

Cloud Virtual Machine

API Documentation

Product Introduction



Tencent
Cloud

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API Documentation

Introduction

Cloud Virtual Machine (CVM), which runs at the Tencent Data Center, provides auto scaling computing services and can be used to build and host software systems based on your business needs.

The CVM solution delivers a flexible set of computing, storage and network resources. You can conduct operations like creating/terminating/restarting CVM and changing bandwidth configuration via APIs described in this document. For more information, please see [API Overview](#).

It's recommended to read [CVM Overview](#) before using these APIs.

Note:

- All CVM APIs under this module have been updated. All new features related to the CVM are added to the APIs under this module. For new users, it's recommended to use new APIs.
- The old APIs remain available. For more information, please see [API Overview \(old\)](#).

Glossary

The key terms involved in the document are as follows:

Term	Description
Instance	A cloud virtual machine.
Region	A region where resources reside. Each region contains multiple availability zones.
Availability Zone	Tencent Cloud physical data centers in the same region with independent power and network resources. They are designed to ensure that the failures within an availability zone can be isolated

Term	Description
	without spreading to and affecting other zones, so as to ensure customers' business stability.
Image	A copy of the software environment on a CVM instance, which generally includes operation system and installed software, and is used to create an instance.
Security Group	A type of virtual firewall with a state-based packet filtering feature. It's an important network security isolation method used to control the network access of CVM instances.
Elastic IP	A type of public IP. Unlike an ordinary public IP, an elastic IP belongs to a user account rather than an instance. The mapping relationship between an instance and a public IP address can be changed at any time.
Prepaid	A billing model. For more information, please see Billing Model Instruction .
Postpaid	A billing model. For more information, please see Billing Model Instruction .

Definitions of Input and Response Parameters

- Limit and Offset

These two parameters are used to control number of entries in one page. When results in the list exceeds the Limit value, only the Limit defined number of values is returned. You can use Limit and Offset to control entries per page. Limit indicates the maximum number of entries returned at a time, and Offset indicates the offset value.

For example, if you set

Offset=0&Limit=20

, the 1st to 20th entries are returned; if you set Offset=20&Limit=20, the 20th to 40th

entries are returned; if you set Offset=40&Limit=20, the 40th to 60th entries are returned, and so on.

- Ids.N

Formats for entering multiple parameters at the same time. When you encounter a format like this, you can enter multiple input parameters at the same time. For example:

Ids.0=10.12.243.21&Ids.1=10.11.243.21&Ids.2=10.12.243.21&Ids.3=10.13.243.21...

And so on (starting from 0).

API Quick Start

Let's start from APIs for postpaid CVMs:

1. [Create Postpaid Instances](#) API: Create postpaid instances with the specified information like availability zone ID, image ID, model, and parameters.
2. [Change Configurations of Postpaid Instances](#) API: Upgrade configurations of postpaid instances by changing CPU and memory through adjustment of instance model.
3. [Stop Instances](#) API: Stop running of unnecessary CVMs.
4. [Return Postpaid Instances](#) API: Return and terminate postpaid instances and stop charging.

Usage Restriction

- CVM API calling limit: Total 1,000 times per minute (100 times/min for a single API).
- CVMs created via API are subject to the number limit described in the [Restrictions on CVM Instance Purchase](#), and share the quota with machines created on the Console.
- For more information about the restrictions, please see the document for each API or the relevant product document.

Usage Case

The following use case shows how to create and terminate an instance using APIs.

1. Query Instance Model List

Before an instance is created, you need to specify a model because it determines the number of CPU cores and memory size of an instance. Therefore, call the API [Query Instance Model List](#) or view the product documentation [Instance Type](#) to obtain the appropriate model parameters with specified CPU cores and memory size. In this example, the model parameters are obtained using the query API. Assume that you want to obtain a model as follows:

The Series 2 CVM instance (Guangzhong Zone 2, two CPU cores, and 4 GB memory)

The model can be obtained using the following request. For more information on each parameter, please see [Query Instance Model List](#).

```
https://cvm.api.qcloud.com/v2/index.php?Action=DescribeInstanceTypeConfigs
&Version=2017-03-12
&Filters.1.Name=zone
&Filters.1.Values.1=ap-guangzhou-2
&Filters.1.Name=instance-family
&Filters.1.Values.1=S2
&
```

[The following result is returned for the above request. The values of InstanceType corresponding to CPU and Memory are the parameters of the desired model. In this example, the model is S2.MEDIUM4.](#)

```
{
```

```

"Response": {
  "InstanceTypeConfigSet": [
    {
      "Zone": "ap-guangzhou-2",
      "InstanceFamily": "S2",
      "InstanceType": "S2.MEDIUM4",
      "CPU": 2,
      "Memory": 4
    }
  ],
  "RequestId": "2f1fd71e-95ab-4f10-8adb-895e99d33ff5"
}

```

2. Create an Instance

You can create an instance by using the API Create an Instance. Assume that you want to create an instance as follows:

Zone: Guangzhou Zone 2; billing method: postpaid by hour; image ID: img-pmqg1cw7; model: standard 1C1G (S1.SMALL1), 50 GB local common system disk with 100 GB local common data disk, basic network; public network billing method: traffic postpaid by hour; upper limit of public network bandwidth: 10 MB, assigned with public IP; instance name: QCLOUD-TEST; login password:

Qcloud@TestApi123++

; installed with Cloud Monitoring and Cloud Security; one instance is purchased.

The instance can be created using the following request. For more information on each parameter, please see [Create an Instance](#).

```
https://cvm.api.qcloud.com/v2/index.php?Action=RunInstances
&Version=2017-03-12
&Placement.Zone=ap-guangzhou-2
&InstanceChargeType=POSTPAID_BY_HOUR
&ImageId=img-pmqg1cw7
&InstanceType=S1.SMALL1
&SystemDisk.DiskType=LOCAL_BASIC
&SystemDisk.DiskSize=50
&DataDisks.0.DiskType=LOCAL_BASIC
&DataDisks.0.DiskSize=100
&InternetAccessible.InternetChargeType=TRAFFIC_POSTPAID_BY_HOUR
&InternetAccessible.InternetMaxBandwidthOut=10
&InternetAccessible.PublicIpAssigned=TRUE
&InstanceName=QCLOUD-TEST
&LoginSettings.Password=Qcloud@TestApi123++
&EnhancedService.SecurityService.Enabled=TRUE
&EnhancedService.MonitorService.Enabled=TRUE
&InstanceCount=1
&
```

The following result is returned for the above request. The InstanceId in the result is the ID of the created instance. In this example, the ID of the created instance is ins-32kcaqoa.

```
{
  "Response": {
    "InstanceIdSet": [
      "ins-32kcaqoa"
    ],
    "RequestID": "3c140219-cfe9-470e-b241-907877d6fb03"
  }
}
```

```
}
```

[After creating an instance with a specified ID, you can manage it using VNC or the remote desktop.](#)

[3. Return an Existing Instance](#)

[A instance that is no longer used can be returned via the API Return Instances. Assume that you want to return an instance as follows:](#)

[Instance ID: ins-32kcaqoa](#)

[The instance can be returned using the following request. For more information on each parameter, please see Return Instances.](#)

<https://cvm.api.qcloud.com/v2/index.php?Action=TerminateInstances>
[&Version=2017-03-12](#)
[&InstanceIds.0=ins-32kcaqoa](#)
[&](#)

[The following result is returned for the above request.](#)

```
{  
  "Response": {  
    "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"  
  }  
}
```

Calling Mode

Request Body

1. Service Address

Tencent Cloud APIs are divided into different function modules, with each module accessed using a different domain name. For the specific domain names, please see the documents of APIs.

2. Communication Protocol

All the Tencent Cloud APIs achieve communication over HTTPS to provide high-security channels.

3. Request Methods

Both POST and GET methods are supported, but they cannot be used together. If the GET method is used, the parameters are obtained from Querystring. If the POST method is used, the parameters are obtained from Request Body, and the parameters in the Querystring are ignored. The rules for parameter formats are the same for both methods. Generally, GET method is used. If parameter strings are too long, POST method is used. For more information, please see the relevant API description.

4. Character Encoding

UTF-8 encoding is always used.

5. API Request Structure

Name	Description	Remarks
API entry	The Webservice entry for calling API	https://[APIdomain]/v2/index.php For specific domain names (APIdomain), please see the descriptions of APIs.

Common parameters	The parameters common to all the APIs	For more information, please see Common Parameters .
Instruction name	Name of the instruction to be executed by API, specified with Action. For example, Action=CreateLoadBalancer	For more information on complete instructions, please see API Overview .
Instruction parameters	Parameters required for each specific instruction	For more information, please see the API document of each instruction.

Common Parameters

Common parameters are used for user identification and API authentication. Unless necessary, these parameters are not discussed in each API document. A request must contain these parameters to be initiated successfully.

Parameter name	Required	Type	Description
Action	Yes	The name of the API for the desired operation. For example, if you want to call API Query List of Instances , the Action parameter is DescribeInstances.	String
Region	No	Region parameter, which is used to identify the region to which the instance you want to work with belongs. The values for the region parameter are: Beijing: ap-beijing, Guangzhou: ap-guangzhou, Shanghai: ap-shanghai, Hongkong: 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:	String

		ap-guangzhou-open. Click to view all Regions and Availability Zones. Click to view API Query Region List. Notes: 1. Unless otherwise specified in the API document, this parameter is required generally. 2. Some of the regions are under internal trial and are only available to certain users.	
Timestamp	Yes	The current UNIX timestamp that records the time at which the API request was initiated.	UInt
Nonce	Yes	A random positive integer that is used in conjunction with Timestamp to prevent replay attacks.	UInt
SecretId	Yes	The SecretId which is used for identifying identity and applied for on Cloud API Key . A SecretId corresponds to a unique SecretKey, which is used to generate the request Signature. For more information, please see Signature Method .	String

Signature	Yes	Request signature, which is used to verify the validity of the request. The signature must be calculated according to input parameters. For more information, please see Signature Method .	String
SignatureMethod	No	Signature method. Currently supported methods are HmacSHA256 and HmacSHA1. HmacSHA256 method is used only when the parameter is specified as HmacSHA256, otherwise HmacSHA1 is used to verify signatures. For more information, please see Signature Method .	String
Token	No	Token used for the temporary certificate. The token must be used together with the temporary key. A long-term key does not require a Token.	String

For example, if a user wants to query the CVM instance list for Guangzhou, the request link may be as follows:

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

&SecretId=xxxxxxx

&Region=ap-guangzhou

&Timestamp=1402992826

&Nonce=345122

&Signature=xxxxxxxxx

&Version=2017-03-12

Version is the required parameter for the version of the API DescribeInstances.

API Authentication

Tencent Cloud API performs identity authentication on each access request, so each request is required to include signature in the common request parameters for user authentication.

Signature is generated from security credential, which includes SecretId and SecretKey. If you do not have security credential yet, go to [Cloud API Key Page] (<https://console.cloud.tencent.com/capi>) to apply for it. Otherwise, you can not call Cloud APIs.

1. Apply for security credential

Before using Cloud APIs for the first time, go to the [Cloud API Key](#) page to apply for a security credential.

Security credential consists of a SecretId and a SecretKey, where:

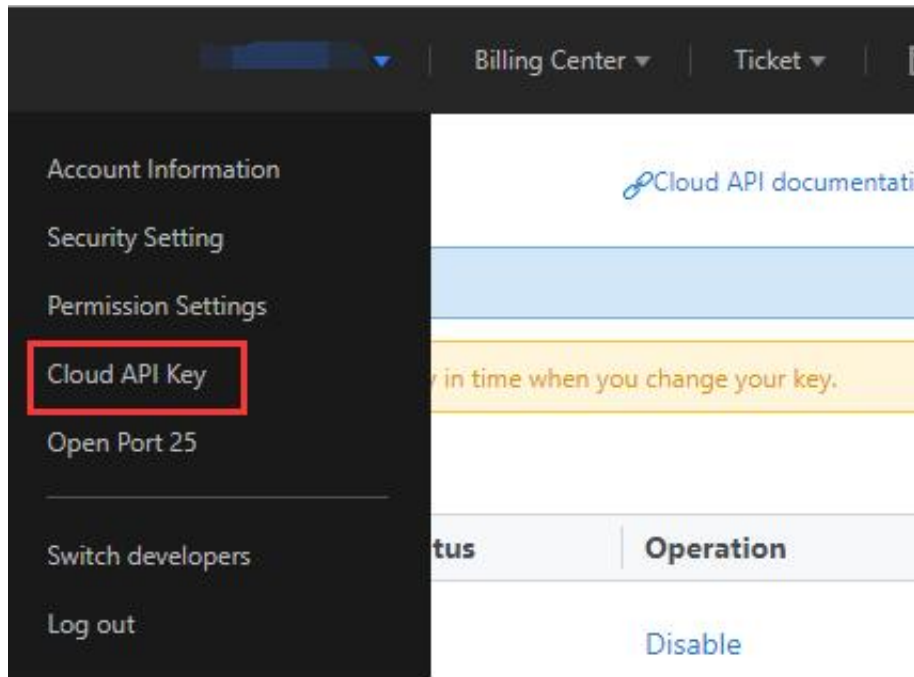
SecretId is used to identify the API caller;

SecretKey is a key used to encrypt signature string, and is also used by the server to verify the signature string.

The security credential must be kept confidential to avoid leakage.

Apply for a security credential by following the steps below:

- 1) Log in to the [Tencent Cloud Console](#).
- 2) Go to the console page of [Cloud API Key](#).



3) On the [Cloud API Key](#) page, click "New" to create a pair of SecretId/SecretKey.

A developer account can have two pairs of SecretId/SecretKey at most. QQ accounts that are added as sub-users by a developer can apply for different security credentials on different developer consoles. Currently, the security credential of a sub-user can only be used to call the cloud APIs of CDN.

2. Generate signature string

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

Suppose that you have the following SecretId and SecretKey:

SecretId: AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA

SecretKey: Gu5t9xGARNpq86cd98joQYCN3Cozk1qA

Note: This is just an example. Please perform subsequent operations based on your actual SecretId and SecretKey.

Take [View CVM Instance List](#) (DescribeInstances) as an example. When this API is called, the request parameters may be as follows:

Parameter Name	Description	Parameter Value
Action	Method name	DescribeInstances
SecretId	Key ID	AKIDz8krbsJ5yKBZQpn74WFkmL Px3gnPhESA
Timestamp	Current time stamp	1465185768
Nonce	A random positive integer	11886
Region	Region where the instance resides in	gz
instanceIds.0	ID of the instance to be queried	ins-09dx96dg
offset	Offset value	0
limit	Maximum number of output results	20

According to the above table, among the request parameters, there are only 5 common request parameters (Action, SecretId, Timestamp, Nonce and Region), instead of 6 ones as described in "Common Request Parameters". Actually, Signature (the sixth one) is generated from other parameters (including the instruction request parameters) using the following procedure:

2.1. Sort parameters

First, sort all the 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. Construct request string

This step is used to generate request string.

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

Note: 1. The parameter value is the original value, instead of a URL encoded value. 2. Any underscore in the input parameters needs to be converted to ".".

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

```
Action=DescribeInstances&Nonce=11886  
&Region=gz&SecretId=AKIDz8krbsJ5yKBZQpn74  
WFkmLPx3gnPhESA&Timestamp=1465185768&instanceIds.0=ins-09dx96dg&limit=20&offset=0
```

2.3. Construct original signature string

This step is used to generate the original signature string.

The original signature string is composed of the following parameters:

- 1) Request method: The POST and GET methods are supported. In this case, a GET request is used. Please note that the methods must be in upper-case.
- 2) Request CVM server: The request domain name for [View Instance List](#) (DescribeInstances) is `cvm.api.qcloud.com`. The actual request domain name varies with the module to which the API belongs. For more information, please see the relevant API description.
- 3) Request path: The request path of Cloud APIs is always `/v2/index.php`.
- 4) Request string: The request string generated in the previous step.

Construction rule of original signature string:

Request Method + Request CVM Server + Request Path + ? + Request String

The resulting string is:

```
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. Generate 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 code is 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 resulting signature string is as follows:

NSI3UqqD99b/UJb4tbG/xZpRW64=

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

3. Encode 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 the request parameters need to be URL encoded.

For example, if the signature string generated in the previous step is

NSI3UqqD99b/UJb4tbG/xZpRW64=, it is converted to NSI3UqqD99b%2FUJb4tbG%2FxZpRW64%3D after being encoded. Therefore, the resulting signature string request parameter (Signature) is NSI3UqqD99b%2FUJb4tbG%2FxZpRW64%3D, which will be used to generate the final request URL.

4. Authentication failure

The following authentication error codes may be returned depending on the actual situation.

Error Code	Error Type	Error Description
4100	Authentication failed.	Key is invalid or is disabled.
4101	Authentication failed	The SecretID is not authorized to call this API. Please contact the

developer for authorization. For more information, please see [Authorization Policy](#).

4102

Authentication failed

Returning Results

Results for Successful Request

If the call is successful, the returned values are as follows:

```
{
  "Response": {
    "InstanceIdSet": [
      "xxx1",
      "xxx2"
    ],
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

- The presence of Response means Tencent received a normal request and this request is being processed or has been processed.
- InstanceSet is a typical data field defined by each Action. Its content varies with Action.
- RequestId is used to uniquely identify an API request. If an API exception occurs, you can contact us and provide this ID to solve the problem.

Results for Failed Request

If the call fails, the returned values are as follows:

```
{
  "Response": {
    "Error": {
      "Code": "AuthFailure",
      "Message": "qcloud was not able to validate the provided access credentials"
    },
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

- The presence of Error means Tencent Cloud cannot process this request.
- Code indicates the specific error code. When an error occurs with the request, you can find the cause and solution in [Common Error Codes](#) and the error code list for the current API based on this error code.
- Message indicates the reason for the error, which may be changed or updated from time to time with the business growth or experience optimization. Therefore, you should not rely on this returned value.
- RequestId is used to uniquely identify an API request. If an API exception occurs, you can contact us and provide this ID to solve the problem.

Error Codes

1. Common Error Codes

If Error key exists in the returned result, it means the call to the API failed. The Code field under the Error indicates the error code. When the call fails, you can determine the cause of error and take appropriate actions based on the following table.

Error Code	Error Type	Description
InvalidParameter	Invalid request parameter	Required parameter is missing, or parameter value is in an incorrect format. For relevant error message, please see the "message" field in error description.
InvalidParameter.SignatureFailure	Authentication failed	The failure of authentication is usually caused by signature computing error. Please see Signature Method section in the document.
AuthFailure	Unauthorized access to the API	The sub-account is not authorized by the main account to access the API. Contact the main account administrator to enable the permission for API.
AuthFailure	Unauthorized access to the resource	The sub-account is not authorized by the main account to access the specific resource. Contact the main account administrator to enable the permission for resource.
AuthFailure	Unauthorized access to the resource the current API is working with.	The sub-account is not authorized by the main account to access the specific resource the current API is working with.

		Contact the main account administrator to enable the permission for resource.
InvalidParameter.SecretIdNotFound	Key does not exist.	The key used for the request does not exist. Please verify it and try again.
InvalidRequest.TokenCheckFailed	token error	token error.
InvalidRequest.MFACheckFailed	MFA verification failed	MFA verification failed.
InternalError.CAMInnerError	Other CAM authentication failed	Other CAM authentication failed.
InvalidRequest.Forbidden	Access denied	Account is blocked or not within the user range of the API.
InvalidRequest.LimitExceeded	Quota is exceeded	The number of requests exceeds the quota limit. For more information, please see the Request Quota section in the document.
InvalidRequest.ReplayAttack	Replay attack	The Nonce and Timestamp parameters can ensure that each request is executed only once on the server. Therefore, the Nonce value cannot be the same as last one, and the difference between Timestamp and Tencent server time cannot be greater than 5 hours.
InvalidRequest.UnsupportedProtocol	Unsupported protocol	The protocol is not supported. The current API only supports HTTPS protocol and does not support HTTP protocol.
InternalError.ResourceOpFailed	Operation on the resource failed	The operation performed on the resource failed. For error message, please see the "message" field in error

		description. Try again later or contact customer service for help.
InternalError	Internal error on the server	An internal error occurred with the server. Try again later or contact customer service for help.
InvalidAction.NotFound	Not supported by the version	The API is not supported by this version or is under maintenance. Note: When this error occurs, first check whether the domain name of the API is correct. Different modules may have different domain names.
InvalidAction.ActionUnavailable	API is temporarily unavailable	The API is under maintenance and is unavailable. Please try again later.
InvalidRequest.RequestConcurrencyExceeded	Number of requests for the API exceeds the concurrency limit	The number of requests for the current API exceeds the qps limit. Please try again later.

Update History

Date	Summary	Description	API Version
2017-09-26	New EIP APIs		

Region-related API

Querying Region List

1. API Description

This API (DescribeRegions) is used to query regions.

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

- For more information on the definition of regions, please see [Region](#) product documentation.

2. Input Parameters

No API request parameters are available for this API. You can only specify common request parameters. For more information, please see [Common Request Parameters](#).

Note: You do not need to specify the parameter `Region` in the common request parameter for this API.

3. Output Parameters

Parameter Name	Type	Description
<code>RequestId</code>	String	Request ID.
<code>TotalCount</code>	Integer	Number of regions.
<code>RegionSet</code>	Array of Region object	Region list.

4. Error Codes

For more information, please see [Error Codes](#).

5. Example

Input

<https://cvm.api.qcloud.com/v2/index.php?Action=DescribeRegions>
&Version=2017-03-12
&

Output

```
{  
  "Response": {  
    "TotalCount": 10,  
    "RegionSet": [  
      {  
        "Region": "ap-beijing",  
        "RegionName": "North China (Beijing)",  
        "RegionState": "AVAILABLE"  
      },  
      {  
        "Region": "ap-guangzhou",  
        "RegionName": "South China (Guangzhou)",  
        "RegionState": "AVAILABLE"  
      },  
      {  
        "Region": "ap-guangzhou-open",  
        "RegionName": "South China (Guangzhou Open)",  
        "RegionState": "AVAILABLE"  
      },  
      {  
        "Region": "ap-hongkong",  
        "RegionName": "Southeast Asia (Hong Kong)",  
        "RegionState": "AVAILABLE"  
      },  
      {  
        "Region": "ap-shanghai",  
        "RegionName": "East China (Shanghai)",
```

```
"RegionState": "AVAILABLE"
  }
  {
"Region": "ap-shanghai-fsi",
"RegionName": "East China (Shanghai Finance)",
"RegionState": "AVAILABLE"
  }
  {
"Region": "ap-shenzhen-fsi",
"RegionName": "South China (Shenzhen Finance)",
"RegionState": "AVAILABLE"
  }
  {
"Region": "ap-singapore",
"RegionName": "Southeast Asia (Singapore)",
"RegionState": "AVAILABLE"
  }
  {
"Region": "na-siliconvalley",
"RegionName": "Western U.S. (Silicon Valley)",
"RegionState": "AVAILABLE"
  }
  {
"Region": "na-toronto",
"RegionName": "North America (Toronto)",
"RegionState": "AVAILABLE"
  }
  }
  }
  "RequestId": "C563943B-3BEA-FE92-29FE-591EAEB7871F"
}
```

Querying Availability Zone List

1. API Description

Note: This API has been updated. For more information on the old APIs, please see [Query Availability Zones](#).

This API (DescribeZones) is used to query availability zones.

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

2. Input Parameters

No API request parameters are available for this API. You can only specify common request parameters. For more information, please see [Common Request Parameters](#).

Note: You must specify the parameter Region in the common request parameter for this API.

3. Output Parameters

Parameter	Type	Description
RequestId	String	Request ID.
TotalCount	Integer	Number of availability zones.
ZoneSet	Array of Zone objects	List of availability zones.

4. Error Codes

For more information, please see [Error Codes](#).

5. Example

Input

`https://cvm.api.qcloud.com/v2/index.php?Action=DescribeZones`

&Version=2017-03-12

&Region=ap-guangzhou

&

Output

```
{
  "Response": {
    "TotalCount": 3,
    "ZoneSet": [
      {
        "Zone": "ap-guangzhou-1",
        "ZoneName": "Guangzhou Zone 1",
        "ZoneId": "100001",
        "ZoneState": "UNAVAILABLE"
      },
      {
        "Zone": "ap-guangzhou-2",
        "ZoneName": "Guangzhou Zone 2",
        "ZoneId": "100002",
        "ZoneState": "AVAILABLE"
      },
      {
        "Zone": "ap-guangzhou-3",
        "ZoneName": "Guangzhou Zone 3",
        "ZoneId": "100003",
        "ZoneState": "AVAILABLE"
      }
    ],
    "RequestId": "62DDFFC6-FDB5-44F7-20A6-59152E3D129A"
  }
}
```

Instance-related API

Checking Instance List

1. API Description

This API (DescribeInstances) is used to query the details of one or more instances.

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

- You can query the details of an instance according to its

ID

, name, or billing method. Filter information can be found in

Filter

.

- If the parameter is empty, a certain number (specified by

Limit

, the default is 20) of instances are returned to the current user.

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version number, used to identify the API version you are requesting. For the first

Parameter Name	Type	Required	Description
			version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	No	To query according to one or more instance IDs, such as ins-11112222 . For the format of this parameter, please see id.N section of API Introduction. InstanceIds and Filters cannot be specified at the same time.
Filters.N	array of Filter objects	No	Filter criteria can be found in Table of Instance Filter Criteria. The maximum number of Filters of each request is 10,

Parameter Name	Type	Required	Description
			and the maximum number of Filter.Values is 5. InstanceIds and Filters cannot be specified at the same time.
Offset	Integer	No	Offset. Default is 0. For more information on offset , please see relevant sections of API Introduction.
Limit	Integer	No	Number of results to be returned. Default is 20. Maximum is 100. For more information on limit , please see relevant sections of API Introduction.

Table of Instance Filter Criteria

Parameter Name	Type	Required	Description
zone	String	No	(Filter criteria) Filter by Availability Zone .
project-id	Integer	No	(Filter criteria) Filter by project ID. You can query the list of created projects by calling DescribeProject , or view the list by logging in to the Console . You can also create a new project by calling AddProject .
host-id	String	No	(Filter criteria) Filter by CDH ID , such as: host-11112222
instance-id	String	No	. (Filter criteria) Filter by instance ID , such as: ins-11112222

instance-name	String	No	(Filter criteria) Filter by instance name.
instance-charge-type	String	No	

Checking Instance Status

1. API Description

This API (DescribeInstancesStatus) is used to query the status of one or more instances.

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

- You can query the status of an instance according to its

ID

- If the parameter is empty, the status of a certain number (specified by Limit, the default is 20) of instances is returned to the current user.

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version number, used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	No	To query according to one or more instance IDs, such as ins-11112222

Parameter Name	Type	Required	Description
			. For the format of this parameter, please see id.n section of API Introduction .
Offset	Integer	No	Offset. Default is 0. For more information on offset, please see relevant sections of API Introduction .
Limit	Integer	No	Number of results to be returned. Default is 20. Maximum is 100. For more information on limit, please see relevant sections of API Introduction .

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	Unique request ID. RequestId

Parameter Name	Type	Description
		is returned for each request. In case of a failed call to the API, <code>RequestId</code> needs to be provided when you contact the developer at backend.
TotalCount	Integer	Number of instance statuses that meet the condition.
InstanceStatusSet	array of InstanceStatus objects	Instance Status list.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
InvalidParameterValue	Invalid parameter value. Parameter value is in an incorrect format or is not supported.
InvalidInstanceId.Malformed	Invalid instance ID . The specified instance ID is in an incorrect format. For example, ins-1122 indicates an

Error code	Description
	ID length error.
InvalidParameterValue.LimitExceeded	The number of parameter values exceeds the limit.
InternalServerError	Internal service error.

5. Example

Input

```
https://cvm.api.qcloud.com/v2/index.php?Action=DescribeInstancesStatus
&Version=2017-03-12
&InstanceIds.1=ins-r8hr2upy
&InstanceIds.2=ins-5d8a23rs
&Offset=0
&Limit=2
&
```

Output

```
{
  "Response": {
    "TotalCount": 2,
    "InstanceStatusSet": [
      {
        "InstanceId": "ins-r8hr2upy",
        "InstanceState": "RUNNING"
      },
      {
        "InstanceId": "ins-5d8a23rs",
        "InstanceState": "STOPPED"
      }
    ]
  }
}
```

```
_
"RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"
_
}
```

Querying Instance CVM List

1. API Description

This API (DescribeInstanceTypeConfigs) is used to query the instance model configuration.

Domain name for API request: cvm.api.qcloud.com

- You can query the instance model configuration via

zone

and

instance-family

. Filter criteria can be found in

Filter

- If the parameter is empty, model configuration of all instances under the specified region are returned.

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this

Parameter Name	Type	Required	Description
			API, input "2017-03-12".
Filters.N	[array of Filter objects	No	Filtering criteria can be found in Table of Instance Filter Criteria. The maximum number of Filters of each request is 10, and the maximum number of Filter.Values ' is 1.

Table of Instance Filter Criteria

Parameter Name	Type	Required	Description
zone	String	No	(Filter criteria) Filter by Availability Zone .
instance-family	String	No	(Filter criteria) Filter by instance model series, such as: S1 , I1 ,

Parameter Name	Type	Required	Description
			M1 etc.

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.
InstanceTypeConfigSet	Array of InstanceTypeConfig object	Instance Model Configuration

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
InvalidParameterValue	Invalid parameter value. Parameter value is in an incorrect format or is not supported.
InvalidFilter	The specified Filter

Error code	Description
	is not supported.
InvalidFilterValue.LimitExceeded	The number of values of parameter Filter exceeds the limit.
InvalidZone.MismatchRegion	The specified zone does not exist.
InternalServerError	Tencent Cloud server error

5. Example

Input

```
https://cvm.api.qcloud.com/v2/index.php?Action=DescribeInstanceTypeConfigs
&Version=2017-03-12
&Filters.1.Name=zone
&Filters.1.Values.1=ap-guangzhou-2
&Filters.1.Name=instance-family
&Filters.1.Values.1=I1
&
```

Output

```
{
  "Response": {
    "InstanceTypeConfigSet": [
      {
        "Zone": "ap-guangzhou-2",
```

```

    "InstanceFamily": "I1",
    "InstanceType": "I1.MEDIUM4",
    "CPU": 2,
    "Memory": 4
  },
  {
    "Zone": "ap-guangzhou-2",
    "InstanceFamily": "I1",
    "InstanceType": "I1.MEDIUM8",
    "CPU": 2,
    "Memory": 8
  },
  {
    "Zone": "ap-guangzhou-2",
    "InstanceFamily": "I1",
    "InstanceType": "I1.MEDIUM16",
    "CPU": 2,
    "Memory": 16
  },
  {
    "Zone": "ap-guangzhou-2",
    "InstanceFamily": "I1",
    "InstanceType": "I1.LARGE8",
    "CPU": 4,
    "Memory": 8
  },
  .....
  ],
  "RequestId": "2f1fd71e-95ab-4f10-8adb-895e99d33ff5"
}
}

```

Creating Instances

1. API Description

This API (RunInstances) is used to create one or more instances with specified configuration.

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

- Once created, the instance is started up automatically and the [status](#) becomes Running.
- The amount of instances you can purchase via this API is subject to the limit as stated in the [Restrictions on CVM Instance Purchase](#), and share the quota with the instances created on the Console.
- With the asynchronous API, an instance

ID

list will be returned when the creation request is issued successfully, but the instance is not created immediately. During this period, the status of the instance is "Creating". You can call API [DescribeInstancesStatus](#) to query the status of the instance to check whether it is created. If the status changes from "Creating" to "Running", the instance is created successfully.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
Parameter	Type	Required	Description
Placement	Placement object	Yes	Location of the instance.

			This parameter is used to specify the availability zone and project to which the instance belongs, etc.
InstanceType	String	No	Instance model. Different instance models specify different resource specifications. Specific values can be found in the latest Specifications by calling the API DescribeInstanceTypeConfigs or in Instance Type. If this parameter is not specified, the default model is S1.SMALL1.
ImageId	String	Yes	Valid image ID, such as img-xxx . There are four types of images: Public Images Custom Images Shared Images Marketplace Images You can obtain the available image IDs by the following ways: For

			public images
			,
			custom images
			and
			shared images
			, log in to console to query the image IDs; for
			marketplace images
			, query the image IDs through Cloud Marketplace.
			This value can be obtained from the
			ImageId
			field in the returned values of API DescribeImages .
SystemDisk	SystemDisk object	No	Configuration information of the system disk in the instance. If this parameter is not specified, the default value is assigned to it.
DataDisks.N	array of DataDisk objects	No	Configuration

			information of the data disk in the instance. If this parameter is not specified, no data disk will be purchased by default. Currently you can specify only one data disk when purchasing it.
VirtualPrivateCloud	VirtualPrivateCloud object	No	Configuration information of VPC. This parameter is used to specify the ID of VPC and subnet, etc. If this parameter is not specified, the basic network is used by default. If a VPC IP is specified in this parameter, parameter InstanceCount can only be 1.
InternetAccessible	InternetAccessible object	No	Configuration information of Public network bandwidth. If this parameter is not specified, the default public network bandwidth is 0 Mbps.
InstanceCount	Integer	No	Number of instances to be purchased. Value range: [1, 100]. Default: 1. The number of instances to be

			purchased cannot exceed the remaining quota allowed for the user. For information on quota restrictions, please see Restrictions on CVM Instance Purchase.
InstanceName	String	No	Displayed name of the instance. If this parameter is not specified, "Not named" is displayed by default. The maximum length cannot exceed 60 bytes.
LoginSettings	LoginSettings object	No	Login settings of the instance. This parameter is used to set the login password and key for the instance, or to keep the original login settings for the image. By default, a random password is generated and notified to the user via the internal message.
SecurityGroupIds.N	Array of Strings	No	The security group to which the instance belongs. This parameter can be obtained by calling the sgId field in the returned value of DescribeSecurityGroups. If this parameter is not specified, the security

			group is not bound by default. If the security group is not bound, all the ports will be exposed to the public network and private network, and all the businesses (such as port 80, 443) of the instance will be accessible. Such option may cause security risks, so It is recommended to select a new security group as needed. You can specify only one security group when purchasing the instance.
EnhancedService	EnhancedService object	No	To enhance the service. This parameter is used to specify whether to enable Cloud Security, Cloud Monitoring and other services. If this parameter is not specified, the Cloud Monitoring and Cloud Security are enabled by default.
ClientToken	String	No	A string to ensure the idempotency of the request, which is generated by the client. Each request shall have a unique string with a

maximum of 64 ASCII characters. If this parameter is not specified, the idempotency of the request cannot be ensured.

For more information, please see [How to Ensure Idempotency](#).

3. Output Parameters

Parameter Name	Type	Description
InstanceIdSet	array of Strings	This parameter is returned when an instance is created via this API, representing one or more instance IDs. . The return of the instance ID list does not mean that the instance is created successfully. You can find out whether the instance is created by querying the status of the instance ID in the returned InstancesSet via

Parameter Name	Type	Description
		API DescribeInstancesStatus . If the status of the instance changes from "creating" to "running", the instance is created successfully.
RequestId	String	Unique request ID. A unique "RequestId" is returned for each request. In case of a failed call to the API, "RequestId" needs to be provided when you contact the developer at backend.

Example of the Parameter Returned When the API Performs Normally

```
{
  "Response": {
    "InstanceIdSet": [
      "xxx1",
      "xxx2"
    ],
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

Example of the Parameter Returned When the API Performs Abnormally

```
{
  "Response": {
    "Error": {
      "Code": "AuthFailure",
      "Message": "qcloud was not able to validate the provided access credentials"
    },
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

```

}
}

```

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
InvalidParameterValue	Invalid parameter value. Parameter value is in an incorrect format or is not supported.
InvalidParameterValue.Range	Invalid parameter value range.
InvalidParameterCombination	Incorrect parameter combination.
MissingParameter	Missing parameter. The required parameter in the request is missing.
InvalidPermission	Account permission restriction, cannot perform this action.
AccountQualificationRestrictions	The request account failed to pass the eligibility verification.
InvalidZone.MismatchRegion	The specified availability zone 'ID' is invalid or does not match the availability zone under the specified region.
InvalidHostId.NotFound	The specified HostId does not exist, or does not belong to the request account.
InvalidPeriod	The value of the specified purchased usage period does not fall within the reasonable value range.
InvalidInstanceType.Malformed	Invalid format for the specified parameter InstanceType
InstancesQuotaLimitExceeded	Indicates that the number of created instances exceeds the remaining quota allowed for the account.
InvalidInstanceName.TooLong	The specified InstanceName exceeds the maximum length of 60 bytes.

Error code	Description
InvalidPassword	Indicates that the complexity of the specified password does not meet the requirements.
InvalidClientToken.TooLong	The specified ClientToken exceeds the maximum length of 64 bytes.
VpcAddrNotInSubNet	VPC IP is not in the subnet
VpcIpIsUsed	VPC IP is already occupied

5. Examples

Example 1

Purchasing with simple parameters:

Input only the required parameter Zone and Image ID, and use default values for other parameters, as shown below: Zone: Guangzhou Zone 2; image ID: img-pmqg1cw7.

Request Parameters

```
https://cvm.api.qcloud.com/v2/index.php?Action=RunInstances
&Version=2017-03-12
&Placement.Zone=ap-guangzhou-2
&ImageId=img-pmqg1cw7
&
```

[Response Parameters](#)

```
{
  "Response": {
    "InstanceIdSet": [
      "ins-1vogaxgk"
    ]
  }
}
```

```
└─┬  
  "RequestID": "3c140219-cfe9-470e-b241-907877d6fb03"  
└─┬  
  }  
}
```

Example 2

Purchasing an postpaid instance on an hourly basis:

Zone: Guangzhou Zone 2; billing method: postpaid by hour; image ID: img-pmqg1cw7;
model: standard 1C1G (S1.SMALL1), 50 GB local common system disk with 100 GB local
common data disk, basic network; public network billing method: traffic postpaid by hour;
upper limit of public network bandwidth: 10 Mbps, assigned with public IP; instance name:
QCLOUD-TEST; login password: Qcloud@TestApi123+ +; installed with Cloud Monitoring and
Cloud Security; one instance is purchased.

Request Parameters

https://cvm.api.qcloud.com/v2/index.php?Action=RunInstances
&Version=2017-03-12
&Placement.Zone=ap-guangzhou-2
&InstanceChargeType=POSTPAID_BY_HOUR
&ImageId=img-pmqg1cw7
&InstanceType=S1.SMALL1
&SystemDisk.DiskType=LOCAL_BASIC
&SystemDisk.DiskSize=50
&DataDisks.0.DiskType=LOCAL_BASIC
&DataDisks.0.DiskSize=100
&InternetAccessible.InternetChargeType=TRAFFIC_POSTPAID_BY_HOUR
&InternetAccessible.InternetMaxBandwidthOut=10
&InternetAccessible.PublicIpAssigned=TRUE

&InstanceName=QCLOUD-TEST
&LoginSettings.Password=Qcloud@TestApi123++
&EnhancedService.SecurityService.Enabled=TRUE
&EnhancedService.MonitorService.Enabled=TRUE
&InstanceCount=1
&

Response Parameters

```
{  
  "Response": {  
    "InstanceIdSet": [  
      "ins-32kcaqoa"  
    ],  
    "RequestID": "3c140219-cfe9-470e-b241-907877d6fb03"  
  }  
}
```

Querying Price of New Instance

1. API Description

This API (InquiryPriceRunInstances) is used to inquire the prices of created instances.

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

- This API only allows the price inquiry according to the instance configuration within the restrictions on instance purchase. For more information, please see [Create Instances](#).

2. Input Parameters

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

Name	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
Name	Type	Required	Description
Placement	Placement object	Yes	Location of the instance. This parameter is used to specify the availability zone and project to which the instance belongs, etc.
InstanceType	String	No	Instance model. Different instance models specify different resource specifications. Specific values can be found in

			the latest Specifications by calling the API DescribeInstanceTypeConfigs or in CVM Instance Configuration. If this parameter is not specified, the default model is S1.SMALL1.
ImageId	String	Yes	Valid image ID, such as img-xxx . There are four types of images: Public Images Custom Images Shared Images Marketplace Images You can obtain the available image IDs by the following ways: For public images , custom images and shared images

				, log in to console to query the image IDs; for marketplace images , query the image IDs through Cloud Marketplace. This value can be obtained from the ImageId field in the returned values of API DescribeImages.
SystemDisk	SystemDisk object	No		Configuration information of the system disk in the instance. If this parameter is not specified, the default value is assigned to it.
DataDisks.N	array of DataDisk objects	No		Configuration information of the data disk in the instance. If this parameter is not specified, no data disk will be purchased by default. Currently you can specify only one data disk when purchasing it.
VirtualPrivateCloud	VirtualPrivateCloud	No		Configuration

	object		information of VPC. This parameter is used to specify the ID of VPC and subnet, etc. If this parameter is not specified, the basic network is used by default. If a VPC IP is specified in this parameter, parameter InstanceCount can only be 1.
InternetAccessible	InternetAccessible object	No	Configuration information of Public network bandwidth. If this parameter is not specified, the default public network bandwidth is 0 Mbps.
InstanceCount	Integer	No	Number of instances to be purchased. Value range: [1, 100]. Default: 1. The number of instances to be purchased cannot exceed the remaining quota allowed for the user. For information on quota restrictions, please see Restrictions on CVM Instance Purchase .
InstanceName	String	No	Displayed name of the instance. If this parameter is not

LoginSettings	LoginSettings object	No	specified, "Not named" is displayed by default. The maximum length cannot exceed 60 bytes. Login settings of the instance. This parameter is used to set the login password and key for the instance, or to keep the original login settings for the image. By default, a random password is generated and notified to the user via the internal message.
SecurityGroupIds.N	array of Strings	No	The security group to which the instance belongs. This parameter can be obtained by calling the sgId field in the returned value of DescribeSecurityGroups. If this parameter is not specified, the security group is not bound by default. If the security group is not bound, all the ports will be exposed to the public network and private network, and all the businesses (such as port 80, 443) of the instance will be accessible. Such option

				may cause security risks, so It is recommended to select a new security group as needed. You can specify only one security group when purchasing the instance. To enhance the service. This parameter is used to specify whether to enable Cloud Security, Cloud Monitoring and other services. If this parameter is not specified, the Cloud Monitoring and Cloud Security are enabled by default.
EnhancedService	EnhancedService object	No		
ClientToken	String	No		A string to ensure the idempotency of the request, which is generated by the client. Each request shall have a unique string with a maximum of 64 ASCII characters. If this parameter is not specified, the idempotency of the request cannot be ensured. For more information, please see How to Ensure Idempotency.

3. Output Parameters

Parameter Name	Type	Description
Price	Price object	The price of the instance with corresponding configuration.
RequestId	String	Unique request ID. A unique "RequestId" is returned for each request. In case of a failed call to the API, "RequestId" needs to be provided when you contact the developer at backend.

Example of the Parameter Returned When the API Performs Normally

```
{
  "Response": {
    "InstanceIdSet": [
      "xxx1",
      "xxx2"
    ],
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

Example of the Parameter Returned When the API Performs Abnormally

```
{
  "Response": {
    "Error": {
      "Code": "AuthFailure",
      "Message": "qcloud was not able to validate the provided access credentials"
    },
    "RequestId": "eac6b301-a322-493a-8e36-83b295459397"
  }
}
```

```

}
}

```

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
InvalidParameterValue	Invalid parameter value. Parameter value is in an incorrect format or is not supported.
InvalidParameterValue.Range	Invalid parameter value range.
InvalidParameterCombination	Incorrect parameter combination.
MissingParameter	Missing parameter. The required parameter in the request is missing.
InvalidPermission	Account permission restriction, cannot perform this action.
AccountQualificationRestrictions	The request account failed to pass the eligibility verification.
InvalidZone.MismatchRegion	The specified availability zone 'ID' is invalid or does not match the availability zone under the specified region.
InvalidHostId.NotFound	The specified HostId does not exist, or does not belong to the request account.
InvalidPeriod	The value of the specified purchased usage period does not fall within the reasonable value range.
InvalidInstanceType.Malformed	Invalid format for the specified parameter InstanceType
InstancesQuotaLimitExceeded	Indicates that the number of created instances exceeds the remaining quota allowed for the account.
InvalidInstanceName.TooLong	The specified InstanceName exceeds the maximum length of 60 bytes.

Error code	Description
InvalidPassword	Indicates that the complexity of the specified password does not meet the requirements.
InvalidClientToken.TooLong	The specified ClientToken exceeds the maximum length of 64 bytes.

5. Examples

Example 1

Price inquiry for an instance purchased with simple parameters:

Input only the required parameter Zone and Image ID, and use default values for other parameters, as shown below: Zone: Guangzhou Zone 2; image ID: img-pmqg1cw7.

Request Parameters

```
https://cvm.api.qcloud.com/v2/index.php?Action=InquiryPriceRunInstances
&Version=2017-03-12
&Placement.Zone=ap-guangzhou-2
&ImageId=img-pmqg1cw7
&<<a href="/document/api/213/11650">Common request parameters</a>>
```

Response Parameters

```
{
  "Response": {
    'Price': {
      'InstancePrice': {
        'UnitPrice': '0.34',
```

```
'ChargeUnit': 'HOUR'  
}  
}  
}  
}
```

Example 2

Price inquiry for an purchased postpaid instance on an hourly basis:

Zone: Guangzhou Zone 2; billing method: postpaid by hour; image ID: img-pmqg1cw7;
model: standard 1C1G (S1.SMALL1), 50 GB local common system disk with 100 GB local
common data disk, basic network; public network billing method: traffic postpaid by hour;
upper limit of public network bandwidth: 10 Mbps, assigned with public IP; instance name:
QCLOUD-TEST; login password: Qcloud@TestApi123++; installed with Cloud Monitoring and
Cloud Security; one instance is purchased.

Request Parameters

```
https://cvm.api.qcloud.com/v2/index.php?Action=InquiryPriceRunInstances  
&Placement.Zone=ap-guangzhou-2  
&InstanceChargeType=POSTPAID_BY_HOUR  
&ImageId=img-pmqg1cw7  
&InstanceType=S1.SMALL1  
&SystemDisk.DiskType=LOCAL_BASIC  
&SystemDisk.DiskSize=50  
&DataDisks.0.DiskType=LOCAL_BASIC  
&DataDisks.0.DiskSize=100  
&InternetAccessible.InternetChargeType=TRAFFIC_POSTPAID_BY_HOUR  
&InternetAccessible.InternetMaxBandwidthOut=10
```

```
&InternetAccessible.PublicIpAssigned=TRUE
&InstanceName=QCLOUD-TEST
&LoginSettings.Password=Qcloud@TestApi123++
&EnhancedService.SecurityService.Enabled=TRUE
&EnhancedService.MonitorService.Enabled=TRUE
&InstanceCount=1
&<Common request parameters>
```

Response Parameters

```
{
  "Response": {
    "Price": {
      "InstancePrice": {
        "UnitPrice": '0.34',
        "ChargeUnit": 'HOURLY'
      },
      "BandwidthPrice": {
        "UnitPrice": '0.80',
        "ChargeUnit": 'GB'
      }
    }
  }
}
```

Starting Up Instances

1. API Description

This API (StartInstances) is used to start up one or more instances.

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

- This API is only available to instances in the status of

STOPPED

.

- When the API is called, the instance goes into the

STARTING

status. When the instance is started, it will go into the

RUNNING

status.

- Batch operations are supported. The maximum number of instances for each request for batch operations is 100. Before instances are started in batches, an Error Code is returned for those that do not allow batch operations.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version

Parameter	Type	Required	Description
			you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	Array of Strings	Yes	ID(s) of one or more instances to be operated. This can be obtained from InstanceId in the returned values of API DescribeInstances . The maximum number of instances for each request for batch operation is 100.

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you

Parameter	Type	Description
		contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
MissingParameter	A required parameter is missing in the request.
InvalidInstanceId.NotFound	The specified instance ID does not exist.
InvalidInstanceId.Malformed	The specified instance ID is in an incorrect format. For example, ins-1122 indicates an ID length error.
InvalidParameterValue	Parameter value is in an incorrect format or is not supported.
InvalidParameterValue.LimitExceeded	The number of parameter values exceeds the limit.
InvalidInstance.NotSupported	This operation is not supported for the instance.
InternalServerError	Internal operation error.

5. Example

Input

```
https://cvm.api.qcloud.com/v2/index.php?Action=StartInstances
&Version=2017-03-12
&InstanceIds.1=ins-r8hr2upy
&InstanceIds.2=ins-5d8a23rs
&
```

Output

```
{
  "Response": {
    "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"
  }
}
```

Shutting Down Instances

1. API Description

This API (StopInstances) is used to shut down one or more instances.

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

- This operation is only allowed for the instances with a status of

`RUNNING`

.

- When the API is called, the instance will go into the

`STOPPING`

status. When the instance is shut down, it will go into the

`STOPPED`

status.

- Forced shutdown is supported. Just like powering off a physical PC, forced restart may cause data loss or the corruption of file system. Be sure to perform forced restart only when the server cannot be shut down normally.
- Batch operations are supported. The maximum number of instances for each request for batch operations is 100. Before instances are started in batches, an Error Code is returned for those that do not allow batch operations.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	Yes	ID(s) of one or more instances to be operated. This can be obtained from InstanceId in the returned values of API DescribeInstances . The maximum number of instances for each request for batch operation is 100.
ForceStop	Boolean	No	

Parameter	Type	Required	Description
-----------	------	----------	-------------

Returning Instances

1. API Description

This API (TerminateInstances) is used to return instances.

Domain name for API request: cvm.api.qcloud.com

- You can use this API to return unused instances.
- All postpaid instances can be returned via this API.
- Batch operations are supported. Up to 100 instances can be returned in a time. If any instance that does not allow batch operations exists in the batch, an error code is returned.

2. Input Parameters

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

Parameter	Required	Type	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	Yes	ID(s) of one or more instances you are working with. This can be obtained from InstanceId in the returned values of API

Parameter	Required	Type	Description
			DescribeInstances The maximum number of instances in a batch for each request is 100.

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error Code	Description
MissingParameter	A required parameter is missing in the request.
InvalidInstanceId.Malformed	The specified instance ID

Error Code	Description
	is in an incorrect format. For example, ins-1122 indicates an ID length error.
InvalidParameterValue	Parameter value is in an incorrect format or is not supported.
InvalidParameterValue.LimitExceeded	The number of parameter values exceeds the limit.
InvalidInstance.NotSupported	This operation is not supported for the instance.
InternalServerError	Tencent Cloud server error.

5. Example

Input

```
https://cvm.api.qcloud.com/v2/index.php?Action=TerminateInstances
&Version=2017-03-12
&InstanceIds.1=ins-r8hr2upy
&InstanceIds.2=ins-5d8a23rs
&
```

Output

```
{
  "Response": {
    "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"
  }
}
```

Restarting Instances

1. API Description

This API (RebootInstances) is used to restart an instance.

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

- This operation is only allowed for the instances with a status of

`RUNNING`

.

- When the API is called successfully, the instance goes into the

`REBOOTING`

status. When restarted, it goes into the

`RUNNING`

status.

- Forced restart is supported. Just like restarting a physical PC after a power-off, forced restart may cause data loss or the corruption of file system. Be sure to perform forced restart only when the server cannot be restarted normally.
- Batch operations are supported. The maximum number of instances in a batch for each request is 100. If any instance that does not allow batch operations exists in the batch, an error code is returned.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version number, used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	Yes	ID(s) of one or more instances you are working with. This can be obtained from InstanceId in the returned values of API DescribeInstances . The maximum number of instances in a batch for each request is 100.
ForceReboot	Boolean	No	

Parameter	Type	Required	Description
-----------	------	----------	-------------

Reinstalling Instances

1. API Description

This API (ResetInstance) is used to reinstall the operating system for the specified instance.

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

- If you have specified

`ImageId`

parameter, the re-installation is performed with the specified image. Otherwise, the image used by the current instance is used.

- The system disk will be formatted and reset. Please ensure that there is no important file in the system disk.
- As the operating system is switched between

Linux

and

Windows

, the system disk

ID

of the instance will change, and the snapshot associated with the system disk can't be rolled back and used to recover data.

- If no password is specified, a random password is issued via internal message.
- Currently, using this API for switching between

Linux

Parameter	Type	Required	Description
and			
Windows			
operating systems is only supported for the instances with a system disk type of			
CLOUD_BASIC			
,			
CLOUD_PREMIUM			
and			
CLOUD_SSD			
.			
• This feature is only available to instances in China.			

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
instanceId	Yes	String	Instance ID. It can be obtained from

Parameter	Type	Required	Description
			InstanceId in the returned values of API DescribeInstances.
ImageId	String	No	Valid image ID, such as img-xxx . There are four types of images: Public Images Custom Images Shared Images Marketplace Images You can obtain the available image IDs by the following ways: For public images , custom images and shared images , log in to console to query the image IDs; for

Parameter	Type	Required	Description
			marketplace images , query the image IDs through Cloud Marketplace. This value can be obtained from the ImageId field in the returned values of API DescribeImages.
SystemDisk	SystemDisk object	No	Configuration information of instance's system disk. For the instances with a cloud disk as the system disk, you can specify the system disk capacity after re-installation using this parameter to allow the capacity expansion of the system disk. If the parameter is not specified, the system disk capacity remains unchanged by default. Only expansion, instead of reduction, is supported for system disk capacity. You can only modify the system

Parameter	Type	Required	Description
			disk capacity for re-installation. The system disk type cannot be modified.
LoginSettings	LoginSettings object	No	Login settings of the instance. This parameter is used to set the login password and key for the instance, or to keep the original login settings for the image. By default, a random password is generated and sent to the user via the internal message.
EnhancedService	EnhancedService object	No	This parameter is used to specify whether to enable Cloud Security, Cloud Monitoring and other services. If this parameter is not specified, the Cloud Monitoring and Cloud Security are enabled by default.

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. RequestId

Parameter	Type	Description
		is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
MissingParameter	A required parameter is missing in the request.
InvalidInstanceId.NotFound	The specified instance ID does not exist.
InvalidInstanceId.Malformed	The specified instance ID is in an incorrect format. For example, ins-1122 indicates an ID length error.
InvalidParameterValue	Parameter value is in an incorrect format or is not supported.
InvalidInstance.NotSupported	This operation is not supported for the instance.
InternalServerError	Tencent Cloud server error.

5. Example

```
https://cvm.api.qcloud.com/v2/index.php?Action=ResetInstance  
&Version=2017-03-12  
&InstanceId=ins-r8hr2upy
```

```
&ImageId=img-pmqg1cw7
&SystemDisk.DiskSize=60
&LoginSettings.Password=Qcloud@TestApi123++
&EnhancedService.SecurityService.Enabled=TRUE
&EnhancedService.MonitorService.Enabled=TRUE
&
```

[Output](#)

```
{
  "Response": {
    "RequestId": "a0a66377-b79f-4a21-846c-d997d6022968"
  }
}
```

Querying Price for Reinstalling Instance

1. API Description

This API (InquiryPriceResetInstance) is used to inquire the prices of reinstalled instances.

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

- If you have specified

`ImageId`

parameter, the price inquiry is performed with the specified image. Otherwise, the image used by the current instance is used.

- Currently, using this API for price inquiry of reinstalled instances after switching between

Linux

and

Windows

operating systems is only supported for the instances with a [system disk type](#) of

`CLOUD_BASIC`

,

`CLOUD_PREMIUM`

and

`CLOUD_SSD`

.

- For the instances in overseas regions, this feature is not supported.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceId	Yes	String	Instance ID. It can be obtained from InstanceId in the returned values of API DescribeInstances .
ImageId	String	No	Valid image ID, such as img-xxx. There are four types of images: Public Images Custom Images Shared Images Marketplace Images You can obtain the available image IDs by the following ways:

Parameter	Type	Required	Description
			For public images , custom images and shared images , log in to console to query the image IDs; for marketplace images , query the image IDs through Cloud Marketplace. This value can be obtained from the ImageId field in the returned values of API DescribeImages.
SystemDisk	SystemDisk object	No	Configuration information of instance's system disk. For the instances with a cloud

Parameter	Type	Required	Description
			disk as the system disk, you can specify the system disk capacity after re-installation using this parameter to allow the capacity expansion of the system disk. If the parameter is not specified, the system disk capacity remains unchanged by default. Only expansion, instead of reduction, is supported for system disk capacity. You can only modify the system disk capacity for re-installation. The system disk type cannot be modified.
LoginSettings	LoginSettings object	No	Login settings of the instance. This parameter is used to set the login password and key for the instance, or to keep the original login settings for the image. By default, a random password is generated and notified to the user via the internal message.
EnhancedService	EnhancedService object	No	To enhance the service. This parameter is used to

Parameter	Type	Required	Description
			specify whether to enable Cloud Security, Cloud Monitoring and other services. If this parameter is not specified, the Cloud Monitoring and Cloud Security are enabled by default.

3. Output Parameters

Parameter	Type	Description
Price	Price object	The price of the reinstalled instance.
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error Code	Description
MissingParameter	A required parameter is missing in the request.
InvalidInstanceId.NotFound	The specified instance ID does not exist.
InvalidInstanceId.Malformed	The specified instance ID is in an incorrect format. For example, ins-1122 indicates an ID length error.
InvalidParameterValue	Parameter value is in an incorrect format or is not supported.
InvalidInstance.NotSupported	This operation is not supported for the instance.
InternalServerError	Internal operation error.

5. Examples

Example 1

Price inquiry for a reinstalled prepaid instance:

Request Parameters

```
https://cvm.api.qcloud.com/v2/index.php?Action=InquiryPriceResetInstance
&Version=2017-03-12
&InstanceId=ins-2zvpghhc
&SystemDisk.DiskSize=50
&
```

[Response Parameters](#)

```
{
  "Response": {
    "Price": {
      "OriginalPrice": "9.46",
      "DiscountPrice": "9.46"
    }
  },
  "RequestId": "c2d86443-dcb7-4279-a06d-5b3b700451d4"
}
```

Example 2

Price inquiry for a reinstalled postpaid instance:

Request Parameters

<https://cvm.api.qcloud.com/v2/index.php?Action=InquiryPriceResetInstance>
[&Version=2017-03-12](#)
[&InstanceId=ins-fd8spnmq](#)
[&SystemDisk.DiskSize=50](#)
[&](#)

Response Parameters

```
{
  "Response": {
    "Price": {
      "InstancePrice": {
        "UnitPrice": 0.43,
        "ChargeUnit": "HOURLY"
      }
    }
  }
```

```
}  
}  
"RequestId": "2cc6136b-12f4-4632-bba4-386d7b76abec"  
}  
}
```

Expanding Disk Capability

1. API Description

This API (ResizeInstanceDisks) is used to scale up instance data disks.

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

- This API can only be used to expand disks purchased along with instances, and the [data disk type](#) must be:

`CLOUD_BASIC`

,

`CLOUD_PREMIUM`

or

`CLOUD_SSD`

.

- This API is not available to [CDH](#) instances.
- You can scale up ONLY ONE data disk each time.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For

InstanceId	String	Yes	the first version of this API, input "2017-03-12". ID(s) of one or more instances to be operated. It can be obtained from InstanceId in the returned values of API
DataDisks.N	Array of DataDisk objects	Yes	DescribeInstances . Configuration information of the data disk to be scaled up. Only data disks purchased along with the instances can be scaled up, and the following Data Disk Types are supported: CLOUD_BASIC , CLOUD_PREMIUM , CLOUD_SSD

. Unit: GB. Minimum increments: 10 GB. For more information on how to choose data disk type, please see [Overview of Data Disk Products](#). Supported data disks are subject to

InstanceType

. In addition, the maximum capacity available for expansion varies with different types of data disks.

ForceStop

Boolean

No

Querying Price for Expanding Disk Capability

1. API Description

This API (InquiryPriceResizeInstanceDisks) is used to query the prices of scaled-up instance data disks.

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

- For now, this API is only available to data disks purchased along with instances, and with the [disk type](#) of

`CLOUD_BASIC`

,

`CLOUD_PREMIUM`

, and

`CLOUD_SSD`

.

- For now, this API is NOT available to [CDH](#) instances.
- Currently, the price inquiry for only one scaled-up data disk is supported.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version

InstanceId	String	Yes	you are requesting. For the first version of this API, input "2017-03-12". ID(s) of one or more instances to be operated. It can be obtained from InstanceId in the returned values of API
DataDisks.N	array of DataDisk objects	Yes	DescribeInstances . Configuration information of the data disk to be scaled up. Only data disks purchased along with the instances can be scaled up, and the following Data Disk Types are supported: CLOUD_BASIC , CLOUD_PREMIUM , CLOUD_SSD

. Unit: GB. Minimum increments: 10 GB. For more information on how to choose data disk type, please see Overview of Data Disk Products. Supported data disks are subject to

InstanceType

. In addition, the maximum capacity available for expansion varies with different types of data disks.

ForceStop

Boolean

No

Adjusting Instance Configuration

1. API Description

This API (ResetInstancesType) is used to adjust instance model.

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

- Currently, using this API for adjusting models is only supported for the instances with a [system disk type](#) of

`CLOUD_BASIC`

,

`CLOUD_PREMIUM`

and

`CLOUD_SSD`

.

- Currently, this API cannot be used to adjust the models of [CDH](#) instances.
- Currently, model adjustment is not supported for different models and systems. That is, the

`InstanceType`

specified when you use this API and the original instance model need to be of the same series.

2. Input Parameters

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

Parameter	Required	Type	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	Yes	ID(s) of one or more instances to be operated. This can be obtained from InstanceId in the returned values of API DescribeInstances . The maximum number of instances for each request for batch operation is 1 for now.
InstanceType	String	Yes	Instance model. Different resource specifications are specified for different instance models. For specific values, please see Table of Resource Specifications. You can also obtain the latest specification list using the API "Query List of Instance Resource Specifications".

ForceStop

Boolean

No

Querying Price of New Bandwidth Cap

1. API Description

This API (InquiryPriceResetInstancesInternetMaxBandwidth) is used to inquire the prices of public network bandwidth with adjusted upper limit.

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

- Upper limit of bandwidth varies among different models. For details, please see [Purchase Network Bandwidth](#).
- For the bandwidth of

`TRAFFIC_POSTPAID_BY_HOUR`

,

`BANDWIDTH_POSTPAID_BY_HOUR`

, or

`BANDWIDTH_PACKAGE`

billing method, the bandwidth whose upper limit is adjusted using this API takes effect in real time. The bandwidth can be adjusted to a value higher or lower than the current value within an allowable range. The input of parameters

`StartTime`

and

`EndTime`

is not supported.

- The adjustment of bandwidth of

BANDWIDTH_POSTPAID_BY_MONTH

billing method is not supported for this API.

- Batch adjustment of bandwidth of BANDWIDTH_POSTPAID_BY_HOUR billing methods is not supported for this API.
- Batch adjustment of bandwidth of mixed billing methods is not supported for this API. For example, the bandwidth of

TRAFFIC_POSTPAID_BY_HOUR

and

BANDWIDTH_PACKAGE

billing methods cannot be adjusted at the same time.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	Array of Strings	Yes	ID(s) of one or more instances to be operated. This can be obtained from InstanceId

Parameter	Type	Required	Description
			in the returned values of API DescribeInstances . The maximum number of instances for each request for batch operation is 100.
InternetAccessible	InternetAccessible object	Yes	Configuration for the outbound bandwidth of public network. The upper limit of bandwidth varies among different models. For more information, please see Table of Bandwidth Limits. Currently, only the parameter InternetMaxBandwidthOutput is supported.

3. Output Parameters

Parameter	Type	Description
Price	Price object	The price of the adjusted bandwidth.
RequestId	String	Unique request ID. A unique "requestId" is returned for each request. In case of a failed call to

Parameter	Type	Description
		the API, "requestId" needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
MissingParameter	Missing parameter. A required parameter is missing in the request.
InvalidInstanceId.NotFound	Invalid instance ID . The specified instance ID does not exist.
InvalidInstanceId.Malformed	Invalid instance ID . The specified instance ID is in an incorrect format. For example, ins-1122

Error code	Description
	indicates an ID length error.
InvalidParameter	Invalid parameter. Parameter does not meet the requirement or is not supported.
InvalidParameterValue	Invalid parameter value. Parameter value is in an incorrect format or is not supported.
InvalidParameterValue.Range	Invalid parameter value. Invalid parameter value range.
InvalidInstance.NotSupported	This operation is not supported for the instance.
InvalidPermission	This operation is not supported for the account.
InvalidAccount.InsufficientBalance	The account balance is sufficient.
InvalidAccount.UnpaidOrder	There is an unpaid order related to this account.
InternalServerError	Internal service error.

5. Examples

Example

Adjusting the upper limit of bandwidth for an postpaid instance:

Request Parameters

```
https://cvm.api.qcloud.com/v2/index.php?Action=InquiryPriceResetInstancesInternetMaxBandwidth
&InstanceIds.1=ins-fd8spnmq
InternetAccessible.InternetMaxBandwidthOut=20
&DryRun=FALSE
```

&<Common request parameters>

Response Parameters

```
{
  "Response": {
    "Price": {
      "BandwidthPrice": {
        "UnitPrice": 0.8,
        "ChargeUnit": "GB"
      }
    },
    "RequestId": "700864b9-85da-4cb9-bc80-d99eaf9fa047"
  }
}
```

Querying Price of New Instance

1. API Description

This API (InquiryPriceResetInstancesType) is used to inquire the prices of adjusted instance models.

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

- Currently, using this API for inquiring the prices of adjusted models is only supported for the instances with a [system disk type](#) of

`CLOUD_BASIC`

,

`CLOUD_PREMIUM`

and

`CLOUD_SSD`

.

- Currently, this API cannot be used to inquire the prices of adjusted models for [CDH](#) instances.
- Currently, model adjustment is not supported for different models and systems. That is, the

`InstanceType`

specified when you use this API and the original instance model need to be of the same series.

2. Input Parameters

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

Parameter	Required	Type	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	Array of Strings	Yes	ID(s) of one or more instances to be operated. This can be obtained from InstanceId in the returned values of API DescribeInstances . The maximum number of instances for each request for batch operation is 1.
InstanceType	String	Yes	Instance model. Different resource specifications are specified for different instance models. For specific values, please see Table of Resource Specifications. You can also obtain the latest specification list using the API "Query List of Instance Resource Specifications".

ForceStop

Boolean

No

Modifying Instance Attributes

1. API Description

This API (ModifyInstancesAttribute) is used to modify the attributes of an instance (only the instance name can be modified now).

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

- "Instance name" is only used by users for easy management. This name is not used in ticket system or for instance operations.
- Batch operations are supported. The maximum number of instances for each request for batch operations is 100. For the instances that do not allow batch operations, an error code is returned.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version number, used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	String	Yes	IDs of one or more instances to be operated. This can be obtained from InstanceId

Parameter	Type	Required	Description
			in the returned values of API DescribeInstances . Up to 100 instances can be modified each time.
InstanceName	String	Yes	Instance name. This can be arbitrarily specified, but can not exceed 60 characters.

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
MissingParameter	Missing parameter. A required parameter is missing in the request.
InvalidInstanceId.NotFound	Invalid instance ID . The specified instance ID does not exist.
InvalidInstanceId.Malformed	Invalid instance ID . The specified instance ID is in an incorrect format. For example, ins-1122 indicates an ID length error.
InvalidParameterValue	Invalid parameter value. Parameter value is in an incorrect format or is not supported.
InvalidInstanceName.TooLong	Invalid instance name. The length of instance name exceeds the limit.
InvalidParameterValue.LimitExceeded	The number of parameter values exceeds the limit.

Error code	Description
InvalidInstance.NotSupported	This operation is not supported for the instance.
InternalServerError	Internal service error.

5. Example

Input

```
https://cvm.api.qcloud.com/v2/index.php?Action=ModifyInstancesAttribute
&Version=2017-03-12
&InstanceIds.1=ins-r8hr2upy
&InstanceIds.2=ins-5d8a23rs
&InstanceName=Mysql_Server
&
```

Output

```
{
  "Response": {
    "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"
  }
}
```

Adjusting Instance Bandwidth Cap

1. API Description

This API (ResetInstancesInternetMaxBandwidth) is used to adjust the public network bandwidth cap for instances.

Domain name for API request: cvm.api.qcloud.com

- Upper limit of bandwidth varies among different models. For details, please see [Purchase Network Bandwidth](#).
- For the bandwidth of

TRAFFIC_POSTPAID_BY_HOUR

,

BANDWIDTH_POSTPAID_BY_HOUR

, or

BANDWIDTH_PACKAGE

billing method, the bandwidth whose upper limit is adjusted using this API takes effect in real time. The bandwidth can be adjusted to a value higher or lower than the current value within an allowable range. The input of parameters

StartTime

and

EndTime

is not supported.

- The adjustment of bandwidth of

BANDWIDTH_POSTPAID_BY_MONTH

billing method is not supported for this API.

- Batch adjustment of bandwidth of

BANDWIDTH_POSTPAID_BY_HOUR

billing methods is not supported for this API.

- Batch adjustment of bandwidth of mixed billing methods is not supported for this API. For example, the bandwidth of

TRAFFIC_POSTPAID_BY_HOUR

and

BANDWIDTH_PACKAGE

billing methods cannot be adjusted at the same time.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	Yes	ID(s) of one or more instances to be operated. This can be obtained from

Parameter	Type	Required	Description
			InstanceId in the returned values of API DescribeInstances . The maximum number of instances for each request for batch operation is 100.
InternetAccessible	InternetAccessible object	Yes	Configuration for the outbound bandwidth of public network. The upper limit of bandwidth varies among different models. For more information, please see Table of Bandwidth Limits. Currently, only the parameter InternetMaxBandwidthOut is supported.

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. A unique "requestId" is returned for each request. In case of a failed call to

Parameter	Type	Description
		the API, "requestId" needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
MissingParameter	A required parameter is missing in the request.
InvalidInstanceId.NotFound	The specified instance ID does not exist.
InvalidInstanceId.Malformed	The specified instance ID is in an incorrect format. For example, ins-1122 indicates an ID length error.
InvalidParameter	Parameter does not meet the requirement or is not supported.
InvalidParameterValue	Invalid parameter value. Parameter value is in an incorrect format or is not supported.
InvalidParameterValue.Range	Invalid parameter value. Invalid parameter value range.
InvalidInstance.NotSupported	This operation is not supported for the instance.
InvalidPermission	This operation is not supported for the account.
InvalidAccount.InsufficientBalance	The account balance is sufficient.
InvalidAccount.UnpaidOrder	There is an unpaid order related to this account.
InternalServerError	Internal service error.

5. Example

Input

```
https://cvm.api.qcloud.com/v2/index.php?Action=ResetInstancesInternetMaxBandwidth
&Version=2017-03-12
&InstanceIds.1=ins-r8hr2upy
&InternetAccessible.InternetMaxBandwidthOut=10
&StartTime=2017-03-15
&EndTime=2017-03-16
&DryRun=FALSE
&
```

Output

```
{
  "Response": {
    "RequestId": "d39d6c09-44e9-4e80-8661-77b5ff3cbc15"
  }
}
```

Modifying Instance Project

1. API Description

This API (ModifyInstancesProject) is used to modify the project to which an instance belongs.

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

- A project is a virtual concept. A user can create multiple projects under an account, with different resources managed in each project. You can allocate different instances to different projects, and then use the API

[DescribeInstances](#)

to query instances. The project ID can be used to filter the results.

- The project of the instances bound with load balancers cannot be modified until the load balancers are unbound using the API

[DeregisterInstancesFromLoadBalancer](#)

.

- The security groups originally associated with the instances are automatically disassociated when the project of the instances is modified. You can use the API

[ModifySecurityGroupsOfInstance](#)

to associate security groups after modification.

- Batch operations are supported. The maximum number of instances for each request for batch operations is 100. For the instances that do not allow batch operations, an Error Code is returned.

2. Input Parameters

The following request parameter list only provides API request parameters. For other parameters,

please see [Common Request Parameters](#).

Parameter	Type	Required	Description
Version	String	Yes	API version number, used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	Array of Strings	Yes	ID(s) of one or more instances you want to modify. This can be obtained from InstanceId in the returned values of API DescribeInstances . The maximum number of instances in a batch for each request is 100.
ProjectId	Integer	Yes	Project ID. A project can be created using the API AddProject . During the query of instance using the API DescribeInstances , the project ID can be used to filter the results.

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
MissingParameter	Missing parameter. A required parameter is missing in the request.
InvalidInstanceId.NotFound	Invalid instance ID . The specified instance ID does not exist.
InvalidInstanceId.Malformed	Invalid instance ID

Error code	Description
	The specified instance ID is in an incorrect format. For example, ins-1122 indicates an ID length error.
InvalidParameterValue	Invalid parameter value. Parameter value is in an incorrect format or is not supported.
InvalidParameterValue.LimitExceeded	The number of parameter values exceeds the limit.
InvalidInstance.NotSupported	This operation is not supported for the instance.
InternalServerError	Internal operation error.

5. Example

Input

```
https://cvm.api.qcloud.com/v2/index.php?Action=ModifyInstancesProject
&Version=2017-03-12
&InstanceIds.1=ins-r8hr2upy
&InstanceIds.2=ins-5d8a23rs
&ProjectId=1045
&
```

[Output](#)

```
{  
  "Response": {  
    "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"  
  }  
}
```

Modifying Instance VPC

1. API Description

This API (UpdateInstanceVpcConfig) is used to modify VPC attributes, such as IP.

Domain name for API request: cvm.api.qcloud.com

- Instances are shut down by default when you perform this operation. Restart the instances upon completion of the operation.
- This operation cannot be performed under different VPC IDs.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version number, used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceId	String	Yes	ID of the instance you want to modify. It can be obtained from InstanceId in the returned values of API DescribeInstances

Parameter	Type	Required	Description
			.
VirtualPrivateCloud	VirtualPrivateCloud object	Yes	Configuration information of VPC. This parameter is used to specify VPC ID, subnet ID, VPC IP, etc.
ForceStop	Boolean	No	Whether to forced shutdown a running instance. Default is TRUE.

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. A unique "requestId" is returned for each request. In case of a failed call to the API, "requestId" needs to be provided when you contact the developer at backend.

Example of the Parameter Returned When the API Performs Normally

```
{
  "Response": {
    "RequestId": "d39d6c09-44e9-4e80-8661-77b5ff3cbc15"
  }
}
```

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
InvalidParameterValue	Parameter value is in an incorrect format or is not supported.
VpcAddrNotInSubNet	VPC IP is not in the subnet.
VpcIpIsUsed	This VPC IP is already occupied.
VpcIdNotMatch	This VpcId is different with that of the instance.
EniNotAllowedChangeSubnet	Operations on ENI cannot be performed in different subnets.

Resetting Instance Passwords

1. API Description

This API (ResetInstancePassword) is used to reset the password of the instance operating system to a user-specified value.

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

- This API only modifies the password of administrator account. The administrator account ID varies with the operating system of instance (e.g.,

Administrator

for

Windows

,

ubuntu

for

Ubuntu

, and

root

for other systems).

- To reset the password for a running instance, you need to explicitly specify the parameter

ForceStop

for a forced shutdown. If not, you can only reset password for the instances that have been shut down.

- Batch operations are supported. You can reset the passwords of multiple instance operating systems to the same value. The maximum number of instances in a batch for each request is 100. If any instance that does not allow batch operations exists in the batch, an [error code](#) is returned.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	Yes	ID(s) of one or more instances you are working with. This can be obtained from InstanceId in the returned values of API DescribeInstances . The maximum number of instances in a batch for each request is 100.
Password	String	Yes	

Image-related APIs

Checking Image List

1. API Description

This API (DescribeImages) is used to view the image list.

Domain name for API request: image.api.qcloud.com.

- You can query the details of the specified images by specifying image IDs, or set filters to query the details of the images that satisfy the filter conditions.
- You can specify Offset and Limit to select a part of the results. The information of the first 20 images satisfying the condition is returned by default.

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
ImageIds.N	array of Strings	No	

Creating Custom Images

1. API Description

This API (CreateImage) is used to create an new image from the system disk of an instance. The created image can be used to create instances.

Domain name for API request: image.api.qcloud.com.

- For your data security, shut down the instance before creating an image.
- An account can create a maximum of 10 custom images for each region.

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceId	String	Yes	

Deleting Images

1. API Description

This API (DeleteImages) is used to delete one or more images.

Domain name for API request: image.api.qcloud.com.

- The images with a [status](#) of

Creating

or

In Use

cannot be deleted. Image status can be obtained via API [DescribeImages](#).

- A maximum of 10 custom images are allowed to be created for each region. Deletion of images can free the quota on account.
- A shared image cannot be deleted.

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
ImageIds.N	array of Strings	Yes	

Modifying Image Attributes

1. API Description

This API (ModifyImageAttribute) is used to modify the image attributes.

Domain name for API request: image.api.qcloud.com.

- This API is NOT available to shared images.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
ImageId	String	Yes	

Syncing Images

1. API Description

This API (SyncImages) is used to synchronize a custom image to other regions.

Domain name for API request: image.api.qcloud.com.

- Each call to this API can only synchronize a single image.
- This API supports synchronizing to multiple regions.
- For a single account, a maximum of 10 custom images are allowed for each region.

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
ImageIds.N	array of Strings	Yes	

Modifying Image Sharing Status

1. API Description

This API (ModifyImageSharePermission) is used to modify the image sharing information.

Domain name for API request: image.api.qcloud.com.

- The accounts to which an image is shared can create instances from this image.
- Each custom image can be shared to a maximum of 50 accounts.
- A shared image can only be used to create instances and its name and description cannot be changed.
- An image can only be shared to the accounts in the same region as the source account.

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
ImageId	String	Yes	

Querying Image Sharing Status

1. API Description

This API (DescribeImageSharePermission) is used to query the information on image sharing, including the list of the accounts to which an image is shared.

Domain name for API request: image.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	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
ImageId	String	Yes	

EIP-related APIs

Querying EIP List

1. API Description

This API (DescribeAddresses) is used to query the details of one or more [Elastic IPs](#) (EIPs).

Domain name for API request: eip.api.qcloud.com

- If the parameter is empty, a certain number (specified by Limit, the default is 20) of EIPs are returned to the current user.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
AddressIds.N	Array of String	No	List of unique IDs of EIPs, such as eip-11112222 . AddressIds and

Parameter	Type	Required	Description
			Filters cannot be specified at the same time.
Filters.N	Array of Filter objects	No	Filter criteria can be found in Table of EIP Filter Criteria. The maximum number of Filters of each request is 10, and the maximum number of Filter.Values is 5. AddressIds and Filters cannot be specified at the same time.
Offset	Integer	No	Offset. Default is 0. For more information on offset, please see relevant

Parameter	Type	Required	Description
			sections in API Introduction .
Limit	Integer	No	Number of results to be returned. Default is 20. Maximum is 100. For more information on limit, please see relevant sections in API Introduction .

Table of EIP Filter Criteria

Parameter	Type	Required	Description
address-id	String	No	(Filter criteria) Filter by the unique EIP ID, such as eip-11112222 .
address-name	String	No	(Filter criteria) Filter by EIP name. Fuzzy filter is not supported.
address-ip	String	No	(Filter criteria) Filter by EIP address.
address-status	String	No	Filter by the EIP status. Value range: Please see EIP Status List .
instance-id	String	No	(Filter criteria) Filter by the ID of the instance to

which the EIP is bound,
such as

ins-11112222

.

(Filter criteria) Filter by
the private IP to which
the EIP is bound.

(Filter criteria) Filter by
the ID of the ENI to
which the EIP is bound,
such as

eni-11112222

.

private-ip-address String No

network-interface-id String No

is-arrears String No

Querying EIP Quota

1. API Description

This API (DescribeAddressQuota) is used to query the quota information of the [Elastic IP](#) (EIP) in your account in the current region. For more information about the EIP quota, please see [Overview of EIP Products](#).

Domain name for API request: eip.api.qcloud.com

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId

Parameter	Type	Description
		needs to be provided when you contact the developer at backend.
QuotaSet	Array of Quota objects	The information of EIP quota in an account

4. Sample Codes

Request Parameters

```
https://eip.api.qcloud.com/v2/index.php?Action=DescribeAddressQuota
&Version=2017-03-12
&
```

[Response Parameters](#)

```
{
  "Response": {
    {
      'QuotaSet': [
        {'QuotaId': 'TOTAL_EIP_QUOTA', 'QuotaCurrent': 0, 'QuotaLimit': 20},
        {'QuotaId': 'DAILY_EIP_APPLY', 'QuotaCurrent': 0, 'QuotaLimit': 40},
        {'QuotaId': 'DAILY_EIP_ASSIGN', 'QuotaCurrent': 0, 'QuotaLimit': 40},
      ]
    }
  }
  "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"
}
```

Modifying EIP Attributes

1. API Description

This API (ModifyAddressAttribute) is used to modify the name of an [Elastic IP](#) (EIP).

Domain name for API request: eip.api.qcloud.com

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
AddressId	String	Yes	The unique ID of an EIP, such as eip-11112222
AddressName	String	Yes	New name of the EIP, up to 20 characters.

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	Unique request ID. RequestId

Parameter Name	Type	Description
		is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
InvalidAddressId.NotFound	The specified EIP does not exist.
InvalidParameterValue.TooLong	The EIP name you set is too long. The EIP name cannot exceed 20 characters.
InvalidParameterValue	The parameter value is invalid.

5. Example

Input

```
https://eip.api.qcloud.com/v2/index.php?Action=ModifyAddressAttribute
&Version=2017-03-12
&AddressId=eip-p2x6wxc0
&AddressName=test_eip
&
```

[Output](#)

```
{
```

```
"Response": {  
"RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"  
}  
}
```

Creating EIP

1. API Description

This API (AllocateAddresses) is used to apply for one or more [Elastic IPs](#) (EIPs).

Domain name for API request: eip.api.qcloud.com

- EIP is a static IP address designed for dynamic cloud computing. With EIP, you can quickly remap the EIP to another instance, shielding off the instance failures.
- Your EIP is associated with a Tencent Cloud account, instead of an instance, until you choose to explicitly release it or your payment is more than seven days overdue.
- The platform imposes quotas on number of EIPs that a user can request for each region.

Please see [Overview of EIP Products](#). The above quotas can be obtained via API [DescribeAddressQuota](#).

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
AddressCount	Integer	No	The number of EIPs that can be requested. Value range: [1, 5]. Default is 1.

3. Output Parameters

Parameter	Type	Description

Parameter	Type	Description
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.
AddressSet	Array of Strings	List of unique IDs of the requested EIPs

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
AddressQuotaLimitExceeded	Account quota is exceeded. Up to 20 EIPs can be created by each Tencent Cloud account in each region.
AddressQuotaLimitExceeded.DailyAllocate	The maximum number of requests is exceeded. The maximum number of requests can be made by each Tencent Cloud account in each region equals to two times the quota.

5. Sample Codes

Input

```
https://eip.api.qcloud.com/v2/index.php?Action=AllocateAddresses
&Version=2017-03-12
&AddressCount=1
&
```

Output

```
{
  "Response": {
    "AddressSet": [
      "eip-m44ku5d2"
    ],
    "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"
  }
}
```

Releasing EIP

1. API Description

This API (ReleaseAddresses) is used to release one or more [Elastic IPs](#) (EIP).

Domain name for API request: eip.api.qcloud.com

- This operation cannot be undone. Once you release an EIP, the IP associated with the EIP no longer belong to your account.
- Only the EIP with a status of UNBIND is allowed to be released.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
AddressIds.N	Array of String	No	List of unique IDs of EIPs, such as eip-11112222

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID.

Parameter	Type	Description
		RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
InvalidAddressId.NotFound	The specified EIP does not exist.
InvalidAddressState	The EIP in the current status cannot be released. You can only release the EIP with a status of UNBIND.

5. Example

Input

```
https://eip.api.qcloud.com/v2/index.php?Action=ReleaseAddresses
&Version=2017-03-12
&AddressIds.1=eip-gzc5rgr2
&
```

[Output](#)

```
{  
  "Response": {  
    "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"  
  }  
}
```

Binding EIP

1. API Description

This API (AssociateAddress) is used to bind an [Elastic IP](#) (EIP) to a specified private IP of an instance or ENI.

Domain name for API request: eip.api.qcloud.com

- Essentially, binding an EIP to an instance means binding the EIP to the primary private IP of the primary ENI on the instance.
- When you bind an EIP to the primary private IP of a primary ENI, the previously bound public IP is automatically unbound and released.
- If the private IP of the specified ENI has bound an EIP, unbind the EIP before binding a new one.
- EIP that is in arrears or blocked cannot be bound.
- Only the EIP with a status of UNBIND is allowed to be bound.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
AddressId	String	Yes	The unique ID of an EIP, such as eip-11112222

Parameter	Type	Required	Description
			.
InstanceId	String	No	The ID of the instance to bind, such as ins-11112222 . You can obtain the instance ID by either of the following ways: query the instance ID via Console; obtain the instance ID from the InstanceId field of the returned values of API DescribeInstances.
NetworkInterfaceId	String	No	The ID of the ENI to bind, such as eni-11112222 . NetworkInterfaceId and InstanceId cannot be specified at the same time. You can

Parameter	Type	Required	Description
			obtain the ENI ID by either of the following ways: query the ENI ID via Console; obtain the ENI ID from the <code>networkInterfaceId</code> field of the returned values of API DescribeNetworkInterfaces.
PrivateIpAddress	String	No	The private IP to bind. If <code>NetworkInterfaceId</code> is specified, <code>PrivateIpAddress</code> must also be specified, which means binding an EIP to the specified private IP of the specified ENI. Make sure that the specified <code>PrivateIpAddress</code> is a private IP of the specified <code>NetworkInterfaceId</code>.

Parameter	Type	Required	Description
			. You can obtain the private IP of a specified ENI by either of the following ways: query the private IP via Console; obtain the private IP from the privateIpAddress field of the returned values of API DescribeNetworkInterfaces.

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
InvalidAddressId.NotFound	The specified EIP does not exist.
InvalidAddressId.Blocked	The specified EIP is blocked. You cannot bind the EIP until it is unblocked.
InvalidAddressIdState.InArrears	The specified EIP is in arrears.
InvalidAddressIdStatus.NotPermit	The EIP in the current status cannot be bound. You can only bind the EIP with a status of UNBIND.
InvalidInstanceId.NotFound	The specified instance ID does not exist.
InvalidInstanceId.AlreadyBindEip	The instance has bound an EIP. You need to unbind the EIP before binding another one.
InvalidInstance.NotSupported	The EIP cannot be bound to the instance in the current status.
InvalidNetworkInterfaceId.NotFound	The specified NetworkInterfaceId does not exist or the specified PrivateIpAddress is not on NetworkInterfaceId .
InvalidPrivateIpAddress.AlreadyBindEip	The specified private IP of the specified ENI has bound an EIP. You cannot bind another EIP for the private IP.
InvalidParameterConflict	The specified two parameters conflict. The EIP can only be bound to the instance or the specified

Error code	Description
	private IP of the specified ENI.
MissingParameter	The required parameter is missing. NetworkInterfaceId and PrivateIpAddress must be specified at the same time, indicating that binding the EIP to the specified private IP of the specified ENI.
MissingResourceId	The instance to bind is missing. Either InstanceId or NetworkInterfaceId and PrivateIpAddress must be specified.

5. Sample Codes

Example 1

Bind an EIP to an instance:

Request Parameters

<https://cvm.api.qcloud.com/v2/index.php?Action=AssociateAddress>
[&Version=2017-03-12](#)
[&AddressId=eip-ek0cdz1g](#)
[&InstanceId=ins-1bmpb9tu](#)
[&](#)

[Response Parameters](#)

```
{  
  "Response": {  
    "RequestId": "3c140219-cfe9-470e-b241-907877d6fb03"  
  }  
}
```

[Example 2](#)

[Bind an EIP to the specified private IP of the specified ENI:](#)

[Request Parameters](#)

<https://cvm.api.qcloud.com/v2/index.php?Action=AssociateAddress>
[&Version=2017-03-12](#)
[&AddressId=eip-ek0cdz1g](#)
[&NetworkInterfaceId=eni-8x55qvrh](#)
[&PrivateIpAddress=10.0.0.2](#)
[&](#)

[Response Parameters](#)

```
{  
  "Response": {  
    "RequestId": "3c140219-cfe9-470e-b241-907877d6fb03"  
  }  
}
```

Unbinding EIP

1. API Description

This API (DisassociateAddress) is used to unbind an [Elastic IP](#) (EIP).

Domain name for API request: eip.api.qcloud.com

- You can only unbind the EIP with a status of BIND or BIND_ENI.
- The blocked EIP cannot be unbound.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
AddressId	String	Yes	The unique ID of an EIP, such as eip-11112222
ReallocateNormalPublicIp	String	No	.

Changing a General IP to EIP

1. API Description

This API (TransformAddress) is used to change an ordinary public IP into an [Elastic IP](#) (EIP).

Domain name for API request: eip.api.qcloud.com

- Tencent Cloud imposes quotas on the number of ordinary public IPs that a user can re-assign for each region per day after the EIP is unbound. Please see [Overview of EIP Products](#). The above quotas can be obtained via API [DescribeAddressQuota](#).

2. Input Parameters

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

Parameter Type	Required	Description
Version	String	Yes
InstanceId	String	Yes

Parameter Type	Required	Description

3. Output Parameters

Parameter	Type	Description
RequestId	String	Unique request ID. RequestId is returned for each request. In case of a failed call to the API, RequestId needs to be provided when you contact the developer at backend.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional error codes, please see [Common Error Codes](#).

Error code	Description
AddressQuotaLimitExceeded	Account quota is exceeded. At most 20 EIPs can be created by each Tencent Cloud account in each region.

Error code	Description
AddressQuotaLimitExceeded.DailyAllocate	The maximum number of requests is exceeded. The maximum number of requests can be made by each Tencent Cloud account in each region equals to two times the quota.
InvalidInstanceId.NotFound	The instance ID does not exist.
InvalidInstanceState	The ordinary public IP cannot be transformed to EIP for the instance in the current status.
InvalidInstance.NotSupported	The ordinary public IP cannot be transformed to EIP for the specified instance.

5. Sample Codes

Input

```
https://eip.api.qcloud.com/v2/index.php?Action=TransformAddress
&Version=2017-03-12
&InstanceId=ins-3ea0qeu6
&
```

[Output](#)

```
{
  "Response": {
    "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"
  }
}
```

Key-related APIs

Querying Key Pair List

1. API Description

This API (DescribeKeyPairs) is used to query key pair information.

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

- [Key Pair](#) is a pair of keys generated with an algorithm. In the generated key pair, one key is open to the public and called public key, and the other key is kept by user and called private key. The public key content of the key can be queried through this API, but the private key content is not retained by system.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
KeyIds.N	Array of Strings	No	ID of key pair, such as skey-11112222 (This API supports filtering multiple IDs at the same time. For the format of this parameter, please see the

Parameter	Type	Required	Description
			id.N section in API Introduction). This parameter does not support specifying both KeyIds and Filters . The key pair ID can be queried by logging in to the console.
Filters.N	Array of Filter objects	No	Filter condition. For more information, please see the Key Pair Filter Condition Table. This parameter does not support specifying both KeyIds and Filters .
Offset	Integer	No	Offset. Default is 0. For more information, please

Parameter	Type	Required	Description
			see the relevant section in API Introduction .
Limit	Integer	No	Number of results to be returned. Default is 20. Maximum is 100. For more information, please see the relevant section in API Introduction .

Key Pair Filter Condition Table

Parameter	Type	Required	Description
project-id	Integer	No	

Creating Key Pair

1. API Description

This API (CreateKeyPair) is used to create an

OpenSSH RSA

key pair to be used for login to

Linux

instances.

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

- Developers only need to specify the key name, and the system can automatically create a key pair and return the ID of the generated key pair as well as its public and private keys.
- The name of key pair must be unique.
- The private key can be saved to a file as an authentication method for

SSH

- Tencent Cloud does not retain user's private key. Please keep it well.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version

			you are requesting. For the first version of this API, input "2017-03-12".
KeyName	String	Yes	Name of key pair, which can consist of numbers, letters, and underscores, with a length of not more than 25 characters.
ProjectId	Integer	Yes	

Modifying Key Pair Attributes

1. API Description

This API (ModifyKeyPairAttribute) is used to modify the attributes of key pairs.

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

- Modify the name and description of the key pair specified with the key pair ID.
- The name of key pair must be unique.
- Key pair ID is the unique identifier of key pair and cannot be modified.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
KeyId	String	Yes	

Deleting Key Pair

1. API Description

This API (DeleteKeyPairs) is used to delete the key pairs hosted in Tencent Cloud.

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

- You can delete multiple key pairs at the same time.
- The key pair referenced by an instance or image cannot be deleted. You need to verify whether all the key pairs have been deleted successfully.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
KeyIds.N	Array of Strings	Yes	

Importing Key Pair

1. API Description

This API (ImportKeyPair) is used to import key pairs.

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

- This API is designed to import the key pair to the user account, instead of binding it to an instance automatically. You can bind the key pair to an instance using API [AssociateInstancesKeyPair](#).
- The key pair name and the public key text of the key pair need to be specified.
- If you have only the private key, you can convert the private key to a public key using

SSL

tool before importing it.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
KeyName	String	Yes	Name of key pair, which can consist of numbers, letters, and underscores, with a length of not more than 25 characters.

ProjectId	Integer	Yes
-----------	---------	-----

Binding Key Pair

1. API Description

This API (AssociateInstancesKeyPairs) is used to bind a key pair to an instance.

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

- Only

Linux

instances with a status of

[STOPPED](#)

are supported.

- When the public key of a key pair is written to the

SSH

configuration of the instance, user can log in to the instance through the private key of the key pair.

- If the instance has been bound to a key, the original key will become invalid.
- If the instance was originally logged in through a password, the password becomes unavailable after the key is bound to the instance.
- Batch operations are supported. The maximum number of instances in a batch for each request is 100. If any instance that does not allow batch operations exists in the batch, a specific error code is returned.

2. Input Parameters

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

Parameter	Type	Required	Description
Version	String	Yes	API version No., used to identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	Yes	

Unbinding Key Pair

1. API Description

This API (DisassociateInstancesKeyPairs) is used to unbind a key pair from an instance.

Domain name for API request: cvm.api.qcloud.com

- Only

Linux

instances with a status of

[STOPPED](#)

are supported.

- After the key pair is unbound, the instance can be logged in with the original password.
- If no password was set, you cannot log in to the instance using

SSH

after unbinding. You can call API [ResetInstancesPassword](#) to set a login password.

- Batch operations are supported. The maximum number of instances in a batch for each request is 100. If any instance that does not allow batch operations exists in the batch, an [error code] is returned.

2. Input Parameters

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

Parameter Name	Type	Required	Description
Version	String	Yes	API version No., used to

			identify the API version you are requesting. For the first version of this API, input "2017-03-12".
InstanceIds.N	array of Strings	Yes	

Parameter Values

INSTANCE_STATE

The entire life cycle of an instance.

ID	Description
PENDING	Preparing
RUNNING	Running
STOPPED	Stopped
REBOOTING	Restarting
STARTING	Starting
STOPPING	Stopping

REGION

List of regions

ID	Description
ap-guangzhou	Guangzhou
ap-shanghai	Shanghai
ap-hongkong	Hong Kong
na-toronto	North America
ap-shanghai-fsi	Shanghai Finance
ap-beijing	Beijing
ap-singapore	Singapore
ap-shenzhen-fsi	Shenzhen Finance
ap-guangzhou-open	Guangzhou Open
ap-seoul	Seoul
ap-singapore	Singapore
eu-frankfurt	Frankfurt
na-siliconvalley	Silicon Valley
na-toronto	Toronto

ZONE

List of availability zones

ID	Description
ap-guangzhou-1	Guangzhou Zone 1
ap-guangzhou-2	Guangzhou Zone 2
ap-guangzhou-3	Guangzhou Zone 3
ap-guangzhou-4	Guangzhou Zone 4
ap-shanghai-1	Shanghai Zone 1
ap-shanghai-2	Shanghai Zone 2
ap-hongkong-1	Hong Kong Zone 1
ap-beijing-1	Beijing Zone 1
ap-beijing-2	Beijing Zone 2
ap-shanghai-fsi-1	Shanghai Finance Zone 1
ap-shanghai-fsi-2	Shanghai Finance Zone 2
ap-chengdu-1	Chengdu Zone 1
ap-chengdu-2	Chengdu Zone 2
ap-shenzhen-fsi-1	Shenzhen Finance Zone 1
ap-shenzhen-fsi-2	Shenzhen Finance Zone 2
ap-guangzhou-open-1	Guangzhou Open Zone
ap-seoul-1	Seoul Zone 1
ap-singapore-1	Singapore Zone 1
eu-frankfurt-1	Frankfurt Zone 1
na-siliconvalley-1	Silicon Valley Zone 1
na-toronto-1	Toronto Zone 1

BLOCK_DEVICE

Disk types

ID	Description
----	-------------

ID	Description
LOCAL_BASIC	Local HDD
LOCAL_SSD	Local SSD
CLOUD_BASIC	HDD cloud disk
CLOUD_PREMIUM	Premium cloud disk
CLOUD_SSD	SSD cloud disk

AUTO_RENEW

The method of auto renewal

ID	Description
NOTIFY_AND_MANUAL_RENEW	Notify without auto renewal (notify expiry but not renew automatically)
NOTIFY_AND_AUTO_RENEW	Notify with auto renewal (notify expiry and renew automatically)
DISABLE_NOTIFY_AND_MANUAL_RENEW	No notification or auto renewal (neither notify expiry nor renew automatically)

INSTANCE_PAID

The billing method of an instance

ID	Description
POSTPAID_BY_HOUR	Postpaid
CDHPAID	Charge only the CDH but not the instances on it

NETWORK_PAID

Network billing method

ID	Description
----	-------------

ID	Description
BANDWIDTH_POSTPAID_BY_MONTH	Postpaid on a monthly basis
TRAFFIC_POSTPAID_BY_HOUR	Bill by traffic
BANDWIDTH_POSTPAID_BY_HOUR	Bill by bandwidth usage time
BANDWIDTH_PACKAGE	Bill by bandwidth package

IMAGE_SOURCE

Image source

ID	Description
OFFICIAL	Images from Tencent Cloud.
IMAGE_CREATE	Images generated from official images by means of creating instance images.
EXTERNAL_IMPORT	Images generated from images imported from external resources.

ZONE_STATE

Availability zone status

ID	Description
AVAILABLE	Available
UNAVAILABLE	Unavailable

IMAGE_TYPE

Image type

ID	Description
PRIVATE_IMAGE	Private images (images created by current account)

ID	Description
PUBLIC_IMAGE	Public images (images from Tencent Cloud)
MARKET_IMAGE	Service marketplace images (images provided by service marketplace)
SHARED_IMAGE	Shared images (images shared by other accounts to current account)

IMAGE_STATE

Image status

ID	Description
CREATING	Creating
NORMAL	Normal
USING	Using
SYNCING	Syncing
IMPORTING	Importing
DELETING	Deleting

EIP_STATE

EIP status

ID	Description
CREATING	Creating
BINDING	Binding
BIND	Bound
UNBINDING	Unbinding
UNBIND	Unbound
OFFLINING	Deactivating
CREATE_FAILED	Creation failed
BIND_ENI	Bound to ENI which is not mounted to an instance