expression of the trigger. If invokeMethod is "all", this parameter is empty If invokeMethod is "taglist", this parameter is the tag list, where multiple values are separated with ";", such as v1;v2;v3 If invokeMethod is "regex", this parameter is a regular expression, such as ^test*	String

"invokePara" is composed as follows:

Parameter Name	Description	Type
serviceName	Name of the service to be updated	String
clusterId	ID of the cluster for the service to be updated	String
namespace	Namespace of the service to be updated	String
containerName	Name of the container for the service to be updated	String
clusterRegion	Region of the cluster for the service to be updated. Region Codes: 1: Guangzhou 4: Shanghai 5: Hong Kong, China 7: Shanghai Finance 8: Beijing 9: Singapore 16: Chengdu	Int

4. Samples

Input

```
https://domain/v2/index.php?Action=ListTrigger
&triggerName=trigger_test
&offset=0
&limit=20
&reponame=test/kube_test
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "totalCount": 1,
    "triggerInfo": [
      {
        "triggerName": "trigger_test",
        "invokeSource": "IMAGE_PUSH",
        "invokeAction": "SERVICE_UPDATE",
        "repoName": "test/kube_test",
        "createTime": "2018-03-07 14:30:43",
        "updateTime": "2018-03-08 15:30:43",
        "invokeCondition": {
          "invokeMethod": "all",
          "invokeExpr": ""
        },
        "invokePara": {
          "appId": "1254666666",
          "clusterId": "cls-xxxxxxx",
          "namespace": "default",
          "serviceName": "nginx-test",
          "containerName": "nginx-test",
          "clusterRegion": 1
        }
      }
    ]
  }
}
```


Deleting a Trigger

Last updated : 2019-08-23 15:21:23

1. API Description

This API (DeleteUpdateServiceTrigger) deletes the specified trigger.

API domain name: `ccr.api.qcloud.com`

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
triggerName	Trigger name	String	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=DeleteUpdateServiceTrigger
&triggerName=trigger_test
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success"
}
```

Modifying a Service Update Trigger

Last updated : 2019-08-23 15:21:00

1. API Description

This API (ModifyUpdateServiceTrigger) modifies the trigger for service updates.

API domain name: ccr.api.qcloud.com

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
triggerName	Name of the trigger to be modified	String	Yes
reponame	Name of the repository bound with the trigger	String	No
newTriggerName	Name of the new trigger	String	No
invokeMethod	Trigger all: All taglist: Specified tag regex: Regular expression	String	No
invokeExpr	The expression of the trigger. If invokeMethod is "all", this parameter is empty If invokeMethod is "taglist", this parameter is the tag list, where multiple values are separated with ";", such as v1;v2;v3 If invokeMethod is "regex", this parameter is a regular expression, such as ^test*	String	No
serviceName	Name of the service to be updated	String	No
clusterId	ID of the cluster for the service to be updated	String	No
namespace	Namespace of the service to be updated	String	No
containerName	Name of the container for the service to be updated	String	No
clusterRegion	Region of the cluster for the service to be updated. Region Codes: 1: Guangzhou 4: Shanghai 5: Hong Kong, China 7: Shanghai Finance 8: Beijing 9: Singapore 16: Chengdu	Int	No

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=ModifyUpdateServiceTrigger
&triggerName=trigger_test
&reponame=test/kube_test
&newTriggerName=trigger_test_new
&invokeMethod=taglist
&invokeExpr=v1;v2
&serviceName=nginx-test
&clusterId=cls-xxxxxxx
&namespace=default
&containerName=nginx-test
&clusterRegion=1
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success"
}
```

Changing the Password

Last updated : 2019-08-23 15:20:52

1. API Description

This API (ChangePassword) changes the password of the specified image repository.

API domain name: `ccr.api.qcloud.com`

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
password	New password with a length of 8-16 characters	String	Yes

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

4. Samples

Input

```
https://domain/v2/index.php?Action=ChangePassword
&password=xxxxyyzzz
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success"
}
```

Querying a User's Quota

Last updated : 2019-08-23 15:22:16

1. API Description

This API (GetLimit) gets a user's quota.

API domain name: ccr.api.qcloud.com

2. Input Parameters

No parameter is provided for this API. Other parameters can be found in [Common Request Parameters](#).

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
limitInfo	Quota information	Object Array

"limitInfo" is composed as follows:

Parameter Name	Description	Type
username	User name of an image repository	String
type	Quota type namespace: Namespace repo: Repository tag: Image tag triggers: Trigger	String
value	Quota value	Int

4. Samples

Input

```
https://domain/v2/index.php?Action=GetLimit
&reponame=test/kube_test
```

&other common parameters

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "limitInfo": [
      {
        "username": "100001066666",
        "type": "namespace",
        "value": 10
      },
      {
        "username": "100001066666",
        "type": "repo",
        "value": 100
      },
      {
        "username": "100001066666",
        "type": "tag",
        "value": 100
      },
      {
        "username": "100001066666",
        "type": "triggers",
        "value": 10
      }
    ]
  }
}
```

Querying a User's Repository List

Last updated : 2019-08-23 15:22:10

1. API Description

This API (SearchUserRepository) searches a user's repository list.

API domain name: ccr.api.qcloud.com

2. Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
offset	Offset. Default is 0.	Uint	No
limit	Maximum number of returned results. Defaults is 20, and maximum is 100.	Uint	No
reponame	Name of the repository to be queried. All repositories will be queried if no value is assigned.	String	No
public	Filter condition. 1: public; 0: private. Query all if this parameter is not specified.	String	No
namespace	Namespace	String	No

3. Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
totalCount	Number of query results	String
privilegeFiltered	false: Return all results; true: Not return all results	Bool
repoInfo	Repository information	Object Array

"repoInfo" is composed as follows:

Parameter Name	Description	Type
----------------	-------------	------

Parameter Name	Description	Type
reponame	Repository name	String
reptype	Repository type QCLOUD HUB: Tencent Cloud repository DOCKER HUB: DockerHub image	String
tagCount	Number of tags	Int
public	Whether the repository is public. 1: Public; 0: Private	Int
isUserFavor	Whether the user has added this repository to Favorites. true: Yes; false: No	Bool
isQcloudOfficial	Whether the repository is Tencent Cloud official repository. true: Yes; false: No	Bool
favorCount	The number of times a repository is added to Favorites by all users	Int
pullCount	Number of times the repository was downloaded	Int
description	Description	String
creationTime	Creation time	String
updateTime	Update time	String

4. Samples

Input

```
https://domain/v2/index.php?Action=SearchUserRepository
&offset=0
&limit=20
&reponame=test/kubetest
&public=1
&namespace=test
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "totalCount": 1,
    "privilegeFiltered": false,
    "repoInfo": [
      {
        "reponame": "test/kubetest",
        "reptype": "QCLOUD HUB",
        "tagCount": 2,
        "public": 0,
        "isUserFavor": false,
        "isQcloudOfficial": false,
```



```
"favorCount": 0,  
"pullCount": 5137,  
"description": "",  
"creationTime": "2017-09-12 13:02:58",  
"updateTime": "2018-02-28 14:26:06"  
}  
]  
}  
}
```

Adding Repository to Favorites

Last updated : 2019-08-23 15:19:44

API Description

This API (AddFavor) adds the specified repository to Favorites.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes
reptype	Type of the repository added to Favorites QCLOUD HUB: Tencent Cloud repository DOCKER HUB: Docker Hub image	String	Yes

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

Samples

Input

```
https://domain/v2/index.php?Action=AddFavor  
&reponame=test/kube_test  
&reptype=QCLOUD HUB  
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success"  
}
```

Removing Repository from Favorites

Last updated : 2019-08-23 15:19:34

API Description

This API (DeleteFavor) removes the specified repository from Favorites.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes
reptype	Type of the repository added to Favorites QCLOUD HUB: Tencent Cloud repository DOCKER HUB: Docker Hub image	String	Yes

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

Samples

Input

```
https://domain/v2/index.php?Action=DeleteFavor  
&reponame=test/kube_test  
&reptype=QCLOUD HUB  
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success"  
}
```

Creating a Namespace

Last updated : 2019-08-23 15:20:06

API Description

This API (CreateCCRNamespace) creates a namespace.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
namespace	Namespace name	String	No

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

Samples

Input

```
https://domain/v2/index.php?Action=CreateCCRNamespace  
&namespace=mynamespace  
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": ""
```

```
"codeDesc": "Success"  
}
```

Querying a Namespace

Last updated : 2019-08-23 15:20:27

API Description

This API (GetNamespaceInfo) queries the specified namespace.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
namespace	Fuzzy search by namespace name is supported	String	No
offset	Query offset. The default value is 0	Uint	No
limit	Query quantity. The default value is 20	Uint	No

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
namespaceCount	Number of query results	String
namespaceInfo	Namespace information	Object Array

"namespaceInfo" is composed as follows:

Parameter Name	Description	Type
namespace	Namespace	String
creationTime	Creation time	String
repoCount	Number of repositories under the namespace	Int

Samples

Input

```
https://domain/v2/index.php?Action=GetNamespaceInfo
&limit=20
&offset=0
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "namespaceCount": 1,
    "namespaceInfo": [{
      "namespace": "mynamespace",
      "creationTime": "2018-07-25 15:07:12",
      "repoCount": 2
    }]
  }
}
```

Query the Existence of a Namespace

Last updated : 2019-08-23 15:20:31

API Description

This API (NamespacelsExists) queries the existence of the specified namespace.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
namespace	Namespace to be queried	String	No

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
isExist	true: The namespace exists; false: The namespace does not exist	String
isPreserved	true: The namespace is reserved; false: The namespace is not reserved	Object Array

Samples

Input

```
https://domain/v2/index.php?Action=NamespacelsExists  
&namespace=mynamespace  
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success",  
  "data": {  
    "isExist": false,  
    "isPreserved": false  
  }  
}
```

Deleting a Namespace

Last updated : 2019-08-23 15:20:17

API Description

This API (DeleteUserNamespace) deletes the specified namespace.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
namespace	Namespace name	String	No

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String

Samples

Input

```
https://domain/v2/index.php?Action=DeleteUserNamespace
&namespace=mynamespace
&other common parameters
```

Output

```
{
  "code": 0,
  "message": ""
}
```

```
"codeDesc": "Success"  
}
```

Getting the List of Favorites

Last updated : 2019-08-23 15:20:38

API Description

This API (GetFavor) gets the list of repositories added to Favorites.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
offset	Query offset. The default value is 0	Uint	No
limit	Query quantity. The default value is 20	Uint	No

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
totalCount	Number of query results	String
repoInfo	Repository information	Object Array

"repoInfo" is composed as follows:

Parameter Name	Description	Type
reponame	Repository name	String
reptype	Repository type QCLOUD HUB: Tencent Cloud repository DOCKER HUB: DockerHub image	String

Parameter Name	Description	Type
tagCount	Number of tags	Int
public	Whether the repository is public. 1: Yes; 0: No	Int
isQcloudOfficial	Whether the repository is Tencent Cloud official repository. true: Yes; false: No	Bool
favorCount	The number of times a repository is added to Favorites by all users	Int

Samples

Input

```
https://domain/v2/index.php?Action=GetFavor
&limit=20
&offset=0
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "repoInfo": [{
      "reponame": "library/wordpress",
      "repotype": "QCLOUD HUB",
      "favorCount": 62,
      "public": 1,
      "isQcloudOfficial": false,
      "tagCount": 18
    }],
    "totalCount": 1
  }
}
```

Getting the Triggering Logs

Last updated : 2019-08-23 15:20:45

API Description

This API (ListTriggerLog) gets the triggering log.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter Name	Description	Type	Required
reponame	Repository name	String	Yes
offset	Data offset. Default is 0	Int	No
limit	Maximum number of returned data entries. Default is 20	Int	No
order	If sorted by time, desc means descending order, while asc means ascending order	String	No
orderby	Sorting rule for returned entries. Supported sorting fields include <code>invoke_time</code> , <code>trigger_name</code> , and <code>repo_name</code>	String	No

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String
message	Description of the Module error related to this API	String
totalCount	Total number of query results	Int
logInfo	Information of the triggering action	Object Array

"logInfo" is composed as follows:

Parameter Name	Description	Type
triggerName	Trigger name	String
repoName	Name of the repository bound with the trigger	String
tagName	Image repository tag	String
invokeSource	Cause of trigger. The value is always set to "IMAGE_PUSH", which means the trigger is initiated by image push	String
invokeAction	Trigger action. The value is always set to "SERVICE_UPDATE", which means to update the service	String
invokeTime	Triggering time	String
invokeCondition	Trigger condition	Object
invokePara	Trigger parameter	Object
invokeResult	Trigger result	Object

"invokeCondition" is composed as follows:

Parameter Name	Description	Type
invokeMethod	Trigger all: All taglist: Specified tag regex: Regular expression	String
invokeExpr	The expression of the trigger. If invokeMethod is "all", this parameter is empty If invokeMethod is "taglist", this parameter is the tag list, where multiple values are separated with ";", such as v1;v2;v3 If invokeMethod is "regex", this parameter is a regular expression, such as ^test*	String

"invokePara" is composed as follows:

Parameter Name	Description	Type
appId	User APPID	String
serviceName	Name of the service to be updated	String
clusterId	ID of the cluster for the service to be updated	String
namespace	Namespace of the service to be updated	String
containerName	Name of the container for the service to be updated	String

Parameter Name	Description	Type
clusterRegion	Region of the cluster for the service to be updated. Region Codes: 1: Guangzhou 4: Shanghai 5: Hong Kong, China 7: Shanghai Finance 8: Beijing 9: Singapore 16: Chengdu	Int

"invokeResult" is composed as follows:

Parameter Name	Description	Type
returnCode	Trigger result. 0: Successful; Other values: Failed	Int
returnMsg	Trigger result message	String
## Samples		
### Input		

```
https://domain/v2/index.php?Action=ListTriggerLog
&offset=0
&limit=20
&reponame=test/kube_test
&other common parameters
```

Output

```
{
  "code": 0,
  "message": "",
  "codeDesc": "Success",
  "data": {
    "logInfo": [{
      "repoName": "kubetest/kubetest",
      "tagName": "latest",
      "triggerName": "trigger_test",
      "invokeSource": "IMAGE_PUSH",
      "invokeAction": "SERVICE_UPDATE",
      "invokeTime": "2018-07-23 23:13:27",
      "invokeCondition": {
        "invokeMethod": "regex",
        "invokeExpr": "test*"
      }
    }],
    "invokePara": {
      "appId": "1254119589",
      "clusterId": "cls-666666",
      "namespace": "default",
      "serviceName": "nginx-test",
      "containerName": "nginx-test",
```

```
"clusterRegion": 1
},
"invokeResult": {
  "returnCode": 0,
  "returnMsg": "ok"
}
}],
"totalCount": 1
}
}
```

Registering a User (with No Need to Specify the Namespace)

Last updated : 2019-08-23 15:23:13

API Description

This API (RegisterRepositoryAccountNew) registers a user (with no need to specify the namespace).

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter name	Description	Type	Required
password	Password	String	Yes

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
message	Module error message description depending on API	String
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String

Samples

Input

```
https://domain/v2/index.php?Action=RegisterRepositoryAccountNew
&password="xxxyyzzz"
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success"  
}
```

Removing Repositories from Favorites in Batches

Last updated : 2019-08-23 15:23:20

API Description

This API (BatchDeleteFavor) removes one or more repositories from Favorites in batches.

API domain name:

```
ccr.api.qcloud.com
```

Input Parameters

The following parameters are action-specific. For common parameters required for all API requests, see [Common Request Parameters](#).

Parameter name	Description	Type	Required
favors	Array of the favorite repositories	Object Array	Yes

Output Parameters

Parameter Name	Description	Type
code	Common error code. 0: Successful; other values: Failed.	Int
message	Module error message description depending on API	String
codeDesc	Description of the action status. When the action has succeeded, "Success" is returned. When the action has failed, a message describing the cause of the error is returned.	String

Samples

Input

```
https://domain/v2/index.php?Action=BatchDeleteFavor
&favors.0.reponame="xxx"
&favors.0.repotype="DOCKER HUB"
&favors.0.regionId=1
&favors.1.reponame="qcloud/yyy"
&favors.1.repotype="QCLOUD HUB"
&favors.1.regionId=1
&other common parameters
```

Output

```
{  
  "code": 0,  
  "message": "",  
  "codeDesc": "Success"  
}
```