Cloud Virtual Machine

API Documentation

Product Documentation
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History

Last updated: 2020-10-16 18:38:19

Release 4

Release time: 2020-10-16 18:37:39
Release updates:
Improvement to existing documentation.
Modified APIs:
- RunInstances
  - New input parameters: CamRoleName

Release 3

Release time: 2020-09-17 17:18:14
Release updates:
Improvement to existing documentation.
New APIs:
- DescribeReservedInstancesConfigInfos
- DescribeSpotTypeConfig
- InquirePricePurchaseReservedInstancesOffering
Modified APIs:
- PurchaseReservedInstancesOffering
  - New input parameters: ReservedInstanceName
New data structures:
- ReservedInstanceConfigInfoItem
- ReservedInstanceFamilyItem
- ReservedInstancePrice
- ReservedInstancePriceItem
- ReservedInstanceTypeItem
Modified data structures:
- ReservedInstances
  - New members: InstanceFamily

Release 2

Release time: 2020-08-13 23:15:35
Release updates:

Improvement to existing documentation.

Modified APIs:

- InquiryPriceRunInstances
  - New input parameters: HpcClusterId

- RunInstances
  - New input parameters: HpcClusterId

Modified data structures:

- Instance
  - New members: HpcClusterId, RdmaIpAddresses

Existing Release

Release time: 2020-07-24 14:16:18

Existing APIs/data structures are as follows:

Improvement to existing documentation.

Existing APIs:

- AllocateHosts
- AssociateInstancesKeyPairs
- AssociateSecurityGroups
- CreateDisasterRecoverGroup
- CreateImage
- CreateKeyPair
- DeleteDisasterRecoverGroups
- DeleteImages
- DeleteKeyPairs
- DescribeDisasterRecoverGroupQuota
- DescribeDisasterRecoverGroups
- DescribeHosts
- DescribeImageQuota
- DescribeImageSharePermission
- DescribeImages
- DescribeImportImageOs
- DescribeInstanceFamilyConfigs
- DescribeInstanceTypeConfigs
- DescribeInstanceVncUrl
- DescribeInstances
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- DescribeInstancesStatus
- DescribeInternetChargeTypeConfigs
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- InquiryPriceResetInstancesType
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- InquiryPriceRunInstances
- ModifyDisasterRecoverGroupAttribute
- ModifyHostsAttribute
- ModifyImageAttribute
- ModifyImageSharePermission
- ModifyInstancesAttribute
- ModifyInstancesProject
- ModifyInstancesVpcAttribute
- ModifyKeyPairAttribute
- RebootInstances
- ResetInstance
- ResetInstancesInternetMaxBandwidth
- ResetInstancesPassword
- ResetInstancesType
- ResizeInstanceDisks
- RunInstances
- StartInstances
- StopInstances
- SyncImages
- TerminateInstances

Existing data structures:
- ActionTimer
- ChargePrepaid
- DataDisk
- DisasterRecoverGroup
- EnhancedService
- Externals
- Filter
- HostItem
- HostResource
- Image
- ImageOsList
- Instance
- InstanceChargePrepaid
- InstanceFamilyConfig
- InstanceMarketOptionsRequest
- InstanceStatus
- InstanceTypeConfig
- InstanceTypeQuotaItem
- InternetAccessible
- InternetChargeTypeConfig
- ItemPrice
- KeyPair
- LocalDiskType
- LoginSettings
- OperationCountLimit
- OsVersion
- Placement
- Price
- RegionInfo
- RunMonitorServiceEnabled
- RunSecurityServiceEnabled
- SharePermission
- Snapshot
- SpotMarketOptions
- StorageBlock
- SystemDisk
- Tag
- TagSpecification
- VirtualPrivateCloud
- ZoneInfo
Introduction

Welcome to Cloud Virtual Machine (CVM).

CVM runs at the Tencent IDC and provides scalable computing services. It can be used to build and host software systems based on your business needs.

CVM provides elastic computing, storage, and network resources. This API documentation describes the APIs used in CVM, such as creating, terminating, and restarting CVM instances as well as bandwidth adjustment. Samples are also provided for reference. For a complete list of actions, see API Overview.

Please ensure that you are familiar with the concept of CVM before using these APIs.

Notes:
- All CVM APIs described in this chapter have been upgraded to API 3.0. All new CVM features will be updated in this chapter. It is recommended that you use API 3.0.
- The features of old version APIs remain available. For more information, see CVM API Overview (Old Version).

Glossary

The following table introduces the common terms used in the CVM API documentation.

<table>
<thead>
<tr>
<th>Term</th>
<th>Full Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instance</td>
<td>Instance</td>
<td>A CVM.</td>
</tr>
<tr>
<td>Region</td>
<td>Region</td>
<td>A region where resources are located. Each region contains one or more availability zones.</td>
</tr>
<tr>
<td>AZ</td>
<td>Availability Zone</td>
<td>A physical IDC of Tencent Cloud with independent power supply and network resources within a region. Availability zones are designed to ensure business stability because failures within an availability zone are isolated without affecting other availability zones within the same region.</td>
</tr>
<tr>
<td>Image</td>
<td>Image</td>
<td>A copy of the software environment on a CVM instance, which generally includes the operating system and installed software. Images are used to create instances.</td>
</tr>
<tr>
<td>Security Group</td>
<td>Security Group</td>
<td>A stateful virtual firewall with packet filtering feature. As a critical network security isolation method, security groups are used to control the network access to CVM instances.</td>
</tr>
<tr>
<td>EIP</td>
<td>Elastic IP</td>
<td>A type of public IP. Unlike an ordinary public IP, an EIP is bound to a user account rather than an instance. The mapping relationship between an instance and a public IP can be changed at any time.</td>
</tr>
<tr>
<td>Pay-as-you-go</td>
<td>Pay-as-you-go</td>
<td>A billing mode. For more information, see Billing Modes.</td>
</tr>
</tbody>
</table>

Description of input and output parameters

- **Limit** and **Offset**

  These parameters are used for pagination control. **Limit** indicates the maximum number of entries returned at a time, and **Offset** indicates the offset value. If the number of results exceeds the value of **Limit**, the number of returned results will be equal to the value of **Limit**.
For example, if Offset is set to 0 and Limit is set to 20, the 0th to 19th entries are returned; if Offset is set to 20 and Limit is set to 20, the 20th to 39th entries are returned; if Offset is set to 40 and Limit is set to 20, the 40th to 59th entries are returned.

- Ids.N

Format for inputting multiple parameters at a time. If a parameter is in such a format, you can specify multiple values for the parameter. For example:

GET request or POST x-www-form-urlencoded request:  
Ids.0=ins-r8hr2upy&Ids.1=ins-5d8a23rs&Ids.2=ins--dcs9x3gz

N starts from 0.

POST JSON request:  
{"Ids": ["ins-r8hr2upy", "ins-5d8a23rs", "ins--dcs9x3gz"]}

Getting Started with APIs

The following section describes how to call CVM APIs in some typical use cases:

1. To create a pay-as-you-go instance, call the RunInstances API by providing the availability zone ID, image ID, model, and other required request parameters.

2. To upgrade the configuration of an instance, call the ResetInstancesType API. You can change the instance model to change its CPU and memory.

3. To shut down the instance, call the StopInstances API.

4. If the instance is no longer required, call the TerminateInstances API to terminate the instance. A terminated instance is no longer billed.

Use Limits

- CVMs created via APIs are subject to the quota described in CVM Purchase Limits. This quota is shared with CVMs created via console.

- For more information, see related API documentation or product documentation.
### API Category

**Last updated:** 2020-10-16 18:38:19

#### Region APIs

<table>
<thead>
<tr>
<th>API Name</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>DescribeRegions</td>
<td>Queries the list of regions</td>
</tr>
<tr>
<td>DescribeZones</td>
<td>Queries a list of availability zones</td>
</tr>
</tbody>
</table>

#### Instance APIs

<p>| API Name                          | Feature                                                        |
|-----------------------------------|                                                               |
| DescribeInstances                 | Views the list of instances                                   |
| DescribeInstanceFamilyConfigs     | Queries supported instance model families                     |
| DescribeZoneInstanceConfigInfos   | Queries the configurations of models in an availability zone  |
| DescribeInstanceTypeConfigs       | Queries the list of instance models                          |
| DescribeInstancesOperationLimit    | Queries limitations on operations on an instance               |
| DescribeInstanceVncUrl            | Queries the VNC URL of an instance                           |
| InquiryPriceRunInstances          | Queries the price of creating instances                       |
| InquiryPriceResetInstance         | Queries the price of instance reinstallation                  |
| InquiryPriceResetInstancesType    | Queries the price of an instance with a new configuration      |
| InquiryPriceResizeInstanceDisks   | Queries the capacity price of an instance after disk expansion|
| RunInstances                      | Creates instances                                             |
| StartInstances                    | Starts instances                                              |
| RebootInstances                   | Restarts instances                                            |
| StopInstances                     | Shuts down instances                                          |
| ResetInstance                     | Reinstalls the OS of an instance                              |
| ResetInstancesType                | Changes the model of an instance                              |
| ResizeInstanceDisks               | Expands the disk capacity of an instance                       |
| ResetInstancesPassword            | Resets instance passwords                                     |
| ModifyInstancesAttribute          | Modifies instance attributes                                  |
| ModifyInstancesProject            | Modifies the project of an instance                           |
| DescribeInstancesStatus           | Views the list of instance status                             |
| DescribeReservedInstances         | Lists reserved instances that have been purchased              |</p>
<table>
<thead>
<tr>
<th>API Name</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>DescribeReservedInstancesConfigInfos</td>
<td>Queries reserved instance configurations</td>
</tr>
<tr>
<td>DescribeReservedInstancesOfferings</td>
<td>Describes Reserved Instance offerings</td>
</tr>
<tr>
<td>DescribeSpotTypeConfig</td>
<td>Queries the availability zone of spot instances</td>
</tr>
<tr>
<td>InquirePricePurchaseReservedInstancesOffering</td>
<td>Queries the price of reserved instance offerings</td>
</tr>
<tr>
<td>PurchaseReservedInstancesOffering</td>
<td>Purchases Reserved Instances</td>
</tr>
<tr>
<td>TerminateInstances</td>
<td>Returns instances</td>
</tr>
</tbody>
</table>

**CDH APIs**

<table>
<thead>
<tr>
<th>API Name</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>DescribeHosts</td>
<td>Views the list of CDH instances</td>
</tr>
<tr>
<td>AllocateHosts</td>
<td>Creates CDH instances</td>
</tr>
<tr>
<td>ModifyHostsAttribute</td>
<td>Modifies the attributes of a CDH instance</td>
</tr>
</tbody>
</table>

**Placement Group APIs**

<table>
<thead>
<tr>
<th>API Name</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>DescribeDisasterRecoverGroups</td>
<td>Queries information on spread placement groups</td>
</tr>
<tr>
<td>DescribeDisasterRecoverGroupQuota</td>
<td>Queries the quota of placement groups</td>
</tr>
<tr>
<td>CreateDisasterRecoverGroup</td>
<td>Creates a spread placement group</td>
</tr>
<tr>
<td>ModifyDisasterRecoverGroupAttribute</td>
<td>Modifies spread placement group attributes</td>
</tr>
<tr>
<td>DeleteDisasterRecoverGroups</td>
<td>Deletes a spread placement group</td>
</tr>
</tbody>
</table>

**Image APIs**

<table>
<thead>
<tr>
<th>API Name</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>DescribeImages</td>
<td>Views the list of images</td>
</tr>
<tr>
<td>DescribeImageSharePermission</td>
<td>Views image sharing information</td>
</tr>
<tr>
<td>DescribeImportImageOs</td>
<td>Queries the list of supported operating systems of imported images</td>
</tr>
<tr>
<td>DescribeImageQuota</td>
<td>Queries image quota</td>
</tr>
<tr>
<td>ModifyImageSharePermission</td>
<td>Modifies image sharing information</td>
</tr>
<tr>
<td>SyncImages</td>
<td>Syncs an image</td>
</tr>
<tr>
<td>ModifyImageAttribute</td>
<td>Modifies image attributes</td>
</tr>
<tr>
<td>DeleteImages</td>
<td>Deletes images</td>
</tr>
</tbody>
</table>
### Import Image
- Imports images

### Create Image
- Creates an image

## Key APIs

<table>
<thead>
<tr>
<th>API Name</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>DescribeKeyPairs</td>
<td>Queries the list of key pairs</td>
</tr>
<tr>
<td>CreateKeyPair</td>
<td>Creates a key pair</td>
</tr>
<tr>
<td>AssociateInstancesKeyPairs</td>
<td>Associates a key with an instance</td>
</tr>
<tr>
<td>DisassociateInstancesKeyPairs</td>
<td>Disassociates key pairs from instances</td>
</tr>
<tr>
<td>DeleteKeyPairs</td>
<td>Deletes key pairs</td>
</tr>
<tr>
<td>ModifyKeyPairAttribute</td>
<td>Modifies key pair attributes</td>
</tr>
<tr>
<td>ImportKeyPair</td>
<td>Imports key pairs</td>
</tr>
</tbody>
</table>

## Security Group APIs

<table>
<thead>
<tr>
<th>API Name</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>AssociateSecurityGroups</td>
<td>Associates security groups with instances</td>
</tr>
<tr>
<td>DisassociateSecurityGroups</td>
<td>Disassociates security groups from instances</td>
</tr>
</tbody>
</table>

## Network APIs

<table>
<thead>
<tr>
<th>API Name</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>DescribeInternetChargeTypeConfigs</td>
<td>Queries the network billing methods</td>
</tr>
<tr>
<td>InquiryPriceResetInstancesInternetMaxBandwidth</td>
<td>Queries the price of public network bandwidth for an instance with a new maximum bandwidth</td>
</tr>
<tr>
<td>ResetInstancesInternetMaxBandwidth</td>
<td>Changes the maximum public network bandwidth of an instance</td>
</tr>
<tr>
<td>ModifyInstancesVpcAttribute</td>
<td>Modifies instance VPC attributes</td>
</tr>
</tbody>
</table>
1. Service Address

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

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

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

Tencent Cloud currently supports the following regions:

<table>
<thead>
<tr>
<th>Hosted region</th>
<th>Domain name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local access region (recommended, only for non-financial availability zones)</td>
<td>cvm.tencentcloudapi.com</td>
</tr>
<tr>
<td>South China (Guangzhou)</td>
<td>cvm.ap-guangzhou.tencentcloudapi.com</td>
</tr>
<tr>
<td>East China (Shanghai)</td>
<td>cvm.ap-shanghai.tencentcloudapi.com</td>
</tr>
<tr>
<td>North China (Beijing)</td>
<td>cvm.ap-beijing.tencentcloudapi.com</td>
</tr>
<tr>
<td>Southwest China (Chengdu)</td>
<td>cvm.ap-chengdu.tencentcloudapi.com</td>
</tr>
<tr>
<td>Southwest China (Chongqing)</td>
<td>cvm.ap-chongqing.tencentcloudapi.com</td>
</tr>
<tr>
<td>Hong Kong, Macao, Taiwan (Hong Kong, China)</td>
<td>cvm.ap-hongkong.tencentcloudapi.com</td>
</tr>
<tr>
<td>Southeast Asia (Singapore)</td>
<td>cvm.ap-singapore.tencentcloudapi.com</td>
</tr>
<tr>
<td>Southeast Asia (Bangkok)</td>
<td>cvm.ap-bangkok.tencentcloudapi.com</td>
</tr>
<tr>
<td>South Asia (Mumbai)</td>
<td>cvm.ap-mumbai.tencentcloudapi.com</td>
</tr>
<tr>
<td>Northeast Asia (Seoul)</td>
<td>cvm.ap-seoul.tencentcloudapi.com</td>
</tr>
<tr>
<td>Northeast Asia (Tokyo)</td>
<td>cvm.ap-tokyo.tencentcloudapi.com</td>
</tr>
<tr>
<td>U.S. East Coast (Virginia)</td>
<td>cvm.na-ashburn.tencentcloudapi.com</td>
</tr>
<tr>
<td>U.S. West Coast (Silicon Valley)</td>
<td>cvm.na-siliconvalley.tencentcloudapi.com</td>
</tr>
<tr>
<td>North America (Toronto)</td>
<td>cvm.na-toronto.tencentcloudapi.com</td>
</tr>
<tr>
<td>Europe (Frankfurt)</td>
<td>cvm.eu-frankfurt.tencentcloudapi.com</td>
</tr>
<tr>
<td>Europe (Moscow)</td>
<td>cvm.eu-moscow.tencentcloudapi.com</td>
</tr>
</tbody>
</table>

*Note: As financial availability zones and non-financial availability zones are isolated, when accessing the services in a financial availability zone (with the common parameter Region specifying a financial availability zone), it is
necessary to specify a domain name of the financial availability zone, preferably in the same region as specified in Region.

<table>
<thead>
<tr>
<th>Access region for financial availability zone</th>
<th>Domain name for financial availability zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>East China (Shanghai Finance)</td>
<td>cvm.ap-shanghai-fsi.tencentcloudapi.com</td>
</tr>
<tr>
<td>South China (Shenzhen Finance)</td>
<td>cvm.ap-shenzhen-fsi.tencentcloudapi.com</td>
</tr>
</tbody>
</table>

2. Communications Protocol

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

3. Request Methods

Supported HTTP request methods:

- POST (recommended)
- GET

The Content-Type types supported by POST requests:

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

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

4. Character Encoding

Only UTF-8 encoding is used.
Common Parameters

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

Signature Algorithm v3

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-TC-Action</td>
<td>String</td>
<td>Yes</td>
<td>The name of the API for the desired operation. For the specific value, see the description of common parameter Action in the input parameters in related API documentation. For example, the API for querying the CVM instance list is DescribeInstances.</td>
</tr>
<tr>
<td>X-TC-Region</td>
<td>String</td>
<td>Yes</td>
<td>Region parameter, which is used to identify the region to which the data you want to work with belongs. For values supported for an API, see the description of common parameter Region in the input parameters in related API documentation. Note: This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even if it is passed.</td>
</tr>
<tr>
<td>X-TC-Timestamp</td>
<td>Integer</td>
<td>Yes</td>
<td>The current UNIX timestamp that records the time when the API request was initiated, for example, 1529223702. Note: If the difference between the UNIX timestamp and the server time is greater than 5 minutes, a signature expiration error may occur.</td>
</tr>
<tr>
<td>X-TC-Version</td>
<td>String</td>
<td>Yes</td>
<td>API version of the action. For the valid values, see the description of the common input parameter Version in the API documentation. For example, the version of CVM is 2017-03-12.</td>
</tr>
<tr>
<td>Authorization</td>
<td>String</td>
<td>Yes</td>
<td>The HTTP authentication request header, for example: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/Date/service/tc3_request, SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca039a248ff027d0445342fe2855ddc963176630326f1024. Here:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- TC3-HMAC-SHA256: Signature method, currently fixed as this value;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date is a date in UTC time, and this value must match the value of X-TC-Timestamp (a common parameter) in UTC time format; service is the name of the product/service, and is generally a domain name prefix. For example, a domain name cvm.tencentcloudapi.com refers to the CVM product and the value would be cvm;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- SignedHeaders: The headers that contains the authentication information; content-type and host are the required headers;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Signature: Signature digest.</td>
</tr>
<tr>
<td>X-TC-Token</td>
<td>String</td>
<td>No</td>
<td>The token used for a temporary certificate. It must be used with a temporary key. You can obtain the temporary key and token by calling a CAM API. No token is required for a long-term key.</td>
</tr>
</tbody>
</table>

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

Example of an HTTP GET request structure:
https://cvm.tencentcloudapi.com/?Limit=10&Offset=0

Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yK8ZQpn74WFkmLPx3EXAMPLE/2018-10-09/cvm/tc3_request, SignedHeaders=content-type;host, Signature=5da7a33f6993f0614b047e5df4582db9e9bf4672ba50567da16c6ccf174c474
Content-Type: application/x-www-form-urlencoded
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1539004154
X-TC-Region: ap-guangzhou

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

https://cvm.tencentcloudapi.com/

Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request, SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b13162d9279b0855cfba6789a9ed04c
Content-Type: application/json
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

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

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

https://cvm.tencentcloudapi.com/

Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request, SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b13162d9279b0855cfba6789a9ed04c
Content-Type: multipart/form-data; boundary=58731222010402
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

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

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

10
--58731222010402--

Signature Algorithm v1

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
</table>

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

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

**Example of an HTTP GET request structure:**

```plaintext
https://cvm.tencentcloudapi.com/?Action=DescribeInstances&Version=2017-03-12&SignatureMethod=HmacSHA256&Timestamp=1527672334&Signature=37ac2f4fde00b0ac8bd9eadeb459b1bbee224158d66e7ae5fcdab70b2d181d02&Region=ap-guangzhou&Nonce=238232233&SecretId=AKIDEXAMPLE
Host: cvm.tencentcloudapi.com
Content-Type: application/x-www-form-urlencoded
```

**Example of an HTTP POST request structure:**

```plaintext
https://cvm.tencentcloudapi.com/
Host: cvm.tencentcloudapi.com
Content-Type: application/x-www-form-urlencoded
Action=DescribeInstances&Version=2017-03-12&SignatureMethod=HmacSHA256&Timestamp=1527672334&Signature=37ac2f4fde00b0ac8bd9eadeb459b1bbee224158d66e7ae5fcdab70b2d181d02&Region=ap-guangzhou&Nonce=238232233&SecretId=AKIDEXAMPLE
```
# Region List

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

<table>
<thead>
<tr>
<th>Region</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southeast Asia Pacific (Bangkok)</td>
<td>ap-bangkok</td>
</tr>
<tr>
<td>North China (Beijing)</td>
<td>ap-beijing</td>
</tr>
<tr>
<td>Southwest China (Chengdu)</td>
<td>ap-chengdu</td>
</tr>
<tr>
<td>Southwest China (Chongqing)</td>
<td>ap-chongqing</td>
</tr>
<tr>
<td>South China (Guangzhou)</td>
<td>ap-guangzhou</td>
</tr>
<tr>
<td>South China (Guangzhou Open)</td>
<td>ap-guangzhou-open</td>
</tr>
<tr>
<td>Hong Kong/Macao/Taiwan (Hong Kong, China)</td>
<td>ap-hongkong</td>
</tr>
<tr>
<td>South Asia Pacific (Mumbai)</td>
<td>ap-mumbai</td>
</tr>
<tr>
<td>East China (Nanjing)</td>
<td>ap-nanjing</td>
</tr>
<tr>
<td>Northeast Asia Pacific (Seoul)</td>
<td>ap-seoul</td>
</tr>
<tr>
<td>East China (Shanghai)</td>
<td>ap-shanghai</td>
</tr>
<tr>
<td>East China (Shanghai Finance)</td>
<td>ap-shanghai-fsi</td>
</tr>
<tr>
<td>South China (Shenzhen Finance)</td>
<td>ap-shenzhen-fsi</td>
</tr>
<tr>
<td>Southeast Asia Pacific (Singapore)</td>
<td>ap-singapore</td>
</tr>
<tr>
<td>Northeast Asia Pacific (Tokyo)</td>
<td>ap-tokyo</td>
</tr>
<tr>
<td>Europe (Frankfurt)</td>
<td>eu-frankfurt</td>
</tr>
<tr>
<td>Europe (Moscow)</td>
<td>eu-moscow</td>
</tr>
<tr>
<td>Eastern U.S. (Virginia)</td>
<td>na-ashburn</td>
</tr>
<tr>
<td>Western U.S. (Silicon Valley)</td>
<td>na-siliconvalley</td>
</tr>
<tr>
<td>North America (Toronto)</td>
<td>na-toronto</td>
</tr>
</tbody>
</table>
TencentCloud API authenticates every single request, i.e., the request must be signed using the security credentials in the designated steps. Each request has to contain the signature information (Signature) in the common request parameters and be sent in the specified way and format.

Applying for Security Credentials

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

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

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

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

Using the Resources for Developers

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

TC3-HMAC-SHA256 Signature Algorithm

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

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

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

1. CVM is activated by default, and this API is often used;
2. It is read-only and does not change the status of existing resources;
3. It covers many types of parameters, which allows it to be used to demonstrate how to use arrays containing data structures.
In the example, we try to choose common parameters and API parameters that are prone to mistakes. When you actually call an API, please use parameters based on the actual conditions. The parameters vary by API. Do not copy the parameters and values in this example.

Assuming that your SecretId and SecretKey are `AKIDz8krbsJ5yKBZ0q74WFkmLPx3********` and `Gu5t9xGARNpq86cd98joYCN3********`, respectively, if you want to view the status of the instance in the Guangzhou region whose CVM instance name is "unnamed" and have only one data entry returned, then the request may be:

```
curl -X POST https://cvm.tencentcloudapi.com
-H "Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZ0q74WFkmLPx3********/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e41437e97a628b726c301bbd17e7d8c017e9ebe68c620cd78fc3a78ff"
-H "Content-Type: application/json; charset=utf-8"
-H "Host: cvm.tencentcloudapi.com"
-H "X-TC-Action: DescribeInstances"
-H "X-TC-Timestamp: 1551113065"
-H "X-TC-Version: 2017-03-12"
-H "X-TC-Region: ap-guangzhou"
-d '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}'
```

The signature calculation process is explained in detail below.

### 1. Concatenating the CanonicalRequest String

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

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

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTPRequestMethod</td>
<td>HTTP request method (GET or POST). This example uses <code>POST</code>.</td>
</tr>
<tr>
<td>CanonicalURI</td>
<td>URI parameter. Slash (&quot;/&quot;) is used for API 3.0.</td>
</tr>
<tr>
<td>CanonicalQueryString</td>
<td>The query string in the URL of the originating HTTP request. This is always an empty string for POST requests, and is the string after the question mark (?) for GET requests. For example: <code>Limit=10&amp;Offset=0</code>. Note: CanonicalQueryString must be URL-encoded, referencing RFC3986, the UTF8 character set. We recommend using the programming language library. All special characters must be encoded and capitalized.</td>
</tr>
</tbody>
</table>
| CanonicalHeaders    | Header information for signature calculation, including at least two headers of host and content-type. Custom headers can be added to participate in the signature process to improve the uniqueness and security of the request. Concatenation rules:
1. Both the key and value of the header should be converted to lowercase with the leading and trailing spaces removed, so they are concatenated in the format of key:value\n format;
2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase). |
| HashedRequestPayload| The calculation result in this example is `content-type:application/json; charset=utf-8
Host:cvm.tencentcloudapi.com

Note: content-type must match the actually sent content. In some programming languages, a charset value would be added even if it is not specified. In this case, the request sent is different from the one signed, and the sever will return an error indicating that signature verification failed. |
SignedHeaders | Header information for signature calculation, indicating which headers of the request participate in the signature process (they must each individually correspond to the headers in CanonicalHeaders). Content-type and host are required headers. Concatenation rules: 1. Both the key and value of the header should be converted to lowercase; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase) and separated by semicolons (;). The value in this example is content-type;host

HashedRequestPayload | Hash value of the request payload (i.e., the body, such as 
{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]} in this example). The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(RequestPayload))) by SHA256 hashing the payload of the HTTP request, performing hexadecimal encoding, and finally converting the encoded string to lowercase letters. For GET requests, RequestPayload is always an empty string. The calculation result in this example is 99d58dfbc674f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b4907.

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

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

2. Concatenating the String to Be Signed

The string to sign is concatenated as follows:

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

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithm</td>
<td>Signature algorithm, which is currently always TC3-HMAC-SHA256.</td>
</tr>
<tr>
<td>RequestTimestamp</td>
<td>Request timestamp, i.e., the value of the common parameter X-TC-Timestamp in the request header, which is the UNIX timestamp of the current time in seconds, such as 1551113065 in this example.</td>
</tr>
<tr>
<td>CredentialScope</td>
<td>Scope of the credential in the format of Date/service/tc3_request, including the date, requested service and termination string (tc3_request). Date is a date in UTC time, whose value should match the UTC date converted by the common parameter X-TC-Timestamp; service is the product name, which should match the domain name of the product called. The calculation result in this example is 2019-02-25/cvm/tc3_request.</td>
</tr>
<tr>
<td>HashedCanonicalRequest</td>
<td>Hash value of the CanonicalRequest string concatenated in the steps above. The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(CanonicalRequest))). The calculation result in this example is 2815843035062fffda5fd6f2a44ea8a34818b0dc46f0248b3786976a3adda7a.</td>
</tr>
</tbody>
</table>

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

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

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

```
TC3-HMAC-SHA256
1551113065
2019-02-25/cvm/tc3_request
2815843035062f
ffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3adda7a
```

3. Calculating the Signature

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

```python
SecretKey = "Gu5t9xGARNpq86cd98joQYCN3*******"
SecretDate = HMAC_SHA256("TC3", SecretKey, Date)
SecretService = HMAC_SHA256(SecretDate, Service)
SecretSigning = HMAC_SHA256(SecretService, "tc3_request")
```

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SecretKey</td>
<td>The original SecretKey, i.e., Gu5t9xGARNpq86cd98joQYCN3*******</td>
</tr>
<tr>
<td>Date</td>
<td>The Date field information in Credential, such as 2019-02-25 in this example.</td>
</tr>
<tr>
<td>Service</td>
<td>Value in the Service field in Credential, such as cvm in this example.</td>
</tr>
</tbody>
</table>

2) Calculate the signature with the following pseudocode:

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

4. Concatenating the Authorization

The Authorization is concatenated as follows:

```python
Authorization = 
Algorithm + ' ' + 
'Credential=' + SecretId + '/' + CredentialScope + ', ' + 
'SignedHeaders=' + SignedHeaders + ', ' + 
'Signature=' + Signature
```

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithm</td>
<td>Signature algorithm, which is always TC3-HMAC-SHA256.</td>
</tr>
<tr>
<td>SecretId</td>
<td>The SecretId in the key pair, i.e., AKIDz8krbsJ5yKBZ0pn74WFkmLPx3******.</td>
</tr>
<tr>
<td>CredentialScope</td>
<td>Credential scope (see above). The calculation result in this example is 2019-02-25/cvm/tc3_request.</td>
</tr>
</tbody>
</table>
### SignedHeaders

<table>
<thead>
<tr>
<th>SignedHeaders</th>
<th>Header information for signature calculation (see above), such as <code>content-type;host</code> in this example.</th>
</tr>
</thead>
</table>

### Signature

| Signature     | Signature value. The calculation result in this example is `c492e8a41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff`. |

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

```
TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3********/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8a41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
```

The following example shows a finished authorization header:

```
POST https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3********/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8a41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
Content-Type: application/json; charset=utf-8
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1551113065
X-TC-Region: ap-guangzhou

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

### 5. Signature Demo

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

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

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

The final output URL might be: https://cvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceId.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3********&Signature=EliP9YW3pW2FpsEdkXt%2F%2BWcGeI%3D&Timesta mp=1465185768&Version=2017-03-12.

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

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

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

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

public class TencentCloudAPITC3Demo {
    private final static Charset UTF8 = StandardCharsets.UTF_8;
    private final static String SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmlPxA********";
    private final static String SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3********";
    private final static String CT_JSON = "application/json; charset=utf-8";

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

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

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

        // ************* Step 1: Concatenate the CanonicalRequest string *************
        String httpRequestMethod = "POST";
        String canonicalUri = "/";
        String canonicalQueryString = ";";
        String canonicalHeaders = "content-type:application/json; charset=utf-8\nhost:"
                               + host + ";"
        String signedHeaders = "content-type;host";
        String payload = "{"Limit": 1, "$Filters": [{"Values": ["unnamed"], "$Name": "$instance-nameV"}]}
        String hashedRequestPayload = sha256Hex(payload);
        String canonicalRequest = httpRequestMethod + "" + canonicalUri + "" + canonicalQueryString + "$n" + canonicalHeaders + "$n" + signedHeaders + "$n" + hashedRequestPayload;
        System.out.println(canonicalRequest);

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

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

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

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

StringBuilder sb = new StringBuilder();
.append(" -H "Content-Type: application/json; charset=utf-8""
.append(" -H "Host: ").append(host).append("""
.append(" -H "X-TC-Action: ").append(action).append("""
.append(" -H "X-TC-Timestamp: ").append(timestamp).append("""
.append(" -H "X-TC-Region: ").append(region).append("""
.append(" -d ").append(payload).append("""
System.out.println(sb.toString());
}
}

Python

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

# Key Parameters
secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*******"

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

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

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

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

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

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

Golang

package main

import ("crypto/hmac" "crypto/sha256" "encoding/hex"
func sha256hex(s string) string {
    b := sha256.Sum256([]byte(s))
    return hex.EncodeToString(b[:])
}

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

func main() {
    secretId := "AKIdz8krbsJSyK8Qpn74WFkmlP83*******"
    secretKey := "Gu5t9xGARNpq86cd98joYCN3*******"
    host := "cvm.tencentcloudapi.com"
    algorithm := "TC3-HMAC-SHA256"
    service := "cvm"
    version := "2017-03-12"
    action := "DescribeInstances"
    region := "ap-guangzhou"
    //var timestamp int64 = time.Now().Unix()
    var timestamp int64 = 1551113065
    // step 1: build canonical request string
    httpRequestMethod := "POST"
    canonicalURI := "/
    canonicalQueryString := ""
    canonicalHeaders := "content-type:application/json; charset=utf-8\n" + "host:" + host + "\n"
    signedHeaders := "content-type;host"
    payload := `{"Limit": 1, "Filters": ["Values": ["unnamed"], "Name": "instance-name"]}`
    hashedRequestPayload := sha256hex(payload)
    canonicalRequest := fmt.Sprintf("%s\n%s\n%s\n%s\n%s", httpRequestMethod, canonicalURI, canonicalQueryString, canonicalHeaders, signedHeaders, hashedRequestPayload)
    fmt.Println(canonicalRequest)
    // step 2: build string to sign
    date := time.Unix(timestamp, 0).UTC().Format("2006-01-02")
    credentialScope := fmt.Sprintf("%s/%s/tc3_request", date, service)
    hashedCanonicalRequest := sha256hex(canonicalRequest)
    string2sign := fmt.Sprintf("%s\n%d\n%s\n%s", algorithm, timestamp, credentialScope, hashedCanonicalRequest)
    fmt.Println(string2sign)
    // step 3: sign string
    secretDate := hmacsha256(date, "TC3"+secretKey)
    secretService := hmacsha256(service, secretDate)
    secretSigning := hmacsha256("tc3_request", secretService)
    signature := hex.EncodeToString([]byte(hmacsha256(string2sign, secretSigning)))
    fmt.Println(signature)
// step 4: build authorization
authorization := fmt.Sprintf("%s Credential=%s/%s, SignedHeaders=%s, Signature=%s",
algorithm,
secretId,
credentialScope,
signedHeaders,
signature)
fmt.Println(authorization)
curl := fmt.Sprintf(`curl -X POST https://%s
-H "Authorization: %s"
-H "Content-Type: application/json; charset=utf-8"
-H "Host: %s"
-H "X-TC-Action: %s"
-H "X-TC-Timestamp: %d"
-H "X-TC-Version: %s"
-H "X-TC-Region: %s"%n
-d '%s'`, host, authorization, host, action, timestamp, version, region, payload)
fmt.Println(curl)

<?php
$secretId = "AKIDz8krbsJ5yK8Zop74WFkmLPx3******";
$secretKey = "Gu5t9xGARNpq86cd0YCN3*******";
$host = "cvm.tencentcloudapi.com";
$service = "cvm";
$version = "2017-03-12";
$action = "DescribeInstances";
$region = "ap-guangzhou";
// $timestamp = time();
$timestamp = 1551113065;
$algorithm = "TC3-HMAC-SHA256";

// step 1: build canonical request string
$HttpRequestMethod = "POST";
$canonicalUri = "/";
$canonicalQueryString = "";
$canonicalHeaders = "content-type:application/json; charset=utf-8";
$signedHeaders = "content-type;host";
$payload = '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"]}';
$hashedRequestPayload = hash("SHA256", $payload);
$canonicalRequest = $HttpRequestMethod.$canonicalUri.$canonicalQueryString.$canonicalHeaders.$signedHeaders.$payload;
echo $canonicalRequest.PHP_EOL;

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

// step 3: sign string
$secretDate = hash_hmac("SHA256", $date, "TC3".$secretKey, true);
$secretService = hash_hmac("SHA256", $service, $secretDate, true);
$secretSigning = hash_hmac("SHA256", "$c3_request", $secretService, true);
signature = hash_hmac("SHA256", $stringToSign, $secretSigning);

echo $signature.PHP_EOL;

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

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

Ruby

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

# Key Parameters
secret_id = 'AKIDz8KrbsJ5yKZon74WFCmLPx3*******'
secret_key = 'Gu5t9xGARNpq86cd98joQYCN3*******'
service = 'cvm'
host = 'cvm.tencentcloudapi.com'
endpoint = 'https://' + host
region = 'ap-guangzhou'
action = 'DescribeInstances'
version = '2017-03-12'
algorithm = 'TC3-HMAC-SHA256'

# timestamp
timestamp = Time.now.to_i

date = Time.at(timestamp).utc.strftime('%Y-%m-%d')

data = Time.at(timestamp).utc.strftime('%Y-%m-%d %H:%M:%S')

date

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

puts canonical_request

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

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

# ************* Step 4: Concatenate the Authorization *************
authorization = “#{algorithm} Credential=#{secret_id}/#{credential_scope}, SignedHeaders=#{signed_headers}, Signature=#{signature}”
puts authorization

puts ‘curl -X POST ’ + endpoint + “

DotNet

using System;
using System.Collections.Generic;
using System.Text;

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

public static byte[] HmacSHA256(byte[] key, byte[] msg)
{
    using (HMACSHA256 mac = new HMACSHA256(key))
    {
        return mac.ComputeHash(msg);
    }
}

public static Dictionary<string, string> BuildHeaders(string secretid, string secretkey, string service, string endpoint, string region, string action, string version, DateTime date, string requestPayload)
{
    string datestr = date.ToString("yyyy-MM-dd");
    DateTime start = DateTime(1970, 1, 1, 0, 0, 0, 0, DateTimeKind.Utc);
    long requestTimestamp = (long)Math.Round((date - start).TotalMilliseconds, MidpointRounding.AwayFromZero) / 1000;

    // ************* Step 1: Concatenate the CanonicalRequest string *************
    string algorithm = "TC3-HMAC-SHA256";
    string httpRequestMethod = "POST";
    string canonicalUri = "/";
    string canonicalQueryString = "";
    string contentType = "application/json";
    string canonicalHeaders = "content-type:" + contentType + "; charset=utf-8" + "host:" + endpoint + ""n";
    string signedHeaders = "content-type;host";
    string hashedRequestPayload = SHA256Hex(requestPayload);
    string canonicalRequest = httpRequestMethod + 
    + canonicalUri + ""n"n" + canonicalQueryString + ""n" + canonicalHeaders + ""n"
    + signedHeaders + ""n"
    + hashedRequestPayload;
    Console.WriteLine(canonicalRequest);
    Console.WriteLine("----------------------------------");

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

    // ************* Step 3: Calculate the signature *************
    byte[] tc3SecretKey = Encoding.UTF8.GetBytes("TC3" + secretkey);
    byte[] secretDate = HmacSHA256(tc3SecretKey, Encoding.UTF8.GetBytes(datestr));
    byte[] secretService = HmacSHA256(secretDate, Encoding.UTF8.GetBytes(service));
    byte[] secretSigning = HmacSHA256(secretService, Encoding.UTF8.GetBytes("tc3_request"));
    byte[] signatureBytes = HmacSHA256(secretSigning, Encoding.UTF8.GetBytes(stringToSign));
    string signature = BitConverter.ToString(signatureBytes).Replace("-", " ").ToLower();
    Console.WriteLine(signature);
    Console.WriteLine("----------------------------------");

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

    Dictionary<string, string> headers = new Dictionary<string, string>();
}
headers.Add("Authorization", authorization);
headers.Add("Host", endpoint);
headers.Add("Content-Type", contentType + "; charset=utf-8");
headers.Add("X-TC-Timestamp", requestTimestamp.ToString());
headers.Add("X-TC-Version", version);
headers.Add("X-TC-Action", action);
headers.Add("X-TC-Region", region);
return headers;
}  
public static void Main(string[] args)  
{
    // SecretID and SecretKey
    string SECRET_ID = "AKIDz8krbsJ5yKBZ0pn74#FkmLPx3********";
    string SECRET_KEY = "Gu519xGARNpq86cd98joQYCN3********";
    string service = "cvm";
    string endpoint = "cvm.tencentcloudapi.com";
    string region = "ap-guangzhou";
    string action = "DescribeInstances";
    string version = "2017-03-12";
    // The timestamp `2019-02-26 00:44:25` used here is only for reference. In a project, use the following parameter:
    // DateTime date = DateTime.UtcNow;
    // Enter the correct time zone. We recommend using UTC timestamp to avoid errors.
    DateTime date = new DateTime(1970, 1, 1, 0, 0, 0, 0, DateTimeKind.Utc).AddSeconds(1551113065);
    string requestPayload = "{"Limit": 1, "Filters": [{"Values": ["\u672a\u547d\u540d"], "Name": "instance-name"}]}";
    Dictionary<string, string> headers = BuildHeaders(SECRET_ID, SECRET_KEY, service, endpoint, region, action, version, date, requestPayload);
    Console.WriteLine("POST https://cvm.tencentcloudapi.com");
    foreach (KeyValuePair<string, string> kv in headers)  
    {  
        Console.WriteLine(kv.Key + ": " + kv.Value);
    }
    Console.WriteLine();
    Console.WriteLine(requestPayload);
}

NodeJS

const crypto = require('crypto');

function sha256(message, secret = '', encoding) {
    const hmac = crypto.createHmac('sha256', secret)
    return hmac.update(message).digest(encoding)
}

function getHash(message, encoding = 'hex') {
    const hash = crypto.createHash('sha256')
    return hash.update(message).digest(encoding)
}

function getDate(timestamp) {
    const date = new Date(timestamp * 1000)
    const year = date.getFullYear()
    const month = ('0' + (date.getMonth() + 1)).slice(-2)
    const day = ('0' + date.getDate()).slice(-2)
    return `${year}-${month}-${day}`
}

function main(){
const SECRET_ID = "AKIDz8krbsJ5yKBZQqn74mFxkLPx3******"
const SECRET_KEY = "Gu5t9xGARNpq86cd98jo0VCN3******"

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

const timestamp = getDate()
const date = getDate(timestamp)

// ************* Step 1: Concatenate the CanonicalRequest string *************
const signedHeaders = "content-type;host"
const payload = "{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}

const hashedRequestPayload = getHash(payload);
const httpRequestMethod = "POST"
const canonicalUri = "/
const canonicalQueryString = 
const canonicalHeaders = "content-type:application/json; charset=utf-8
host:
"
const canonicalRequest = httpRequestMethod + 
+ canonicalUri + 
+ canonicalQueryString + 
+ canonicalHeaders + 
+ signedHeaders + 
+ hashedRequestPayload

console.log(canonicalRequest)

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

console.log(stringToSign)

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

console.log(signature)

// ************* Step 4: Concatenate the Authorization *************
const authorization = algorithm + 
+ "Credential=" + SECRET_ID + 
+ "/" + credentialScope + 
+ "/" + "SignedHeaders=" + signedHeaders + 
+ "Signature=" + signature

console.log(authorization)

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

console.log(Call_Information)
}
main()

C++

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

using namespace std;

string get_data(int64_t &timestamp)
{
    string utcDate;
    char buff[20] = {0};
    // time_t timenow;
    struct tm sttime;
    sttime = *gmtime(&timestamp);
    strftime(buff, sizeof(buff), "%Y-%m-%d", &sttime);
    utcDate = string(buff);
    return utcDate;
}

string int2str(int64_t n)
{
    std::stringstream ss;
    ss << n;
    return ss.str();
}

string sha256Hex(const string &str)
{
    char buf[3];
    unsigned char hash[SHA256_DIGEST_LENGTH];
    SHA256_CTX sha256;
    SHA256_Init(&sha256);
    SHA256_Update(&sha256, str.c_str(), str.size());
    SHA256_Final(hash, &sha256);
    std::string NewString = "";
    for(int i = 0; i < SHA256_DIGEST_LENGTH; i++)
    {
        snprintf(buf, sizeof(buf), "%02x", hash[i]);
        NewString = NewString + buf;
    }
    return NewString;
}

string HmacSha256(const string &key, const string &input)
{
    unsigned char hash[32];

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

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

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

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

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

int main()
{
    string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WkmLPx3******";
    string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3******";

    string service = "cvm";
    string host = "cvm.tencentcloudapi.com";
    string region = "ap-guangzhou";
    string action = "DescribeInstances";
    string version = "2017-03-12";
    int64_t timestamp = 1551133065;
    string date = get_data(timestamp);

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

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

// ************* Step 3: Calculate the signature **************

string kKey = "TC3" + SECRET_KEY;
string kDate = HmacSha256(kKey, date);
string kService = HmacSha256(kDate, service);
string kSigning = HmacSha256(kService, "tc3_request");
string signature = HexEncode(HmacSha256(kSigning, stringToSign));
cout << signature << endl;
cout << "" << endl;

// ************* Step 4: Concatenate the Authorization *************

string authorization = algorithm + 
+ "Credential=" + SECRET_ID + 
+ 
+ "SignedHeaders=" + signedHeaders + 
+ "Signature=" + signature;
cout << authorization << endl;
cout << "" << endl;

string headers = "curl -X POST https://" + host + 
+ 
+ "Authorization: " + authorization + 
+ "Content-Type: application/json; charset=utf-8" + 
+ "Host: " + host + 
+ "X-TC-Action: " + action + 
+ "X-TC-Timestamp: " + RequestTimestamp + 
+ "X-TC-Version: " + version + 
+ "X-TC-Region: " + region + 
+ " -d ";
cout << headers << endl;
return 0;
```

**Signature Failure**

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AuthFailure.SignatureExpire</td>
<td>Signature expired. Timestamp and server time cannot differ by more than five minutes.</td>
</tr>
<tr>
<td>AuthFailure.SecretIdNotFound</td>
<td>The key does not exist. Please go to the console to check whether it is disabled or you copied fewer or more characters.</td>
</tr>
<tr>
<td>AuthFailure.SignatureFailure</td>
<td>Signature error. It is possible that the signature was calculated incorrectly, the signature does not match the content actually sent, or the SecretKey is incorrect.</td>
</tr>
<tr>
<td>AuthFailure.TokenFailure</td>
<td>Temporary certificate token error.</td>
</tr>
<tr>
<td>AuthFailure.InvalidSecretId</td>
<td>Invalid key (not a TencentCloud API key type).</td>
</tr>
</tbody>
</table>
Tencent Cloud API authenticates each access request, i.e., each request needs to include authentication information (Signature) in the common parameters to verify the identity of the requester. The Signature is generated by the security credentials which include SecretId and SecretKey. If you don't have the security credentials yet, go to the TencentCloud API Key page to apply for them; otherwise, you cannot invoke the TencentCloud API.

1. Applying for Security Credentials

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

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

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

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

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

2. Generating a Signature

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

Assume that the SecretId and SecretKey are:

- SecretId: AKIDz8krbsJ5yKBZ0pn74wFknLPx3********
- SecretKey: Gu5t9xGARNpq86cd98joQYCN3********

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

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

<table>
<thead>
<tr>
<th>Parameter name</th>
<th>Description</th>
<th>Parameter value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Method name</td>
<td>DescribeInstances</td>
</tr>
<tr>
<td>SecretId</td>
<td>Key ID</td>
<td>AKIDz8krbsJ5yKBZ0pn74wFknLPx3********</td>
</tr>
<tr>
<td>Timestamp</td>
<td>Current timestamp</td>
<td>1465185768</td>
</tr>
<tr>
<td>Nonce</td>
<td>Random positive integer</td>
<td>11886</td>
</tr>
<tr>
<td>Region</td>
<td>Region where the instance is located</td>
<td>ap-guangzhou</td>
</tr>
<tr>
<td>Instancelds.0</td>
<td>ID of the instance to query</td>
<td>ins-09dx96dg</td>
</tr>
<tr>
<td>Offset</td>
<td>Offset</td>
<td>0</td>
</tr>
<tr>
<td>Parameter name</td>
<td>Description</td>
<td>Parameter value</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Limit</td>
<td>Allowed maximum output</td>
<td>20</td>
</tr>
<tr>
<td>Version</td>
<td>API version number</td>
<td>2017-03-12</td>
</tr>
</tbody>
</table>

2.1. Sorting Parameters

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

```json
{
  'Action' : 'DescribeInstances',
  'InstanceIds.0' : 'ins-00dx96dg',
  'Limit' : 20,
  'Nonce' : 11886,
  'Offset' : 0,
  'Region' : 'ap-guangzhou',
  'SecretId' : 'AKIDz8krbsJ5yKBZQpn74WFkmPz3*******',
  'Timestamp' : 1465185768,
  'Version' : '2017-03-12',
}
```

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

2.2. Concatenating a Request String

This step generates a request string.

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

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

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

```
Action=DescribeInstances&InstanceIds.0=ins-00dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmPz3*******&Timestamp=1465185768&Version=2017-03-12
```

2.3. Concatenating the Signature Original String

This step generates a signature original string.

The signature original string consists of the following parameters:

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

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

The concatenation result of the example is:
2.4. Generating a Signature String

This step generates a signature string.

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

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

```php
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3*******";
$srcStr = 'GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZ0q74FkmlPz3*******&Timestamp=1465185768&Version=2017-03-12';
$signStr = base64_encode(hash_hmac('sha1', $srcStr, $secretKey, true));
echo $signStr;
```

The final signature is:

```
zmmjn35mikh6pM3V7sUEuX4wyYWm=
```

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

3. Encoding a Signature String

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

For example, if the signature string generated in the previous step is zmmjn35mikh6pM3V7sUEuX4wyYm=, the final signature string request parameter (Signature) is zmmjn35mikh6pM3V7sUEuX4wyYM%3D, which will be used to generate the final request URL.

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

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

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

4. Signature Failure

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

<table>
<thead>
<tr>
<th>Error code</th>
<th>Error description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AuthFailure.SignatureExpire</td>
<td>The signature is expired</td>
</tr>
<tr>
<td>AuthFailure.SecretIdNotFound</td>
<td>The key does not exist</td>
</tr>
<tr>
<td>AuthFailure.SignatureFailure</td>
<td>Signature error</td>
</tr>
</tbody>
</table>
5. Signature Demo

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

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

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

The final output URL might be: https://cvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmPx3********&Signature=zmmjn35mikh6pM3V7uEuyYMY3D6&Timestamp=1465185768&Version=2017-03-12.

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

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

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

Java

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

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

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

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

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

public static void main(String[] args) throws Exception {
    TreeMap<String, Object> params = new TreeMap<String, Object>();
    // TreeMap enables automatic sorting
    // A random number should be used when actually calling, for example: params.put("Nonce", new Random().nextInt(java.lang.Integer.MAX_VALUE));
    params.put("Nonce", 11886); // Common parameter
    // The current time of the system should be used when actually calling, for example: params.put("Timestamp", System.currentTimeMillis() / 1000);
    params.put("Timestamp", 1465185768); // Common parameter
    params.put("SecretId", "AKIDz8krbsJ5yKBZ0pn74WFkmLPx3*******"); // Common parameter
    params.put("Action", "DescribeInstances"); // Common parameter
    params.put("Version", "2017-03-12"); // Common parameter
    params.put("Region", "ap-guangzhou"); // Common parameter
    params.put("Limit", 20); // Business parameter
    params.put("Offset", 0); // Business parameter
    params.put("InstanceId.0", "ins-09dx96dq"); // Business parameter
    params.put("Signature", sign(getStringToSign(params), "Gu5t9xGARNpq86cd98jo0YCN3*******", "HmacSHA1")); // Common parameter
    System.out.println(getUrl(params));
}

Python

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

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

secret_id = "AKIDz8krbsJ5yKBZ0pn74WFkmLPx3*******"
secret_key = "Gu5t9xGARNpq86cd98jo0YCN3*******"

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

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

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

Golang

package main

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

func main() {  
    secretId := "AKIDz8krbsJ5yK82Qpn74WFkmLPx3******"  
    secretKey := "Gu5t9xGARNpq86cd98jo0YCNK3******"  
    params := map[string]string{  
        "Nonce": "11886",  
        "Timestamp": "1465185768",  
        "Region": "ap-guangzhou",  
        "SecretId": secretId,  
        "Version": "2017-03-12",  
        "Action": "DescribeInstances",  
        "InstanceId.0": "ins-09dx96dg",  
        "Limit": "20",  
        "Offset": "0",  
    }
    var buf bytes.Buffer  
    buf.WriteString("GET")  
    buf.WriteString("cvm.tencentcloudapi.com")  
    buf.WriteString("/")  
    buf.WriteString("?")  
}
// sort keys by ascii asc order
keys := make([]string, 0, len(params))
for k, _ := range params {
    keys = append(keys, k)
}
sort.Strings(keys)

for i := range keys {
    k := keys[i]
    buf.WriteString(k)
    buf.WriteString("=")
    buf.WriteString(params[k])
    buf.WriteString("&")
}
buf.Truncate(buf.Len() - 1)
hashed := hmac.New(sha1.New, []byte(secretKey))
hashed.Write(buf.Bytes())
fmt.Println(base64.StdEncoding.EncodeToString(hashed.Sum(nil)))
}

PHP

<?php
$secretId = "AKIDz8krbsJ5yK8Z0pn74WFkmLPx3******";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3*******";
$param["Nonce"] = 11886;//rand();
$param["Timestamp"] = 1465185768;//time();
$param["Region"] = "ap-guangzhou";
$param["SecretId"] = $secretId;
$param["Version"] = "2017-03-12";
$param["Action"] = "DescribeInstances";
$param["InstanceId.0"] = "ins-09dx96dg";
$param["Limit"] = 20;
$param["Offset"] = 0;
ksort($param);

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

$signature = base64_encode(hash_hmac("sha1", $signStr, $secretKey, true));
echo $signature.PHP_EOL;
// need to install and enable curl extension in php.ini
// $param["Signature"] = $signature;
// $url = "https://cvm.tencentcloudapi.com/?".http_build_query($param);
// echo $url.PHP_EOL;
// $ch = curl_init();
// curl_setopt($ch, CURLOPT_URL, $url);
// $output = curl_exec($ch);
// curl_close($ch);
// echo json_decode($output);
```ruby
# -*- coding: UTF-8 -*-
# require ruby>=2.3.0
require 'time'
require 'openssl'
require 'base64'

secret_id = "AKIDz8krbsJ5yK8Zopn74WkMLPx3*****"
secret_key = "Gu519xGARNpq86cd9hjoYCN3*****"

method = 'GET'
endpoint = 'cvm.tencentcloudapi.com'
data = {
  'Action' => 'DescribeInstances',
  'InstanceIds.0' => 'ins-09dx96dg',
  'Limit' => 20,
  'Nonce' => 11886,
  'Offset' => 0,
  'Region' => 'ap-guangzhou',
  'SecretId' => secret_id,
  'Timestamp' => 1465185768, # Time.now.to_i
  'Version' => '2017-03-12',
}

sign = method + endpoint + '/?'
params = []
data.sort.each do |item|
  params << "#{item[0]}=#{item[1]}"
end

sign += params.join('&')
digest = OpenSSL::Digest.new('sha1')
data['Signature'] = Base64.encode64(OpenSSL::HMAC.digest(digest, secret_key, sign))
puts data['Signature']

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

---

**DotNet**

```csharp
using System;
using System.Collections.Generic;
using System.Net;
using System.Text;

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

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

public static void Main(string[] args)
{
    string SECRET_ID = "AKIDz8krbsJ5yKBZQpn748FkmLPx3*******";
    string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******";
    string endpoint = "cvm.tencentcloudapi.com";
    string region = "ap-guangzhou";
    string action = "DescribeInstances";
    string version = "2017-03-12";
    double RequestTimestamp = 1465185768;
    // long timestamp = ToTimestamp() / 1000;
    // string requestTimestamp = timestamp.ToString();
    Dictionary<string, string> param = new Dictionary<string, string>();
    param.Add("Limit", "20");
    param.Add("Offset", "0");
    param.Add("InstanceIds.0", "ins-09dx96dg");
    param.Add("Action", action);
    param.Add("Nonce", "11886");
    param.Add("Timestamp", RequestTimestamp.ToString());
    param.Add("Version", version);
    param.Add("SecretId", SECRET_ID);
    param.Add("Region", region);
    SortedDictionary<string, string> headers = new SortedDictionary<string, string>(param, StringComparer.Ordinal);
    string sigInParam = MakeSignPlainText(headers, "GET", endpoint, "/");
    Console.WriteLine(sigInParam);
    string sigOutParam = Sign(SECRET_KEY, sigInParam);
    Console.WriteLine("Signature": " + WebUtility.UrlEncode(sigOutParam));
    string result = "https://cvm.tencentcloudapi.com/?";
    foreach (KeyValuePair<string, string> kv in headers)
    {
    }
    result += WebUtility.UrlEncode("Signature") + "=" + WebUtility.UrlEncode(sigOutParam);
    Console.WriteLine("GET " + result);
```

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NodeJS

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

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

function formatSignString(reqMethod, endpoint, path, strParam)
let strSign = reqMethod + endpoint + path + "?" + strParam.slice(1);
return strSign;

function sha1(secretKey, strsign)
let signMethodMap = {"HmacSHA1": "sha1"};
let hmac = crypto.createHmac(signMethodMap["HmacSHA1"], secretKey || "");
return hmac.update(Buffer.from(strsign, 'utf8')).digest('base64');

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

function main(){
const SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLpx3*******"
const SECRET_KEY = "Gu5t9xGANpq86cd98joQYCN3*******"

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

let params = {};
params["Action"] = Action;
params["InstanceId.0"] = 'ins-09dx96dg';
params["Limit"] = 20;
params["Offset"] = 0;
params["Nonce"] = Nonce;
params["Region"] = Region;
params["SecretId"] = SECRET_ID;
params["Timestamp"] = Timestamp;
params["Version"] = Version;
strParam = sort_params(params)

const reqMethod = "GET";
```
const path = "/";
strSign = formatSignString(reqMethod, endpoint, path, strParam)
console.log(strSign)
console.log("-----------------------")
params['Signature'] = sha1(SECRET_KEY, strSign)
console.log(params['Signature'])
console.log("-----------------------")
const req_url = get_req_url(params, endpoint)
console.log(params['Signature'])
console.log("-----------------------")
console.log(req_url)
}
main()
Responses

Last updated: 2019-12-05 19:20:45

Response for Successful Requests

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

```
{
  "Response": {
    "TotalCount": 0,
    "InstanceStatusSet": [],
    "RequestId": "b5b4146b-520d-4192-b42f-595cc34b6c1c"
  }
}
```

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

Response for Failed Requests

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

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

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

Common Error Codes

If there is an Error field in the response, it means that the API call failed. The Code field in Error indicates the error code. The following table lists the common error codes that all actions can return.
<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AuthFailure.InvalidSecretId</td>
<td>Invalid key (not a TencentCloud API key type).</td>
</tr>
<tr>
<td>AuthFailure.MFAFailure</td>
<td>MFA failed.</td>
</tr>
<tr>
<td>AuthFailure.SecretIdNotFound</td>
<td>The key does not exist.</td>
</tr>
<tr>
<td>AuthFailure.SignatureExpire</td>
<td>Signature expired.</td>
</tr>
<tr>
<td>AuthFailure.SignatureFailure</td>
<td>Signature error.</td>
</tr>
<tr>
<td>AuthFailure.TokenFailure</td>
<td>Token error.</td>
</tr>
<tr>
<td>AuthFailure.UnauthorizedOperation</td>
<td>The request does not have CAM authorization.</td>
</tr>
<tr>
<td>DryRunOperation</td>
<td>DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.</td>
</tr>
<tr>
<td>FailedOperation</td>
<td>Operation failed.</td>
</tr>
<tr>
<td>InternalError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidAction</td>
<td>The API does not exist.</td>
</tr>
<tr>
<td>InvalidParameter</td>
<td>Incorrect parameter.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Invalid parameter value.</td>
</tr>
<tr>
<td>LimitExceeded</td>
<td>Quota limit exceeded.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>A parameter is missing.</td>
</tr>
<tr>
<td>NoSuchVersion</td>
<td>The API version does not exist.</td>
</tr>
<tr>
<td>RequestLimitExceeded</td>
<td>The number of requests exceeds the frequency limit.</td>
</tr>
<tr>
<td>ResourceInUse</td>
<td>Resource is in use.</td>
</tr>
<tr>
<td>ResourceInsufficient</td>
<td>Insufficient resource.</td>
</tr>
<tr>
<td>ResourceNotFound</td>
<td>The resource does not exist.</td>
</tr>
<tr>
<td>ResourceUnavailable</td>
<td>Resource is unavailable.</td>
</tr>
<tr>
<td>UnauthorizedOperation</td>
<td>Unauthorized operation.</td>
</tr>
<tr>
<td>UnknownParameter</td>
<td>Unknown parameter.</td>
</tr>
<tr>
<td>UnsupportedOperation</td>
<td>Unsupported operation.</td>
</tr>
<tr>
<td>UnsupportedProtocol</td>
<td>HTTPS request method error. Only GET and POST requests are supported.</td>
</tr>
<tr>
<td>UnsupportedRegion</td>
<td>API does not support the requested region.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the details of CDH instances.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

We recommend you to use API Explorer

Try it

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeHosts.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>Filters.N</td>
<td>No</td>
<td>Array of Filter</td>
<td>• zone&lt;br&gt;Filter results by availability zones. For example, availability zone: ap-guangzhou-1;&lt;br&gt;Type: String&lt;br&gt;Required: no&lt;br&gt;Valid values: list of availability zones&lt;br&gt;&lt;br&gt;• project-id&lt;br&gt;Filter results by project ID. You can query the existing project list through the DescribeProject API or CVM console, or create a project by calling the AddProject API. For example, project ID: 1002189;&lt;br&gt;Type: Integer&lt;br&gt;Required: no&lt;br&gt;&lt;br&gt;• host-id</td>
</tr>
</tbody>
</table>
Filter results by **CDH ID**. For example, CDH ID: host-xxxxxxx;
Type: String
Required: no

- **state**
  Filter results by **CDH instance name**.
  Type: String
  Required: no

- **state**
  Filter results by **CDH instance status**. (PENDING: creating | LAUNCH_FAILURE: creation failed | RUNNING: running | EXPIRED: expired)
  Type: String
  Required: no

Each request can have up to 10 Filters and 5 Filters.Values.

| Offset | No | Integer | Offset; default value: 0. |
| Limit | No | Integer | Number of results returned; default value: 20; maximum: 100. |

### 3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TotalCount</td>
<td>Integer</td>
<td>Total number of CDH instances meeting the query conditions</td>
</tr>
<tr>
<td>HostSet</td>
<td>Array of HostItem</td>
<td>Information on CDH instances</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

### 4. Example

**Example1 Querying the list of CDH instances**

This example shows you how to query the details of one or more CDH instances.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=DescribeHosts
&Filters.0.Name=zone
&Filters.0.Values.0=ap-guangzhou-2
&Offset=0
&Limit=20
&<common request parameters>
```
5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0
6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidHostId.Malformed</td>
<td>Invalid CDH ID. The specified CDH ID has an invalid format. For example, host-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidZone.MismatchRegion</td>
<td>The specified zone does not exist.</td>
</tr>
<tr>
<td>UnauthorizedOperation</td>
<td>Unauthorized operation.</td>
</tr>
</tbody>
</table>
## 1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to modify the attributes of a CDH instance, such as instance name and renewal flag. One of the two parameters, HostName and RenewFlag, must be set, but you cannot set both of them at the same time.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ModifyHostsAttribute.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>HostIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>CDH instance ID(s).</td>
</tr>
<tr>
<td>HostName</td>
<td>No</td>
<td>String</td>
<td>CDH instance name to be displayed. You can specify any name you like, but its length cannot exceed 60 characters.</td>
</tr>
<tr>
<td>RenewFlag</td>
<td>No</td>
<td>String</td>
<td>Auto renewal flag. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• NOTIFY_AND_AUTO_RENEW: notify upon expiration and renew automatically</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• NOTIFY_AND_MANUAL_RENEW: notify upon expiration but do not renew automatically</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• DISABLE_NOTIFY_AND_MANUAL_RENEW: neither notify upon expiration nor renew automatically</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If this parameter is specified as NOTIFY_AND_AUTO_RENEW, the instance will be automatically renewed on a monthly basis if the account balance is sufficient.</td>
</tr>
<tr>
<td>ProjectId</td>
<td>No</td>
<td>Integer</td>
<td>Project ID. You can create a project by using the AddProject API and obtain its ID from the response parameter projectId of the DescribeProject API. Subsequently, the project ID can be used to filter results when you query instances by calling the DescribeHosts API.</td>
</tr>
</tbody>
</table>
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Modifying the attributes of a CDH instance**

This example shows you how to modify the `HostName` attribute of a specified CDH instance.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=ModifyHostsAttribute
&HostIds.0=host-ey16rkyg
&HostName=webserver
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "RequestID": "3c140219-cfe9-470e-b241-907677d6fb03"
  }
}
```

5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0
## 6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidHost.NotSupported</td>
<td>The specified operation on this CDH instance is not supported.</td>
</tr>
<tr>
<td>InvalidHostId.Malformed</td>
<td>Invalid CDH ID. The specified CDH ID has an invalid format. For example, host-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidHostId.NotFound</td>
<td>The specified HostId does not exist, or does not belong to your account.</td>
</tr>
</tbody>
</table>
Image APIs
CreateImage

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to create a new image with the system disk of an instance. The image can be used to create new instances.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: CreateImage.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>ImageName</td>
<td>Yes</td>
<td>String</td>
<td>Image name</td>
</tr>
<tr>
<td>InstanceId</td>
<td>No</td>
<td>String</td>
<td>Instance ID used to create an image.</td>
</tr>
<tr>
<td>ImageDescription</td>
<td>No</td>
<td>String</td>
<td>Image description</td>
</tr>
<tr>
<td>ForcePoweroff</td>
<td>No</td>
<td>String</td>
<td>Whether to force shut down an instance to create an image when a soft shutdown fails</td>
</tr>
<tr>
<td>Sysprep</td>
<td>No</td>
<td>String</td>
<td>Whether to enable Sysprep when creating a Windows image</td>
</tr>
<tr>
<td>DataDiskIds.N</td>
<td>No</td>
<td>Array of String</td>
<td>Specified data disk ID included in the full image created from the instance.</td>
</tr>
<tr>
<td>SnapshotIds.N</td>
<td>No</td>
<td>Array of String</td>
<td>Specified snapshot ID used to create an image. A system disk snapshot must be included. It cannot be passed together with InstanceId.</td>
</tr>
<tr>
<td>DryRun</td>
<td>No</td>
<td>Boolean</td>
<td>Success status of this request, without affecting the resources involved</td>
</tr>
</tbody>
</table>

3. Output Parameters
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImageId</td>
<td>String</td>
<td>Image ID&lt;br&gt;Note: This field may return null, indicating that no valid value was found.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Creating an image**

This example shows you how to create an image from the instance “ins-6pb6irmy”. If the instance is running, perform a soft shutdown. If the soft shutdown fails, the task will end (default semantics).

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=CreateImage
&InstanceId=ins-6pb6irmy
&ImageName=name
&<common request parameters>
```

**Output Example**

```json
{
  "Response": {
    "ImageId": "img-0yc6rie8",
    "RequestId": "71e69b56-32be-4412-ab45-49eded6a87be"
  }
}
```

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6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImageQuotaLimitExceeded</td>
<td>The image quota has been exceeded.</td>
</tr>
<tr>
<td>InvalidImageName.Duplicate</td>
<td>The specified image name already exists.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameter.DataDiskIdContainsRootDisk</td>
<td>RootDisk ID should not be passed to DataDiskIds.</td>
</tr>
<tr>
<td>InvalidParameter.DataDiskNotBelongSpecifiedInstance</td>
<td>The specified data disk does not belong to the specified instance.</td>
</tr>
<tr>
<td>InvalidParameter.DuplicateSystemSnapshots</td>
<td>Only one system disk snapshot can be included.</td>
</tr>
<tr>
<td>InvalidParameter.InstanceImageNotSupport</td>
<td>This API does not support instance images.</td>
</tr>
<tr>
<td>InvalidParameter.InvalidDependence</td>
<td>Invalid parameter dependency.</td>
</tr>
<tr>
<td>InvalidParameter.LocalDataDiskNotSupport</td>
<td>Local disks cannot be used to create instance images.</td>
</tr>
<tr>
<td>InvalidParameter.SnapshotNotFound</td>
<td>The specified snapshot does not exist.</td>
</tr>
<tr>
<td>InvalidParameter.SpecifyOneParameter</td>
<td>At least one of the multiple parameters must be passed in.</td>
</tr>
<tr>
<td>InvalidParameter.SwapDiskNotSupport</td>
<td>Swap disks are not supported.</td>
</tr>
<tr>
<td>InvalidParameter.SystemSnapshotNotFound</td>
<td>The parameter does not contain system disk snapshot.</td>
</tr>
<tr>
<td>InvalidParameter.ValueTooLarge</td>
<td>The length of parameter exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterConflict</td>
<td>The two specified parameters conflict. An EIP can only be bound to the instance or the specified private IP of the specified ENI.</td>
</tr>
<tr>
<td>InvalidParameterValue.TooLarge</td>
<td>The parameter value exceeds the maximum limit.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>ResourceInsufficient.CloudDiskUnavailable</td>
<td>The parameters of cloud disk do not meet the specification.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.NotSupport_InstanceImage</td>
<td>The instance does not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the <strong>no charges when shut down</strong> feature.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to delete images.

- If the `ImageState` of an image is `Creating` or `In Use`, it cannot be deleted. Use `DescribelImages` to query the image state.
- You can only create up to 10 custom images in each region. If you have used up the quota, you can delete images to create new ones.
- A shared image cannot be deleted.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter `Region` is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DeleteImages.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>ImageIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>List of the IDs of the instances to be deleted.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example
Example1 Deleting an image

This example shows you how to delete an image whose image ID is img-34vaef8fe. If the image is in use or the image ID does not exist, no operation will be performed and an error code will be returned.

Input Example

```
GET https://cvm.tencentcloudapi.com/?Action=DeleteImages
&ImageIds.0=img-34vaef8fe
&<common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "71e69b56-32be-4412-ab45-49eded6a87be"
  }
}
```

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- API 3.0 Explorer

**SDK**

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidImageId.InShared</td>
<td>The image is being shared.</td>
</tr>
<tr>
<td>InvalidImageId.IncorrectState</td>
<td>Invalid image status.</td>
</tr>
<tr>
<td>InvalidImageId.Malformed</td>
<td>Invalid image ID format.</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>Code</td>
<td>Message</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidImageId</td>
<td>The image does not support this operation.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the image quota of an user account. A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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Try it

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeImageQuota.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImageNumQuota</td>
<td>Integer</td>
<td>The image quota of an account</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Querying image quota

This example shows you how to query your image quota.

Input Example
GET https://cvm.tencentcloudapi.com/?Action=DescribeImageQuota
&<Common request parameters>

Output Example

```
{
    "Response": {
        "RequestId": "71e69b56-32be-4412-ab45-49eded6a87be",
        "ImageNumQuota": 20
    }
}
```

5. Developer Resources

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.
DescribeImageSharePermission

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query image sharing information.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeImageSharePermission.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>ImageId</td>
<td>Yes</td>
<td>String</td>
<td>The ID of the image to be shared</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SharePermissionSet</td>
<td>Array of SharePermission</td>
<td>Information on image sharing.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Querying sharing information of a specified image

This example shows you how to query the sharing information of an image whose image ID is img-6pb6lrmy.
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<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidAccountId.NotFound</td>
<td>Invalid account ID.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>InvalidAccountIs.YourSelf</td>
<td>You cannot share images with yourself.</td>
</tr>
<tr>
<td>InvalidImageId.Malformed</td>
<td>Invalid image ID format.</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>OverQuota</td>
<td>The number of shared images exceeds the quota.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to view the list of images.

- You specify the image ID or set filters to query the details of certain images.
- You can specify Offset and Limit to select a certain part of the results. By default, the information on the first 20 matching results is returned.

A maximum of 40 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeImages.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>ImageIds.N</td>
<td>No</td>
<td>Array of String</td>
<td>List of image IDs, such as img-gvbnzy6f. For the format of array-type parameters, see API Introduction. You can obtain the image IDs in two ways: Call DescribeImages and look for ImageId in the response. View the image IDs in the Image Console.</td>
</tr>
<tr>
<td>Filters.N</td>
<td>No</td>
<td>Array of Filter</td>
<td>Filters. Each request can have up to 10 Filters and 5 Filters.Values. You cannot specify ImageIds and Filters at the same time. Specific filters: image-id - String - Optional - Filter results by image ID, image-type - String - Optional - Filter results by image type. Valid values: PRIVATE_IMAGE: private image created by the current account, PUBLIC_IMAGE: public image created by Tencent Cloud, SHARED_IMAGE: image shared with the current account by another account.</td>
</tr>
<tr>
<td>Offset</td>
<td>No</td>
<td>Integer</td>
<td>Offset; default value: 0. For more information on Offset, see API Introduction.</td>
</tr>
<tr>
<td>Limit</td>
<td>No</td>
<td>Integer</td>
<td>Number of results returned; default value: 20; maximum: 100. For more information on Limit, see API Introduction.</td>
</tr>
</tbody>
</table>
### 3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImageSet</td>
<td>Array of Image</td>
<td>Information on an image, including its state and attributes.</td>
</tr>
<tr>
<td>TotalCount</td>
<td>Integer</td>
<td>Number of images meeting the filtering conditions.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

### 4. Example

#### Example1 Querying an image by its image ID

This example shows you how to query the information on an image by the image ID.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=DescribeImages
&Filters.0.Name=image-id
&Filters.0.Values.0=img-pmqg1cw7
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "ImageSet": [
      {
        "ImageId": "img-pmqg1cw7",
        "ImageOsName": "centos6.6x86_32",
        "ImageType": "PUBLIC_IMAGE",
        "ImageCreateTime": "1970-01-01T00:00:00+00:00",
        "ImageStatus": "NORMAL",
        "ImageName": "CentOS 6.6 32-bit",
        "ImageDescription": "CentOS 6.6 32-bit",
        "Creator": "PUBLIC"
      }
    ],
    "TotalCount": 1,
    "RequestId": "5920380e-277a-420a-a221-0caac3eb7159"
  }
}
```

#### Example2 Querying images by image type

This example shows you how to query all private images under an account.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=DescribeImages
&Filters.0.Name=image-type
&Filters.0.Values.0=PRIVATE_IMAGE
&<Common request parameters>

Output Example

```json
{
"Response": {
"ImageSet": [
{
"ImageId": "img-pmqg1cw7",
"ImageOsName": "centos6.6x86_32",
"ImageType": "PUBLIC_IMAGE",
"ImageCreateTime": "1970-01-01T00:00:00+00:00",
"ImageStatus": "NORMAL",
"ImageName": "CentOS 6.6 32-bit",
"ImageDescription": "CentOS 6.6 32-bit",
"Creator": "PUBLIC"
}
],
"TotalCount": 1,
"RequestId": "5920380e-277a-420a-a221-0caac3eb7159"
}
}
```

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<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
</table>

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<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidFilter</td>
<td>Invalid filter.</td>
</tr>
<tr>
<td>InvalidImageId.Malformed</td>
<td>Invalid image ID format.</td>
</tr>
<tr>
<td>InvalidInstanceType.Malformed</td>
<td>The specified InstanceType parameter has an invalid format.</td>
</tr>
<tr>
<td>InvalidParameter.InvalidParameterCoexistImageIdsFilters</td>
<td>ImageIds and Filters cannot be specified at the same time.</td>
</tr>
<tr>
<td>InvalidParameterValue.InstanceTypeNotFound</td>
<td>The specified instance type does not exist.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidParameterValueLimit</td>
<td>Invalid parameter value.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the list of supported operating systems of imported images.

A maximum of 288 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeImportImageOs.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImportImageOsListSupported</td>
<td>ImageOsList</td>
<td>Supported operating system types of imported images.</td>
</tr>
<tr>
<td>ImportImageOsVersionSet</td>
<td>Array of OsVersion</td>
<td>Supported operating system versions of imported images.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Querying the supported operating systems of imported images

Input Example
GET https://cvm.tencentcloudapi.com/?Action=DescribeImportImageOs
&<Common request parameters>

Output Example

```json
{
 "Response": {
 "ImportImageOsListSupported": {
 "Linux": [
 "CentOS",
 "Ubuntu",
 "Debian",
 "OpenSUSE",
 "SUSE",
 "CoreOS",
 "FreeBSD",
 "Other Linux"
 ],
 "Windows": [
 "Windows Server 2008",
 "Windows Server 2012",
 "Windows Server 2016"
 ],
 "ImportImageOsVersionSet": [
 {
 "OsName": "Windows Server 2008",
 "OsVersions": [
 "-
 ],
 "Architecture": [
 "x86_64",
 "i386"
 ]
 },
 {
 "OsName": "Windows Server 2012",
 "OsVersions": [
 "-
 ],
 "Architecture": [
 "x86_64",
 "i386"
 ]
 },
 {
 "OsName": "Windows Server 2016",
 "OsVersions": [
 "-
 ],
 "Architecture": [
 "x86_64",
 "i386"
 ]
 },
 {
 "OsName": "CentOS",
 "OsVersions": [
 "5",
 "6",
 "7"
 ]
 }
}
```
["Architecture": [
  "x86_64",
  "i386"
],
{"OsName": "CoreOS",
"OsVersions": [
  "7"
],
"Architecture": [
  "x86_64",
  "i386"
]},
{"OsName": "Debian",
"OsVersions": [
  "6",
  "7",
  "8",
  "9"
],
"Architecture": [
  "x86_64",
  "i386"
]},
{"OsName": "FreeBSD",
"OsVersions": [
  "10"
],
"Architecture": [
  "x86_64",
  "i386"
]},
{"OsName": "Redhat",
"OsVersions": [
  "5",
  "6",
  "7"
],
"Architecture": [
  "x86_64",
  "i386"
]},
{"OsName": "OpenSUSE",
"OsVersions": [
  "11",
  "12"
],
"Architecture": [
  "x86_64",
  "i386"
]}]
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6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.
ImportImage
Last updated : 2020-08-14 10:09:07

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to import images. Imported images can be used to create instances.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ImportImage.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>Architecture</td>
<td>Yes</td>
<td>String</td>
<td>OS architecture of the image to be imported, <strong>x86_64</strong> or <strong>i386</strong>.</td>
</tr>
<tr>
<td>OsType</td>
<td>Yes</td>
<td>String</td>
<td>OS type of the image to be imported. You can call DescribeImportImageOs to obtain the list of supported operating systems.</td>
</tr>
<tr>
<td>OsVersion</td>
<td>Yes</td>
<td>String</td>
<td>OS version of the image to be imported. You can call DescribeImportImageOs to obtain the list of supported operating systems.</td>
</tr>
<tr>
<td>ImageUrl</td>
<td>Yes</td>
<td>String</td>
<td>Address on COS where the image to be imported is stored.</td>
</tr>
<tr>
<td>ImageName</td>
<td>Yes</td>
<td>String</td>
<td>Image name</td>
</tr>
<tr>
<td>ImageDescription</td>
<td>No</td>
<td>String</td>
<td>Image description</td>
</tr>
<tr>
<td>DryRun</td>
<td>No</td>
<td>Boolean</td>
<td>Dry run to check the parameters without performing the operation</td>
</tr>
<tr>
<td>Force</td>
<td>No</td>
<td>Boolean</td>
<td>Whether to force import the image. For more information, see Forcibly Import Image.</td>
</tr>
</tbody>
</table>

3. Output Parameters
### 4. Example

**Example1 Importing an image**

This example shows you how to import an image.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=ImportImage
&OsType=CentOS
&OsVersion=6
&ImageName=sample
&ImageDescription=sampleimage
&ImageUrl=http://111-125123127.cosd.myqcloud.com/Windows%20Server%202008%20R2%20x64a.vmdk
&Architecture=x86_64
&<Common request parameters>
```

**Output Example**

```json
{
  "Response": {
    "RequestId": "71e69b56-32be-4412-ab45-49ed6a87be"
  }
}
```

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<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImageQuotaLimitExceeded</td>
<td>The image quota has been exceeded.</td>
</tr>
<tr>
<td>InvalidImageName.Duplicate</td>
<td>The specified image name already exists.</td>
</tr>
<tr>
<td>InvalidImageOsType.Unsupported</td>
<td>The operating system type is not supported.</td>
</tr>
<tr>
<td>InvalidImageOsVersion.Unsupported</td>
<td>The operating system version is not supported.</td>
</tr>
<tr>
<td>InvalidParameter.InvalidParameterUrlError</td>
<td>Invalid URL.</td>
</tr>
<tr>
<td>InvalidParameterValue.TooLarge</td>
<td>The parameter value exceeds the maximum limit.</td>
</tr>
<tr>
<td>RegionAbilityLimit.UnsupportedToImportImage</td>
<td>This region does not support importing images.</td>
</tr>
</tbody>
</table>
ModifyImageAttribute

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to modify image attributes.

- Attributes of shared images cannot be modified.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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Try it
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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ModifyImageAttribute.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>ImageId</td>
<td>Yes</td>
<td>String</td>
<td>Image ID such as <code>img-gvbnzy6f</code>. You can obtain the image IDs in two ways: Call DescribeImages and look for <code>ImageId</code> in the response.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ImageName</td>
<td>No</td>
<td>String</td>
<td>New image name, which must meet the following requirements:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- No more than 20 characters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Must be unique.</td>
</tr>
<tr>
<td>ImageDescription</td>
<td>No</td>
<td>String</td>
<td>New image description, which must meet the following requirement:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- No more than 60 characters.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>
4. Example

Example1 Modifying image name
This example shows you how to change the name of an image whose image ID is `img-6pb6lrmy` to "sample".

Input Example

```
GET https://cvm.tencentcloudapi.com/?Action=ModifyImageAttribute
&ImageId=img-6pb6lrmy
&ImageName=sample
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "71e69b56-32be-4412-ab45-49eded6a87be"
  }
}
```

5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidImageId.IncorrectState</td>
<td>Invalid image status.</td>
</tr>
<tr>
<td>InvalidImageId.Malformed</td>
<td>Invalid image ID format.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>InvalidImageName.Duplicate</td>
<td>The specified image name already exists.</td>
</tr>
<tr>
<td>InvalidParameter.ValueTooLarge</td>
<td>The length of parameter exceeds the limit.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to modify image sharing information.

- The accounts with which an image is shared can use the shared image to create instances.
- Each custom image can be shared with up to 50 accounts.
- You can use a shared image to create instances, but you cannot change its name and description.
- If an image is shared with another account, the shared image will be in the same region as the original image.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<tr>
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<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ModifyImageSharePermission.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>ImageId</td>
<td>Yes</td>
<td>String</td>
<td>Image ID such as img-gvbnzy6f. You can obtain the image IDs in two ways: Call DescribeImages and look for ImageId in the response. You can only specify an image in the NORMAL state. For more information on image states, see here.</td>
</tr>
<tr>
<td>AccountIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>List of account IDs with which an image is shared. For the format of array-type parameters, see API Introduction. The account ID is different from the QQ number. You can find the account ID in Account Information.</td>
</tr>
<tr>
<td>Permission</td>
<td>Yes</td>
<td>String</td>
<td>Operations. Valid values: SHARE, sharing an image; CANCEL, cancelling an image sharing.</td>
</tr>
</tbody>
</table>

3. Output Parameters
### Parameter Name | Type | Description
--- | --- | ---
RequestId | String | The unique request ID, which is returned for each request. RequestId is required for locating a problem.

### 4. Example

#### Example1 Sharing an image

This example shows you how to share an image whose image ID is `img-6pb6lrmy` with the account `1038493875`.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=ModifyImageSharePermission
&ImageId=img-6pb6lrmy
&AccountIds.0=1038493875
&Permission=SHARE
&<Common request parameters>
```

**Output Example**

```json
{
    "Response": {
        "RequestId": "71e69b56-32be-4412-ab45-49eded6a87be"
    }
}
```

### 5. Developer Resources

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#### Command Line Interface

- Tencent Cloud CLI 3.0

### 6. Error Code
The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FailedOperation.AccountAlreadyExists</td>
<td>The account already exists.</td>
</tr>
<tr>
<td>FailedOperation.AccountIsYourSelf</td>
<td>You cannot share images with yourself.</td>
</tr>
<tr>
<td>InvalidAccountId.NotFound</td>
<td>Invalid account ID.</td>
</tr>
<tr>
<td>InvalidAccountId.YourSelf</td>
<td>You cannot share images with yourself.</td>
</tr>
<tr>
<td>InvalidImageId.Malformed</td>
<td>Invalid image ID format.</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>InvalidParameterValue.InstanceImageNotSupport</td>
<td>This API does not support instance images.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidImageId</td>
<td>The image does not support this operation.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>OverQuota</td>
<td>The number of shared images exceeds the quota.</td>
</tr>
</tbody>
</table>
SyncImages
Last updated: 2020-10-22 16:49:22

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to sync a custom image to other regions.

- Each API call syncs a single image.
- This API supports syncing an image to multiple regions.
- Each account can have up to 10 custom images in each region.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: SyncImages.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>
| ImageIds.N         | Yes      | Array of String | List of image IDs. You can obtain the image IDs in two ways:  
|                    |          |              |  - Call DescribeImages and look for ImageId in the response.  
|                    |          |              |  - Look for the information in the Image Console.  
|                    |          |              | The specified images must meet the following requirements:  
|                    |          |              |  - The images must be in the NORMAL state.  
|                    |          |              |  - The image size must be smaller than 50 GB.  
|                    |          |              | For more information on image states, see here.                         |
| DestinationRegions.N | Yes     | Array of String | List of destination regions for synchronization. A destination region must meet the following requirements:  
|                    |          |              |  - It cannot be the source region.  
|                    |          |              |  - It must be valid.  
|                    |          |              |  - Currently some regions do not support image synchronization.  
|                    |          |              | For specific regions, see Region.                                      |

3. Output Parameters
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Syncing an image

This example shows you how to sync an image `img-o3ycss2p` to the Guangzhou region.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=SyncImages
&ImageIds.0=img-o3ycss2p
&DestinationRegions.0=ap-guangzhou
&<common request parameters>
```

**Output Example**

```json
{
  "Response": {
    "RequestId": "71e69b56-32be-4412-ab45-49eded6a87be"
  }
}
```

5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImageQuotaLimitExceeded</td>
<td>The image quota has been exceeded.</td>
</tr>
<tr>
<td>InvalidImageId.IncorrectState</td>
<td>Invalid image status.</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>InvalidImageId.TooLarge</td>
<td>The image size exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameter.InstanceImageNotSupport</td>
<td>This API does not support instance images.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidImageId</td>
<td>The image does not support this operation.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidRegion.NotFound</td>
<td>The region cannot be found.</td>
</tr>
<tr>
<td>InvalidRegion.Unavailable</td>
<td>Currently this region does not support image synchronization.</td>
</tr>
<tr>
<td>UnsupportedOperation.Region</td>
<td>The region is unsupported.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to associate key pairs with instances.

- If the public key of a key pair is written to the SSH configuration of the instance, users will be able to log in to the instance with the private key of the key pair.
- If the instance is already associated with a key, the old key will become invalid.
- If you currently use a password to log in, you will no longer be able to do so after you associate the instance with a key.
- Batch operations are supported. The maximum number of instances in each request is 100. If any instance in the request cannot be associated with a key, you will get an error code.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: AssociateInstancesKeyPairs.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>
| InstanceIds.N  | Yes      | Array of String | Instance ID(s). The maximum number of instances in each request is 100. You can obtain the available instance IDs in two ways:
|                |          |          | - Log in to the console to query the instance IDs.
|                |          |          | - Call DescribeInstances and look for InstanceId in the response. |
| KeyIds.N       | Yes      | Array of String | Key ID(s). The maximum number of key pairs in each request is 100. The key pair ID is in the format of skey-3gl1ot13. You can obtain the available key pair IDs in two ways:
|                |          |          | - Log in to the console to query the key pair IDs.
|                |          |          | - Call DescribeKeyPairs and look for KeyId in the response. |
| ForceStop      | No       | Boolean  | Whether to force shut down a running instances. It is recommended to manually shut |
down a running instance before associating a key pair with it. Valid values:
- TRUE: force shut down an instance after a normal shutdown fails.
- FALSE: do not force shut down an instance after a normal shutdown fails.

Default value: FALSE.

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Binding a CVM key pair**

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=AssociateInstancesKeyPairs
&InstanceId.0=ins-1e4r6y8i
&InstanceId.1=ins-3e56fg78
&KeyId.0=skey-4e5ty7i8
&<common request parameters>
```

**Output Example**

```
{
"Response": {
"RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
}
}
```

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidKeyPairId.Malformed</td>
<td>Invalid key pair ID. The specified key pair ID has an invalid format. For example, skey-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidKeyPairId.NotFound</td>
<td>Invalid key pair ID. The specified key pair ID does not exist.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.KeyPairNotSupported</td>
<td>The specified key does not support the operation.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRunning</td>
<td>Running instances do not support this operation.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to create an OpenSSH RSA key pair, which you can use to log in to a Linux instance.

- You only need to specify a name, and the system will automatically create a key pair and return its ID and the public and private keys.
- The name of the key pair must be unique.
- You can save the private key to a file and use it as an authentication method for SSH.
- Tencent Cloud does not save users' private keys. Be sure to save it yourself.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: CreateKeyPair.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>KeyName</td>
<td>Yes</td>
<td>String</td>
<td>Name of the key pair, which can contain numbers, letters, and underscores, with a maximum length of 25 characters.</td>
</tr>
<tr>
<td>ProjectId</td>
<td>Yes</td>
<td>Integer</td>
<td>The ID of the project to which the new key pair belongs. You can query the project IDs in two ways: Query the project IDs in the project list. Call DescribeProject and look for projectId in the response.</td>
</tr>
</tbody>
</table>

3. Output Parameters
4. Example

Example1 Creating a key pair

Input Example

GET https://cvm.tencentcloudapi.com/?Action=CreateKeyPair
&KeyPairName=Tencent
&ProjectId=0
&<Common request parameters>

Output Example

{
    "Response": {
        "KeyPair": {
            "KeyId": "skey-mv9yzyjj",
            "KeyName": "Tencent",
            "ProjectId": 0,
            "PublicKey": "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQDP0Yw2T4itUK0JQIK69c1Asy1U088cxEbujiR5Jbr0e/Ey1v4ZKAuZDns8nfl4hKPA1YvMB8R8Yj4GcLtWPrknBNNram8rgL73X/kL008oxKV+j/XUA7KHH1Y6wcmn1RTRTMDHGbW1q/Upfey1NTbf+eIiWhEfAL5FKQm4hQw== skey_112168",
            "PrivateKey": "-----BEGIN RSA PRIVATE KEY-----
MIICXgIBAAKBgQDP0Yw2T4itUK0JQIK69c1Asy1U088cxEbujiR5Jbr0e/Ey1v4ZKAuZDns8nfl4hKPA1YvMB8R8Yj4GcLtWPrknBNNram8rgL73X/kL008oxKV+j/XUA7KHH1Y6wcmn1RTRTMDHGbW1q/Upfey1NTbf+eIiWhEfAL5FKQm4hQw== skey_112168-----BEGIN RSA PRIVATE KEY-----
-----END RSA PRIVATE KEY-----"
        },
        "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
    }
}

5. Developer Resources

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<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidKeyPair.LimitExceeded</td>
<td>The number of key pairs exceeds the limit.</td>
</tr>
<tr>
<td>InvalidKeyPairName.Duplicate</td>
<td>Key pair name already exists.</td>
</tr>
<tr>
<td>InvalidKeyPairNameEmpty</td>
<td>The key name cannot be empty.</td>
</tr>
<tr>
<td>InvalidKeyPairNameIncludeIllegalChar</td>
<td>The key name contains invalid characters. Key names can only contain letters, numbers and underscores.</td>
</tr>
<tr>
<td>InvalidKeyPairNameTooLong</td>
<td>The key name cannot exceed 25 characters.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidProjectId.NotFound</td>
<td>Invalid project ID: the specified project ID does not exist.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

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

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

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

<table>
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<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DeleteKeyPairs.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>
| KeyIds.N      | Yes      | Array of String       | Key ID(s). The maximum number of key pairs in each request is 100. You can obtain the available key pair IDs in two ways:  
                  - Log in to the console to query the key pair IDs.  
                  - Call DescribeKeyPairs and look for KeyId in the response. |

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>
4. Example

Example1 Deleting a key pair

Input Example

GET https://cvm.tencentcloudapi.com/?Action=DeleteKeyPairs
&KeyIds.0=skey-mv9yzyjj
&<Common request parameters>

Output Example

{
  "Response": {
    "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
  }
}

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidKeyPair.LimitExceeded</td>
<td>The number of key pairs exceeds the limit.</td>
</tr>
<tr>
<td>InvalidKeyPairId.Malformed</td>
<td>Invalid key pair ID. The specified key pair ID has an invalid format. For example, skey-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>Condition</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.KeyPairNotSupported</td>
<td>The specified key does not support the operation.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query key pairs.

- A key pair is a pair of keys generated by an algorithm in which the public key is available to the public and the private key is available only to the user. You can use this API to query the public key but not the private key.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeKeyPairs.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>KeyIds.N</td>
<td>No</td>
<td>Array of String</td>
<td>Key pair ID(s) in the format of skey-11112222. This API supports using multiple IDs as filters at the same time. For more information on the format of this parameter, see the id.N section in API Introduction. You cannot specify KeyIds and Filters at the same time. You can log in to the console to query the key pair IDs.</td>
</tr>
<tr>
<td>Filters.N</td>
<td>No</td>
<td>Array of Filter</td>
<td>Filters. • project-id - Integer - Optional - Filter results by project ID. To view the list of project IDs, you can go to Project Management, or call DescribeProject and look for projectId in the response. • key-name - String - Optional - Filter results by key pair name. You cannot specify KeyIds and Filters at the same time.</td>
</tr>
<tr>
<td>Offset</td>
<td>No</td>
<td>Integer</td>
<td>Offset; default value: 0. For more information on Offset, see the corresponding sections in API Introduction. Number of results returned; default value: 20; maximum: 100. For more information on Limit, see the corresponding section in API Introduction.</td>
</tr>
<tr>
<td>Limit</td>
<td>No</td>
<td>Integer</td>
<td>Number of results returned; default value: 20; maximum: 100. For more information on Limit, see the corresponding section in API Introduction.</td>
</tr>
</tbody>
</table>
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TotalCount</td>
<td>Integer</td>
<td>Number of key pairs meeting the filtering conditions.</td>
</tr>
<tr>
<td>KeyPairSet</td>
<td>Array of KeyPair</td>
<td>Detailed information on key pairs.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Example

Input Example

```
GET https://cvm.tencentcloudapi.com/?Action=DescribeKeyPairs
&Filters.0.Name=key-name
&Filters.0.Values.0=Tencent
&Offset=0
&Limit=20
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "TotalCount": 1,
    "KeyPairSet": [
      {
        "KeyId": "skey-mv9zyyji",
        "KeyName": "Tencent",
        "Description": "",
        "PublicKey": "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAAAgQDP0Yw2T4itUKOJIK69c1Asy1U088cxEbuJr5JBr0e/Ey1v4ZKAuzDnsBnFlf4hka1YvMB8BBYj
4GcLtm7prKnBNKram8rgT3gk/008gqKv+J/XUA7HH1Y6wnc1RTTRMDlHhGvW1ag/UpfeyLNTbf+eEIN+FaLSFKQ04hqcA== skey_112168",
        "AssociatedInstanceIds": [],
        "CreateTime": "2016-12-02T00:22:40Z"
      }
    ],
    "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
  }
}
```

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6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidFilter</td>
<td>Invalid filter.</td>
</tr>
<tr>
<td>InvalidFilterValue.LimitExceeded</td>
<td>Filter</td>
</tr>
<tr>
<td>InvalidKeyPair.LimitExceeded</td>
<td>The number of key pairs exceeds the limit.</td>
</tr>
<tr>
<td>InvalidKeyPairId.Malformed</td>
<td>Invalid key pair ID. The specified key pair ID has an invalid format. For example, <code>skey-1122</code> has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidParameter</td>
<td>A parameter error occurred.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValueLimit</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValueOffset</td>
<td>Invalid parameter value: invalid Offset.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to unbind one or more key pairs from one or more instances.

- It only supports **STOPPED** Linux instances.
- After a key pair is disassociated from an instance, you can log in to the instance with password.
- If you did not set a password for the instance, you will not be able to log in via SSH after the unbinding. In this case, you can call `ResetInstancesPassword` to set a login password.
- Batch operations are supported. The maximum number of instances in each request is 100. If instances not available for the operation are selected, you will get an error code.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

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<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DisassociateInstancesKeyPairs.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). The maximum number of instances in each request is 100.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>You can obtain the available instance IDs in two ways:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Log in to the <strong>console</strong> to query the instance IDs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Call <strong>DescribeInstances</strong> and look for <strong>InstanceId</strong> in the response.</td>
</tr>
<tr>
<td>KeyIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>List of key pair IDs. The maximum number of key pairs in each request is 100. The key pair ID is in the format of <strong>skey-11112222</strong>.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>You can obtain the available key pair IDs in two ways:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Log in to the <strong>console</strong> to query the key pair IDs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Call <strong>DescribeKeyPairs</strong> and look for <strong>KeyId</strong> in the response.</td>
</tr>
<tr>
<td>ForceStop</td>
<td>No</td>
<td>Boolean</td>
<td>Whether to force shut down a running instances. It is recommended to manually shut</td>
</tr>
</tbody>
</table>
down a running instance before disassociating a key pair from it. Valid values:
- TRUE: force shut down an instance after a normal shutdown fails.
- FALSE: do not force shut down an instance after a normal shutdown fails.

Default value: FALSE.

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Disassociating key pairs from instances**

**Input Example**

GET https://cvm.tencentcloudapi.com/?Action=DisassociateInstancesKeyPairs
&InstanceId.0=ins-w34e5rl9
&KeyId.0=skey-e3r6y7ji
&<Common request parameters>

**Output Example**

```json
{
  "Response": {
    "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
  }
}
```

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</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format.</td>
</tr>
<tr>
<td></td>
<td>For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidKeyPairId.Malformed</td>
<td>Invalid key pair ID. The specified key pair ID has an invalid format.</td>
</tr>
<tr>
<td></td>
<td>For example, skey-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidKeyPairId.NotFound</td>
<td>Invalid key pair ID. The specified key pair ID does not exist.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRunning</td>
<td>Running instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateShutdown</td>
<td>Isolated instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the <strong>no charges when shut down</strong> feature.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to import key pairs.

- You can use this API to import key pairs to a user account, but the key pairs will not be automatically associated with any instance. You may use `AssociateInstancesKeyPair` to associate key pairs with instances.
- You need to specify the names of the key pairs and the content of the public keys.
- If you only have private keys, you can convert them to public keys with the SSL tool before importing them.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ImportKeyPair.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>KeyName</td>
<td>Yes</td>
<td>String</td>
<td>Key pair name, which can contain numbers, letters, and underscores, with a maximum length of 25 characters.</td>
</tr>
<tr>
<td>ProjectId</td>
<td>Yes</td>
<td>Integer</td>
<td>The ID of the project to which the created key pair belongs. You can retrieve the project ID in two ways: Query the project ID in Project Management. Call DescribeProject and search for projectId in the response. If you want to use the default project, specify 0 for the parameter.</td>
</tr>
<tr>
<td>PublicKey</td>
<td>Yes</td>
<td>String</td>
<td>Content of the public key in the key pair in the OpenSSH RSA format.</td>
</tr>
</tbody>
</table>

3. Output Parameters
### Parameter Table

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KeyId</td>
<td>String</td>
<td>Key pair ID</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

### 4. Example

**Example 1: Importing a key pair**

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=ImportKeyPair
&KeyName=operation_key
&ProjectId=0
&PublicKey=ssh-rsa XXXXXXXXXXXX== skey_45071
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "KeyId": "skey-4e5ty7i8",
    "RequestId": "6EF60BEC-0242-43AF-BB20-270359FB54A7"
  }
}
```

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- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET

**Command Line Interface**

- Tencent Cloud CLI 3.0
### 6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidKeyPair.LimitExceeded</td>
<td>The number of key pairs exceeds the limit.</td>
</tr>
<tr>
<td>InvalidKeyPairName.Duplicate</td>
<td>Key pair name already exists.</td>
</tr>
<tr>
<td>InvalidKeyPairNameEmpty</td>
<td>The key name cannot be empty.</td>
</tr>
<tr>
<td>InvalidKeyPairNameIncludeIllegalChar</td>
<td>The key name contains invalid characters. Key names can only contain letters, numbers and underscores.</td>
</tr>
<tr>
<td>InvalidKeyPairNameTooLong</td>
<td>The key name cannot exceed 25 characters.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidPublicKey.Duplicate</td>
<td>Invalid public key: the specified key already exists.</td>
</tr>
<tr>
<td>InvalidPublicKey.Malformed</td>
<td>Invalid public key: the specified public key does not meet the OpenSSH RSA format requirements.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

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

- This API modifies the name and description of the key pair identified by the key pair ID.
- The name of the key pair must be unique.
- Key pair ID is the unique identifier of a key pair and cannot be modified.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

We recommend you to use API Explorer

Try it

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ModifyKeyPairAttribute.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>
| KeyId          | Yes      | String | Key pair ID in the format of `skey-xxxxxxx`. You can obtain the available key pair IDs in two ways:  
|                |          |        | - Log in to the console to query the key pair IDs.  
|                |          |        | - Call DescribeKeyPairs and look for KeyId in the response.                |
| KeyName        | No       | String | New key pair name, which can contain numbers, letters, and underscores, with a maximum length of 25 characters. |
| Description    | No       | String | New key pair description. You can specify any name you like, but its length cannot exceed 60 characters. |

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
</table>
4. Example

**Example1 Modifying key pair name**

This example shows you how to modify the key pair name.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=ModifyKeyPairAttribute
&KeyId=skey-mv9yyjyj
&KeyName=Tencent
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
  }
}
```

**Example2 Modifying key pair description**

This example shows you how to modify the key pair description.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=ModifyKeyPairAttribute
&KeyId=skey-mv9yyjyj
&Description=Tencent
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "RequestId": "aea2227b-fbb7-4cc7-bf29-d49b2b5d9c7b"
  }
}
```

5. Developer Resources

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- API 3.0 Explorer

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**Command Line Interface**

- Tencent Cloud CLI 3.0

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<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidKeyPairId.Malformed</td>
<td>Invalid key pair ID. The specified key pair ID has an invalid format. For example, <code>skey-1122</code> has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidKeyPairId.NotFound</td>
<td>Invalid key pair ID. The specified key pair ID does not exist.</td>
</tr>
<tr>
<td>InvalidKeyPairName.Duplicate</td>
<td>Key pair name already exists.</td>
</tr>
<tr>
<td>InvalidParameter</td>
<td>A parameter error occurred.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
</tbody>
</table>
Instance APIs
AssociateSecurityGroups

Last updated: 2020-10-22 16:49:14

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to associate security groups with specified instances.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: AssociateSecurityGroups.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>SecurityGroupIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>ID of the security group to be associated, such as sg-efil73jd. Only one security group can be associated.</td>
</tr>
<tr>
<td>InstancedIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>ID of the instance bound in the format of ins-lesecurk. You can specify up to 100 instances in each request.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example
Example 1 Associating multiple instances with one security group

Input Example

GET https://cvm.tencentcloudapi.com/?Action=AssociateSecurityGroups
&InstanceId.0=ins-2zvpghhc
&InstanceId.1=ins-915zrb0p
&SecurityGroupId.0=sg-91d31839
&<common request parameters>

Output Example

```json
{
  "Response": {
    "RequestId": "3385dcf2-e1f0-4ed8-a924-c296721ab65f"
  }
}
```

5. Developer Resources

API Explorer

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- API 3.0 Explorer

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, <code>ins-1122</code> has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidSecurityGroupId.NotFound</td>
<td>The specified security group ID does not exist.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>InvalidSgId.Malformed</td>
<td>The specified security group ID is in the wrong format. For example, sg-id32 has an invalid instance ID length.</td>
</tr>
<tr>
<td>LimitExceeded.AssociateUSGLimitExceeded</td>
<td>An instance can be bound with up to 5 security groups.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>SecGroupActionFailure</td>
<td>A general error occurred during the security group service API call.</td>
</tr>
</tbody>
</table>
CreateDisasterRecoverGroup

Last updated: 2020-08-14 10:08:53

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to create a spread placement group. After you create one, you can specify it for an instance when you create the instance.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: CreateDisasterRecoverGroup.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>Name</td>
<td>Yes</td>
<td>String</td>
<td>Name of the spread placement group. The name must be 1-60 characters long and can contain both Chinese characters and English letters.</td>
</tr>
</tbody>
</table>
| Type           | Yes      | String   | Type of the spread placement group. Valid values:  
|                |          |          | • HOST: physical machine  
|                |          |          | • SW: switch  
|                |          |          | • RACK: rack  
| ClientToken    | No       | String   | A string used to ensure the idempotency of the request, which is generated by the user and must be unique to each request. The maximum length is 64 ASCII characters. If this parameter is not specified, the idempotency of the request cannot be guaranteed. For more information, see 'How to ensure idempotency'. |

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisasterRecoverGroupId</td>
<td>String</td>
<td>List of spread placement group IDs.</td>
</tr>
</tbody>
</table>
### 4. Example

**Example1 Creating a spread placement group**

Create a spread placement group

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=CreateDisasterRecoverGroup
&Name=Physical machine disaster recovery group
&Type=HOST
&<Common request parameter>
```

**Output Example**

```json
{
  "Response": {
    "Type": "HOST",
    "DisasterRecoverGroupId": "ps-qajfd25h",
    "Name": "Physical machine disaster recovery group",
    "CvmQuotaTotal": 50,
    "CurrentNum": 0,
    "CreateTime": "2018-06-08T07:26:38Z",
    "RequestId": "21387009-9b9c-4b57-8fa2-8228f702ff6c"
  }
}
```

### 5. Developer Resources

**API Explorer**

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- [API 3.0 Explorer](#)

**SDK**

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- Tencent Cloud SDK 3.0 for Python
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**Command Line Interface**

- Tencent Cloud CLI 3.0

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<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidParameterValue.Range</td>
<td>Invalid parameter value: invalid parameter value range.</td>
</tr>
<tr>
<td>InvalidParameterValue.TooLong</td>
<td>Invalid parameter value: parameter value is too long.</td>
</tr>
</tbody>
</table>
DeleteDisasterRecoverGroups

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to delete a spread placement group. Only empty placement groups can be deleted. To delete a non-empty group, you need to terminate all the CVM instances in it first. Otherwise, the deletion will fail.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DeleteDisasterRecoverGroups.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>DisasterRecoverGroupIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>ID list of spread placement groups, obtainable via the DescribeDisasterRecoverGroups API. You can operate up to 100 spread placement groups in each request.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Deleting a spread placement group**

Deletes a spread placement group
5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

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<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FailedOperation.PlacementSetNotEmpty</td>
<td>The specified placement group is not empty.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>ResourceInsufficient.DisasterRecoverGroupCvmQuota</td>
<td></td>
</tr>
<tr>
<td>ResourceNotFound.InvalidPlacementSet</td>
<td>The specified placement group does not exist.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the quota of spread placement groups.

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

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeDisasterRecoverGroupQuota.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GroupQuota</td>
<td>Integer</td>
<td>The maximum number of placement groups that can be created.</td>
</tr>
<tr>
<td>CurrentNum</td>
<td>Integer</td>
<td>The number of placement groups that have been created by the current user.</td>
</tr>
<tr>
<td>CvmInHostGroupQuota</td>
<td>Integer</td>
<td>Quota on instances in a physical-machine-type disaster recovery group.</td>
</tr>
<tr>
<td>CvmInSwGroupQuota</td>
<td>Integer</td>
<td>Quota on instances in a switch-type disaster recovery group.</td>
</tr>
<tr>
<td>CvmInRackGroupQuota</td>
<td>Integer</td>
<td>Quota on instances in a rack-type disaster recovery group.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

DescribeDisasterRecoverGroupQuota

Last updated: 2020-08-14 10:08:52
Example1 Querying placement group quota

This example shows you how to query your placement group quota.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=DescribeDisasterRecoverGroupQuota
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "GroupQuota": 10,
    "CvmInHostGroupQuota": 50,
    "CvmInSwGroupQuota": 20,
    "CvmInRackGroupQuota": 30,
    "CurrentNum": 25,
    "RequestId": "a13da94a-1cbe-42ca-ae4e-076a7c"
  }
}
```

5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see [Common Error Codes](#).
DescribeInstanceFamilyConfigs

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query a list of model families available to the current user in the current region.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter: The value used for this API: DescribeInstanceFamilyConfigs.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter: The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstanceFamilyConfigSet</td>
<td>Array of InstanceFamilyConfig</td>
<td>List of instance model families</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Querying supported instance model families

This example shows you how to query the list of instance model families supported in the Guangzhou region.

Input Example
GET https://cvm.tencentcloudapi.com/?Action=DescribeInstanceFamilyConfigs
&Region=ap-guangzhou
&<Common request parameter>

Output Example

```json
{
    "Response": {
        "InstanceFamilyConfigSet": [
            {
                "InstanceFamilyName": "Standard S1",
                "InstanceFamily": "S1"
            },
            {
                "InstanceFamilyName": "Network-optimized N1",
                "InstanceFamily": "N1"
            },
            {
                "InstanceFamilyName": "High IO I1",
                "InstanceFamily": "I1"
            },
            {
                "InstanceFamilyName": "MEM-optimized M1",
                "InstanceFamily": "M1"
            },
            {
                "InstanceFamilyName": "Standard S2",
                "InstanceFamily": "S2"
            },
            {
                "InstanceFamilyName": "Standard SN2",
                "InstanceFamily": "SN2"
            },
            {
                "InstanceFamilyName": "High IO I2",
                "InstanceFamily": "I2"
            },
            {
                "InstanceFamilyName": "MEM-optimized M2",
                "InstanceFamily": "M2"
            },
            {
                "InstanceFamilyName": "Compute C2",
                "InstanceFamily": "C2"
            },
            {
                "InstanceFamilyName": "Compute CN2",
                "InstanceFamily": "CN2"
            },
            {
                "InstanceFamilyName": "Standard S3",
                "InstanceFamily": "S3"
            },
            {
                "InstanceFamilyName": "Compute C3",
                "InstanceFamily": "C3"
            },
            {
                "InstanceFamilyName": "FPGA FX2",
                "InstanceFamily": "FX2"
            }
        ]
    }
}
```
5. Developer Resources

API Explorer

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- API 3.0 Explorer

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET

Command Line Interface

- Tencent Cloud CLI 3.0
6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidRegion.NotFound</td>
<td>The region cannot be found.</td>
</tr>
</tbody>
</table>

DescribeDisasterRecoverGroups

Last updated: 2020-08-14 10:08:52

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the information on spread placement groups.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

We recommend you to use API Explorer

Try it

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeDisasterRecoverGroups.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>DisasterRecoverGroupIds.N</td>
<td>No</td>
<td>Array of String</td>
<td>ID list of spread placement groups. You can operate up to 100 spread placement groups in each request.</td>
</tr>
<tr>
<td>Name</td>
<td>No</td>
<td>String</td>
<td>Name of a spread placement group. Fuzzy match is supported.</td>
</tr>
<tr>
<td>Offset</td>
<td>No</td>
<td>Integer</td>
<td>Offset; default value: 0. For more information on Offset, see the corresponding section in API Introduction.</td>
</tr>
<tr>
<td>Limit</td>
<td>No</td>
<td>Integer</td>
<td>Number of results returned; default value: 20; maximum: 100. For more information on Limit, see the corresponding section in API Introduction.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisasterRecoverGroupSet</td>
<td>Array of DisasterRecoverGroup</td>
<td>Information on spread placement groups.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TotalCount</td>
<td>Integer</td>
<td>Total number of placement groups of the user.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>required for locating a problem.</td>
</tr>
</tbody>
</table>

### 4. Example

#### Example 1: Querying the information of a spread placement group

This example shows you how to query the information of a spread placement group.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=DescribeDisasterRecoverGroups&<common request parameters>
```

**Output Example**

```json
{
  "Response": {
    "DisasterRecoverGroupSet": [
      {
        "DisasterRecoverGroupId": "ps-21q9ibvr",
        "Name": "Database service",
        "Type": "RACK",
        "CvmQuotaTotal": 30,
        "CurrentNum": 0,
        "InstanceIds": [],
        "CreateTime": "2018-04-19T02:47:12Z"
      }
    ],
    "TotalCount": 1,
    "RequestId": "c68ce193-be41-4d13-9a9b-2dc831db6477"
  }
}
```

### 5. Developer Resources

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the model configuration of an instance.

- You can filter the query results with `zone` or `instance-family`. For more information on filtering conditions, see Filter.
- If no parameter is defined, the model configuration of all the instances in the specified region will be returned.

A maximum of 40 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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Try it

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeInstanceTypeConfigs.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>Filters.N</td>
<td>No</td>
<td>Array of Filter</td>
<td></td>
</tr>
</tbody>
</table>

- **zone**
  - Filter results by availability zones. For example, availability zone: ap-guangzhou-1.
  - Type: String
  - Required: no
  - Valid values: list of availability zones

- **instance-family**
  - Filter results by instance models. For example, instance models: S1, I1 and M1.
  - Type: Integer
  - Required: no
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstanceTypeConfigSet</td>
<td>Array of InstanceTypeConfig</td>
<td>List of instance model families</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Querying a list of instance models**

This example shows you how to query instance types of the family `I1` in Guangzhou Zone 2.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=DescribeInstanceTypeConfigs
&Filters.0.Name=zone
&Filters.0.Values.0=ap-guangzhou-2
&Filters.1.Name=instance-family
&Filters.1.Values.0=I1
&<Common request parameter>
```

**Output Example**

```json
{
  "Response": {
    "InstanceTypeConfigSet": [
      {
        "Zone": "ap-guangzhou-2",
        "InstanceFamily": "I1",
        "InstanceType": "I1.MEDIUM4",
        "CPU": 2,
        "GPU": 0,
        "FPGA": 0,
        "Memory": 4
      },
      {
        "Zone": "ap-guangzhou-2",
        "InstanceFamily": "I1",
        "InstanceType": "I1.MEDIUM8",
        "CPU": 2,
        "GPU": 0,
        "FPGA": 0,
        "Memory": 8
      },
      {
        "Zone": "ap-guangzhou-2",
        "InstanceFamily": "I1",
        "InstanceType": "I1.MEDIUM16",
        "CPU": 2,
        "GPU": 0,
        "FPGA": 0
      }
    ]
  }
}
```
5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidFilter</td>
<td>Invalid filter.</td>
</tr>
<tr>
<td>InvalidFilterValue.LimitExceeded</td>
<td>Filter</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidZone.MismatchRegion</td>
<td>The specified zone does not exist.</td>
</tr>
</tbody>
</table>
DescribeInstanceVncUrl

Last updated : 2020-10-22 16:49:21

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the Virtual Network Console (VNC) URL of an instance for its login to the VNC.

- It does not support `STOPPED` CVMs.

- A VNC URL is only valid for 15 seconds. If you do not access the URL within 15 seconds, it will become invalid and you have to query a URL again.

- Once the VNC URL is accessed, it will become invalid and you have to query a URL again if needed.

- If the connection is interrupted, you can make up to 30 reconnection attempts per minute.

- After getting the value `InstanceVncUrl`, you need to append `InstanceVncUrl=xxxx` to the end of the link https://img.qcloud.com/qcloud/app/active_vnc/index.html?.

  - `InstanceVncUrl`: its value will be returned after the API is successfully called.

  The final URL is in the following format:

  ```
  MFnhYmxkDg5WVZVRXfpdS3wJNv52tBbnFtREFCfTwBcy8vUUNPG0wShzN0UxRnSmPmUzNfDc#10dDJbUJx5TgLORXchZxYnZMnRkWZMcEzi2lyb9X
  WzckNnMf9
  ```

  A maximum of 10 requests can be initiated per second for this API.

  Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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  Try it

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2. Input Parameters

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeInstanceVncUrl.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Type</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>InstanceId</td>
<td>String</td>
<td>Instance ID. To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response.</td>
<td></td>
</tr>
<tr>
<td>InstanceVncUrl</td>
<td>String</td>
<td>Instance VNC URL.</td>
<td></td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
<td></td>
</tr>
</tbody>
</table>

### 4. Example

**Example 1: Querying the VNC URL of an instance**

This example shows you how to query the VNC URL of an instance.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=DescribeInstanceVncUrl
&Region=ap-beijing
&InstanceId=ins-r9hr2upy
&<common request parameters>
```

**Output Example**

```plaintext
{
  "Response": {
    "InstanceId": "wss%3A%2F%2Fbjvnc.qcloud.com%3A26789%2Fvnc%3Fs%3DaHpjMnRWFNhYnxKdDM5jRHNlVTSVQmajNJSN0wb2tBbmFtREFCTmFrcy8vUUNPMG0wSHZNUUxRm5PMUzWmFDc10dDlBbJxaSTZDLORXcxHZxYnZMrvRXWZ0EZia2lyb09XMzdKNoM9",
    "RequestId": "6ef60bec-0242-43af-bb20-270359f54a7"
  }
}
```

### 5. Developer Resources

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## 6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidInstanceState</td>
<td>This operation cannot be performed due to the current instance status.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateEnterRescueMode</td>
<td>Instances are entering the rescue mode, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateExitRescueMode</td>
<td>Instances are exiting from the rescue mode, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStatePending</td>
<td>The instances are being created, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateShutdown</td>
<td>Isolated instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopped</td>
<td>The instance has been shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the no charges when shut down feature.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the details of instances.
- You can filter the query results with the instance ID, name, or billing method. See Filter for more information.
- If no parameter is defined, a certain number of instances under the current account will be returned. The number is specified by Limit and is 20 by default.

A maximum of 40 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeInstances.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>No</td>
<td>Array of String</td>
<td>Query by instance ID(s). For example, instance ID: ins-xxxxxxxx. For the specific format, refer to section Ids.N of the API Introduction. You can query up to 100 instances in each request. However, InstanceIds and Filters cannot be specified at the same time.</td>
</tr>
<tr>
<td>Filters.N</td>
<td>No</td>
<td>Array of Filter</td>
<td>Filters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- zone - String - Optional - Filter results by availability zone.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- project-id - Integer - Optional - Filter results by project ID. You can call DescribeProject or log in to the console to view the list of existing projects. You can also create a new project by calling AddProject.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- host-id - String - Optional - Filter results by CDH ID. CDH ID format: host-xxxxxxxx.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- vpc-id - String - Optional - Filter results by VPC ID. VPC ID format: vpc-xxxxxxxx.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- subnet-id - String - Optional - Filter results by subnet ID. Subnet ID format: subnet-xxxxxxxx.</td>
</tr>
</tbody>
</table>
instance-id - String - Optional - Filter results by instance ID. Instance ID format: ins-xxxxxxxx.

security-group-id - String - Optional - Filter results by security group ID. Security group ID format: sg-8jkl3f3r.

instance-name - String - Optional - Filter results by instance name.

instance-charge-type - String - Optional - Filter results by instance billing method. POSTPAID_BY_HOUR: pay-as-you-go | CDHPAID: you are only billed for CDH instances, not the CVMs running on the CDH instances.

private-ip-address - String - Optional - Filter results by the private IP address of the instance's primary ENI.

public-ip-address - String - Optional - Filter results by the public IP address of the instance's primary ENI, including the IP addresses automatically assigned during the instance creation and the EIPs manually associated after the instance creation.

  * tag-key - String - Optional - Filter results by tag key.

  * tag-value - String - Optional - Filter results by tag value.

  * tag:tag-key - String - Optional - Filter results by tag key-value pair. Replace tag-key with specific tag keys, as shown in example 2.

Each request can have up to 10 Filters and 5 Filters.Values. You cannot specify InstanceIds and Filters at the same time.

Offset No Integer Offset; default value: 0. For more information on Offset, see the corresponding section in API Introduction.

Limit No Integer Number of results returned; default value: 20; maximum: 100. For more information on Limit, see the corresponding section in API Introduction.

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TotalCount</td>
<td>Integer</td>
<td>Number of instances meeting the filtering conditions.</td>
</tr>
<tr>
<td>InstanceSet</td>
<td>Array of Instance</td>
<td>Detailed instance information.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Querying a list of instances

This example shows you how to query instances in Guangzhou Zone 1 or Guangzhou Zone 2 and return up to one result.

Input Example

GET https://cvm.tencentcloudapi.com/?Action=DescribeInstances &Filters.0.Name=zone &Filters.0.Values,0=ap-guangzhou-1 &Filters.0.Values,1=ap-guangzhou-2 &Offset=0 &Limit=1 &<Common request parameters>
Output Example

```json
{
  "Response": {
    "InstanceSet": [
      {
        "RenewFlag": "null",
        "Uuid": "68b510db-b4c1-4630-a62b-73d0c7c970f9",
        "InstanceState": "RUNNING",
        "LatestOperationState": "SUCCESS",
        "OsName": "CentOS 7.6 64bit",
        "CreatedTime": "2020-03-10T02:43:51Z",
        "RestrictState": "NORMAL",
        "ExpiredTime": "2020-04-10T02:47:36Z",
        "DisasterRecoverGroupId": "",
        "Memory": 1,
        "IPv6Addresses": null,
        "CPU": 1,
        "CamRoleName": "",
        "PublicIpAddresses": [
          "123.207.11.190"
        ],
        "Tags": [],
        "InstanceId": "ins-9bxebleo",
        "PhysicalPosition": {
          "PosId": "48C7CA369705E6F3FE45126D39F2915",
          "SwitchId": "A5A6ACC7CB106C396E3CF7477C83FB4",
          "RackId": "DFE8AC9E6451978188E0B55AEEF0DD17"
        },
        "ImageId": "img-9qabwvbn",
        "StopChargingMode": "NOT_APPLICABLE",
        "InstanceChargeType": "PREPAID",
        "InstanceType": "S1.SMALL1",
        "SystemDisk": {
          "DiskSize": 50,
          "DiskId": "disk-nucurerk",
          "DiskType": "CLOUD_PREMIUM"
        },
        "Placement": {
          "ProjectId": 1174660,
          "HostId": null,
          "Zone": "ap-guangzhou-2"
        },
        "PrivateIpAddresses": [
          "172.16.32.78"
        ],
        "LoginSettings": {
          "KeyIds": null
        },
        "SecurityGroupIds": [
          "sg-plezv4ez"
        ],
        "InstanceName": "Test instance",
        "DataDisks": null,
        "IsolatedSource": "NOTISOLATED",
        "VirtualPrivateCloud": {
          "SubnetId": "subnet-a2676p0e",
          "AsVpcGateway": false,
          "VpcId": "vpc-g7wcv7n"
        },
        "LatestOperationRequestId": "3554eb5b-1cfa-471a-ae76-dc436c9d43e8"
      }
    ]
  }
}```
Example 2 Querying the latest operation of an instance

This example shows you how to use DescribeInstances to query the last operation and status of an instance after using StopInstances to stop it. You will see that the value of LatestOperation is StopInstances and LatestOperationState is OPERATING.

Input Example

```
GET https://cvm.tencentcloudapi.com/?Action=DescribeInstances
&Filters.0.Name=zone
&Filters.0.Values.0=ap-guangzhou
&Filters.0.Values.1=ap-guangzhou
&Offset=0
&Limit=1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "InstanceSet": [
    {
      "RenewFlag": "null",
      "Uuid": "68b510db-b4c1-4630-a62b-73d8c7c970f9",
      "InstanceState": "STOPPING",
      "LatestOperationState": "OPERATING",
      "OsName": "CentOS 7.6 64bit",
      "CreatedTime": "2020-03-10T02:43:51Z",
      "RestrictState": "NORMAL",
      "ExpiredTime": "2020-04-10T02:47:36Z",
      "DisasterRecoverGroupId": "",
      "Memory": 1,
      "IPv6Addresses": null,
      "CPU": 1,
      "CamRoleName": "",
      "PublicIpAddresses": [
      "123.207.11.190",
      ],
      "Tags": [],
      "InstanceId": "ins-9bxebleo",
      "PhysicalPosition": {
      "PosId": "4BC7C7A369B95E6F3FE45126D39F2915",
      "SwitchId": "A9A85ACC7C0186C396E3CFC7F477C883FB4",
      "RackId": "DFE6896C64519781B8E0B55AEF0DD17"
      },
      "ImageId": "img-9qawbwvbn",
      "StopChargingMode": "NOT APPLICABLE",
      "InstanceChargeType": "PREPAID",
      "InstanceType": "S1.SMALL1",
      "SystemDisk": {
```
Example 3 Querying instances associated with a tag

This example shows you how to query a list of instances associated with the tag key-value pair `city:shenzhen`.

Input Example

```
GET https://cvm.tencentcloudapi.com/?Action=DescribeInstances
&Filters.0.Name=tag:city
&Filters.0.Values.0=shenzhen
&Offset=0
&Limit=1
&<Common request parameters>
```

Output Example

```json
{
  "Response": {
    "InstanceSet": [
      {
        "RenewFlag": "NOTIFY_AND_MANUAL_RENEW",
        "Uuid": "68b510db-b4c1-4630-a62b-73d0c7c970f9",
        "InstanceState": "RUNNING",
```
"LatestOperationState": "SUCCESS",
"OsName": "CentOS 7.6 64bit",
"CreatedTime": "2020-03-10T02:43:51Z",
"RestrictState": "NORMAL",
"ExpiredTime": "2020-04-10T02:47:36Z",
"DisasterRecoverGroupId": "",
"Memory": 1,
"IPv6Addresses": null,
"CPU": 1,
"CamRoleName": "",
"PublicIpAddresses": [
  "123.207.11.190"
],
"Tags": [
  {
    "tagKey": "city",
    "Value": "shenzhen",
    "tagValue": "shenzhen",
    "Key": "city"
  }
],
"InstanceId": "ins-9bxebleo",
"PhysicalPosition": {
  "PosId": "48C7CA0697056F3FE4512D39F2915",
  "SwitchId": "A5A6ACC7CB116C39B03CF74770883F84",
  "RackId": "DFE8AC9645198108E0B55A5AF6D17"
},
"ImageId": "img-9qabwvbn",
"StopChargingMode": "NOT_APPLICABLE",
"InstanceChargeType": "PREPAID",
"InstanceType": "S1.SMALL1",
"SystemDisk": {
  "DiskSize": 50,
  "DiskId": "disk-nucurerk",
  "DiskType": "CLOUD_PREMIUM"
},
"Placement": {
  "ProjectId": 1174660,
  "HostId": null,
  "Zone": "ap-guangzhou-2"
},
"PrivateIpAddresses": [
  "172.16.32.78"
],
"LoginSettings": {
  "KeyIds": null
},
"SecurityGroupIds": [
  "sg-p1ezv4ez"
],
"InstanceName": "Test instance",
"DataDisks": null,
"IsolatedSource": "NOTISOLATED",
"VirtualPrivateCloud": {
  "SubnetId": "subnet-a2676p0a",
  "AsVpcGateway": false,
  "VpcId": "vpc-g7wzcv7n"
},
"LatestOperationRequestId": "3554eb5b-1cfa-471a-ae76-dc438c9d43e8",
"InternetAccessible": {
  "InternetMaxBandwidthOut": 1,
  "InternetChargeType": "BANDWIDTH_PREPAID"
5. Developer Resources

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- API 3.0 Explorer

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FailedOperation.IllegalTagKey</td>
<td>The tag key contains invalid characters.</td>
</tr>
<tr>
<td>FailedOperation.TagKeyReserved</td>
<td>The tag key specified in the request is reserved for the system.</td>
</tr>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidFilter</td>
<td>Invalid filter.</td>
</tr>
<tr>
<td>InvalidFilterValue.LimitExceeded</td>
<td>Filter</td>
</tr>
<tr>
<td>InvalidHostId.Malformed</td>
<td>Invalid CDH ID. The specified CDH ID has an invalid format. For example, host-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidParameter</td>
<td>A parameter error occurred.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidIpFormat</td>
<td>Invalid IP address.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValue.SubnetIdMalformed</td>
<td>Invalid subnet ID. Please provide a subnet ID in the format of subnet-xxxxxxxx, where “x” can be a lowercase letter or number.</td>
</tr>
<tr>
<td>InvalidSecurityGroupId.NotFound</td>
<td>The specified security group ID does not exist.</td>
</tr>
<tr>
<td>InvalidSgId.Malformed</td>
<td>The specified security group ID is in the wrong format. For example, sg-ide32 has an invalid instance ID length.</td>
</tr>
<tr>
<td>InvalidZone.MismatchRegion</td>
<td>The specified zone does not exist.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query limitations on operations on an instance.

- Currently you can use this API to query the maximum number of times you can modify the configuration of an instance.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

We recommend you to use API Explorer

Try it

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeInstancesOperationLimit.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Query by instance ID(s). You can obtain the instance IDs from the value of InstanceId returned by the DescribeInstances API. For example, instance ID: ins-xxxxxxxx. (For the specific format, refer to section ids.N of the API Introduction.) You can query up to 100 instances in each request.</td>
</tr>
</tbody>
</table>
| Operation      | Yes      | String | Operation on the instance(s).  
• INSTANCE_DEGRADE: downgrade the instance configurations |

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstanceOperationLimitSet</td>
<td>Array of OperationCountLimit</td>
<td>The maximum number of times you can modify the instance configurations (degrading the configurations)</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>
4. Example

Example1 Querying the number of configuration downgrade operations allowed

Input Example

GET https://cvm.tencentcloudapi.com/?Action=DescribeInstancesOperationLimit
&InstanceIds.0=ins-r8hr2upy
&Operation=INSTANCE_DEGRADE
<&common request parameters>

Output Example

```json
{
  "Response": {
    "InstanceOperationLimitSet": [
      {
        "Operation": "INSTANCE_DEGRADE",
        "InstanceId": "ins-r8hr2upy",
        "CurrentCount": 0,
        "LimitCount": 5
      }
    ],
    "RequestId": "951caf78-500f-42f6-8b83-a902d051d672"
  }
}
```

5. Developer Resources

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6. Error Code

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<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the status of instances.

- You can query the status of an instance with its ID.
- If no parameter is defined, the status of a certain number of instances under the current account will be returned. The number is specified by Limit and is 20 by default.

A maximum of 40 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeInstancesStatus.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>No</td>
<td>Array of String</td>
<td>Query by instance ID(s). For example, instance ID: ins-xxxxxx. For the specific format, refer to section Ids.N of the API Introduction. You can query up to 100 instances in each request.</td>
</tr>
<tr>
<td>Offset</td>
<td>No</td>
<td>Integer</td>
<td>Offset; default value: 0. For more information on Offset, see the corresponding section in API Introduction.</td>
</tr>
<tr>
<td>Limit</td>
<td>No</td>
<td>Integer</td>
<td>Number of results returned; default value: 20; maximum: 100. For more information on Limit, see the corresponding section in API Introduction.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TotalCount</td>
<td>Integer</td>
<td>Number of instance states meeting the filtering conditions.</td>
</tr>
</tbody>
</table>
### 4. Example

**Example1 Viewing the list of instance status**

This example shows you how to query two instances in the list of instance status.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=DescribeInstancesStatus
&InstanceId.0=ins-r8hr2upy
&InstanceId.1=ins-5d8a23rs
&Offset=0
&Limit=2
&<common request parameters>
```

**Output Example**

```json
{
  "Response": {
    "TotalCount": 2,
    "InstanceStatusSet": [
      {
        "InstanceId": "ins-r8hr2upy",
        "InstanceState": "RUNNING"
      },
      {
        "InstanceId": "ins-5d8a23rs",
        "InstanceState": "STOPPED"
      }
    ],
    "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
  }
}
```

### 5. Developer Resources

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6. Error Code

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<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
</tbody>
</table>
DescribeInternetChargeTypeConfigs

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the network billing methods.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeInternetChargeTypeConfigs.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternetChargeTypeConfigSet</td>
<td>Array of InternetChargeTypeConfig</td>
<td>List of network billing methods.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Querying the network billing methods**

When creating a CVM using API, you need to specify a network billing method. With this API, you can query the list of all network billing methods so that you can select one from them.

**Input Example**
GET https://cvm.tencentcloudapi.com/?Action=DescribeInternetChargeTypeConfigs
&<Common request parameters>

Output Example

```json
{
  "Response": {
    "InternetChargeTypeConfigSet": [
      {
        "InternetChargeType": "BANDWIDTH_POSTPAID_BY_MONTH",
        "Description": "Monthly postpaid"
      },
      {
        "InternetChargeType": "BANDWIDTH_PREPAID",
        "Description": "Bill by bandwidth"
      },
      {
        "InternetChargeType": "TRAFFIC_POSTPAID_BY_HOUR",
        "Description": "Bill by traffic"
      },
      {
        "InternetChargeType": "BANDWIDTH_POSTPAID_BY_HOUR",
        "Description": "Bill by bandwidth usage duration"
      },
      {
        "InternetChargeType": "BANDWIDTH_PACKAGE",
        "Description": "Bill by bandwidth package"
      }
    ],
    "RequestId": "c2abdac4-ea7b-4653-b07c-87cc303fabf0"
  }
}
```

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**Command Line Interface**

- Tencent Cloud CLI 3.0
6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to describe reserved instance (RI) offerings. Currently, RIs are only offered to beta users.

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

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeReservedInstancesConfigInfos.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>
| Filters.N      | No       | Array of Filter | zone Filters by the availability zones in which the reserved instance can be purchased, such as ap-guangzhou-1.  
|                |          |                 | Type: String                                                                                  |
|                |          |                 | Required: no                                                                                  |
|                |          |                 | Valid values: list of regions/availability zones                                              |
|                |          |                 | product-description Filters by the platform description (operating system) of the reserved instance, such as linux.  
|                |          |                 | Type: String                                                                                  |
|                |          |                 | Required: no                                                                                  |
|                |          |                 | Valid value: linux                                                                           |
|                |          |                 | duration Filters by the validity of the reserved instance, which is the purchased usage period.  
|                |          |                 | For example, 31536000.                                                                        |
|                |          |                 | Type: Integer                                                                                 |
|                |          |                 | Unit: second                                                                                  |
|                |          |                 | Required: no                                                                                  |
|                |          |                 | Valid values: 31536000 (1 year), 94608000 (3 years)                                          |
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReservedInstanceInfos</td>
<td>Array of ReservedInstanceConfigItem</td>
<td>Static configurations of the reserved instance.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Querying reserved instance configurations

Input Example

GET https://cvm.tencentcloudapi.com/?Action=DescribeReservedInstancesConfigInfos
&Filters.0.Name=zone
&Filters.0.Values.0=ap-guangzhou-1
&Offset=0
&Limit=1
&<Common request parameters>

Output Example

```
{
  "Response": {
    "ReservedInstanceConfigInfos": [
      {
        "Type": "C",
        "TypeName": "Compute",
        "Order": 400,
        "InstanceFamilies": [
          {
            "InstanceFamily": "C3",
            "TypeName": "Compute C3",
            "Order": 402,
            "InstanceTypes": [
              {
                "InstanceType": "C3.LARGE8",
                "Cpu": 4,
                "Memory": 8,
                "Gpu": 0,
                "Fpga": 0,
                "StorageBlock": 0,
                "NetworkCard": 0,
                "MaxBandwidth": 2.5,
                "Frequency": "3.2 GHz",
                "CpuModelName": "Intel Xeon Skylake 6146",
                "Pps": 60,
                "Externals": {},
                "Remark": "",
                "Prices": [
                  {
                    "ReservedInstancesOfferingId": "de08332b-1961-4efd-a470-efee242812a8",
                    "ReservedInstancesPrice": 1000.00
                  }
```
5. Developer Resources

**API Explorer**

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- **API 3.0 Explorer**

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET

**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
</table>

©2013-2019 Tencent Cloud. All rights reserved.
<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidFilter</td>
<td>Invalid filter.</td>
</tr>
<tr>
<td>UnsupportedOperation.InvalidPermissionNonInternationalAccount</td>
<td>The current operation is only supported for Tencent Cloud International users.</td>
</tr>
<tr>
<td>UnsupportedOperation.ReservedInstanceInvisibleForUser</td>
<td>Purchasing reserved instances is not supported for the current user.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the configurations of models in an availability zone.

A maximum of 40 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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Try it

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeZoneInstanceConfigInfos.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>Filters.N</td>
<td>No</td>
<td>Array of Filter</td>
<td></td>
</tr>
</tbody>
</table>

Filters.
- zone - String - Optional - Filter results by availability zone.
- instance-family - String - Optional - Filter results by instance model family, such as S1, I1, and M1.
- instance-type - String - Optional - Filter results by model. Different instance models have different configurations. You can call DescribeInstanceTypeConfigs to query the latest configuration list or refer to the documentation on instance types. If this parameter is not specified, S1.SMALL1 will be used by default.
- instance-charge-type - String - Optional - Filter results by instance billing method. POSTPAID BY HOUR: pay-as-you-go | CDHPAID: you are only billed for CDH instances, not the CVMs running on the CDH instances.

3. Output Parameters
### Parameter Name | Type | Description
--- | --- | ---
InstanceTypeQuotaSet | Array of InstanceTypeQuotaItem | List of model configurations for the availability zone.
RequestId | String | The unique request ID, which is returned for each request. RequestId is required for locating a problem.

### 4. Example

#### Example1 Querying the configurations of models in an availability zone

This example shows you how to query a list of instance configurations using availability zone and billing method as filters.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=DescribeZoneInstanceConfigInfos
&Filters.0.Name=zone
&Filters.0.Values.0=ap-guangzhou-2
&Filters.1.Name=instance-charge-type
&Filters.1.Values.0=POSTPAID_BY_HOUR
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "InstanceTypeQuotaSet": [
      {
        "Status": "SELL",
        "Zone": "ap-guangzhou-2",
        "NetworkCard": 0,
        "Price": {
          "UnitPrice": 0.15,
          "DiscountThirdStep": "100.000000",
          "UnitPriceThirdStep": 0.05,
          "DiscountSecondStep": "100.000000",
          "Discount": "100.000000",
          "UnitPriceDiscountThirdStep": 0.05,
          "UnitPriceSecondStep": 0.07,
          "UnitPriceDiscount": 0.15,
          "UnitPriceDiscountSecondStep": 0.07,
          "ChargeUnit": "HOUR"
        },
        "InstanceFamily": "S2",
        "Externals": {},
        "InstanceType": "S2.SMALL1",
        "TypeName": "Standard S2",
        "InstanceChargeType": "POSTPAID_BY_HOUR",
        "Memory": 1,
        "LocalDiskTypeList": [],
        "Cpu": 1,
        "SoldOutReason": "",
        "StorageBlockAmount": 0,
        "CpuType": "Intel Xeon E5-2680 v4",
        "InstancePps": 20,
        "InstanceBandwidth": 1.5,
        "Gpu": 0,
        "Fpga": 0,
      }
    ]
  }
}
```
5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidFilter</td>
<td>Invalid filter.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidInstanceType.Malformed</td>
<td>The specified <code>InstanceType</code> parameter has an invalid format.</td>
</tr>
<tr>
<td>InvalidParameterValue.ZoneNotSupported</td>
<td>The availability zone does not support this operation.</td>
</tr>
<tr>
<td>InvalidRegion.NotFound</td>
<td>The region cannot be found.</td>
</tr>
<tr>
<td>InvalidZone.MismatchRegion</td>
<td>The specified <code>zone</code> does not exist.</td>
</tr>
<tr>
<td>ResourceInsufficient.AvailabilityZoneSoldOut</td>
<td>The availability zone has been sold out.</td>
</tr>
</tbody>
</table>
DisassociateSecurityGroups

Last updated: 2020-09-17 17:54:08

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to disassociate security groups from instances.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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Try it
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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DisassociateSecurityGroups.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>SecurityGroupIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>ID of the security group to be disassociated, such as sg-efi73jd. Only one security group can be disassociated.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>ID(s) of the instance(s) to be disassociated, such as ins-lesecurk. You can specify multiple instances.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Disassociating security groups from instances

Input Example
&InstanceId.0=ins-2zvpghhc
&InstanceId.1=ins-915zrb0p
&SecurityGroupIds.0=sg-9id3i839
&<common request parameters>

Output Example

```
{
  "Response": {
    "RequestId": "3385dcf2-e1f0-4ed8-a924-c296721ab65f"
  }
}
```

5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidSecurityGroupId.NotFound</td>
<td>The specified security group ID does not exist.</td>
</tr>
<tr>
<td>InvalidSgId.Malformed</td>
<td>The specified security group ID is in the wrong format. For example, sg-ide32 has an invalid instance ID length.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>SecGroupActionFailure</td>
<td>A general error occurred during the security group service API call.</td>
</tr>
</tbody>
</table>
DescribeSpotTypeConfig

Last updated: 2020-10-16 18:38:33

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query spot instances that are available for purchase.

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeSpotTypeConfig.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>No</td>
<td>String</td>
<td>Common parameter. This parameter is not required for this API.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example 1 Querying the Chinese name of an availability zone**

This example shows you how to query information of availability zones in the Guangzhou region. To return its Chinese name of the availability zone, you need to pass the parameter Language=zh-CN.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=DescribeSpotTypeConfig
&Language=zh-CN
&<Common request parameters>
```

**Output Example**
Example2 Querying the list of spot instance offering

This example shows you how to query the list of spot instances that are available for purchase.

Input Example

GET https://cvm.tencentcloudapi.com/?Action=DescribeSpotTypeConfig
&instanceTypeList.1=S1.SMALL1
&<Common request parameters>

Output Example

```json
{
  "Response": {
    "SpotTypeConfigSet": [
      {
        "gid": 6,
        "zone": "ap-guangzhou-2",
        "zone_id": 100002,
        "instance_type": "S1.SMALL1",
        "instance_family": "S1",
        "cpu": 1,
        "mem": 1,
        "quota": 100,
        "capacity_allot": 6,
        "price_cur": 0.11,
        "cvmQuota": 94
      }
    ]
  },
  "RequestId": "6E2DFFCF6-FDB5-44F7-20A6-59152E3D129A"
}
```
5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see Common Error Codes.
InquiryPriceResetInstance

Last updated: 2020-10-16 18:38:32

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the price for reinstalling an instance.

- If you have specified the ImageId parameter, the price query is performed with the specified image. Otherwise, the image used by the current instance is used.
- You can only query the price for reinstallation caused by switching between Linux and Windows OS. And the system disk type of the instance must be CLOUD_BASIC, CLOUD_PREMIUM, or CLOUD_SSD.
- Currently, this API only supports instances in Mainland China regions.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: InquiryPriceResetInstance.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceId</td>
<td>Yes</td>
<td>String</td>
<td>Instance ID. To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response.</td>
</tr>
<tr>
<td>ImageId</td>
<td>No</td>
<td>String</td>
<td>Image ID in the format of img-xxx. There are four types of images: Public images, Custom images, Shared images, Marketplace images. You can obtain the available image IDs in the following ways: For IDs of public images, custom images, and shared images, log in to the console to query the information; for IDs of marketplace images, go to Cloud Marketplace. Call DescribeImages and look for ImageId in the response.</td>
</tr>
</tbody>
</table>
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>Price</td>
<td>Price of reinstalling the instance with the specified configuration.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Querying the price of a pay-as-you-go instance with a new configuration**

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=InquiryPriceResetInstance
&InstanceId=ins-fd8apmq
&<Common request parameter>
```

**Output Example**

```
{
  "Response": {
    "Price": {
      "InstancePrice": {
        "UnitPrice": 0.66,
        "ChargeUnit": "HOUR",
        "UnitPriceDiscount": 0.66,
        "Discount": 100
      }
    },
    "RequestId": "56d68b92-7004-4716-b3bf-3c2c231035c9"
  }
}
```
5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalError.TradeUnknownError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, <code>ins-1122</code> has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the price for upgrading the public bandwidth cap of an instance.

- The allowed bandwidth cap varies for different models. For details, see Purchasing Network Bandwidth.
- For bandwidth billed by the TRAFFIC_POSTPAID_BY_HOUR method, changing the bandwidth cap through this API takes effect in real time. You can increase or reduce bandwidth within applicable limits.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: InquiryPriceReset Instances Internet Max Bandwidth.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response. The maximum number of instances in each request is 100. When changing the bandwidth of instances with BANDWIDTH_PREPAID or BANDWIDTH_POSTPAID_BY_HOUR as the network billing method, you can only specify one instance at a time.</td>
</tr>
<tr>
<td>InternetAccessible</td>
<td>Yes</td>
<td>InternetAccessible</td>
<td>Configuration of public network egress bandwidth. The maximum bandwidth varies among different models. For more information, see the documentation on bandwidth limits. Currently only the InternetMaxBandwidthOut parameter is supported.</td>
</tr>
<tr>
<td>StartTime</td>
<td>No</td>
<td>String</td>
<td>Date from which the new bandwidth takes effect. Format: YYYY-MM-DD, such as 2016-10-30. The starting date cannot be earlier than the current date. If the starting date is the current date, the new bandwidth takes effect immediately. This parameter is only valid for</td>
</tr>
</tbody>
</table>
prepaid bandwidth. If you specify the parameter for bandwidth with other network billing methods, an error code will be returned.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EndTime</td>
<td>No</td>
<td>Date until which the new bandwidth is effective. Format: YYYY-MM-DD, such as 2016-10-30. The validity period of the new bandwidth covers the end date. The end date cannot be later than the expiration date of a prepaid instance. You can query the expiration time of an instance by calling DescribeInstances and looking for ExpiredTime in the response. This parameter is only valid for prepaid bandwidth. If you specify the parameter for bandwidth with other network billing methods, an error code will be returned.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>Price</td>
<td>Price of the new bandwidth</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Querying the price of a pay-as-you-go instance with a new bandwidth cap**

This example shows you how to query the price for changing the bandwidth of the instance “ins-fd8spnmq” to 20 Mbps.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=InquiryPriceResetInstancesInternetMaxBandwidth
&InstanceIds.0=ins-fd8spnmq
&InternetAccessible.InternetMaxBandwidthOut=20
&<common request parameters>
```

**Output Example**

```
{
  "Response": {
    "Price": {
      "BandwidthPrice": {
        "UnitPrice": 0.8,
        "ChargeUnit": "GB"
      }
    },
    "RequestId": "700864b9-85da-4cb9-bc80-d99eaf9fa847"
  }
}
```

5. Developer Resources

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- **API 3.0 Explorer**

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**Command Line Interface**

- Tencent Cloud CLI 3.0

### 6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FailedOperation.NotFoundEIP</td>
<td>This instance does not bind an EIP.</td>
</tr>
<tr>
<td>InternalError.TradeUnknownError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidAccount.UnpaidOrder</td>
<td>The account has unpaid orders.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid ID length. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameter</td>
<td>A parameter error occurred.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.Range</td>
<td>Invalid parameter value: invalid parameter value range.</td>
</tr>
<tr>
<td>InvalidPermission</td>
<td>This operation is not supported for the account.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
</tbody>
</table>
InquirePricePurchaseReservedInstancesOffering

Last updated : 2020-10-16 18:38:33

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the price of reserved instances. It only supports querying purchasable reserved instance offerings. Currently, RIs are only offered to beta users.

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

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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Try it
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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: InquirePricePurchaseReservedInstancesOffering.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceCount</td>
<td>Yes</td>
<td>Integer</td>
<td>The number of the reserved instances you are purchasing.</td>
</tr>
<tr>
<td>ReservedInstancesOfferingId</td>
<td>Yes</td>
<td>String</td>
<td>The ID of the reserved instance offering.</td>
</tr>
<tr>
<td>DryRun</td>
<td>No</td>
<td>Boolean</td>
<td>Dry run.</td>
</tr>
<tr>
<td>ClientToken</td>
<td>No</td>
<td>String</td>
<td>A unique string supplied by the client to ensure that the request is idempotent. Its maximum length is 64 ASCII characters. If this parameter is not specified, the idempotency of the request cannot be guaranteed. For more information, see Ensuring Idempotency.</td>
</tr>
<tr>
<td>ReservedInstanceName</td>
<td>No</td>
<td>String</td>
<td>Reserved instance name.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The RI name defaults to “unnamed” if this parameter is left empty.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• You can enter any name within 60 characters (including the pattern string).</td>
</tr>
</tbody>
</table>

3. Output Parameters
### 4. Example

**Example1 Querying the price of reserved instance offerings**

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=InquirePricePurchaseReservedInstancesOffering
&InstanceCount=2
&ReservedInstancesOfferingId=new0342-324f-f3ab-9uut-wrlnth53dce
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "OriginalFixedPrice": 100.99,
    "DiscountFixedPrice": 100.99,
    "OriginalUsagePrice": 1.99,
    "DiscountUsagePrice": 1.99,
    "RequestId": "b333ddb8-4aed-4def-a0d9-617843c2614e"
  }
}
```

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**Command Line Interface**

- Tencent Cloud CLI 3.0
6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvalidParameterValue.Range</td>
<td>Invalid parameter value: invalid parameter value range.</td>
</tr>
<tr>
<td>UnsupportedOperation.InvalidPermissionNonInternationalAccount</td>
<td>The current operation is only supported for Tencent Cloud International users.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the price for adjusting the instance model.

- Currently, you can only use this API to query the prices of instances whose system disk type is CLOUD_BASIC, CLOUD_PREMIUM, or CLOUD_SSD.
- Currently, you cannot use this API to query the prices of CDH instances.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: InquiryPriceResetInstancesType.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). You can obtain the instance IDs from the value of InstanceId returned by the DescribeInstances API. The maximum number of instances in each request is 1.</td>
</tr>
<tr>
<td>InstanceType</td>
<td>Yes</td>
<td>String</td>
<td>Instance model. Resources vary with the instance model. Specific values can be found in the tables of <a href="https://intl.cloud.tencent.com/document/product/213/11518?from_cn_redirect=1">Instance Types</a> or in the latest specifications via the <a href="https://intl.cloud.tencent.com/document/product/213/15749?from_cn_redirect=1">DescribeInstanceTypeConfigs</a> API.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
</table>

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4. Example

Example1 Querying the price of a monthly subscription instance with adjusted configuration

Input Example

GET https://cvm.tencentcloudapi.com/?Action=InquiryPriceResetInstancesType
&InstanceIds.0=ins-2zvpghhc
&InstanceType=S5.16XLARGE256
&<common request parameters>

Output Example

```json
{
  "Response": {
    "Price": {
      "InstancePrice": {
        "OriginalPrice": "67.33",
        "DiscountPrice": "67.33",
        "Discount": 100
      }
    },
    "RequestId": "d9f36a23-7bc4-4f02-99c5-00b4a77431df"
  }
}
```

5. Developer Resources

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Command Line Interface

- Tencent Cloud CLI 3.0
6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalError.TradeUnknownError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidAccount.UnpaidOrder</td>
<td>The account has unpaid orders.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameter</td>
<td>A parameter error occurred.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidPermission</td>
<td>This operation is not supported for the account.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>ResourceInsufficient.CloudDiskUnavailable</td>
<td>The parameters of cloud disk do not meet the specification.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the price for expanding data disks of an instance.

- Currently, you can only use this API to query the price of non-elastic data disks whose disk type is CLOUD_BASIC, CLOUD_PREMIUM, or CLOUD_SSD. You can use DescribeDisks to check whether a disk is elastic. If the Portable field in the response is false, it means that the disk is non-elastic.
- Currently, you cannot use this API to query the price for CDH instances. *Also, you can only query the price of expanding one data disk at a time.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: InquiryPriceResizeInstanceDisks.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceId</td>
<td>Yes</td>
<td>String</td>
<td>Instance ID. To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response.</td>
</tr>
<tr>
<td>DataDisks.N</td>
<td>No</td>
<td>Array of DataDisk</td>
<td>The configuration of data disks to be expanded. Currently, you can only use the API to expand non-elastic data disks whose disk type is CLOUD_BASIC, CLOUD_PREMIUM, or CLOUD_SSD. You can use DescribeDisks to check whether a disk is elastic. If the Portable field in the response is false, it means that the disk is non-elastic. Data disk capacity unit: GB; minimum increment: 10 GB. For more information about selecting a data disk type, see the product overview on cloud disks. Available data disk types are subject to the instance type (InstanceType). In addition, the maximum capacity allowed for expansion varies by data disk type.</td>
</tr>
<tr>
<td>ForceStop</td>
<td>No</td>
<td>Boolean</td>
<td>Whether to force shut down a running instances. It is recommended to manually shut down a running instance before resetting the user password. Valid values: TRUE: force shut down an instance after a normal shutdown fails.</td>
</tr>
</tbody>
</table>
**FALSE:** do not force shut down an instance after a normal shutdown fails.

Default value: FALSE.

A forced shutdown is similar to switching off the power of a physical computer. It may cause data loss or file system corruption. Be sure to only force shut down a CVM when it cannot be shut down normally.

### 3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>Price</td>
<td>Price of the disks after being expanded to the specified configurations</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

### 4. Example

**Example1 Querying the price for expanding the disk capacity of a pay-as-you-go instance**

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=InquiryPriceResizeInstanceDisks
&InstanceId=ins-fd8spn9q
&DataDisks.0.DiskSize=100
&<common request parameters>
```

**Output Example**

```
{
  "Response": {
    "Price": {
      "InstancePrice": {
        "UnitPrice": 0.46,
        "ChargeUnit": "HOUR"
      }
    },
    "RequestId": "d63b4f53-335b-49fb-9aa1-1716bb9276f6"
  }
}
```

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<tr>
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<tr>
<td>InvalidInstanceId.NotSupported</td>
<td>This instance is not supported.</td>
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<tr>
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<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>ResourceInsufficient.CloudDiskUnavailable</td>
<td>The parameters of cloud disk do not meet the specification.</td>
</tr>
</tbody>
</table>
InquiryPriceRunInstances

Last updated: 2020-10-22 16:49:20

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to query the price of creating instances. You can only use this API for instances whose configuration is within the purchase limit. For more information, see RunInstances.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: InquiryPriceRunInstances.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>Placement</td>
<td>Yes</td>
<td>Placement</td>
<td>Location of the instance. You can use this parameter to specify the attributes of the instance, such as its availability zone and project.</td>
</tr>
<tr>
<td>ImageId</td>
<td>Yes</td>
<td>String</td>
<td>Image ID in the format of img-xxx. There are four types of images: Public images, Custom images, Shared images, Marketplace images. You can obtain the available image IDs in the following ways: For IDs of public images, custom images, and shared images, log in to the console to query the information; for IDs of marketplace images, go to Cloud Marketplace. Call DescribeImages and look for ImageId in the response.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Required</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
<td>------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| InstanceChargeType    | No       | String     | The instance billing method.  
  - POSTPAID_BY_HOUR: hourly, pay-as-you-go  
  Default value: POSTPAID_BY_HOUR. |
| InstanceChargePrepaid | No       | InstanceChargePrepaid | Configuration of prepaid instances. You can use the parameter to specify the attributes of prepaid instances, such as the subscription period and the auto-renewal plan. This parameter is required for prepaid instances. |
| InstanceType          | No       | String     | The instance model. Different resource specifications are specified for different models. For specific values, call DescribeInstanceTypeConfigs to retrieve the latest specification list or refer to instance Types. If the parameter is not specified, S1.SMALL1 will be used by default. |
| SystemDisk            | No       | SystemDisk | System disk configuration of the instance. If this parameter is not specified, the default value will be used.                                                                                               |
| DataDisks.N           | No       | Array of DataDisk | The configuration information of the instance data disk. If this parameter is not specified, no data disk will be purchased by default. When purchasing, you can specify 21 data disks, which can contain at most 1 LOCAL_BASIC data disk or LOCAL_SSD data disk, and at most 20 CLOUD_BASIC data disks, CLOUD_PREMIUM data disks, or CLOUD_SSD data disks. |
| VirtualPrivateCloud   | No       | VirtualPrivateCloud | VPC configurations. You can use this parameter to specify the VPC ID, subnet ID, etc. If this parameter is not specified, the basic network will be used by default. If a VPC IP is specified in this parameter, the InstanceCount parameter can only be 1. |
| InternetAccessible    | No       | InternetAccessible | Configuration of public network bandwidth. If this parameter is not specified, 0 Mbps will be used by default.                                                                                             |
| InstanceCount         | No       | Integer    | Number of instances to be purchased. Value range: [1, 100]; default value: 1. The specified number of instances to be purchased cannot exceed the remaining quota allowed for the user. For more information on quota, see CVM instance purchase limit. |
| InstanceName          | No       | String     | Instance name to be displayed.  
  - If this parameter is not specified, "Unnamed" will be displayed by default.  
  - If you purchase multiple instances at the same time and specify a pattern string \( \{R:x\} \), numbers \( [x, x+n-1] \) will be generated, where \( n \) represents the number of instances purchased. For example, you specify a pattern string, server\( _{R:3} \). If you only purchase 1 instance, the instance will be named server_3; if you purchase 2, they will be named server_3 and server_4. You can specify multiple pattern strings in the format of \( \{R:x\} \).  
  - If you purchase multiple instances at the same time and do not specify a pattern string, the instance... |
The instance name contains up to 60 characters (including pattern strings).

- **LoginSettings**
  - No
  - LoginSettings
  - Login settings of the instance. You can use this parameter to set the login method, password, and key of the instance or keep the login settings of the original image. By default, a random password will be generated and sent to you via the Message Center.

- **SecurityGroupIds.N**
  - No
  - Array of String
  - Security groups to which the instance belongs. To obtain the security group IDs, you can call `DescribeSecurityGroups` and look for the `sgId` fields in the response. If this parameter is not specified, the instance will not be associated with any security group by default.

- **EnhancedService**
  - No
  - EnhancedService
  - Enhanced services. You can use this parameter to specify whether to enable services such as Cloud Monitor and Cloud Security. If this parameter is not specified, Cloud Monitor and Cloud Security will be enabled by default.

- **ClientToken**
  - No
  - String
  - A string used to ensure the idempotency of the request, which is generated by the user and must be unique to each request. The maximum length is 64 ASCII characters. If this parameter is not specified, the idempotency of the request cannot be guaranteed.

- **HostName**
  - No
  - String
  - Host name of the CVM.
    - Periods (.) or hyphens (-) cannot be the start or end of a host name or appear consecutively in a host name.
    - For Windows instances, the host name must be 2-15 characters long and can contain uppercase and lowercase letters, numbers, and hyphens (-). It cannot contain periods (.) or contain only numbers.
    - For other instances, such as Linux instances, the host name must be 2-30 characters long. It supports multiple periods (.) and allows uppercase and lowercase letters, numbers, and hyphens (-) between any two periods (.).

- **TagSpecification.N**
  - No
  - Array of TagSpecification
  - The tag description list. This parameter is used to bind a tag to a resource instance. A tag can only be bound to CVM instances.

- **InstanceMarketOptions**
  - No
  - InstanceMarketOptionsRequest
  - The market options of the instance.

- **HpcClusterId**
  - No
  - String
  - HPC cluster ID.
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>Price</td>
<td>Price of the instance with the specified configurations.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example 1 Querying the price of a pay-as-you-go instance billed on an hourly basis**

This example shows you how to query the price for purchasing one 64C256G standard (S5.16XLARGE256) instance in Shanghai Zone 2 using the image `img-pmqg1cw7`. The other configurations are as follows: system disk: 50 GB Premium Cloud Storage; data disk: 100 GB Premium Cloud Storage; network type: VPC; public network billing: pay-as-you-go by traffic on an hourly basis; public network bandwidth cap: 10 Mbps; public IP: randomly assigned; instance name: QCLOUD-TEST; login password: Qcloud@TestApi123++; Cloud Monitoring service: enabled; Anti-DDoS: enabled.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=InquiryPriceRunInstances
&Placement.Zone=ap-shanghai-2
&InstanceChargeType=POSTPAID_BY_HOUR
&ImageId=img-pmqg1cw7
&InstanceType=S5.16XLARGE256
&SystemDisk.DiskType=CLOUD_PREMIUM
&SystemDisk.DiskSize=50
&DataDisks.0.DiskType=CLOUD_PREMIUM
&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>
```

**Output Example**

```json
{
  "Response": {
    "Price": {
      "InstancePrice": {
        "OriginalInstanceTypePrice": 15.95,
        "UnitPrice": 16.09,
        "UnitPriceThirdStep": 16.09,
        "Discount": 21,
        "UnitPriceDiscountThirdStep": 3.33,
        "UnitPriceSecondStep": 16.09,
        "UnitPriceDiscount": 3.33,
        "UnitPriceDiscountSecondStep": 3.33,
        "ChargeUnit": "HOUR"
      }
    }
  }
}
```
Example2 Querying the price of an instance with only the required parameters

This example shows you how to create an instance using only the required Placement.Zone and ImageId parameters. The other parameters use system default values. The instance is created in Shanghai Zone 2 with image `img-pmqg1cw7`.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=InquiryPriceRunInstances
&Placement.Zone=ap-shanghai-2
&ImageId=img-pmqg1cw7
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "Price": {
      "InstancePrice": {
        "OriginalInstanceTypePrice": 0.15,
        "UnitPrice": 0.2,
        "UnitPriceThirdStep": 0.1,
        "Discount": 40,
        "UnitPriceDiscountThirdStep": 0.06,
        "UnitPriceSecondStep": 0.12,
        "UnitPriceDiscount": 0.08,
        "UnitPriceDiscountSecondStep": 0.06,
        "ChargeUnit": "HOUR"
      },
      "BandwidthPrice": {
        "ChargeUnit": "GB",
        "UnitPrice": 0,
        "Discount": 65,
        "UnitPriceDiscount": 0
      }
    },
    "RequestId": "3c140219-cfe9-470e-b241-907877d6fb03"
  }
}
```

Example3 Querying the price of a monthly subscription instance

This example shows you how to query the price for purchasing one 64C256G standard (S5.16XLARGE256) instance in Shanghai Zone 2 using the image `img-pmqg1cw7`. The other configurations are as follows: billing method: monthly subscription for one month with auto-renewal upon expiration; system disk: 50 GB Premium Cloud Storage; data disk: 100 GB Premium Cloud Storage; network type: VPC; public network billing: pay-as-you-go by traffic on an hourly basis; public network bandwidth cap: 10 Mbps; public IP: randomly assigned; instance name: QCLOUD-TEST; login password: Qcloud@TestApi123++; Cloud Monitoring service: enabled; Anti-DDoS: enabled.
Input Example

GET https://cvm.tencentcloudapi.com/?Action=InquiryPriceRunInstances
&Placement.Zone=ap-shanghai-2
&InstanceChargeType=PREPAID
&InstanceChargePrepaid.Period=1
&InstanceChargePrepaid.RenewFlag=NOTIFY_AND_AUTO_RENEW
&ImageId=img-pmqg1cw7
&InstanceType=S5.16XLARGE256
&SystemDisk.DiskType=CLOUD_PREMIUM
&SystemDisk.DiskSize=50
&DataDisks.0.DiskType=CLOUD_PREMIUM
&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>

Output Example

```json
{
  "Response": {
    "Price": {
      "InstancePrice": {
        "DiscountPrice": 1804.9,
        "OriginalInstanceTypePrice": 8832,
        "OriginalPrice": 8884.5,
        "Discount": 20
      },
      "BandwidthPrice": {
        "ChargeUnit": "GB",
        "UnitPrice": 0.8,
        "UnitPriceDiscount": 0.52,
        "Discount": 65
      }
    },
    "RequestId": "3c140219-cfe9-470e-b241-907877d6fb03"
  }
}
```

5. Developer Resources

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- API 3.0 Explorer

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- Tencent Cloud SDK 3.0 for Python
The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountQualificationRestrictions</td>
<td>Your account failed the qualification verification.</td>
</tr>
<tr>
<td>AuthFailure.CamRoleNameAuthenticateFailed</td>
<td>Role name authentication failed.</td>
</tr>
<tr>
<td>InstancesQuotaLimitExceeded</td>
<td>You are trying to create more instances than your remaining quota allows.</td>
</tr>
<tr>
<td>InternalError.TradeUnknownError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidClientToken.TooLong</td>
<td>The specified ClientToken exceeds the maximum length of 64 bytes.</td>
</tr>
<tr>
<td>InvalidHostId.Malformed</td>
<td>Invalid CDH ID. The specified CDH ID has an invalid format. For example, host-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidHostId.NotFound</td>
<td>The specified HostId does not exist, or does not belong to your account.</td>
</tr>
<tr>
<td>InvalidImageId.Malformed</td>
<td>Invalid image ID format.</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>InvalidInstanceName.TooLong</td>
<td>The specified InstanceName exceeds the maximum length of 60 bytes.</td>
</tr>
<tr>
<td>InvalidInstanceType.Malformed</td>
<td>The specified InstanceType parameter has an invalid format.</td>
</tr>
<tr>
<td>InvalidParameter.InstaceImageNotSupport</td>
<td>This API does not support instance images.</td>
</tr>
<tr>
<td>InvalidParameter.SnapshotNotFound</td>
<td>The specified snapshot does not exist.</td>
</tr>
<tr>
<td>InvalidParameterCombination</td>
<td>The parameter combination is invalid.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.CloudSsdDataDiskSizeTooSmall</td>
<td>The minimum capacity of a SSD data disk is 100 GB.</td>
</tr>
<tr>
<td>InvalidParameterValue.InstanceTypeNotSupportHpcCluster</td>
<td>This type of instances cannot be added to the HPC cluster.</td>
</tr>
<tr>
<td>InvalidParameterValue.InstanceTypeRequiredHpcCluster</td>
<td>The HPC cluster needs to be specified for the high-performance computing instance.</td>
</tr>
<tr>
<td>InvalidParameterValue.InsufficientPrice</td>
<td>The bid is lower than the market price.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidUserDataFormat</td>
<td>Incorrect UserData format. Use the Base64-encoded format.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValue.Range</td>
<td>Invalid parameter value: invalid parameter value range.</td>
</tr>
<tr>
<td>InvalidParameterValue.SnapshotIdMalformed</td>
<td>Invalid snapshot ID. Provide a snapshot ID in the format of snap-xxxxxxx, where the letter x refers to lowercase letter or number.</td>
</tr>
<tr>
<td>InvalidPassword</td>
<td>Invalid password. The specified password does not meet the password requirements. For example, the password length does not meet the requirements.</td>
</tr>
<tr>
<td>InvalidPeriod</td>
<td>Invalid period. Valid values: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 24, 36]; unit: month.</td>
</tr>
<tr>
<td>InvalidPermission</td>
<td>This operation is not supported for the account.</td>
</tr>
<tr>
<td>InvalidProjectId.NotFound</td>
<td>Invalid project ID: the specified project ID does not exist.</td>
</tr>
<tr>
<td>InvalidZone.MismatchRegion</td>
<td>The specified zone does not exist.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>ResourceInsufficient.CloudDiskUnavailable</td>
<td>The parameters of cloud disk do not meet the specification.</td>
</tr>
<tr>
<td>ResourceInsufficient.DisasterRecoverGroupCvmQuota</td>
<td></td>
</tr>
<tr>
<td>ResourceNotFound.HpcCluster</td>
<td>The HPC cluster does not exist.</td>
</tr>
<tr>
<td>ResourceNotFound.NoDefaultCbs</td>
<td>No default CBS resources are available.</td>
</tr>
<tr>
<td>ResourceNotFound.NoDefaultCbsWithReason</td>
<td>No default CBS resources are available.</td>
</tr>
<tr>
<td>ResourceUnavailable.InstanceType</td>
<td>This instance type is unavailable in the availability zone.</td>
</tr>
<tr>
<td>UnsupportedOperation.BandwidthPackageIdNotSupported</td>
<td>The specified instance or network cannot use the bandwidth package.</td>
</tr>
<tr>
<td>UnsupportedOperation.InvalidDisk</td>
<td>The specified disk is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.NoInstanceTypeSupportSpot</td>
<td>This instance type does not support spot instances.</td>
</tr>
<tr>
<td>UnsupportedOperation.OnlyForPrepaidAccount</td>
<td>Only a prepaid account supports this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.UnsupportedInternationalUser</td>
<td></td>
</tr>
</tbody>
</table>
ModifyDisasterRecoverGroupAttribute

Last updated : 2020-08-14 10:08:52

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to modify the attributes of spread placement groups.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ModifyDisasterRecoverGroupAttribute.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>DisasterRecoverGroupId</td>
<td>Yes</td>
<td>String</td>
<td>Spread placement group ID, which can be obtained by calling the DescribeDisasterRecoverGroups API.</td>
</tr>
<tr>
<td>Name</td>
<td>Yes</td>
<td>String</td>
<td>Name of a spread placement group. The name must be 1-60 characters long and can contain both Chinese characters and English letters.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Modifying spread placement group attributes**
This example shows you how to modify the attributes of a spread placement group.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=ModifyDisasterRecoverGroupAttribute
&DisasterRecoverGroupId=ps-58l1hu91
&Name=Physical machine disaster recovery group 1
&<Common request parameters>
```

**Output Example**

```
{
  "Response": {
    "RequestId": "6e185c04-116f-47b7-b21c-e13580c5d0f2"
  }
}
```

5. Developer Resources

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- Tencent Cloud SDK 3.0 for java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET

**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ResourceNotFound.InvalidPlacementSet</td>
<td>The specified placement group does not exist.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to modify the attributes of an instance. Currently you can only use the API to modify the name and the associated security groups of the instance.

- Instance names are used only for users' convenience. Tencent Cloud does not use the name for ticket submission or instance management.
- Batch operations are supported. The maximum number of instances in each request is 100.
- When you change the security groups associated with an instance, the original security groups will be disassociated.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ModifyInstancesAttribute.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response. The maximum number of instances in each request is 100.</td>
</tr>
<tr>
<td>InstanceName</td>
<td>No</td>
<td>String</td>
<td>Instance name. You can specify any name you like, but its length cannot exceed 60 characters.</td>
</tr>
<tr>
<td>SecurityGroups.N</td>
<td>No</td>
<td>Array of String</td>
<td>ID list of security groups of the instance. The instance will be associated with the specified security groups and will be disassociated from the original security groups.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Modifying instance names**

This example shows you how to modify the names of two instances.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=ModifyInstancesAttribute
&InstanceId.0=ins-r8hr2upy
&InstanceId.1=ins-5d8a23rs
&InstanceName=Mysql_Server
&<common request parameters>
```

**Output Example**

```
{
  "Response": {
    "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
  }
}
```

5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see [Common Error Codes](#).
<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AuthFailure.CamRoleNameAuthenticateFailed</td>
<td>Role name authentication failed.</td>
</tr>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidInstanceName.TooLong</td>
<td>The specified InstanceName exceeds the maximum length of 60 bytes.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidSecurityGroupId.NotFound</td>
<td>The specified security group ID does not exist.</td>
</tr>
<tr>
<td>LimitExceeded.AssociateUSGLimitExceeded</td>
<td>An instance can be bound with up to 5 security groups.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStatePending</td>
<td>The instances are being created, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateServiceLiveMigrate</td>
<td>The instances are being migrated, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateShutdown</td>
<td>Isolated instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateTerminated</td>
<td>Terminated instances are not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the no charges when shut down feature.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to change the project to which an instance belongs.

- Project is a virtual concept. You can create multiple projects under one account, manage different resources in each project, and assign different instances to different projects. You may use the `DescribeInstances` API to query instances and use the project ID to filter results.
- You cannot modify the project of an instance that is bound to a load balancer. You need to firstly unbind the load balancer from the instance by using the `DeregisterInstancesFromLoadBalancer` API.
- Batch operations are supported. You can operate up to 100 instances in each request.
- You can call the `DescribeInstances` API and find the result of the operation in the response parameter `LatestOperationState`. If the value is `SUCCESS`, the operation is successful.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

We recommend you to use API Explorer

Try it

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2. Input Parameters

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

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<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ModifyInstancesProject.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance IDs. To obtain the instance IDs, you can call <code>DescribeInstances</code> and look for <code>InstanceId</code> in the response. You can operate up to 100 instances in each request.</td>
</tr>
<tr>
<td>ProjectId</td>
<td>Yes</td>
<td>Integer</td>
<td>Project ID. You can create a project by using the <code>AddProject</code> API and obtain its ID from the response parameter <code>projectId</code> of the <code>DescribeProject</code> API. Subsequently, the project ID can be used to filter results when you query instances by calling the <code>DescribeInstances</code> API.</td>
</tr>
</tbody>
</table>
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Modifying the projects of two instances**

This example shows you how to change the projects of two instances to a specified one.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=ModifyInstancesProject
&InstanceId.0=ins-r8hr2upy
&InstanceId.1=ins-5d8a23rs
&ProjectId=1045
&<common request parameters>
```

**Output Example**

```
{
    "Response": {
        "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
    }
}
```

5. Developer Resources

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- Tencent Cloud SDK 3.0 for .NET

**Command Line Interface**

- Tencent Cloud CLI 3.0
# 6. Error Code

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

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<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, <code>ins-1122</code> has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidProjectId.NotFound</td>
<td>Invalid project ID: the specified project ID does not exist.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to modify the VPC attributes of an instance, such as the VPC IP address.

- By default, the instances will shut down when you perform this operation and restart upon completion.
- If the specified VPC ID and subnet ID (the subnet must be in the same availability zone as the instance) are different from the VPC where the specified instance resides, the instance will be migrated to a subnet of the specified VPC. Before performing this operation, make sure that the specified instance is not bound with an ENI or CLB.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<tr>
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<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ModifyInstancesVpcAttribute.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response.</td>
</tr>
<tr>
<td>VirtualPrivateCloud</td>
<td>Yes</td>
<td>VirtualPrivateCloud</td>
<td>VPC configurations. You can use this parameter to specify the VPC ID, subnet ID, VPC IP, etc. If the specified VPC ID and subnet ID (the subnet must be in the same availability zone as the instance) are different from the VPC where the specified instance resides, the instance will be migrated to a subnet of the specified VPC. You can use PrivateIpAddresses to specify the VPC subnet IP. If you want to specify the subnet IP, you will need to specify a subnet IP for each of the specified instances, and each InstanceIds will match a PrivateIpAddresses. If PrivateIpAddresses is not specified, the VPC subnet IP will be assigned randomly.</td>
</tr>
<tr>
<td>ForceStop</td>
<td>No</td>
<td>Boolean</td>
<td>Whether to force shut down a running instances. Default value: TRUE.</td>
</tr>
</tbody>
</table>
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Migrating an instance to a VPC and specifying the instance IP**

This example shows you how to migrate the instances `r8hr2upy` and `5d8a23rs` to the subnet `dcs9x3gz` of the VPC `1urkhbj4` and specify `10.0.0.18` as the private IP of the instance `r8hr2upy` and `10.0.0.19` as that of the instance `5d8a23rs`.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=ModifyInstancesVpcAttribute
&InstanceId.0=ins-r8hr2upy
&InstanceId.1=ins-5d8a23rs
&VirtualPrivateCloud.SubnetId=subnet-dcs9x3gz
&VirtualPrivateCloud.VpcId=vpc-1urkhbj4
&VirtualPrivateCloud.PrivateIpAddresses.0=10.0.0.18
&VirtualPrivateCloud.PrivateIpAddresses.1=10.0.0.19
&<common request parameters>
```

**Output Example**

```
{
  "Response": {
    "RequestId": "3c14def19-cfes-470e-b241-90787u6jf5uj"
  }
}
```

5. Developer Resources

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### 6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EniNotAllowedChangeSubnet</td>
<td>ENIs do not support changing subnets.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidInstanceState</td>
<td>This operation cannot be performed due to the current instance status.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidIpFormat</td>
<td>Invalid IP address.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValue.MustDhcpEnabledVpc</td>
<td>The parameter value must be a DHCP-enabled VPC.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperation.IPv6NotSupportVpcMigrate</td>
<td>IPv6 instances cannot be migrated from Classiclink to VPC.</td>
</tr>
<tr>
<td>UnsupportedOperationInstanceStatePending</td>
<td>The instances are being created, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperationInstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the <strong>no charges when shut down</strong> feature.</td>
</tr>
<tr>
<td>VpcAddrNotInSubNet</td>
<td>The VPC IP address is not in the subnet.</td>
</tr>
<tr>
<td>VpcIpIsUsed</td>
<td>The VPC IP address is already occupied.</td>
</tr>
</tbody>
</table>
RebootInstances
Last updated : 2020-10-22 16:49:19

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to restart instances.

- You can only perform this operation on instances whose status is `RUNNING`.
- If the API is called successfully, the instance status will become `REBOOTING`. After the instance is restarted, its status will become `RUNNING` again.
- Forced restart is supported. A forced restart is similar to switching off the power of a physical computer and starting it again. It may cause data loss or file system corruption. Be sure to only force start a CVM when it cannot be restarted normally.
- Batch operations are supported. The maximum number of instances in each request is 100.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: RebootInstances.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance IDs. To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response. You can operate up to 100 instances in each request.</td>
</tr>
<tr>
<td>ForceReboot</td>
<td>No</td>
<td>Boolean</td>
<td>Whether to force restart an instance after a normal restart fails. Valid values: TRUE: force restart an instance after a normal restart fails, FALSE: do not force restart an instance after a normal restart fails. Default value: FALSE.</td>
</tr>
<tr>
<td>StopType</td>
<td>No</td>
<td>String</td>
<td>Shutdown type. Valid values: SOFT: soft shutdown, HARD: hard shutdown, SOFT_FIRST: perform a soft shutdown first, and perform a hard shutdown if the soft shutdown fails.</td>
</tr>
</tbody>
</table>
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Restarting instances

This example shows you how to restart two instances.

Input Example

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=RebootInstances
&InstanceIds.0=ins-r8hr2upy
&InstanceIds.1=ins-5d8a23rs
&ForceReboot=FALSE
&<common request parameters>
```

Output Example

```json
{
  "Response": {
    "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
  }
}
```

5. Developer Resources

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

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<thead>
<tr>
<th>Error Code</th>
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</tr>
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<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterCombination</td>
<td>The parameter combination is invalid.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateExitRescueMode</td>
<td>Instances are exiting from the rescue mode, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateServiceLiveMigrate</td>
<td>The instances are being migrated, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateShutdown</td>
<td>Isolated instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopped</td>
<td>The instance has been shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
</tbody>
</table>
ResetInstance
Last updated: 2020-10-22 16:49:18

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to reinstall the operating system of the specified instance.

- If you specify an ImageId, the specified image is used. Otherwise, the image used by the current instance is used.
- The system disk will be formatted and reset. Therefore, make sure that no important files are stored on the system disk.
- If the operating system switches between Linux and Windows, the system disk ID of the instance will change, and the snapshots that are associated with the system disk can no longer be used to roll back and restore data.
- If no password is specified, you will get a random password via internal message.
- You can only use this API to switch the operating system between Linux and Windows for instances whose system disk type is CLOUD_BASIC, CLOUD_PREMIUM, or CLOUD_SSD.
- Currently, this API only supports instances in Mainland China regions.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ResetInstance.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceId</td>
<td>Yes</td>
<td>String</td>
<td>Instance ID. To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response.</td>
</tr>
<tr>
<td>ImageId</td>
<td>No</td>
<td>String</td>
<td>Specified effective image ID in the format of img-xxx. There are four types of images: Public images, Custom images, Shared images, Marketplace images. You can obtain the available image IDs in the following ways:</td>
</tr>
</tbody>
</table>
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Reinstalling an instance**

This example shows you how to reinstall an instance with the image, login password, and enhanced services specified, and expand the system disk of the instance.

**Input Example**
GET https://cvm.tencentcloudapi.com/?Action=ResetInstance
&InstanceId=ins-r8hr2upy
&ImageId=img-pmqglc7w
&SystemDisk.DiskSize=60
&LoginSettings.Password=Qcloud@TestApi123++
&EnhancedService.SecurityService.Enabled=TRUE
&EnhancedService.MonitorService.Enabled=TRUE
&<common request parameters>

Output Example

```
{
  "Response": {
    "RequestId": "a0a66377-b79f-4a21-846c-d99f6822968"
  }
}
```

5. Developer Resources

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<tr>
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</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidImageId.Malformed</td>
<td>Invalid image ID format.</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, <code>ins-1122</code> has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameter.HostNameIllegal</td>
<td>The specified HostName is invalid.</td>
</tr>
<tr>
<td>InvalidParameter.InstanceImageNotSupport</td>
<td>This API does not support instance images.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.IllegalHostName</td>
<td>The value of HostName is invalid.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidImageState</td>
<td>Invalid image status.</td>
</tr>
<tr>
<td>InvalidPassword</td>
<td>Invalid password. The specified password does not meet the password requirements. For example, the password length does not meet the requirements.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>MissingParameter.MonitorService</td>
<td>The instance type must have Cloud Monitor enabled.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceChargeType</td>
<td>This instance billing mode does not support the operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateEnterRescueMode</td>
<td>Instances are entering the rescue mode, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateExitRescueMode</td>
<td>Instances are exiting from the rescue mode, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRescueMode</td>
<td></td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateServiceLiveMigrate</td>
<td>The instances are being migrated, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateShutdown</td>
<td>Isolated instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.KeyPairUnsupportedWindows</td>
<td>Key-pair login is not available to Windows instances.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the <strong>no charges when shut down</strong> feature.</td>
</tr>
</tbody>
</table>
ResetInstancesInternetMaxBandwidth

Last updated: 2020-10-22 16:49:14

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to change the public bandwidth cap of an instance.

- The allowed bandwidth cap varies for different models. For details, see Purchasing Network Bandwidth.
- For bandwidth billed by the TRAFFIC_POSTPAID_BY_HOUR method, changing the bandwidth cap through this API takes effect in real time. Users can increase or reduce bandwidth within applicable limits.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

We recommend you to use API Explorer Try it

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

2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ResetInstancesInternetMaxBandwidth.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response. The maximum number of instances in each request is 100. When changing the bandwidth of instances with BANDWIDTH_PREPAID or BANDWIDTH_POSTPAID_BY_HOUR as the network billing method, you can only specify one instance at a time.</td>
</tr>
<tr>
<td>InternetAccessible</td>
<td>Yes</td>
<td>InternetAccessible</td>
<td>Configuration of public network egress bandwidth. The maximum bandwidth varies among different models. For more information, see the documentation on bandwidth limits. Currently only the InternetMaxBandwidthOut parameter is supported.</td>
</tr>
<tr>
<td>StartTime</td>
<td>No</td>
<td>String</td>
<td>Date from which the new bandwidth takes effect. Format: YYYY-MM-DD, such as 2016-10-30. The starting date cannot be earlier than the current date. If the starting date is the current date, the new bandwidth takes effect immediately. This parameter is only valid for</td>
</tr>
</tbody>
</table>
prepaid bandwidth. If you specify the parameter for bandwidth with other network billing methods, an error code will be returned.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EndTime</td>
<td>No</td>
<td>Date until which the new bandwidth is effective. Format: YYYY-MM-DD, such as 2016-10-30. The validity period of the new bandwidth covers the end date. The end date cannot be later than the expiration date of a prepaid instance. You can query the expiration time of an instance by calling DescribeInstances and looking for ExpiredTime in the response. This parameter is only valid for prepaid bandwidth. If you specify the parameter for bandwidth with other network billing methods, an error code will be returned.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Modifying the public network bandwidth cap of an instance**

This example shows you how to modify the public network bandwidth cap of an instance.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=ResetInstancesInternetMaxBandwidth&InstanceId.0=ins-r8hr2upy&InternetAccessible.InternetMaxBandwidthOut=10&StartTime=2017-03-15&EndTime=2017-03-16&<common request parameters>
```

**Output Example**

```json
{
  "Response": {
    "RequestId": "d39d6c09-44e9-4e60-8661-77b5ff3bc15"
  }
}
```

5. Developer Resources

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- Tencent Cloud SDK 3.0 for .NET

### Command Line Interface

- Tencent Cloud CLI 3.0

## 6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidAccount.UnpaidOrder</td>
<td>The account has unpaid orders.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID.  The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameter</td>
<td>A parameter error occurred.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValue.Range</td>
<td>Invalid parameter value: invalid parameter value range.</td>
</tr>
<tr>
<td>InvalidPermission</td>
<td>This operation is not supported for the account.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStatePending</td>
<td>The instances are being created, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the no charges when shut down feature.</td>
</tr>
</tbody>
</table>
ResetInstancesPassword

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to reset the password of the operating system instances to a user-specified password.

- To modify the password of the administrator account: the name of the administrator account varies with the operating system. In Windows, it is Administrator; in Ubuntu, it is ubuntu; in Linux, it is root.
- To reset the password of a running instance, you need to set the parameter ForceStop to True for a forced shutdown. If not, only passwords of stopped instances can be reset.
- Batch operations are supported. You can reset the passwords of up to 100 instances to the same value once.
- You can call the DescribeInstances API and find the result of the operation in the response parameter LatestOperationState. If the value is SUCCESS, the operation is successful.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ResetInstancesPassword.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response. The maximum number of instances in each request is 100.</td>
</tr>
<tr>
<td>Password</td>
<td>Yes</td>
<td>String</td>
<td>Login password of the instance. The rule of password complexity varies with operating systems: For a Linux instance, the password must be 8 to 30 characters in length; password with more than 12 characters is recommended. It cannot begin with &quot;/&quot;, and must contain at least three types of the following: Lowercase letters: [a-z] Uppercase letters: [A-Z] Numbers: 0-9</td>
</tr>
</tbody>
</table>
Cloud Virtual Machine

Special characters: ()`!@#$%^&*-+=_|{}[]:;'<>,.?/
For a Windows CVM, the password must be 12 to 30 characters in length. It cannot
begin with "/" or contain your username. It must contain at least three types of the
following:
Lowercase letters: [a-z]
Uppercase letters: [A-Z]
Numbers: 0-9
Special characters: ()`!@#$%^&*-+=_|{}[]:;' <>,.?/
If the speciﬁed instances include both Linux and Windows instances, you need to
follow the password requirements for Windows instances.
UserName

No

String

Username of the instance operating system for which the password needs to be
reset. This parameter is limited to 64 characters.
Whether to force shut down a running instances. It is recommended to manually shut
down a running instance before resetting the user password. Valid values:
TRUE: force shut down an instance after a normal shutdown fails.
FALSE: do not force shut down an instance after a normal shutdown fails.

ForceStop

No

Boolean

Default value: FALSE.
A forced shutdown is similar to switching oﬀ the power of a physical computer. It may
cause data loss or ﬁle system corruption. Be sure to only force shut down a CVM
when it cannot be shut down normally.

3. Output Parameters
Parameter
Name
RequestId

Type

Description

String

The unique request ID, which is returned for each request. RequestId is required for locating a
problem.

4. Example
Example1 Resetting the password of a Linux/Windows instance
This example shows you how to reset the password of a Linux/Windows instance, and then use the new password to log in to the
instance.
Input Example
GET https://cvm.tencentcloudapi.com/?Action=ResetInstancesPassword
&InstanceIds.0=ins-r8hr2upy
&InstanceIds.1=ins-5d8a23rs
&Password=abc123ABC!@#
&ForceStop=TRUE
&<common request parameters>

Output Example
{
"Response": {
"RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
}
}

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5. Developer Resources

API Explorer

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Command Line Interface

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6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValue.TooLong</td>
<td>Invalid parameter value: parameter value is too long.</td>
</tr>
<tr>
<td>InvalidPassword</td>
<td>Invalid password. The specified password does not meet the password requirements. For example, the password length does not meet the requirements.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateExitRescueMode</td>
<td>Instances are exiting from the rescue mode, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStatePending</td>
<td>The instances are being created, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRunning</td>
<td>Running instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateShutdown</td>
<td>Isolated instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the <strong>no charges when shut down</strong> feature.</td>
</tr>
</tbody>
</table>
ResetInstancesType

Last updated: 2020-10-22 16:49:18

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to change the model of an instance.

- You can only use this API to change the models of instances whose system disk type is CLOUD_BASIC, CLOUD_PREMIUM, or CLOUD_SSD.
- Currently, you cannot use this API to change the models of CDH instances.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ResetInstancesType.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). You can obtain the instance IDs from the value of InstanceId returned by the DescribeInstances API. The maximum number of instances for each request is 1.</td>
</tr>
<tr>
<td>InstanceType</td>
<td>Yes</td>
<td>String</td>
<td>Instance model. Different resource specifications are specified for different models. For specific values, call DescribeInstanceTypeConfigs to get the latest specification list or refer to Instance Types.</td>
</tr>
<tr>
<td>ForceStop</td>
<td>No</td>
<td>Boolean</td>
<td>Forced shutdown of a running instances. We recommend you firstly try to shut down a running instance manually. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- TRUE: forced shutdown of an instance after a normal shutdown fails.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- FALSE: no forced shutdown of an instance after a normal shutdown fails.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Default value: FALSE.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A forced shutdown is similar to switching off the power of a physical computer. It may</td>
</tr>
</tbody>
</table>
cause data loss or file system corruption. Be sure to only force a CVM to shut off if the normal shutdown fails.

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Resetting the instance model**

This example shows you how to adjust the configuration of an instance that fails to meet your business needs.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=ResetInstancesType
&InstanceId=ins-r8hr2upy
&InstanceType=S5.16XLARGE256
&<common request parameters>
```

**Output Example**

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

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**Command Line Interface**
## 6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FailedOperation.PromotionalPerioRestriction</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InternalError.TradeUnknownError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidAccount.UnpaidOrder</td>
<td>The account has unpaid orders.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceid.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format.</td>
</tr>
<tr>
<td></td>
<td>For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceid.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameter</td>
<td>A parameter error occurred.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidPermission</td>
<td>This operation is not supported for the account.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>ResourcesInsufficient.SpecifiedInstanceType</td>
<td>The specified instance type is out of stock.</td>
</tr>
<tr>
<td>ResourcesSoldOut.AvailableZone</td>
<td>Resources in this availability zone have been sold out.</td>
</tr>
<tr>
<td>ResourcesSoldOut.SpecifiedInstanceType</td>
<td>The specified instance type has already been sold out.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperationInstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperationInstanceStateRunning</td>
<td>Running instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperationInstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.SpecialInstanceType</td>
<td>This special instance type does not support the operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the no charges when shut down feature.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API (ResizeInstanceDisks) is used to expand the data disks of an instance.

- Currently, you can only use the API to expand non-elastic data disks whose disk type is CLOUD_BASIC, CLOUD_PREMIUM, or CLOUD_SSD. You can use DescribeDisks to check whether a disk is elastic. If the Portable field in the response is false, it means that the disk is non-elastic.
- Currently, this API does not support CDH instances.
- Currently, only one data disk can be expanded at a time.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: ResizeInstanceDisks.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceId</td>
<td>Yes</td>
<td>String</td>
<td>Instance ID. To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response.</td>
</tr>
<tr>
<td>DataDisks.N</td>
<td>No</td>
<td>Array of DataDisk</td>
<td>Configuration of data disks to be expanded. Currently you can only use the API to expand non-elastic data disks whose disk type is CLOUD_BASIC, CLOUD_PREMIUM, or CLOUD_SSD. You can use DescribeDisks to check whether a disk is elastic. If the Portable field in the response is false, it means that the disk is not elastic. Data disk capacity unit: GB; minimum increment: 10 GB. For more information on selecting the data disk type, see the product overview on cloud disks. Available data disk types are subject to the instance type (InstanceType). In addition, the maximum capacity allowed for expansion varies by data disk type.</td>
</tr>
<tr>
<td>ForceStop</td>
<td>No</td>
<td>Boolean</td>
<td>Whether to force shut down a running instances. It is recommended to manually shut down a running instance before resetting the user password. Valid values: TRUE: force shut down an instance after a normal shutdown fails.</td>
</tr>
</tbody>
</table>
FALSE: do not force shut down an instance after a normal shutdown fails.

Default value: FALSE.

A forced shutdown is similar to switching off the power of a physical computer. It may cause data loss or file system corruption. Be sure to only force shut down a CVM when it cannot be shut down normally.

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Resetting the disk size of a specific instance**

**Input Example**

GET https://cvm.tencentcloudapi.com/?Action=ResizeInstanceDisks&InstanceId=ins-r8hr2upy&DiskDisks.0.DiskSize=100 &<common request parameters>

**Output Example**

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

5. Developer Resources

**API Explorer**

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

- API 3.0 Explorer

**SDK**

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

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidAccount.UnpaidOrder</td>
<td>The account has unpaid orders.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnsupportedOperationInstanceStateRunning</td>
<td>Running instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperationInstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
</tbody>
</table>
RunInstances

Last updated: 2020-10-22 16:49:17

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to create one or more instances with a specified configuration.

- After an instance is created successfully, it will start up automatically, and the instance state will become "Running".
- If you create a pay-as-you-go instance billed on an hourly basis, an amount equivalent to the hourly rate will be frozen before the creation. Make sure your account balance is sufficient before calling this API.
- The number of instances you can purchase through this API is subject to the CVM instance purchase limit. Both the instances created through this API and the console will be counted toward the quota.
- This API is an async API. An instance ID list will be returned after you successfully make a creation request. However, it does not mean the creation has been completed. The state of the instance will be Creating during the creation. You can use DescribeInstances to query the status of the instance. If the status changes from Creating to Running, it means that the instance has been created successfully.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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Try it

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: RunInstances.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>Placement</td>
<td>Yes</td>
<td>Placement</td>
<td>Location of the instance. You can use this parameter to specify the attributes of the instance, such as its availability zone, project, and CDH. You can specify a CDH for a CVM by creating the CVM on the CDH.</td>
</tr>
<tr>
<td>Imageld</td>
<td>Yes</td>
<td>String</td>
<td>The image ID in the format of img-xxx. There are four types of images:</td>
</tr>
</tbody>
</table>
### InstanceChargeType
- **No**
- **String**
- The instance billing method. Valid values:
  - `POSTPAID_BY_HOUR`: hourly, pay-as-you-go
  - `CDHPAID`: you are only billed for CDH instances, not the CVMs running on the CDH instances.
- Default value: `POSTPAID_BY_HOUR`.

### InstanceChargePrepaid
- **No**
- **InstanceChargePrepaid**
- Configuration of prepaid instances. You can use the parameter to specify the attributes of prepaid instances, such as the subscription period and the auto-renewal plan. This parameter is required for prepaid instances.

### InstanceType
- **No**
- **String**
- The instance model. Different resource specifications are specified for different instance models.
  - To view specific values for `POSTPAID_BY_HOUR` instances, you can call `DescribeInstanceTypeConfigs` or refer to Instance Types. If this parameter is not specified, `S1.SMALL1` will be used by default.
  - For `CDHPAID` instances, the value of this parameter is in the format of `CDH_XCXG` based on the number of CPU cores and memory capacity. For example, if you want to create a CDH instance with a single-core CPU and 1 GB memory, specify this parameter as `CDH_1C1G`.

### SystemDisk
- **No**
- **SystemDisk**
- System disk configuration of the instance. If this parameter is not specified, the default value will be used.

### DataDisks.N
- **No**
- **Array of DataDisk**
- The configuration information of instance data disks. If this parameter is not specified, no data disk will be purchased by default. When purchasing, you can specify 21 data disks, which can contain at most 1 LOCAL_BASIC data disk or LOCAL_SSD data disk, and at most 20 CLOUD_BASIC data disks, CLOUD_PREMIUM data disks, or CLOUD_SSD data disks.

### VirtualPrivateCloud
- **No**
- **VirtualPrivateCloud**
- Configuration information of VPC. This parameter is used to specify VPC ID and subnet.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Yes</td>
<td>String</td>
<td>ID, etc. If this parameter is not specified, the classic network is used by default. If a VPC IP is specified in this parameter, it indicates the primary ENI IP of each instance. The value of parameter InstanceCount must be the same as the number of VPC IPs, which cannot exceed 20.</td>
</tr>
<tr>
<td>InternetAccessible</td>
<td>No</td>
<td>InternetAccessible</td>
<td>Configuration of public network bandwidth. If this parameter is not specified, 0 Mbps will be used by default.</td>
</tr>
<tr>
<td>InstanceCount</td>
<td>No</td>
<td>Integer</td>
<td>The number of instances to be purchased. Value range: [1, 100]; default value: 1. The specified number of instances to be purchased cannot exceed the remaining quota allowed for the user. For more information on the quota, see CVM instance purchase limit.</td>
</tr>
<tr>
<td>InstanceName</td>
<td>No</td>
<td>String</td>
<td>Instance name to be displayed.                                                                                                         • If this parameter is not specified, &quot;Unnamed&quot; will be displayed by default.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If you purchase multiple instances at the same time and specify a pattern string {R:x}, numbers [x, x+n-1] will be generated, where n represents the number of instances purchased. For example, you specify a pattern string, server_{R:3}. If you only purchase 1 instance, the instance will be named server_{3}. If you purchase 2, they will be named server_{3} and server_{4}. You can specify multiple pattern strings in the format of {R:x}.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• If you purchase multiple instances at the same time and do not specify a pattern string, the instance names will be suffixed by 1, 2...n, where n represents the number of instances purchased. For example, if you purchase 2 instances and name them as server_{1}, the instance names will be displayed as server_{1} and server_{2}.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The instance name contains up to 60 characters (including pattern strings).</td>
</tr>
<tr>
<td>LoginSettings</td>
<td>No</td>
<td>LoginSettings</td>
<td>Login settings of the instance. You can use this parameter to set the login method, password, and key of the instance or keep the login settings of the original image. By default, a random password will be generated and sent to you via the Message Center.</td>
</tr>
<tr>
<td>SecurityGroupIds.N</td>
<td>No</td>
<td>Array of String</td>
<td>Security groups to which the instance belongs. To obtain the security group IDs, you can call DescribeSecurityGroups and look for the sgId fields in the response. If this parameter is not specified, the instance will be associated with default security groups.</td>
</tr>
<tr>
<td>EnhancedService</td>
<td>No</td>
<td>EnhancedService</td>
<td>Specifies whether to enable services such as Anti-DDoS and Cloud Monitor. If this parameter is not specified, Cloud Monitor and Anti-DDoS are enabled.</td>
</tr>
</tbody>
</table>
enabled for public images by default. However, for custom images and images from the marketplace, Anti-DDoS and Cloud Monitor are not enabled by default. The original services in the image will be retained.

<table>
<thead>
<tr>
<th>Field</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientToken</td>
<td>No</td>
<td>String</td>
<td>A string used to ensure the idempotency of the request, which is generated by the user and must be unique to each request. The maximum length is 64 ASCII characters. If this parameter is not specified, the idempotency of the request cannot be guaranteed. For more information, see 'How to ensure idempotency'.</td>
</tr>
</tbody>
</table>
| HostName            | No       | String   | Host name of the CVM.  
- Periods (.) or hyphens (-) cannot be the start or end of a host name or appear consecutively in a host name. 
- For Windows instances, the host name must be 2-15 characters long and can contain uppercase and lowercase letters, numbers, and hyphens (-). It cannot contain periods (.) or contain only numbers. 
- For other instances, such as Linux instances, the host name must be 2-60 characters long. It supports multiple periods (.) and allows uppercase and lowercase letters, numbers, and hyphens (-) between any two periods (.).

<table>
<thead>
<tr>
<th>Field</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ActionTimer</td>
<td>No</td>
<td>ActionTimer</td>
<td>Scheduled tasks. You can use this parameter to specify scheduled tasks for the instance. Only scheduled termination is supported.</td>
</tr>
<tr>
<td>DisasterRecoverGroupIds.N</td>
<td>No</td>
<td>Array of String</td>
<td>Placement group ID. You can only specify one.</td>
</tr>
<tr>
<td>TagSpecification.N</td>
<td>No</td>
<td>Array of TagSpecification</td>
<td>The tag description list. This parameter is used to bind a tag to a resource instance. A tag can only be bound to CVM instances.</td>
</tr>
<tr>
<td>InstanceMarketOptions</td>
<td>No</td>
<td>InstanceMarketOptionsRequest</td>
<td>The market options of the instance.</td>
</tr>
<tr>
<td>UserData</td>
<td>No</td>
<td>String</td>
<td>User data provided to the instance, which needs to be encoded in base64 format with the maximum size of 16KB. For more information on how to get the value of this parameter, see the commands you need to execute on startup for Windows or Linux.</td>
</tr>
</tbody>
</table>
| DryRun              | No       | Boolean  | Whether the request is a dry run only. 
true: dry run only. The request will not create instance(s). A dry run can check whether all the required parameters are specified, whether the request format is right, whether the request exceeds service limits, and whether the specified CVMs are available. 
If the dry run fails, the corresponding error code will be returned. 
If the dry run succeeds, the RequestId will be returned. 
false (default value): send a normal request and |
create instance(s) if all the requirements are met.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CamRoleName</td>
<td>No</td>
<td>String</td>
</tr>
<tr>
<td>HpcClusterId</td>
<td>No</td>
<td>String</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstanceIdSet</td>
<td>Array of String</td>
<td>If you use this API to create instance(s), this parameter will be returned, representing one or more instance IDs. Reusing the instance ID list does not necessarily mean that the instance(s) were created successfully. To check whether the instance(s) were created successfully, you can call DescribeInstances and check the states of the instances in InstancesSet in the response. If the state of an instance changes from &quot;pending&quot; to &quot;running&quot;, it means that the instance has been created successfully.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Purchasing a CDH instance

This example shows you how to purchase one instance with the following configurations. Availability zone: Shanghai Zone 2; CDH: host-q88gab4i; image ID: img-pmqg1cw7; billing method: billed together with the CDH; model: 1C1G; system disk: 50 GB Premium Cloud Storage; data disk: 100 GB Premium Cloud Storage; network type: VPC; public network billing: pay-as-you-go by traffic on an hourly basis; public network bandwidth cap: 10 Mbps; public IP: randomly assigned; instance name: QCLOUD-TEST; login password: Qcloud@TestApi123++; Cloud Monitoring service: enabled; Anti-DDoS: enabled.

Input Example

```
GET https://cvm.tencentcloudapi.com/?Action=RunInstances
&Placement.Zone=ap-shanghai-2
&Placement.HostIds.0=host-q88gab4i
&InstanceChargeType=CDHPAID
&ImageId=img-pmqg1cw7
&InstanceType=CDH_1C1G
&SystemDisk.DiskType=CLOUD_PREMIUM
&SystemDisk.DiskSize=50
&DataDisks.0.DiskType=CLOUD_PREMIUM
&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
```
Example2 Purchasing an instance with only the required parameters

This example shows you how to create an instance using only the required `Placement.Zone` and `ImageId` parameters. The other parameters use system default values. The instance is created in Shanghai Zone 2 with the image `img-pmqg1cw7`.

Input Example

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=RunInstances
&Placement.Zone=ap-shanghai-2
&ImageId=img-pmqg1cw7
&<Common request parameters>
```

Output Example

```json
{
  "Response": {
    "InstanceIdSet": [
      "ins-1vogaxgk"
    ],
    "RequestId": "3c140219-cfe9-470e-b241-907877d6fb03"
  }
}
```

Example3 Purchasing a pay-as-you-go instance billed on an hourly basis

This example shows you how to purchase one 64C128G standard (S5.16XLARGE256) instance in Shanghai Zone 2 using the image `img-pmqg1cw7`. The other configurations are as follows: billing method: pay-as-you-go on an hourly basis; system disk: 50 GB Premium Cloud Storage; data disk: 100 GB Premium Cloud Storage; network type: VPC; public network billing: pay-as-you-go by traffic on an hourly basis; public network bandwidth cap: 10 Mbps; public IP: randomly assigned; instance name: QCLOUD-TEST; login password: Qcloud@TestApi123++; Cloud Monitoring service: enabled; Anti-DDoS: enabled.

Input Example

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=RunInstances
&Placement.Zone=ap-shanghai-2
&InstanceChargeType=POSTPAID_BY_HOUR
&ImageId=img-pmqg1cw7
&InstanceType=S5.16XLARGE256
&SystemDisk.DiskType=CLOUD_PREMIUM
&SystemDisk.DiskSize=50
&DataDisks.0.DiskType=CLOUD_PREMIUM
&DataDisks.0.DiskSize=100
&InternetAccessible.InternetChargeType=TRAFFIC_POSTPAID_BY_HOUR
&InternetAccessible.InternetMaxBandwidthOut=10
```

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

Output Example

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

Example 4: Creating an instance with the VPC IP address specified

This example shows you how to purchase two instances with the following configurations. Availability zone: Shanghai Zone 2; billing method: pay-as-you-go on an hourly basis; image ID: img-dkwyg6sr; model: 64C128G standard (S5.16XLARGE256); system disk: 50 GB Premium Cloud Storage; network: VPC; VPC ID: 1urkhbj4; subnet ID: dcs9x3gz; VPC IP address: 10.0.0.18, and 10.0.0.19.

Input Example

```
GET https://cvm.tencentcloudapi.com/?Action=RunInstances
&InstanceType=S5.16XLARGE256
&SystemDisk.DiskType=CLOUD_PREMIUM
&SystemDisk.DiskSize=50
&Placement.Zone=ap-shanghai-2
&ImageId=img-dkwyg6sr
&VirtualPrivateCloud.SubnetId=subnet-dcs9x3gz
&VirtualPrivateCloud.VpcId=vpc-1urkhbj4
&VirtualPrivateCloud.PrivateIpAddresses.0=10.0.0.18
&VirtualPrivateCloud.PrivateIpAddresses.1=10.0.0.19
&InstanceCount=2
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "InstanceIdSet": ["ins-0s7wsh5x", "ins-03lw8hok"],
    "RequestId": "3c14def19-cfes-470e-b241-90787u6jf5uj"
  }
}
```

Example 5: Purchasing a monthly subscription instance

This example shows you how to query the price for purchasing one 64C128G standard (S5.16XLARGE256) instance in Shanghai Zone 2 using the image img-pmqg1cw7. The other configurations are as follows: billing method: monthly subscription for one month with auto-renewal upon expiration; system disk: 50 GB Premium Cloud Storage; data disk: 100 GB Premium Cloud Storage; network type: VPC; public network billing: pay-as-you-go by traffic on an hourly basis; public network bandwidth cap: 10 Mbps; public IP:
randomly assigned; instance name: QCLOUD-TEST; login password: Qcloud@TestApi123++; Cloud Monitoring service: enabled; Anti-DDoS: enabled.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=RunInstances
&Placement.Zone=ap-shanghai-2
&InstanceChargeType=PREPAID
&InstanceChargePrepaid.Period=1
&InstanceChargePrepaid.RenewFlag=NOTIFY_AND_AUTO_RENEW
&ImageId=img-pmqg1cw7
&InstanceType=S5.16XLARGE256
&SystemDisk.DiskType=CLOUD_PREMIUM
&SystemDisk.DiskSize=50
&DataDisks.0.DiskType=CLOUD_PREMIUM
&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>
```

**Output Example**

```plaintext
{
"Response": {
"InstanceIdSet": [
"ins-bfw5zq3y"
],
"RequestId": "3c140219-cfe9-470e-b241-907877d6fb03"
}
}
```

5. Developer Resources

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- API 3.0 Explorer

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# Command Line Interface

- Tencent Cloud CLI 3.0

## 6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountQualificationRestrictions</td>
<td>Your account failed the qualification verification.</td>
</tr>
<tr>
<td>AuthFailure.CamRoleNameAuthenticateFailed</td>
<td>Role name authentication failed.</td>
</tr>
<tr>
<td>InstancesQuotaLimitExceeded</td>
<td>You are trying to create more instances than your remaining quota allows.</td>
</tr>
<tr>
<td>InternalError.TradeUnknownError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidClientToken.TooLong</td>
<td>The specified ClientToken exceeds the maximum length of 64 bytes.</td>
</tr>
<tr>
<td>InvalidHostId.Malformed</td>
<td>Invalid CDH ID. The specified CDH ID has an invalid format. For example, host-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidHostId.NotFound</td>
<td>The specified HostId does not exist, or does not belong to your account.</td>
</tr>
<tr>
<td>InvalidImageId.Malformed</td>
<td>Invalid image ID format.</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>InvalidInstanceName.TooLong</td>
<td>The specified InstanceName exceeds the maximum length of 60 bytes.</td>
</tr>
<tr>
<td>InvalidInstanceType.Malformed</td>
<td>The specified InstanceType parameter has an invalid format.</td>
</tr>
<tr>
<td>InvalidParameter.InstanceImageNotSupport</td>
<td>This API does not support instance images.</td>
</tr>
<tr>
<td>InvalidParameter.InvalidIpFormat</td>
<td>Invalid VPC IP address format.</td>
</tr>
<tr>
<td>InvalidParameter.LackCoreCountOrThreadPerCore</td>
<td>CoreCount and ThreadPerCore must be specified at the same time.</td>
</tr>
<tr>
<td>InvalidParameter.SnapshotNotFound</td>
<td>The specified snapshot does not exist.</td>
</tr>
<tr>
<td>InvalidParameterCombination</td>
<td>The parameter combination is invalid.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.CloudSsdDataDiskSizeTooSmall</td>
<td>The minimum capacity of a SSD data disk is 100 GB.</td>
</tr>
<tr>
<td>InvalidParameterValue.CoreCountValue</td>
<td>Illegal core count.</td>
</tr>
<tr>
<td>InvalidParameterValue.IllegalHostName</td>
<td>The value of HostName is invalid.</td>
</tr>
<tr>
<td>InvalidParameterValue.InstanceTypeNotSupportHpcCluster</td>
<td>This type of instances cannot be added to the HPC cluster.</td>
</tr>
<tr>
<td>InvalidParameterValue.InstanceTypeRequiredHpcCluster</td>
<td>The HPC cluster needs to be specified for the high-performance computing instance.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>InvalidParameterValue.InsufficientOffering</td>
<td>The spot instance is out of stock.</td>
</tr>
<tr>
<td>InvalidParameterValue.InsufficientPrice</td>
<td>The bid is lower than the market price.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidImageState</td>
<td>Invalid image status.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidUserDataFormat</td>
<td>Incorrect UserData format. Use the Base64-encoded format.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValue.MustDhcpEnabledVpc</td>
<td>The parameter value must be a DHCP-enabled VPC.</td>
</tr>
<tr>
<td>InvalidParameterValue.Range</td>
<td>Invalid parameter value: invalid parameter value range.</td>
</tr>
<tr>
<td>InvalidParameterValue.SnapshotIdMalformed</td>
<td>Invalid snapshot ID. Provide a snapshot ID in the format of snap-xxxxxxxx, where the letter x refers to lowercase letter or number.</td>
</tr>
<tr>
<td>InvalidParameterValue/SubnetNotExist</td>
<td>Creation failed: the subnet does not exist. Please specify another subnet.</td>
</tr>
<tr>
<td>InvalidParameterValue.ThreadPerCoreValue</td>
<td>Invalid thread count per core.</td>
</tr>
<tr>
<td>InvalidParameterValue.VpcIdZoneIdNotMatch</td>
<td>The VPC and instance must be in the same availability zone.</td>
</tr>
<tr>
<td>InvalidParameterValue.ZoneNotSupported</td>
<td>The availability zone does not support this operation.</td>
</tr>
<tr>
<td>InvalidPassword</td>
<td>Invalid password. The specified password does not meet the password requirements. For example, the password length does not meet the requirements.</td>
</tr>
<tr>
<td>InvalidPeriod</td>
<td>Invalid period. Valid values: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 24, 36]; unit: month.</td>
</tr>
<tr>
<td>InvalidPermission</td>
<td>This operation is not supported for the account.</td>
</tr>
<tr>
<td>InvalidProjectId.NotFound</td>
<td>Invalid project ID: the specified project ID does not exist.</td>
</tr>
<tr>
<td>InvalidSecurityGroupId.NotFound</td>
<td>The specified security group ID does not exist.</td>
</tr>
<tr>
<td>InvalidZone.MismatchRegion</td>
<td>The specified zone does not exist.</td>
</tr>
<tr>
<td>LimitExceeded.InstanceQuota</td>
<td>You are short of the instance quota.</td>
</tr>
<tr>
<td>LimitExceeded.SingleUSGQuota</td>
<td>The number of security groups exceeds the quota limit.</td>
</tr>
<tr>
<td>LimitExceeded.SpotQuota</td>
<td>The spot instance offerings are out of stock.</td>
</tr>
<tr>
<td>LimitExceeded.UserSpotQuota</td>
<td>You are short of the spot instance quota.</td>
</tr>
<tr>
<td>LimitExceeded.VpcSubnetNum</td>
<td>Insufficient subnet IPs.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>MissingParameter.DPDKInstanceTypeRequiredVPC</td>
<td>The DPDK instance requires a VPC.</td>
</tr>
<tr>
<td>MissingParameter.MonitorService</td>
<td>The instance type must have Cloud Monitor enabled.</td>
</tr>
<tr>
<td>ResourceInsufficient.CloudDiskSoldOut</td>
<td>The specified cloud disk has been sold out.</td>
</tr>
<tr>
<td>ResourceInsufficient.CloudDiskUnavailable</td>
<td>The parameters of cloud disk do not meet the specification.</td>
</tr>
<tr>
<td>ResourceInsufficient.DisasterRecoverGroupCvmQuota</td>
<td>The specified instance type is out of stock.</td>
</tr>
<tr>
<td>ResourceNotFound.HpcCluster</td>
<td>The HPC cluster does not exist.</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>ResourceNotFound.NoDefaultCbs</td>
<td>No default CBS resources are available.</td>
</tr>
<tr>
<td>ResourceNotFound.NoDefaultCbsWithReason</td>
<td>No default CBS resources are available.</td>
</tr>
<tr>
<td>ResourceUnavailable.InstanceType</td>
<td>This instance type is unavailable in the availability zone.</td>
</tr>
<tr>
<td>ResourcesSoldOut.EipInsufficient</td>
<td>The public IP has been sold out.</td>
</tr>
<tr>
<td>ResourcesSoldOut.SpecifiedInstanceType</td>
<td>The specified instance type has already been sold out.</td>
</tr>
<tr>
<td>UnsupportedOperation.BandwidthPackageIdNotSupported</td>
<td>The specified instance or network cannot use the bandwidth package.</td>
</tr>
<tr>
<td>UnsupportedOperation.InvalidDisk</td>
<td>The specified disk is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.KeyPairUnsupportedWindows</td>
<td>Key-pair login is not available to Windows instances.</td>
</tr>
<tr>
<td>UnsupportedOperation.NoInstanceTypeSupportSpot</td>
<td>This instance type does not support spot instances.</td>
</tr>
<tr>
<td>VpcAddrNotInSubNet</td>
<td>The VPC IP address is not in the subnet.</td>
</tr>
<tr>
<td>VpcIpsUsed</td>
<td>The VPC IP address is already occupied.</td>
</tr>
</tbody>
</table>


1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to start instances.

- You can only perform this operation on instances whose status is **STOPPED**.
- The instance status will become **STARTING** when the API is called successfully and **RUNNING** when the instance is successfully started.
- Batch operations are supported. The maximum number of instances in each request is 100.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: StartInstances.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response. The maximum number of instances in each request is 100.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

StartInstances
Last updated: 2020-10-22 16:49:16
4. Example

Example1 Starting instances with the instance IDs specified
Start up two shutdown instances at a time

Input Example

```
GET https://cvm.tencentcloudapi.com/?Action=StartInstances
&InstanceId.0=ins-r8hr2upy
&InstanceId.1=ins-5d8a23rs
&<Common request parameter>
```

Output Example

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

5. Developer Resources

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Command Line Interface

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6. Error Code

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<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateExitRescueMode</td>
<td>Instances are exiting from the rescue mode, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateRunning</td>
<td>Running instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateShutdown</td>
<td>Isolated instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation_InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
</tbody>
</table>

format. For example, `ins-1122` has an invalid ID length.
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to shut down instances.

- You can only perform this operation on instances whose status is `RUNNING`.
- The instance status will become `STOPPING` when the API is called successfully and `STOPPED` when the instance is successfully shut down.
- Forced shutdown is supported. A forced shutdown is similar to switching off the power of a physical computer. It may cause data loss or file system corruption. Be sure to only force shut down a CVM when it cannot be shut down normally.
- Batch operations are supported. The maximum number of instances in each request is 100.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: StopInstances.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response. The maximum number of instances in each request is 100.</td>
</tr>
</tbody>
</table>
| ForceStop      | No       | Boolean | Whether to force shut down an instance after a normal shutdown fails. Valid values: 
- TRUE: force shut down an instance after a normal shutdown fails 
- FALSE: do not force shut down an instance after a normal shutdown fails 
Default value: FALSE. |
| StopType       | No       | String  | Instance shutdown mode. Valid values: 
- SOFT_FIRST: perform a soft shutdown first, and force shut down the instance if the soft shutdown fails 
- HARD: force shut down the instance directly |
3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

**Example1 Shutting down instances**

This example shows you how to shut down two instances.

**Input Example**

```
GET https://cvm.tencentcloudapi.com/?Action=StopInstances
&InstanceIds.0=ins-r8hr2upy
&InstanceIds.1=ins-5d8a23rs
&ForceStop=FALSE
&<common request parameters>
```

**Output Example**

```
{
  "Response": {
    "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
  }
}
```

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<td>Internal error.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidParameterCombination</td>
<td>The parameter combination is invalid.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
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<td>The number of parameter values exceeds the limit.</td>
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<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStatePending</td>
<td>The instances are being created, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateShutdown</td>
<td>Isolated instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopped</td>
<td>The instance has been shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
</tbody>
</table>
1. API Description

Domain name for API request: cvm.tencentcloudapi.com.

This API is used to return instances.

- Use this API to return instances that are no longer required.
- Pay-as-you-go instances can be returned directly through this API.
- When this API is called for the first time, the instance will be moved to the recycle bin. When this API is called for the second time, the instance will be terminated and cannot be recovered.
- Batch operations are supported. The allowed maximum number of instances in each request is 100.

A maximum of 10 requests can be initiated per second for this API.

Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: TerminateInstances.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
<tr>
<td>InstanceIds.N</td>
<td>Yes</td>
<td>Array of String</td>
<td>Instance ID(s). To obtain the instance IDs, you can call DescribeInstances and look for InstanceId in the response. The maximum number of instances in each request is 100.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
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<th>Type</th>
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<tbody>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>
4. Example

Example1 Terminating instances with the specific IDs

Input Example

GET https://cvm.tencentcloudapi.com/?Action=TerminateInstances
&InstanceIds.0=ins-r8hr2upy
&InstanceIds.1=ins-5d8a23ra
<&common request parameters>

Output Example

```json
{
  "Response": {
    "RequestId": "6ef60bec-0242-43af-bb20-270359fb54a7"
  }
}
```

5. Developer Resources

API Explorer

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- API 3.0 Explorer

SDK

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- Tencent Cloud SDK 3.0 for .NET

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternalError.TradeUnknownError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InvalidAccount.UnpaidOrder</td>
<td>The account has unpaid orders.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidInstanceIdNotSupportedPrepaidInstance</td>
<td>This instance does not meet the Return Policy for prepaid instances.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Incorrect parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValue.NotSupported</td>
<td>Unsupported operation.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>Missing parameter.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStatePending</td>
<td>The instances are being created, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminated</td>
<td>Terminated instances are not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.Region</td>
<td>The region is unsupported.</td>
</tr>
<tr>
<td>UnsupportedOperation.SpecialInstanceType</td>
<td>This special instance type does not support the operation.</td>
</tr>
</tbody>
</table>
Region APIs
DescribeRegions

Last updated : 2020-07-17 16:32:49

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.
This API is used to query regions.
A maximum of 20 requests can be initiated per second for this API.
We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeRegions.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>No</td>
<td>String</td>
<td>Common parameter. This parameter is not required for this API.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TotalCount</td>
<td>Integer</td>
<td>Number of regions</td>
</tr>
<tr>
<td>RegionSet</td>
<td>Array of RegionInfo</td>
<td>List of regions</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Example
Input Example
GET https://cvm.tencentcloudapi.com/?Action=DescribeRegions
&<Common request parameters>

Output Example

```json
{
  "Response": {
    "TotalCount": 9,
    "RegionSet": [
      {
        "Region": "ap-beijing",
        "RegionName": "North China (Beijing)",
        "RegionState": "AVAILABLE"
      },
      {
        "Region": "ap-guangzhou",
        "RegionName": "South China (Guangzhou)",
        "RegionState": "AVAILABLE"
      },
      {
        "Region": "ap-hongkong",
        "RegionName": "Hong Kong/Macao/Taiwan (Hong Kong, China)",
        "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": "0563943B-38EA-FE92-29FE-591EAE87871F"
  }
}
```
5. Developer Resources

**API Explorer**

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- API 3.0 Explorer

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- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET

**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see [Common Error Codes](#).
DescribeZones
Last updated: 2020-07-24 18:37:40

1. API Description

Domain name for API request: cvm.tencentcloudapi.com.
This API is used to query availability zones.
A maximum of 20 requests can be initiated per second for this API.
Note: This API supports Finance regions. If the common parameter Region is a Finance region, a domain name with the Finance region needs to be specified, for example: cvm.ap-shanghai-fsi.tencentcloudapi.com

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

2. Input Parameters

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

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: DescribeZones.</td>
</tr>
<tr>
<td>Version</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. The value used for this API: 2017-03-12.</td>
</tr>
<tr>
<td>Region</td>
<td>Yes</td>
<td>String</td>
<td>Common parameter. For more information, please see the list of regions supported by the product.</td>
</tr>
</tbody>
</table>

3. Output Parameters

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TotalCount</td>
<td>Integer</td>
<td>Number of availability zones.</td>
</tr>
<tr>
<td>ZoneSet</td>
<td>Array of Zonelnfo</td>
<td>List of availability zones.</td>
</tr>
<tr>
<td>RequestId</td>
<td>String</td>
<td>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</td>
</tr>
</tbody>
</table>

4. Example

Example1 Querying the Chinese name of an availability zone
This example shows you how to query information of availability zones in the Guangzhou region. To return its Chinese name of the availability zone, you need to pass the parameter `Language=zh-CN`.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=DescribeZones
&Language=zh-CN
&<common request parameters>
```

**Output Example**

```json
{
    "Response": {
        "TotalCount": 4,
        "ZoneSet": [
            {
                "ZoneState": "UNAVAILABLE",
                "ZoneId": "100001",
                "Zone": "ap-guangzhou-1",
                "ZoneName": "Guangzhou Zone 1"
            },
            {
                "ZoneState": "AVAILABLE",
                "ZoneId": "100002",
                "Zone": "ap-guangzhou-2",
                "ZoneName": "Guangzhou Zone 2"
            },
            {
                "ZoneState": "AVAILABLE",
                "ZoneId": "100003",
                "Zone": "ap-guangzhou-3",
                "ZoneName": "Guangzhou Zone 3"
            },
            {
                "ZoneState": "AVAILABLE",
                "ZoneId": "100004",
                "Zone": "ap-guangzhou-4",
                "ZoneName": "Guangzhou Zone 4"
            }
        ],
        "RequestId": "62DDFFC6-FDB5-44F7-20A6-59152E3D129A"
    }
}
```

**Example2 Querying the English name of an availability zone**

This example shows you how to query the availability zones in the Guangzhou region. Its English name will be returned by default if the parameter `Language` is not passed in.

**Input Example**

```plaintext
GET https://cvm.tencentcloudapi.com/?Action=DescribeZones
&<common request parameters>
```

**Output Example**

```json
{
    "Response": {
        "TotalCount": 4,
        "ZoneSet": [
            {
                "ZoneState": "UNAVAILABLE",
                "ZoneId": "100001",
                "Zone": "ap-guangzhou-1",
                "ZoneName": "Guangzhou Zone 1"
            },
            {
                "ZoneState": "AVAILABLE",
                "ZoneId": "100002",
                "Zone": "ap-guangzhou-2",
                "ZoneName": "Guangzhou Zone 2"
            },
            {
                "ZoneState": "AVAILABLE",
                "ZoneId": "100003",
                "Zone": "ap-guangzhou-3",
                "ZoneName": "Guangzhou Zone 3"
            },
            {
                "ZoneState": "AVAILABLE",
                "ZoneId": "100004",
                "Zone": "ap-guangzhou-4",
                "ZoneName": "Guangzhou Zone 4"
            }
        ],
        "RequestId": "62DDFFC6-FDB5-44F7-20A6-59152E3D129A"
    }
}
```
"ZoneSet": [ 
  
  
  { 
    "ZoneState": "UNAVAILABLE",
    "ZoneId": "100001",
    "Zone": "ap-guangzhou-1",
    "ZoneName": "Guangzhou Zone 1"
  },
  
  { 
    "ZoneState": "AVAILABLE",
    "ZoneId": "100002",
    "Zone": "ap-guangzhou-2",
    "ZoneName": "Guangzhou Zone 2"
  },
  
  { 
    "ZoneState": "AVAILABLE",
    "ZoneId": "100003",
    "Zone": "ap-guangzhou-3",
    "ZoneName": "Guangzhou Zone 3"
  },
  
  { 
    "ZoneState": "AVAILABLE",
    "ZoneId": "100004",
    "Zone": "ap-guangzhou-4",
    "ZoneName": "Guangzhou Zone 4"
  }
],

"RequestId": "6ZDDFFC6-FDB5-44F7-20A6-59152E3D129A"
}

5. Developer Resources

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**Command Line Interface**

- Tencent Cloud CLI 3.0

6. Error Code

There is no error code related to the API business logic. For other error codes, please see [Common Error Codes](#).
Data Types

Last updated : 2020-10-23 10:04:26

ActionTimer

Scheduled tasks.

Used by actions: RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externals</td>
<td>Externals</td>
<td>Yes</td>
<td>Additional data</td>
</tr>
<tr>
<td>TimerAction</td>
<td>String</td>
<td>No</td>
<td>Timer name. Currently TerminateInstances is the only supported value.</td>
</tr>
<tr>
<td>ActionTime</td>
<td>String</td>
<td>No</td>
<td>Execution time, which must be at least 5 minutes later than the current time. For example, 2018-5-29 11:26:40.</td>
</tr>
</tbody>
</table>

ChargePrepaid

Parameters related to the prepaid billing method, including the subscription period, the auto renewal logic, etc.

Used by actions: AllocateHosts.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>Integer</td>
<td>Yes</td>
<td>Purchased usage period, in month. Valid values: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 24, 36</td>
</tr>
<tr>
<td>RenewFlag</td>
<td>String</td>
<td>No</td>
<td>Auto renewal flag. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• NOTIFY_AND_AUTO_RENEW: notify upon expiration and renew automatically</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• NOTIFY_AND_MANUAL_RENEW: notify upon expiration but do not renew automatically</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• DISABLE_NOTIFY_AND_MANUAL_RENEW: neither notify upon expiration nor renew</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>automatically</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Default value: NOTIFY_AND_AUTO_RENEW. If this parameter is specified as</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NOTIFY_AND_AUTO_RENEW, the instance will be automatically renewed on a monthly basis if the account balance is sufficient.</td>
</tr>
</tbody>
</table>

DataDisk

Describes data disk information.


<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DiskSize</td>
<td>Integer</td>
<td>Yes</td>
<td>Data disk size (in GB). The minimum adjustment increment is 10 GB. The value range varies by data disk type. For more information on limits, see Storage Overview. The default value is 0, indicating that no data disk is purchased. For more information, see the product documentation.</td>
</tr>
<tr>
<td>DiskType</td>
<td>String</td>
<td>No</td>
<td>Data disk type. For more information about limits on different data disk types, see Storage Overview. Valid values: LOCAL_BASIC: local disk</td>
</tr>
</tbody>
</table>
### LOCAL_SSD: local SSD disk
- CLOUD_BASIC: HDD cloud disk
- CLOUD_PREMIUM: Premium Cloud Storage
- CLOUD_SSD: SSD
- CLOUD_HSSD: Enhanced SSD

Default value: LOCAL_BASIC.

This parameter is invalid for the `ResizeInstanceDisk` API.

<table>
<thead>
<tr>
<th>DiskId</th>
<th>String</th>
<th>No</th>
<th>Data disk ID. Data disks of the type LOCAL_BASIC or LOCAL_SSD do not have IDs and do not support this parameter.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeleteWithInstance</td>
<td>Boolean</td>
<td>No</td>
<td>Whether to terminate the data disk when its CVM is terminated. Valid values: TRUE: terminate the data disk when its CVM is terminated. This value only supports pay-as-you-go cloud disks billed on an hourly basis. FALSE: retain the data disk when its CVM is terminated. Default value: TRUE</td>
</tr>
<tr>
<td>SnapshotId</td>
<td>String</td>
<td>No</td>
<td>Data disk snapshot ID. The size of the selected data disk snapshot must be smaller than that of the data disk. Note: This field may return null, indicating that no valid value is found.</td>
</tr>
<tr>
<td>Encrypt</td>
<td>Boolean</td>
<td>No</td>
<td>Specifies whether the data disk is encrypted. Valid values: TRUE: encrypted FALSE: not encrypted Default value: FALSE</td>
</tr>
<tr>
<td>KmsKeyId</td>
<td>String</td>
<td>No</td>
<td>ID of the custom CMK in the format of UUID or “kms-abcd1234”. This parameter is used to encrypt cloud disks. Currently, this parameter is only used in the <code>RunInstances</code> API. Note: this field may return <code>null</code>, indicating that no valid value can be obtained.</td>
</tr>
</tbody>
</table>

## DisasterRecoverGroup

Information on disaster recovery groups

Used by actions: `DescribeDisasterRecoverGroups`.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisasterRecoverGroupId</td>
<td>String</td>
<td>ID of a spread placement group.</td>
</tr>
<tr>
<td>Name</td>
<td>String</td>
<td>Name of a spread placement group, which must be 1-60 characters long.</td>
</tr>
<tr>
<td>Type</td>
<td>String</td>
<td>Type of a spread placement group. Valid values: HOST: physical machine SW: switch RACK: rack.</td>
</tr>
</tbody>
</table>
### CvmQuotaTotal
- **Type**: Integer
- Description: The maximum number of CVMs that can be hosted in a spread placement group.

### CurrentNum
- **Type**: Integer
- Description: The current number of CVMs in a spread placement group.

### InstanceIds
- **Type**: Array of String
- Description: The list of CVM IDs in a spread placement group. Note: This field may return null, indicating that no valid value was found.

### CreateTime
- **Type**: Timestamp
- Description: Creation time of a spread placement group. Note: This field may return null, indicating that no valid value is found.

### EnhancedService

Describes the configuration of enhanced services, such as Cloud Security and Cloud Monitor.


<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SecurityService</td>
<td>RunSecurityServiceEnabled</td>
<td>No</td>
<td>Enables cloud security service. If this parameter is not specified, the cloud security service will be enabled by default.</td>
</tr>
<tr>
<td>MonitorService</td>
<td>RunMonitorServiceEnabled</td>
<td>No</td>
<td>Enables cloud monitor service. If this parameter is not specified, the cloud monitor service will be enabled by default.</td>
</tr>
</tbody>
</table>

### Externals

Additional data

Used by actions: DescribeReservedInstancesConfigInfos, DescribeZoneInstanceConfigInfos, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReleaseAddress</td>
<td>Boolean</td>
<td>No</td>
<td>Release address Note: This field may return null, indicating that no valid value is found.</td>
</tr>
</tbody>
</table>
| UnsupportNetworks  | Array of String                           | No       | Not supported network. Value:  
  - BASIC: classic network  
  - VPC1.0: VPC1.0  
  Note: This field may return null, indicating that no valid value was found. |
| StorageBlockAttr   | StorageBlock                              | No       | Attributes of local HDD storage Note: This field may return null, indicating that no valid value is found. |

### Filter

Key-value pair filters used for conditional queries, such as filtering results by ID, name, and state.

- If there are multiple Filter parameters, they are evaluated using the logical AND operator.
- If a Filter contains multiple Values, they are evaluated using the logical OR operator.

Take DescribeInstances as an example. You can use the following filters to query the instances in availability zone (zone) Guangzhou Zone 1 and whose billing plan (instance-charge-type) is pay-as-you-go:
Filters.0.
&Filters.0.Name=zone
&Filters.0.Values.0=ap-guangzhou-1
&Filters.1.Name=instance-charge-type
&Filters.1.Values.0=POSTPAID_BY_HOUR

Used by actions: DescribeHosts, DescribeImages, DescribeInstanceTypeConfigs, DescribeInstances, DescribeKeyPairs, DescribeReservedInstances, DescribeReservedInstancesConfigInfos, DescribeReservedInstancesOfferings, DescribeZoneInstanceConfigInfos.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>String</td>
<td>Yes</td>
<td>Filters.</td>
</tr>
<tr>
<td>Values</td>
<td>Array of String</td>
<td>Yes</td>
<td>Filter values.</td>
</tr>
</tbody>
</table>

**HostItem**

Details about a CDH instance

Used by actions: DescribeHosts.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement</td>
<td>Placement</td>
<td>Location of the CDH instance. You can use this parameter to specify the attributes of the instance, such as its availability zone and project.</td>
</tr>
<tr>
<td>HostId</td>
<td>String</td>
<td>CDH instance ID</td>
</tr>
<tr>
<td>HostType</td>
<td>String</td>
<td>CDH instance type</td>
</tr>
<tr>
<td>HostName</td>
<td>String</td>
<td>CDH instance name</td>
</tr>
<tr>
<td>HostChargeType</td>
<td>String</td>
<td>Billing method of the CDH instance</td>
</tr>
<tr>
<td>RenewFlag</td>
<td>String</td>
<td>Auto renewal flag of the CDH instance</td>
</tr>
<tr>
<td>CreatedTime</td>
<td>Timestamp ISO8601</td>
<td>Creation time of the CDH instance</td>
</tr>
<tr>
<td>ExpiredTime</td>
<td>Timestamp ISO8601</td>
<td>Expiration time of the CDH instance</td>
</tr>
<tr>
<td>InstanceIds</td>
<td>Array of String</td>
<td>List of IDs of CVM instances created on the CDH</td>
</tr>
<tr>
<td>HostState</td>
<td>String</td>
<td>CDH instance state</td>
</tr>
<tr>
<td>HostIp</td>
<td>String</td>
<td>CDH instance IP</td>
</tr>
<tr>
<td>HostResource</td>
<td>HostResource</td>
<td>Resource information of the CDH instance</td>
</tr>
<tr>
<td>CageId</td>
<td>String</td>
<td>Cage ID of the CDH instance. This parameter is only valid for CDH instances in the cages of finance availability zones. Note: This field may return null, indicating that no valid value is found.</td>
</tr>
</tbody>
</table>

**HostResource**

Resource information of a CDH instance
**Cloud Virtual Machine**

Used by actions: DescribeHosts.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CpuTotal</td>
<td>Integer</td>
<td>Total number of CPU cores in the CDH instance</td>
</tr>
<tr>
<td>CpuAvailable</td>
<td>Integer</td>
<td>Number of available CPU cores in the CDH instance</td>
</tr>
<tr>
<td>MemTotal</td>
<td>Float</td>
<td>Total memory of the CDH instance; unit: GiB</td>
</tr>
<tr>
<td>MemAvailable</td>
<td>Float</td>
<td>Available memory of the CDH instance; unit: GiB</td>
</tr>
<tr>
<td>DiskTotal</td>
<td>Integer</td>
<td>Total disk size of the CDH instance; unit: GiB</td>
</tr>
<tr>
<td>DiskAvailable</td>
<td>Integer</td>
<td>Available disk size of the CDH instance; unit: GiB</td>
</tr>
<tr>
<td>DiskType</td>
<td>String</td>
<td>CDH instance disk type</td>
</tr>
</tbody>
</table>

**Image**

Details about an image, including its state and attributes.

Used by actions: DescribeImages.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImageId</td>
<td>String</td>
<td>Image ID</td>
</tr>
<tr>
<td>OsName</td>
<td>String</td>
<td>Operating system of the image</td>
</tr>
<tr>
<td>ImageType</td>
<td>String</td>
<td>Image type</td>
</tr>
<tr>
<td>CreatedTime</td>
<td>Timestamp ISO8601</td>
<td>Creation time of the image</td>
</tr>
<tr>
<td>ImageName</td>
<td>String</td>
<td>Image name</td>
</tr>
<tr>
<td>ImageDescription</td>
<td>String</td>
<td>Image description</td>
</tr>
<tr>
<td>ImageSize</td>
<td>Integer</td>
<td>Image size</td>
</tr>
<tr>
<td>Architecture</td>
<td>String</td>
<td>Image architecture</td>
</tr>
<tr>
<td>ImageState</td>
<td>String</td>
<td>Image state</td>
</tr>
<tr>
<td>Platform</td>
<td>String</td>
<td>Source platform of the image</td>
</tr>
<tr>
<td>ImageCreator</td>
<td>String</td>
<td>Image creator</td>
</tr>
<tr>
<td>ImageSource</td>
<td>String</td>
<td>Image source</td>
</tr>
<tr>
<td>SyncPercent</td>
<td>Integer</td>
<td>Synchronization percentage</td>
</tr>
<tr>
<td>IsSupportCloudinit</td>
<td>Boolean</td>
<td>Whether the image supports cloud-init</td>
</tr>
<tr>
<td>SnapshotSet</td>
<td>Array of Snapshot</td>
<td>Information on the snapshots associated with the image</td>
</tr>
</tbody>
</table>

**ImageOsList**
Supported operating systems are divided into two categories, Windows and Linux.

Used by actions: DescribeImageOs.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>Array of String</td>
<td>Supported Windows OS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note: This field may return null, indicating that no valid value is found.</td>
</tr>
<tr>
<td>Linux</td>
<td>Array of String</td>
<td>Supported Linux OS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note: This field may return null, indicating that no valid value is found.</td>
</tr>
</tbody>
</table>

**Instance**

Describes information on an instance

Used by actions: DescribeInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement</td>
<td>Placement</td>
<td>Location of the instance</td>
</tr>
<tr>
<td>InstanceId</td>
<td>String</td>
<td>Instance ID</td>
</tr>
<tr>
<td>InstanceType</td>
<td>String</td>
<td>Instance model</td>
</tr>
<tr>
<td>CPU</td>
<td>Integer</td>
<td>Number of CPU cores of the instance; unit: core</td>
</tr>
<tr>
<td>Memory</td>
<td>Integer</td>
<td>Memory capacity; unit: GB</td>
</tr>
<tr>
<td>RestrictState</td>
<td>String</td>
<td>Instance status. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- NORMAL: instance is normal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- EXPIRED: instance expired.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- PROTECTIVELY_ISOLATED: instance is protectively isolated.</td>
</tr>
<tr>
<td>InstanceName</td>
<td>String</td>
<td>Instance name</td>
</tr>
<tr>
<td>InstanceChargeType</td>
<td>String</td>
<td>Instance billing plan. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- POSTPAID BY HOUR: pay after use. You are billed by the hour, by traffic.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- CDH: CDH billing plan. Applicable to CDH only, not the instances on the host.</td>
</tr>
<tr>
<td>SystemDisk</td>
<td>SystemDisk</td>
<td>Information on the system disk of the instance</td>
</tr>
<tr>
<td>DataDisks</td>
<td>Array of DataDisk</td>
<td>Information on the data disks of the instance, which only covers the data disks purchased together with the instance.</td>
</tr>
<tr>
<td>PrivatelpAddresses</td>
<td>Array of String</td>
<td>List of private IPs of the instance's primary ENI.</td>
</tr>
<tr>
<td>PublicIpAddresses</td>
<td>Array of String</td>
<td>List of public IPs of the instance's primary ENI.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note: This field may return null, indicating that no valid value is found.</td>
</tr>
<tr>
<td>InternetAccessible</td>
<td>InternetAccessible</td>
<td>Information on instance bandwidth.</td>
</tr>
<tr>
<td>VirtualPrivateCloud</td>
<td>VirtualPrivateCloud</td>
<td>Information on the VPC where the instance resides.</td>
</tr>
<tr>
<td>Imageld</td>
<td>String</td>
<td>ID of the image used to create the instance.</td>
</tr>
<tr>
<td>RenewFlag</td>
<td>String</td>
<td>Auto renewal flag. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- NOTIFY_AND_MANUAL_RENEW: notify upon expiration, but do not renew automatically</td>
</tr>
</tbody>
</table>
- **NOTIFY AND AUTO RENEW**: notify upon expiration and renew automatically
- **DISABLE NOTIFY AND MANUAL RENEW**: do not notify upon expiration and do not renew automatically.

  Note: this parameter is `null` for postpaid instances.

<table>
<thead>
<tr>
<th>CreatedTime</th>
<th>Timestamp ISO8601</th>
<th>Creation time following the ISO8601 standard and using UTC time in the format of <code>YYYY-MM-DDThh:mm:ssZ</code>.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExpiredTime</td>
<td>Timestamp ISO8601</td>
<td>Expiration time in UTC format following the ISO8601 standard: <code>YYYY-MM-DDThh:mm:ssZ</code>. Note: this parameter is <code>null</code> for postpaid instances.</td>
</tr>
<tr>
<td>OsName</td>
<td>String</td>
<td>Operating system name.\n</td>
</tr>
<tr>
<td>LoginSettings</td>
<td>LoginSettings</td>
<td>Login settings of the instance. Currently only the key associated with the instance is returned.</td>
</tr>
</tbody>
</table>
| InstanceState | String | Instance state. Valid values:
- `PENDING`: creating
- `LAUNCH FAILED`: creation failed
- `RUNNING`: running
- `STOPPED`: shut down
- `STARTING`: starting
- `STOPPING`: shutting down
- `REBOOTING`: rebooting
- `SHUTDOWN`: shut down and to be terminated
- `TERMINATING`: terminating. |
| Tags | Array of Tag | List of tags associated with the instance. |
| StopChargingMode | String | Instance billing method after shutdown. Valid values:
- `KEEP_CHARGING`: billing continues after shutdown
- `STOP CHARGING`: billing stops after shutdown
- `NOT APPLICABLE`: the instance is not shut down or stopping billing after shutdown is not applicable to the instance. |
| Uuid | String | Globally unique ID of the instance. |
| LatestOperation | String | Last operation of the instance, such as StopInstances or ResetInstance. |
| LatestOperationState | String | The latest operation status of the instance. Valid values:
- `SUCCESS`: operation succeeded
- `OPERATING`: operation in progress
- `FAILED`: operation failed |
| LatestOperationRequestId | String | Unique request ID for the last operation of the instance. |
| DisasterRecoverGroupId | String | ID of a spread placement group. Note: this field may return null, indicating that no valid value is obtained. |
| IPv6Addresses | Array of String | IPv6 address of the instance. Note: this field may return null, indicating that no valid value is obtained. |
| CamRoleName | String | CAM role name. Note: this field may return null, indicating that no valid value is obtained. |
| HpcClusterId | String | HPC cluster ID. |
**InstanceChargePrepaid**

Describes the billing method of an instance.

Used by actions: InquiryPriceRunInstances, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>Integer</td>
<td>Yes</td>
<td>Subscription period; unit: month; valid values: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 24, 36.</td>
</tr>
<tr>
<td>RenewFlag</td>
<td>String</td>
<td>No</td>
<td>Auto renewal flag. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- NOTIFY_AND_AUTO_RENEW: notify upon expiration and renew automatically</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- NOTIFY_AND_MANUAL_RENEW: notify upon expiration but do not renew automatically</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- DISABLE_NOTIFY_AND_MANUAL_RENEW: neither notify upon expiration nor renew automatically</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Default value: NOTIFY_AND_MANUAL_RENEW. If this parameter is specified as NOTIFY_AND_AUTO_RENEW, the instance will be automatically renewed on a monthly basis if the account balance is sufficient.</td>
</tr>
</tbody>
</table>

**InstanceFamilyConfig**

Describes the model family of the instance.

Examples: `{InstanceFamilyName: 'Standard S1', InstanceFamily: 'S1'}`, `{InstanceFamilyName: 'Network-optimized N1', InstanceFamily: 'N1'}`, `{InstanceFamilyName: 'High IO I1', InstanceFamily: 'I1'}`, etc.

Used by actions: DescribeInstanceFamilyConfigs.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstanceFamilyName</td>
<td>String</td>
<td>Full name of the model family.</td>
</tr>
<tr>
<td>InstanceFamily</td>
<td>String</td>
<td>Acronym of the model family.</td>
</tr>
</tbody>
</table>

**InstanceMarketOptionsRequest**

Options related to bidding requests

Used by actions: InquiryPriceRunInstances, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SpotOptions</td>
<td>SpotMarketOptions</td>
<td>Yes</td>
<td>Options related to bidding</td>
</tr>
<tr>
<td>MarketType</td>
<td>String</td>
<td>No</td>
<td>Market option type. Currently <code>spot</code> is the only supported value.</td>
</tr>
</tbody>
</table>

**InstanceStatus**
Describes instance states. For state types, see [here](#).

Used by actions: DescribeInstancesStatus.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstanceId</td>
<td>String</td>
<td>Instance ID.</td>
</tr>
<tr>
<td>InstanceState</td>
<td>String</td>
<td>The instance state. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• PENDING: creating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• LAUNCH_FAILED: creation failed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• RUNNING: running</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• STOPPED: shut down</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• STARTING: starting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• STOPPING: shutting down</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• REBOOTING: rebooting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• SHUTDOWN: shut down and to be terminated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• TERMINATING: terminating</td>
</tr>
</tbody>
</table>

**InstanceTypeConfig**

Describes the configurations of an instance model.

Used by actions: DescribeInstanceTypeConfigs.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone</td>
<td>String</td>
<td>Availability zone.</td>
</tr>
<tr>
<td>InstanceType</td>
<td>String</td>
<td>Instance model.</td>
</tr>
<tr>
<td>InstanceFamily</td>
<td>String</td>
<td>Instance model family.</td>
</tr>
<tr>
<td>GPU</td>
<td>Integer</td>
<td>Number of GPU cores.</td>
</tr>
<tr>
<td>CPU</td>
<td>Integer</td>
<td>Number of CPU cores.</td>
</tr>
<tr>
<td>Memory</td>
<td>Integer</td>
<td>Memory capacity; unit: GB.</td>
</tr>
<tr>
<td>FPGA</td>
<td>Integer</td>
<td>Number of FPGA cores; unit: core.</td>
</tr>
</tbody>
</table>

**InstanceTypeQuotaItem**

Describes instance model quota.

Used by actions: DescribeZoneInstanceConfigInfos.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone</td>
<td>String</td>
<td>Availability zone.</td>
</tr>
<tr>
<td>InstanceType</td>
<td>String</td>
<td>Instance model.</td>
</tr>
<tr>
<td>InstanceChargeType</td>
<td>String</td>
<td>Instance billing plan. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• POSTPAID_BY_HOUR: pay after use. You are billed for your traffic by the hour.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CDH: billing plan. Applicable to CDH only, not the instances on the host.</td>
</tr>
<tr>
<td>NetworkCard</td>
<td>Integer</td>
<td>ENI type. For example, 25 represents an ENI of 25 GB.</td>
</tr>
</tbody>
</table>
### InternetAccessible

Describes the accessibility of an instance in the public network, including its network billing method, maximum bandwidth, etc.

Used by actions: DescribeInstances, InquiryPriceResetInstancesInternetMaxBandwidth, InquiryPriceRunInstances, ResetInstancesInternetMaxBandwidth, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
</table>
| InternetChargeType      | String        | No       | Network connection billing plan. Valid value:  
|                         |               |          | • TRAFFIC_POSTPAID_BY_HOUR: pay after use. You are billed for your traffic, by the hour. |
| InternetMaxBandwidthOut | Integer       | No       | The maximum outbound bandwidth of the public network, in Mbps. The default value is 0 Mbps. The upper limit of bandwidth varies for different models. For more information, see Purchase Network Bandwidth. |
| PublicIpAssigned        | Boolean       | No       | Whether to assign a public IP. Valid values:  
|                         |               |          | • TRUE: Assign a public IP  
|                         |               |          | • FALSE: Do not assign a public IP  
|                         |               |          | If the public network bandwidth is greater than 0 Mbps, you can choose whether to assign a public IP; by default a public IP will be assigned. If |
the public network bandwidth is 0 Mbps, you will not be able to assign a public IP.

Bandwidth Package ID

Bandwidth Package ID. To obtain the IDs, you can call `DescribeBandwidthPackages` and look for the `BandwidthPackageId` fields in the response.

### InternetChargeTypeConfig

Describes network billing.

Used by actions: `DescribeInternetChargeTypeConfigs`.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InternetChargeType</td>
<td>String</td>
<td>No</td>
<td>Network billing method.</td>
</tr>
<tr>
<td>Description</td>
<td>String</td>
<td>No</td>
<td>Description of the network billing method.</td>
</tr>
</tbody>
</table>

### ItemPrice

Describes pricing information.


<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UnitPrice</td>
<td>Float</td>
<td>The original unit price for pay-as-you-go mode in USD.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- When a billing tier is returned, it indicates the price for the returned billing tier. For example, if <code>UnitPriceSecondStep</code> is returned, it refers to the unit price for the usage between 0 to 96 hours. Otherwise, it refers to the unit price for unlimited usage. Note: this field may return null, indicating that no valid value is obtained.</td>
</tr>
<tr>
<td>ChargeUnit</td>
<td>String</td>
<td>Billing unit for pay-as-you-go mode. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HOUR: billed on an hourly basis. It's used for hourly postpaid instances (<code>POSTPAID_BY_HOUR</code>),</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- GB: bill by traffic in GB. It's used for postpaid products that are billed by the hourly traffic (<code>TRAFFIC_POSTPAID BY HOUR</code>).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note: this field may return null, indicating that no valid value is obtained.</td>
</tr>
<tr>
<td>OriginalPrice</td>
<td>Float</td>
<td>The original price of a pay-in-advance instance, in USD.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note: this field may return null, indicating that no valid value is obtained.</td>
</tr>
<tr>
<td>DiscountPrice</td>
<td>Float</td>
<td>Discount price of a prepaid instance, in USD.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note: this field may return null, indicating that no valid value is obtained.</td>
</tr>
<tr>
<td>Discount</td>
<td>Float</td>
<td>Percentage of the original price. For example, if you enter &quot;20.0&quot;, the discounted price will be 20% of the original price. Note: this field may return null, indicating that no valid values can be obtained.</td>
</tr>
<tr>
<td>UnitPriceDiscount</td>
<td>Float</td>
<td>The discounted unit price for pay-as-you-go mode in USD.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- When a billing tier is returned, it indicates the price for the returned billing tier. For example, if <code>UnitPriceSecondStep</code> is returned, it refers to the unit price for the usage between 0 to 96 hours. Otherwise, it refers to the unit price for unlimited usage. Note: this field may return null, indicating that no valid value is obtained.</td>
</tr>
<tr>
<td>UnitPriceSecondStep</td>
<td>Float</td>
<td>Original unit price for the usage between 96 to 360 hours in USD. It's applicable to...</td>
</tr>
</tbody>
</table>
### UnitPriceDiscountSecondStep
**Type:** Float
**Description:** Discounted unit price for the usage between 96 to 360 hours in USD. It's applicable to pay-as-you-go mode.
**Note:** this field may return null, indicating that no valid value is obtained.

### UnitPriceThirdStep
**Type:** Float
**Description:** Original unit price for the usage after 360 hours in USD. It's applicable to pay-as-you-go mode.
**Note:** this field may return null, indicating that no valid value is obtained.

### UnitPriceDiscountThirdStep
**Type:** Float
**Description:** Discounted unit price for the usage after 360 hours in USD. It's applicable to pay-as-you-go mode.
**Note:** this field may return null, indicating that no valid value is obtained.

### KeyPair
Describes key pair information.
**Used by actions:** CreateKeyPair, DescribeKeyPairs.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KeyId</td>
<td>String</td>
<td>Key pair ID, the unique identifier of a key pair.</td>
</tr>
<tr>
<td>KeyName</td>
<td>String</td>
<td>Key pair name.</td>
</tr>
<tr>
<td>ProjectId</td>
<td>Integer</td>
<td>ID of the project to which a key pair belongs.</td>
</tr>
<tr>
<td>Description</td>
<td>String</td>
<td>Key pair description.</td>
</tr>
<tr>
<td>PublicKey</td>
<td>String</td>
<td>Content of public key in a key pair.</td>
</tr>
<tr>
<td>PrivateKey</td>
<td>String</td>
<td>Content of private key in a key pair. Tencent Cloud do not keep private keys. Please keep it properly.</td>
</tr>
<tr>
<td>AssociatedInstanceIds</td>
<td>Array of String</td>
<td>ID list of instances associated with a key.</td>
</tr>
<tr>
<td>CreatedTime</td>
<td>Timestamp ISO8601</td>
<td>Creation time, which follows the ISO8601 standard and uses UTC time in the format of YYYY-MM-DDThh:mm:ssZ.</td>
</tr>
</tbody>
</table>

### LocalDiskType
Describes local disk specifications.
**Used by actions:** DescribeZoneInstanceConfigInfos.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>String</td>
<td>Type of a local disk.</td>
</tr>
<tr>
<td>PartitionType</td>
<td>String</td>
<td>Attributes of a local disk.</td>
</tr>
<tr>
<td>MinSize</td>
<td>Integer</td>
<td>Minimum size of a local disk.</td>
</tr>
<tr>
<td>MaxSize</td>
<td>Integer</td>
<td>Maximum size of a local disk.</td>
</tr>
<tr>
<td>Required</td>
<td>String</td>
<td>Whether a local disk is required during purchase. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• REQUIRED: required</td>
</tr>
</tbody>
</table>
OPTIONAL: optional

LoginSettings

Describes login settings of an instance.

Used by actions: DescribeInstances, InquiryPriceResetInstance, InquiryPriceRunInstances, ResetInstance, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
<td>String</td>
<td>No</td>
<td>Login password of the instance. The password requirements vary among different operating systems:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• For Linux instances, the password must be 8-30 characters long and contain at least two of the following types: [a-z], [A-Z], [0-9] and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[() ` ~ ! # $ % ^ &amp; * - + =</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• For Windows instances, the password must be 12-30 characters long and contain at least three of the following categories: [a-z], [A-Z],</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[0-9] and [( ) ` ~ ! @ # $ % ^ &amp; * - + =</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If this parameter is not specified, a random password will be generated and sent to you via the Message Center.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Note: this field may return null, indicating that no valid value is obtained.</td>
</tr>
<tr>
<td>KeyIds</td>
<td>Array of String</td>
<td>No</td>
<td>List of key IDs. After an instance is associated with a key, you can access the instance with the private key in the key pair. You can call</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DescribeKeyPairs to obtain KeyId. A key and password cannot be specified at the same time. Windows instances do not support keys. Currently,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>you can only specify one key when purchasing an instance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Note: this field may return null, indicating that no valid value is obtained.</td>
</tr>
<tr>
<td>KeepImageLogin</td>
<td>String</td>
<td>No</td>
<td>Whether to keep the original settings of an image. You cannot specify this parameter and Password or KeyIds at the same time. You can specify</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>this parameter as TRUE only when you create an instance using a custom image, a shared image, or an imported image. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• TRUE: keep the login settings of the image</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• FALSE: do not keep the login settings of the image</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Default value: FALSE.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Note: This field may return null, indicating that no valid value is found.</td>
</tr>
</tbody>
</table>

OperationCountLimit

Describes the maximum number of times you can perform an operation on a single instance.

Used by actions: DescribeInstancesOperationLimit.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation</td>
<td>String</td>
<td>Instance operation. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• INSTANCE_DEGRADE : downgrade an instance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• INTERNET_CHARGE_TYPE_CHANGE : modify the billing plan of the network connection</td>
</tr>
<tr>
<td>InstanceId</td>
<td>String</td>
<td>Instance ID.</td>
</tr>
<tr>
<td>CurrentCount</td>
<td>Integer</td>
<td>Number of operations already performed. If it returns -1, it means there is no limit on the times of the operation.</td>
</tr>
</tbody>
</table>
LimitCount | Integer | Maximum number of times you can perform an operation. If it returns -1, it means there is no limit on the times of the operation. If it returns 0, it means that configuration modification is not supported.

---

**OsVersion**

Supported operating system types.

Used by actions: DescribeImportImageOs.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OsName</td>
<td>String</td>
<td>Operating system type</td>
</tr>
<tr>
<td>OsVersions</td>
<td>Array of String</td>
<td>Supported operating system versions</td>
</tr>
<tr>
<td>Architecture</td>
<td>Array of String</td>
<td>Supported operating system architecture</td>
</tr>
</tbody>
</table>

---

**Placement**

Describes the location of an instance, including its availability zone, project, host (for CDH products only), primary host IP, etc.

Used by actions: AllocateHosts, DescribeHosts, DescribeInstances, InquiryPriceRunInstances, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone</td>
<td>String</td>
<td>Yes</td>
<td>The ID of availability zone where the instance locates. It can obtained in the Zone field returned by DescribeZones API.</td>
</tr>
<tr>
<td>ProjectId</td>
<td>Integer</td>
<td>No</td>
<td>ID of the project to which the instance belongs. To obtain the project IDs, you can call DescribeProject and look for the projectId fields in the response. If this parameter is not specified, the default project will be used.</td>
</tr>
<tr>
<td>HostIds</td>
<td>Array of String</td>
<td>No</td>
<td>ID list of CDHs from which the instance can be created. If you have purchased CDHs and specify this parameter, the instances you purchase will be randomly deployed on the CDHs.</td>
</tr>
<tr>
<td>HostIps</td>
<td>Array of String</td>
<td>No</td>
<td>Master host IP used to create the CVM</td>
</tr>
<tr>
<td>HostId</td>
<td>String</td>
<td>No</td>
<td>The ID of the CDH to which the instance belongs, only used as an output parameter.</td>
</tr>
</tbody>
</table>

---

**Price**

Price.


<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstancePrice</td>
<td>ItemPrice</td>
<td>Instance price.</td>
</tr>
<tr>
<td>BandwidthPrice</td>
<td>ItemPrice</td>
<td>Network price.</td>
</tr>
</tbody>
</table>
RegionInfo

Region information.
Used by actions: DescribeRegions.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>String</td>
<td>Region name, such as ap-guangzhou</td>
</tr>
<tr>
<td>RegionName</td>
<td>String</td>
<td>Region description, such as South China (Guangzhou)</td>
</tr>
<tr>
<td>RegionState</td>
<td>String</td>
<td>Whether the region is available</td>
</tr>
</tbody>
</table>

ReservedInstanceConfigInfoItem

Static configurations of the reserved instance. Currently, RIs are only offered to beta users.
Used by actions: DescribeReservedInstancesConfigInfos.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>String</td>
<td>Abbreviation name of the instance type.</td>
</tr>
<tr>
<td>TypeName</td>
<td>String</td>
<td>Full name of the instance type.</td>
</tr>
<tr>
<td>Order</td>
<td>Integer</td>
<td>Priority.</td>
</tr>
<tr>
<td>InstanceFamilies</td>
<td>Array of ReservedInstanceFamilyItem</td>
<td>List of instance families.</td>
</tr>
</tbody>
</table>

ReservedInstanceFamilyItem

RI-related instance family. Currently, RIs are only offered to beta users.
Used by actions: DescribeReservedInstancesConfigInfos.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstanceFamily</td>
<td>String</td>
<td>Instance family.</td>
</tr>
<tr>
<td>Order</td>
<td>Integer</td>
<td>Priority.</td>
</tr>
<tr>
<td>InstanceTypes</td>
<td>Array of ReservedInstanceTypeItem</td>
<td>List of instance types.</td>
</tr>
</tbody>
</table>

ReservedInstancePrice

Price of the reserved instance. Currently, RIs are only offered to beta users.
Used by actions: InquirePricePurchaseReservedInstancesOffering.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OriginalFixedPrice</td>
<td>Float</td>
<td>Original upfront payment, in USD.</td>
</tr>
<tr>
<td>DiscountFixedPrice</td>
<td>Float</td>
<td>Discounted upfront payment, in USD.</td>
</tr>
</tbody>
</table>
ReservedInstancePriceltem

Price information of the reserved instance based on the payment method. Currently, RIs are only offered to beta users.

Used by actions: DescribeReservedInstancesConfigInfos.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OfferingType</td>
<td>String</td>
<td>Payment method. Valid values: All Upfront, Partial Upfront, and No Upfront.</td>
</tr>
<tr>
<td>FixedPrice</td>
<td>Float</td>
<td>Upfront payment, in USD.</td>
</tr>
<tr>
<td>UsagePrice</td>
<td>Float</td>
<td>Subsequent unit price, in USD/hr.</td>
</tr>
<tr>
<td>ReservedInstancesOfferingId</td>
<td>String</td>
<td>The ID of the reserved instance offering.</td>
</tr>
<tr>
<td>Zone</td>
<td>String</td>
<td>The availability zone in which the reserved instance can be purchased.</td>
</tr>
<tr>
<td>Duration</td>
<td>Integer</td>
<td>The <strong>validity</strong> of the reserved instance in seconds, which is the purchased usage period. For example, 31536000. Unit: second</td>
</tr>
<tr>
<td>ProductDescription</td>
<td>String</td>
<td>The operating system of the reserved instance, such as linux. Case insensitive. Valid value: linux.</td>
</tr>
</tbody>
</table>

ReservedInstanceTypeItem

Reserved instance specification. Currently, RIs are only offered to beta users.

Used by actions: DescribeReservedInstancesConfigInfos.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstanceType</td>
<td>String</td>
<td>Instance type.</td>
</tr>
<tr>
<td>Cpu</td>
<td>Integer</td>
<td>Number of CPU cores.</td>
</tr>
<tr>
<td>Memory</td>
<td>Integer</td>
<td>Memory size.</td>
</tr>
<tr>
<td>Gpu</td>
<td>Integer</td>
<td>Number of GPU cores.</td>
</tr>
<tr>
<td>Fpga</td>
<td>Integer</td>
<td>Number of FPGA cores.</td>
</tr>
<tr>
<td>StorageBlock</td>
<td>Integer</td>
<td>Number of storage blocks.</td>
</tr>
<tr>
<td>NetworkCard</td>
<td>Integer</td>
<td>Number of NICs.</td>
</tr>
<tr>
<td>MaxBandwidth</td>
<td>Float</td>
<td>Maximum bandwidth.</td>
</tr>
<tr>
<td>Frequency</td>
<td>String</td>
<td>CPU frequency.</td>
</tr>
<tr>
<td>CpuModelName</td>
<td>String</td>
<td>CPU type.</td>
</tr>
<tr>
<td>Pps</td>
<td>Integer</td>
<td>Packet forwarding rate.</td>
</tr>
<tr>
<td>Externals</td>
<td>Externals</td>
<td>Other information.</td>
</tr>
</tbody>
</table>
### ReservedInstances

Describes the information of the reserved instances the user has purchased

**Name**
- **ReservedInstancesId**: The ID of the purchased reserved instance, taking the form 650c138f-ae7e-4750-952a-96841d6e9fc1.
- **InstanceType**: Reserved instance specification, such as `S3.MEDIUM4`. Valid values: please see [Reserved Instance Specifications](#).
- **Zone**: Availability zones in which the reserved instance can be purchased. For example, "ap-guangzhou-1". Returned values: list of availability zones
- **StartTime**: Start time of the reserved instance billing, taking the form of 2019-10-23 00:00:00.
- **EndTime**: End time of the reserved instance, taking the form of 2019-10-23 00:00:00
- **Duration**: The **validity** of the reserved instance in seconds, which is the purchased usage period. For example, 31536000. Measurement unit: second.
- **InstanceCount**: The number of reserved instances that have been purchased. For example, 10.
- **ProductDescription**: The operating system of the reserved instance. For example, "linux". Returned value: linux.
- **State**: The status of the reserved instance. For example, "active". Returned value: "active" (created) | "pending" (waiting to be created) | "retired" (expired).
- **CurrencyCode**: The currency in which the reserved instance is billed. The ISO 4217 standard currency codes are used. For example, USD. Returned value: USD.
- **OfferingType**: The payment method of the reserved instance. For example, "All Upfront". Returned value: All Upfront.
- **InstanceFamily**: Reserved instance type, such as `S3`. Valid values: please see [Reserved Instance Types](#).

### ReservedInstancesOffering

The information of the Reserved Instance offering.

**Name**
- **Zone**: The availability zones in which the Reserved Instance can be purchased, such as ap-
<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CurrencyCode</td>
<td>String</td>
<td></td>
<td>The billing currency of the Reserved Instance you are purchasing. It's specified using ISO 4217 standard currency. Value: USD.</td>
</tr>
<tr>
<td>Duration</td>
<td>Integer</td>
<td></td>
<td>The validity of the Reserved Instance in seconds, which is the purchased usage period. For example, 31536000. Unit: second</td>
</tr>
<tr>
<td>FixedPrice</td>
<td>Float</td>
<td></td>
<td>The purchase price of the Reserved Instance, such as 4000.0. Unit: this field uses the currency code specified in currencyCode, and only supports “USD” at this time.</td>
</tr>
<tr>
<td>InstanceType</td>
<td>String</td>
<td></td>
<td>The instance model of the Reserved Instance, such as S3.MEDIUM4.</td>
</tr>
<tr>
<td>OfferingType</td>
<td>String</td>
<td></td>
<td>The payment term of the Reserved Instance, such as All Upfront.</td>
</tr>
<tr>
<td>ReservedInstancesOfferingId</td>
<td>String</td>
<td></td>
<td>The ID of the Reserved Instance offering, such as 650c138f-ae7e-4750-952a-96841d6e9fc1.</td>
</tr>
<tr>
<td>ProductDescription</td>
<td>String</td>
<td></td>
<td>The operating system of the Reserved Instance, such as linux.</td>
</tr>
<tr>
<td>UsagePrice</td>
<td>Float</td>
<td></td>
<td>The hourly usage price of the Reserved Instance, such as 0.0. Currently, the only supported payment mode is All Upfront, so the default value of UsagePrice is 0 USD/hr. Unit: USD/hr. This field uses the currency code specified in currencyCode, and only supports “USD” at this time.</td>
</tr>
</tbody>
</table>

**RunMonitorServiceEnabled**

Describes information related to the Cloud Monitor service.


<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabled</td>
<td>Boolean</td>
<td>No</td>
<td>Whether to enable Cloud Monitor. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• TRUE: enable Cloud Monitor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• FALSE: do not enable Cloud Monitor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Default value: TRUE.</td>
</tr>
</tbody>
</table>

**RunSecurityServiceEnabled**

Describes information related to the Cloud Security service.


<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabled</td>
<td>Boolean</td>
<td>No</td>
<td>Whether to enable Cloud Security. Valid values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• TRUE: enable Cloud Security</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• FALSE: do not enable Cloud Security</td>
</tr>
</tbody>
</table>
Cloud Virtual Machine

SharePermission

Describes image sharing information.
Used by actions: DescribeImageSharePermission.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CreatedTime</td>
<td>Timestamp ISO8601</td>
<td>Time when an image was shared.</td>
</tr>
<tr>
<td>AccountId</td>
<td>String</td>
<td>ID of the account with which the image is shared.</td>
</tr>
</tbody>
</table>

Snapshot

Describes information on the snapshot associated with an image.
Used by actions: DescribeImages.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SnapshotId</td>
<td>String</td>
<td>Snapshot ID.</td>
</tr>
<tr>
<td>DiskUsage</td>
<td>String</td>
<td>Type of the cloud disk used to create the snapshot. Valid values: SYSTEM_DISK: system disk DATA_DISK: data disk</td>
</tr>
<tr>
<td>DiskSize</td>
<td>Integer</td>
<td>Size of the cloud disk used to create the snapshot; unit: GB.</td>
</tr>
</tbody>
</table>

SpotMarketOptions

Options related to bidding.
Used by actions: InquiryPriceRunInstances, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MaxPrice</td>
<td>String</td>
<td>Yes</td>
<td>Bidding price</td>
</tr>
<tr>
<td>SpotInstanceType</td>
<td>String</td>
<td>No</td>
<td>Bidding request type. Currently only &quot;one-time&quot; is supported.</td>
</tr>
</tbody>
</table>

StorageBlock

Information on local HDD storage.
Used by actions: DescribeReservedInstancesConfigInfos, DescribeZoneInstanceConfigInfos, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>String</td>
<td>Local HDD storage type. Value: LOCAL_PRO. Note: This field may return null, indicating that no valid value is found.</td>
</tr>
<tr>
<td>MinSize</td>
<td>Integer</td>
<td>Minimum capacity of local HDD storage</td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Required</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>MaxSize</td>
<td>Integer</td>
<td></td>
</tr>
</tbody>
</table>

**SystemDisk**

Describes information on the block device where the operating system is stored, i.e., the system disk.

Used by actions: DescribeInstances, InquiryPriceResetInstance, InquiryPriceRunInstances, ResetInstance, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
</table>
| DiskType    | String  | No       | System disk type. For more information on limits of system disk types, see Storage Overview. Valid values:  
  - LOCAL_BASIC: local disk  
  - LOCAL_SSD: local SSD disk  
  - CLOUD_BASIC: HDD cloud disk  
  - CLOUD_SSD: SSD  
  - CLOUD_PREMIUM: Premium Cloud Storage  
  The disk type currently in stock will be used by default. |
| DiskId      | String  | No       | System disk ID. System disks whose type is LOCAL_BASIC or LOCAL_SSD do not have an ID and do not support this parameter currently. |
| DiskSize    | Integer | No       | System disk size; unit: GB; default value: 50 GB.                            |

**Tag**

Key-value pair of a tag.

Used by actions: AllocateHosts, DescribeInstances, InquiryPriceRunInstances, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key</td>
<td>String</td>
<td>Yes</td>
<td>Tag key</td>
</tr>
<tr>
<td>Value</td>
<td>String</td>
<td>Yes</td>
<td>Tag value</td>
</tr>
</tbody>
</table>

**TagSpecification**

Description of tags associated with resource instances during instance creation.

Used by actions: AllocateHosts, InquiryPriceRunInstances, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ResourceType</td>
<td>String</td>
<td>Yes</td>
<td>Type of the resources associated with the tags. Currently only &quot;instance&quot; and &quot;host&quot; are supported.</td>
</tr>
<tr>
<td>Tags</td>
<td>Array of Tag</td>
<td>Yes</td>
<td>List of tags</td>
</tr>
</tbody>
</table>
## VirtualPrivateCloud

Describes information on VPC, including subnets, IP addresses, etc.

Used by actions: DescribeInstances, InquiryPriceRunInstances, ModifyInstancesVpcAttribute, RunInstances.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VpcId</td>
<td>String</td>
<td>Yes</td>
<td>VPC ID in the format of vpc-xxx. To obtain valid VPC IDs, you can log in to the console or call the DescribeVpcEx API and look for the unVpcId fields in the response. If you specify DEFAULT for both VpcId and SubnetId when creating an instance, the default VPC will be used.</td>
</tr>
<tr>
<td>SubnetId</td>
<td>String</td>
<td>Yes</td>
<td>VPC subnet ID in the format subnet-xxx. To obtain valid subnet IDs, you can log in to the console or call DescribeSubnets and look for the unSubnetId fields in the response. If you specify DEFAULT for both SubnetId and VpcId when creating an instance, the default VPC will be used.</td>
</tr>
<tr>
<td>AsVpcGateway</td>
<td>Boolean</td>
<td>No</td>
<td>Whether to use an instance as a public gateway. An instance can be used as a public gateway only when it has a public IP and resides in a VPC. Valid values: • TRUE: use the instance as a public gateway • FALSE: do not use the instance as a public gateway Default value: FALSE.</td>
</tr>
<tr>
<td>PrivateIpAddresses</td>
<td>Array of String</td>
<td>No</td>
<td>Array of VPC subnet IPs. You can use this parameter when creating instances or modifying VPC attributes of instances. Currently you can specify multiple IPs in one subnet only when creating multiple instances at the same time.</td>
</tr>
<tr>
<td>Ipv6AddressCount</td>
<td>Integer</td>
<td>No</td>
<td>Number of IPv6 addresses randomly generated for the ENI.</td>
</tr>
</tbody>
</table>

## ZoneInfo

Information on availability zones.

Used by actions: DescribeZones.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone</td>
<td>String</td>
<td>Availability zone name, such as ap-guangzhou-3. The following is a list of all availability zones: • ap-chongqing-1 • ap-seoul-1 • ap-chengdu-1 • ap-chengdu-2 • ap-hongkong-1 • ap-hongkong-2 • ap-shenzhen-fsi-1 • ap-shenzhen-fsi-2 • ap-shenzhen-fsi-3 • ap-guangzhou-1 (sold out) • ap-guangzhou-2 (sold out) • ap-guangzhou-3 • ap-guangzhou-4 • ap-tokyo-1 • ap-singapore-1 • ap-shanghai-fsi-1 • ap-shanghai-fsi-2</td>
</tr>
<tr>
<td>ZoneName</td>
<td>String</td>
<td>Availability zone description, such as Guangzhou Zone 3.</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>ZoneId</td>
<td>String</td>
<td>Availability zone ID</td>
</tr>
<tr>
<td>ZoneState</td>
<td>String</td>
<td>Availability zone status. Valid values: AVAILABLE : available; UNAVAILABLE : unavailable.</td>
</tr>
</tbody>
</table>
Error Codes

Last updated: 2020-10-23 10:05:22

Feature Description

If there is an Error field in the response, it means that the API call failed. For example:

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

Code in Error indicates the error code, and Message indicates the specific information of the error.

Error Code List

**Common Error Codes**

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UnsupportedOperation</td>
<td>Unsupported operation.</td>
</tr>
<tr>
<td>ResourceInUse</td>
<td>Resource is in use.</td>
</tr>
<tr>
<td>InternalError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>RequestLimitExceeded</td>
<td>The number of requests exceeds the frequency limit.</td>
</tr>
<tr>
<td>AuthFailure.SecretIdNotFound</td>
<td>Key does not exist. Check if the key has been deleted or disabled in the console, and if not, check if the key is correctly entered. Note that whitespaces should not exist before or after the key.</td>
</tr>
<tr>
<td>LimitExceeded</td>
<td>Quota limit exceeded.</td>
</tr>
<tr>
<td>NoSuchVersion</td>
<td>The API version does not exist.</td>
</tr>
<tr>
<td>ResourceNotFound</td>
<td>The resource does not exist.</td>
</tr>
<tr>
<td>AuthFailure.SignatureFailure</td>
<td>Invalid signature. Signature calculation error. Please ensure you've followed the signature calculation process described in the Signature API documentation.</td>
</tr>
<tr>
<td>AuthFailure.SignatureExpire</td>
<td>Signature expired. Timestamp and server time cannot differ by more than five minutes. Please ensure your current local time matches the standard time.</td>
</tr>
<tr>
<td>UnsupportedRegion</td>
<td>API does not support the requested region.</td>
</tr>
<tr>
<td>UnauthorizedOperation</td>
<td>Unauthorized operation.</td>
</tr>
<tr>
<td>InvalidParameter</td>
<td>Incorrect parameter.</td>
</tr>
<tr>
<td>ResourceUnavailable</td>
<td>Resource is unavailable.</td>
</tr>
<tr>
<td>AuthFailure.MFAFailure</td>
<td>MFA failed.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>AuthFailure.UnauthorizedOperation</td>
<td>The request is not authorized. For more information, see the CAM documentation.</td>
</tr>
<tr>
<td>AuthFailure.InvalidSecretId</td>
<td>Invalid key (not a TencentCloud API key type).</td>
</tr>
<tr>
<td>AuthFailure.TokenFailure</td>
<td>Token error.</td>
</tr>
<tr>
<td>DryRunOperation</td>
<td>DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.</td>
</tr>
<tr>
<td>FailedOperation</td>
<td>Operation failed.</td>
</tr>
<tr>
<td>UnknownParameter</td>
<td>Unknown parameter.</td>
</tr>
<tr>
<td>UnsupportedProtocol</td>
<td>HTTP(S) request protocol error; only GET and POST requests are supported.</td>
</tr>
<tr>
<td>InvalidParameterValue</td>
<td>Invalid parameter value.</td>
</tr>
<tr>
<td>InvalidAction</td>
<td>The API does not exist.</td>
</tr>
<tr>
<td>MissingParameter</td>
<td>A parameter is missing.</td>
</tr>
<tr>
<td>ResourceInsufficient</td>
<td>Insufficient resource.</td>
</tr>
</tbody>
</table>

### Service Error Codes

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountQualificationRestrictions</td>
<td>Your account failed the qualification verification.</td>
</tr>
<tr>
<td>AuthFailure.CamRoleNameAuthenticateFailed</td>
<td>Role name authentication failed.</td>
</tr>
<tr>
<td>EniNotAllowedChangeSubnet</td>
<td>ENIs do not support changing subnets.</td>
</tr>
<tr>
<td>FailedOperation.AccountAlreadyExists</td>
<td>The account already exists.</td>
</tr>
<tr>
<td>FailedOperation.AccountIsYourSelf</td>
<td>You cannot share images with yourself.</td>
</tr>
<tr>
<td>FailedOperation.IllegalTagKey</td>
<td>The tag key contains invalid characters.</td>
</tr>
<tr>
<td>FailedOperation.NotFoundEIP</td>
<td>This instance does not bind an EIP.</td>
</tr>
<tr>
<td>FailedOperation.PlacementSetNotEmpty</td>
<td>The specified placement group is not empty.</td>
</tr>
<tr>
<td>FailedOperation.PromotionalPerioRestriction</td>
<td></td>
</tr>
<tr>
<td>FailedOperation.TagKeyReserved</td>
<td>The tag key specified in the request is reserved for the system.</td>
</tr>
<tr>
<td>ImageQuotaLimitExceeded</td>
<td>The image quota has been exceeded.</td>
</tr>
<tr>
<td>InstancesQuotaLimitExceeded</td>
<td>You are trying to create more instances than your remaining quota allows.</td>
</tr>
<tr>
<td>InternalError.TradeUnknownError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>InternalServerError</td>
<td>Internal error.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>InvalidAccount.UnpaidOrder</td>
<td>The account has unpaid orders.</td>
</tr>
<tr>
<td>InvalidAccountId.NotFound</td>
<td>Invalid account ID.</td>
</tr>
<tr>
<td>InvalidClientToken.TooLong</td>
<td>The specified ClientToken exceeds the maximum length of 64 bytes.</td>
</tr>
<tr>
<td>InvalidFilter</td>
<td>Invalid filter.</td>
</tr>
<tr>
<td>InvalidFilterValue.LimitExceeded</td>
<td>Filter</td>
</tr>
<tr>
<td>InvalidHost.NotSupported</td>
<td>The specified operation on this CDH instance is not supported.</td>
</tr>
<tr>
<td>InvalidHostId.Malformed</td>
<td>Invalid CDH ID. The specified CDH ID has an invalid format. For example, host-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidHostId.NotFound</td>
<td>The specified HostId does not exist, or does not belong to your account.</td>
</tr>
<tr>
<td>InvalidImageId.InShared</td>
<td>The image is being shared.</td>
</tr>
<tr>
<td>InvalidImageId.IncorrectState</td>
<td>Invalid image status.</td>
</tr>
<tr>
<td>InvalidImageId.Malformed</td>
<td>Invalid image ID format.</td>
</tr>
<tr>
<td>InvalidImageId.NotFound</td>
<td>The image cannot be found.</td>
</tr>
<tr>
<td>InvalidImageId.TooLarge</td>
<td>The image size exceeds the limit.</td>
</tr>
<tr>
<td>InvalidImageName.Duplicate</td>
<td>The specified image name already exists.</td>
</tr>
<tr>
<td>InvalidImageOsType.Unsupported</td>
<td>The operating system type is not supported.</td>
</tr>
<tr>
<td>InvalidImageOsVersion.Unsupported</td>
<td>The operating system version is not supported.</td>
</tr>
<tr>
<td>InvalidInstance.NotSupported</td>
<td>This instance is not supported.</td>
</tr>
<tr>
<td>InvalidInstanceId.Malformed</td>
<td>Invalid instance ID. The specified instance ID has an invalid format. For example, ins-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>InvalidInstanceId.NotFound</td>
<td>No instance found.</td>
</tr>
<tr>
<td>InvalidInstanceName.TooLong</td>
<td>The specified InstanceName exceeds the maximum length of 60 bytes.</td>
</tr>
<tr>
<td>InvalidInstanceNotSupportedPrepaidInstance</td>
<td>This instance does not meet the Return Policy for prepaid instances.</td>
</tr>
<tr>
<td>InvalidInstanceState</td>
<td>This operation cannot be performed due to the current instance status.</td>
</tr>
<tr>
<td>InvalidInstanceType.Malformed</td>
<td>The specified InstanceType parameter has an invalid format.</td>
</tr>
<tr>
<td>InvalidKeyPair.LimitExceeded</td>
<td>The number of key pairs exceeds the limit.</td>
</tr>
<tr>
<td>InvalidKeyPairId.Malformed</td>
<td>Invalid key pair ID. The specified key pair ID has an invalid format. For example, skey-1122 has an invalid ID length.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>InvalidKeyPairId.NotFound</td>
<td>Invalid key pair ID. The specified key pair ID does not exist.</td>
</tr>
<tr>
<td>InvalidKeyPairName.Duplicate</td>
<td>Key pair name already exists.</td>
</tr>
<tr>
<td>InvalidKeyPairNameEmpty</td>
<td>The key name cannot be empty.</td>
</tr>
<tr>
<td>InvalidKeyPairNameIncludeIllegalChar</td>
<td>The key name contains invalid characters. Key names can only contain letters, numbers and underscores.</td>
</tr>
<tr>
<td>InvalidKeyPairNameTooLong</td>
<td>The key name cannot exceed 25 characters.</td>
</tr>
<tr>
<td>InvalidParameter.DataDiskIdContainsRootDisk</td>
<td>RootDisk ID should not be passed to DataDiskIds.</td>
</tr>
<tr>
<td>InvalidParameter.DataDiskNotBelongSpecifiedInstance</td>
<td>The specified data disk does not belong to the specified instance.</td>
</tr>
<tr>
<td>InvalidParameter.DuplicateSystemSnapshots</td>
<td>Only one system disk snapshot can be included.</td>
</tr>
<tr>
<td>InvalidParameter.HostNameIllegal</td>
<td>The specified HostName is invalid.</td>
</tr>
<tr>
<td>InvalidParameter.InstanceImageNotSupport</td>
<td>This API does not support instance images.</td>
</tr>
<tr>
<td>InvalidParameter.InvalidDependence</td>
<td>Invalid parameter dependency.</td>
</tr>
<tr>
<td>InvalidParameter.InvalidDipFormat</td>
<td>Invalid VPC IP address format.</td>
</tr>
<tr>
<td>InvalidParameter.InvalidParameterCoexistImageIdsFilters</td>
<td>ImageIds and Filters cannot be specified at the same time.</td>
</tr>
<tr>
<td>InvalidParameter.InvalidParameterUrlError</td>
<td>Invalid URL.</td>
</tr>
<tr>
<td>InvalidParameter.LackCoreCountOrThreadPerCore</td>
<td>CoreCount and ThreadPerCore must be specified at the same time.</td>
</tr>
<tr>
<td>InvalidParameter.LocalDataDiskNotSupport</td>
<td>Local disks cannot be used to create instance images.</td>
</tr>
<tr>
<td>InvalidParameter.SnapshotNotFound</td>
<td>The specified snapshot does not exist.</td>
</tr>
<tr>
<td>InvalidParameter.SpecifyOneParameter</td>
<td>At least one of the multiple parameters must be passed in.</td>
</tr>
<tr>
<td>InvalidParameter.SwapDiskNotSupport</td>
<td>Swap disks are not supported.</td>
</tr>
<tr>
<td>InvalidParameter.SystemSnapshotNotFound</td>
<td>The parameter does not contain system disk snapshot.</td>
</tr>
<tr>
<td>InvalidParameter.ValueTooLarge</td>
<td>The length of parameter exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterCombination</td>
<td>The parameter combination is invalid.</td>
</tr>
<tr>
<td>InvalidParameterConflict</td>
<td>The two specified parameters conflict. An EIP can only be bound to the instance or the specified private IP of the specified ENI.</td>
</tr>
<tr>
<td>InvalidParameterValue.CloudSsdDataDiskSizeTooSmall</td>
<td>The minimum capacity of a SSD data disk is 100 GB.</td>
</tr>
<tr>
<td>InvalidParameterValue.CoreCountValue</td>
<td>Illegal core count.</td>
</tr>
<tr>
<td>InvalidParameterValue.IllegalHostName</td>
<td>The value of HostName is invalid.</td>
</tr>
<tr>
<td>InvalidParameterValue.InstanceTypeNotFound</td>
<td>The specified instance type does not exist.</td>
</tr>
<tr>
<td>InvalidParameterValue.InstanceTypeNotSupportHpcCluster</td>
<td>This type of instances cannot be added to the HPC cluster.</td>
</tr>
<tr>
<td>InvalidParameterValue.InstanceTypeRequiredHpcCluster</td>
<td>The HPC cluster needs to be specified for the high-</td>
</tr>
<tr>
<td>Code</td>
<td>Message</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>InvalidParameterValue.InsufficientOffering</td>
<td>The spot instance is out of stock.</td>
</tr>
<tr>
<td>InvalidParameterValue.InsufficientPrice</td>
<td>The bid is lower than the market price.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidImageId</td>
<td>The image does not support this operation.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidImageState</td>
<td>Invalid image status.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidIpFormat</td>
<td>Invalid IP address.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidParameterValueLimit</td>
<td>Invalid parameter value.</td>
</tr>
<tr>
<td>InvalidParameterValue.InvalidUserDataFormat</td>
<td>Incorrect UserData format. Use the Base64-encoded format.</td>
</tr>
<tr>
<td>InvalidParameterValue.KeyPairNotSupported</td>
<td>The specified key does not support the operation.</td>
</tr>
<tr>
<td>InvalidParameterValue.LimitExceeded</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValue.MustDhcpEnabledVpc</td>
<td>The parameter value must be a DHCP-enabled VPC.</td>
</tr>
<tr>
<td>InvalidParameterValue.NotSupported</td>
<td>Unsupported operation.</td>
</tr>
<tr>
<td>InvalidParameterValue.Range</td>
<td>Invalid parameter value: invalid parameter value range.</td>
</tr>
<tr>
<td>InvalidParameterValue.SnapshotIdMalformed</td>
<td>Invalid snapshot ID. Provide a snapshot ID in the format of snap-xxxxxxx, where the letter x refers to lowercase letter or number.</td>
</tr>
<tr>
<td>InvalidParameterValue.SubnetIdMalformed</td>
<td>Invalid subnet ID. Please provide a subnet ID in the format of subnet-xxxxxxx, where “x” can be a lowercase letter or number.</td>
</tr>
<tr>
<td>InvalidParameterValue.SubnetNotExist</td>
<td>Creation failed: the subnet does not exist. Please specify another subnet.</td>
</tr>
<tr>
<td>InvalidParameterValue.ThreadPerCoreValue</td>
<td>Invalid thread count per core.</td>
</tr>
<tr>
<td>InvalidParameterValue.TooLarge</td>
<td>The parameter value exceeds the maximum limit.</td>
</tr>
<tr>
<td>InvalidParameterValue.TooLong</td>
<td>Invalid parameter value: parameter value is too long.</td>
</tr>
<tr>
<td>InvalidParameterValue.VpcIdZoneIdNotMatch</td>
<td>The VPC and instance must be in the same availability zone.</td>
</tr>
<tr>
<td>InvalidParameterValue.ZoneNotSupported</td>
<td>The availability zone does not support this operation.</td>
</tr>
<tr>
<td>InvalidParameterValueLimit</td>
<td>The number of parameter values exceeds the limit.</td>
</tr>
<tr>
<td>InvalidParameterValueOffset</td>
<td>Invalid parameter value: invalid Offset.</td>
</tr>
<tr>
<td>InvalidPassword</td>
<td>Invalid password. The specified password does not meet the password requirements. For example, the password length does not meet the requirements.</td>
</tr>
<tr>
<td>InvalidPeriod</td>
<td>Invalid period. Valid values: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 24, 36]; unit: month.</td>
</tr>
<tr>
<td>InvalidPermission</td>
<td>This operation is not supported for the account.</td>
</tr>
<tr>
<td>InvalidProjectId.NotFound</td>
<td>Invalid project ID: the specified project ID does not exist.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>InvalidPublicKey.Duplicate</td>
<td>Invalid public key: the specified key already exists.</td>
</tr>
<tr>
<td>InvalidPublicKey.Malformed</td>
<td>Invalid public key: the specified public key does not meet the OpenSSH RSA format requirements.</td>
</tr>
<tr>
<td>InvalidRegion.NotFound</td>
<td>The region cannot be found.</td>
</tr>
<tr>
<td>InvalidRegion.Unavailable</td>
<td>Currently this region does not support image synchronization.</td>
</tr>
<tr>
<td>InvalidSecurityGroupId.NotFound</td>
<td>The specified security group ID does not exist.</td>
</tr>
<tr>
<td>InvalidSgId.Malformed</td>
<td>The specified security group ID is in the wrong format. For example, sg-ide32 has an invalid instance ID length.</td>
</tr>
<tr>
<td>InvalidZone.MismatchRegion</td>
<td>The specified zone does not exist.</td>
</tr>
<tr>
<td>LimitExceeded.AssociateUSGLimitExceeded</td>
<td>An instance can be bound with up to 5 security groups.</td>
</tr>
<tr>
<td>LimitExceeded.InstanceQuota</td>
<td>You are short of the instance quota.</td>
</tr>
<tr>
<td>LimitExceeded.SingleUSGQuota</td>
<td>The number of security groups exceeds the quota limit.</td>
</tr>
<tr>
<td>LimitExceeded.SpotQuota</td>
<td>The spot instance offerings are out of stock.</td>
</tr>
<tr>
<td>LimitExceeded.UserSpotQuota</td>
<td>You are short of the spot instance quota.</td>
</tr>
<tr>
<td>LimitExceeded.VpcSubnetNum</td>
<td>Insufficient subnet IPs.</td>
</tr>
<tr>
<td>MissingParameter.DPDKInstanceTypeRequiredVPC</td>
<td>The DPDK instance requires a VPC.</td>
</tr>
<tr>
<td>MissingParameter.MonitorService</td>
<td>The instance type must have Cloud Monitor enabled.</td>
</tr>
<tr>
<td>MutexOperation.TaskRunning</td>
<td>An identical job is running.</td>
</tr>
<tr>
<td>OperationDenied.InstanceOperationInProgress</td>
<td>The instance has an operation in progress. Please try again later.</td>
</tr>
<tr>
<td>OverQuota</td>
<td>The number of shared images exceeds the quota.</td>
</tr>
<tr>
<td>RegionAbilityLimit.UnsupportedToImportImage</td>
<td>This region does not support importing images.</td>
</tr>
<tr>
<td>ResourceInsufficient.AvailabilityZoneSoldOut</td>
<td>The availability zone has been sold out.</td>
</tr>
<tr>
<td>ResourceInsufficient.CloudDiskSoldOut</td>
<td>The specified cloud disk has been sold out.</td>
</tr>
<tr>
<td>ResourceInsufficient.CloudDiskUnavailable</td>
<td>The parameters of cloud disk do not meet the specification.</td>
</tr>
<tr>
<td>ResourceInsufficient.DisasterRecoverGroupCvmQuota</td>
<td>The specified instance type is out of stock.</td>
</tr>
<tr>
<td>ResourceNotFound.HpcCluster</td>
<td>The HPC cluster does not exist.</td>
</tr>
<tr>
<td>ResourceNotFound.InvalidPlacementSet</td>
<td>The specified placement group does not exist.</td>
</tr>
<tr>
<td>ResourceNotFound.NoDefaultCbs</td>
<td>No default CBS resources are available.</td>
</tr>
<tr>
<td>ResourceNotFound.NoDefaultCbsWithReason</td>
<td>No default CBS resources are available.</td>
</tr>
<tr>
<td>ResourceUnavailable.InstanceType</td>
<td>This instance type is unavailable in the availability zone.</td>
</tr>
<tr>
<td>ResourcesSoldOut.AvailableZone</td>
<td>Resources in this availability zone have been sold out.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>ResourcesSoldOut.EipInsufficient</td>
<td>The public IP has been sold out.</td>
</tr>
<tr>
<td>ResourcesSoldOut.SpecifiedInstanceType</td>
<td>The specified instance type has already been sold out.</td>
</tr>
<tr>
<td>SecGroupActionFailure</td>
<td>A general error occurred during the security group service API call.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFAExpired</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) is valid.</td>
</tr>
<tr>
<td>UnauthorizedOperation.MFANotFound</td>
<td>Unauthorized operation. Make sure Multi-Factor Authentication (MFA) exists.</td>
</tr>
<tr>
<td>UnsupportedOperation.BandwidthPackageIdNotSupported</td>
<td>The specified instance or network cannot use the bandwidth package.</td>
</tr>
<tr>
<td>UnsupportedOperation.IPv6NotSupportVpcMigrate</td>
<td>IPv6 instances cannot be migrated from Classiclink to VPC.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceChargeType</td>
<td>This instance billing mode does not support the operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateEnterRescueMode</td>
<td>Instances are entering the rescue mode, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateExitRescueMode</td>
<td>Instances are exiting from the rescue mode, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStatePending</td>
<td>The instances are being created, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRebooting</td>
<td>The instances are being restarted, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRescueMode</td>
<td>Running instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateRunning</td>
<td>Running instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateServiceLiveMigrate</td>
<td>The instances are being migrated, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateShutdown</td>
<td>Isolated instances do not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopped</td>
<td>The instance has been shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateStopping</td>
<td>The instance is being shut down, and this operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminated</td>
<td>Terminated instances are not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InstanceStateTerminating</td>
<td>The instance is being terminated, and the operation is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InvalidDisk</td>
<td>The specified disk is not supported.</td>
</tr>
<tr>
<td>UnsupportedOperation.InvalidPermissionNonInternationalAccount</td>
<td>The current operation is only supported for Tencent Cloud International users.</td>
</tr>
<tr>
<td>UnsupportedOperation.KeyPairUnsupportedWindows</td>
<td>Key-pair login is not available to Windows instances.</td>
</tr>
<tr>
<td>UnsupportedOperation.NoInstanceTypeSupportSpot</td>
<td>This instance type does not support spot instances.</td>
</tr>
<tr>
<td>UnsupportedOperation.NotSupportInstanceImage</td>
<td>The instance does not support this operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.OnlyForPrepaidAccount</td>
<td>Only a prepaid account supports this operation.</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>UnsupportedOperation.Region</td>
<td>The region is unsupported.</td>
</tr>
<tr>
<td>UnsupportedOperation.ReservedInstanceInvisibleForUser</td>
<td>Purchasing reserved instances is not supported for the current user.</td>
</tr>
<tr>
<td>UnsupportedOperation.ReservedInstanceOutOfQuata</td>
<td>You’ve used up your quota for Reserved Instances.</td>
</tr>
<tr>
<td>UnsupportedOperation.SpecialInstanceType</td>
<td>This special instance type does not support the operation.</td>
</tr>
<tr>
<td>UnsupportedOperation.StoppedModeStopCharging</td>
<td>The instance does not support the <strong>no charges when shut down</strong> feature.</td>
</tr>
<tr>
<td>UnsupportedOperation.UnsupportedInternationalUser</td>
<td></td>
</tr>
<tr>
<td>VpcAddrNotInSubNet</td>
<td>The VPC IP address is not in the subnet.</td>
</tr>
<tr>
<td>VpcIpIsUsed</td>
<td>The VPC IP address is already occupied.</td>
</tr>
</tbody>
</table>