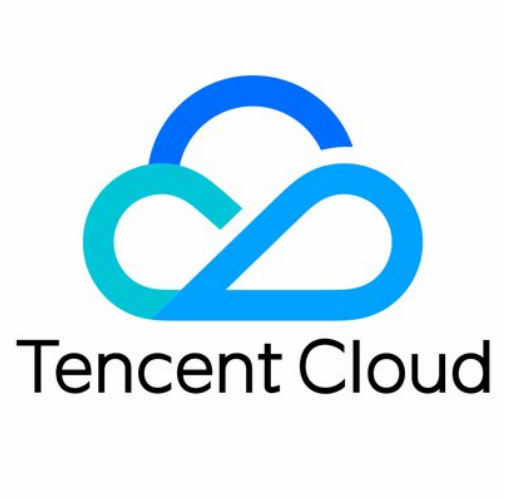
Cloud Block Storage

API Documentation

Product Documentation



Contents

API Documentation History

Last updated：2023-06-21 15:01:12

Release 19

Release time: 2023-06-21 14:58:43

Release updates:

Improvement to existing documentation.

Modified APIs:

- CreateDisks
  - New input parameters:BurstPerformance
- ModifyDiskAttributes
  - New input parameters:BurstPerformanceOperation

Modified data structures:

- Disk
  - New members:BurstPerformance

Release 18

Release time: 2023-03-22 14:19:07

Release updates:

Improvement to existing documentation.

New data structures:

- DetailPrice

Modified data structures:

- DiskConfig
  - New members:Price
- Placement

  - New members:ProjectName
- PrepayPrice
  - New members:DetailPrices

Release 17

Release time: 2023-03-16 16:13:35

Release updates:

Improvement to existing documentation.

New data structures:

- AdvancedRetentionPolicy

Modified data structures:

- AutoSnapshotPolicy
  - New members:RetentionMonths, RetentionAmount, AdvancedRetentionPolicy, CopyFromAccountUin, Tags
- Policy
  - New members:DayOfMonth, IntervalDays

Release 16

Release time: 2023-03-02 17:39:58

Release updates:

Improvement to existing documentation.

New APIs:

- CreateDiskBackup

Deprecated APIs:

- DescribeDiskOperationLogs
- DescribeSnapshotOperationLogs

Modified data structures:

- Disk

- New members:DiskBackupQuota, LastAttachInsId, ErrorPrompt

Release 15

Release time: 2022-10-13 16:53:41

Release updates:

Improvement to existing documentation.

New APIs:

- ApplyDiskBackup
- DeleteDiskBackups
- DescribeDiskBackups
- InquirePriceModifyDiskBackupQuota
- ModifyDiskBackupQuota

Modified APIs:

- CreateDisks
  - New input parameters:DiskBackupQuota
- CreateSnapshot
  - New input parameters:DiskBackupId, Tags
- InquiryPriceCreateDisks
  - New input parameters:DiskBackupQuota

New data structures:

- DiskBackup

Release 14

Release time: 2022-08-31 15:05:50

Release updates:

Improvement to existing documentation.

New APIs:

- CreateDisks

- CreateSnapshot
- InquiryPriceCreateDisks

New data structures:

- AutoMountConfiguration
- DiskChargePrepaid

Release 13

Release time: 2022-08-31 14:56:24

Release updates:

Improvement to existing documentation.

Deleted APIs:

- CreateDisks
- CreateSnapshot
- InquiryPriceCreateDisks

Deleted data structures:

- AutoMountConfiguration
- DiskChargePrepaid

Modified data structures:

- AutoSnapshotPolicy
  - New members:IsCopyToRemote, CopyToAccountUin, InstanceIdSet
- Disk
  - New members:DiskBackupCount, InstanceType
- DiskConfig
  - New members:StepSize, ExtraPerformanceRange
- Policy
  - **Modified members:** DayOfWeek
- Snapshot
  - New members:Tags
  - **Modified members:** SnapshotId

Release 12

Release time: 2022-03-17 10:08:19

Release updates:

Improvement to existing documentation.

New APIs:

- CopySnapshotCrossRegions

New data structures:

- SnapshotCopyResult

Release 11

Release time: 2022-01-26 10:05:47

Release updates:

Improvement to existing documentation.

New APIs:

- InitializeDisks

Release 10

Release time: 2022-01-19 10:49:19

Release updates:

Improvement to existing documentation.

Modified APIs:

- TerminateDisks
  - New input parameters:DeleteSnapshot

Modified data structures:

- Disk
  - New members:DeleteSnapshot

Release 9

Release time: 2022-01-07 11:33:40

Release updates:

Improvement to existing documentation.

Modified APIs:

- ApplySnapshot
  - New input parameters:AutoStopInstance, AutoStartInstance
- CreateDisks
  - New input parameters:AutoMountConfiguration

New data structures:

- AutoMountConfiguration

Release 8

Release time: 2021-07-23 10:01:03

Release updates:

Improvement to existing documentation.

Modified APIs:

- CreateDisks
  - New input parameters:DeleteSnapshot
- DeleteSnapshots
  - New input parameters:DeleteBindImages

Release 7

Release time: 2021-06-23 16:53:26

Release updates:

Improvement to existing documentation.

Modified data structures:

- Disk
  - New members:AttachMode
- Placement
  - New members:DedicatedClusterId

Release 6

Release time: 2021-05-31 16:30:44

Release updates:

Improvement to existing documentation.

Modified APIs:

- AttachDisks
  - New input parameters:AttachMode

Release 5

Release time: 2021-05-10 15:23:07

Release updates:

Improvement to existing documentation.

New APIs:

- InquirePriceModifyDiskExtraPerformance
- ModifyDiskExtraPerformance

Release 4

Release time: 2021-03-22 17:27:49

Release updates:

Improvement to existing documentation.

Modified data structures:

- Disk
  - New members:ThroughputPerformance

- PrepayPrice
  - **Modified members:** UnitPrice, UnitPriceDiscount

Release 3

Release time: 2021-01-22 10:37:49

Release updates:

Improvement to existing documentation.

Modified APIs:

- CreateDisks
  - New input parameters:ThroughputPerformance
- InquiryPriceCreateDisks
  - New input parameters:ThroughputPerformance

Modified data structures:

- PrepayPrice
  - New members:OriginalPriceHigh, DiscountPriceHigh, UnitPrice, ChargeUnit, UnitPriceDiscount, UnitPriceHigh, UnitPriceDiscountHigh
- Price
  - New members:OriginalPriceHigh, DiscountPriceHigh, UnitPriceHigh, UnitPriceDiscountHigh
- Snapshot
  - New members:TimeStartShare

Release 2

Release time: 2020-10-16 18:41:55

Release updates:

Improvement to existing documentation.

Modified APIs:

- CreateSnapshot
  - New input parameters:Deadline
- ModifySnapshotAttribute
  - New input parameters:Deadline

Existing Release

Release time: 2020-07-24 14:14:28

Existing APIs/data structures are as follows:

Improvement to existing documentation.

Existing APIs:

- ApplySnapshot
- AttachDisks
- BindAutoSnapshotPolicy
- CreateAutoSnapshotPolicy
- CreateDisks
- CreateSnapshot
- DeleteAutoSnapshotPolicies
- DeleteSnapshots
- DescribeAutoSnapshotPolicies
- DescribeDiskAssociatedAutoSnapshotPolicy
- DescribeDiskConfigQuota
- DescribeDiskOperationLogs
- DescribeDisks
- DescribeInstancesDiskNum
- DescribeSnapshotOperationLogs
- DescribeSnapshotSharePermission
- DescribeSnapshots
- DetachDisks
- GetSnapOverview
- InquiryPriceCreateDisks
- InquiryPriceResizeDisk
- ModifyAutoSnapshotPolicyAttribute
- ModifyDiskAttributes
- ModifySnapshotAttribute
- ModifySnapshotsSharePermission
- ResizeDisk
- TerminateDisks
- UnbindAutoSnapshotPolicy

Existing data structures:

- AttachDetail
- AutoSnapshotPolicy
- Disk
- DiskChargePrepaid
- DiskConfig
- DiskOperationLog
- Filter
- Image
- Placement
- Policy
- PrepayPrice
- Price
- SharePermission
- Snapshot
- SnapshotOperationLog
- Tag

Introduction

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Welcome to Tencent Cloud Block Storage (CBS).
CBS is a highly available, reliable, economical, and customizable network block storage service. For more information, see Overview.
You can use the APIs in this document to perform various operations on cloud disks and snapshots, such as creating elastic cloud disks, creating snapshots, and rolling back snapshots. For supported operations, see API Overview.
You need to fully understand the concepts in Overview, Creating Cloud Disks and Price Overview.
Note: All APIs in this section are version 3.0. New CBS APIs added in the future will also be version 3.0. We strongly recommend you use API 3.0.

Glossary

To quickly familiarize you with cloud disk and snapshot services, some common terms are explained in the following table:

Term	Description
CBS	Cloud Block Storage (CBS) is Tencent Cloud's proprietary distributed block storage service, including cloud disks purchased along with CVM instances and elastic cloud disks purchased separately. For more information, see Overview.
Elastic cloud disk	An elastic cloud disk is purchased separately rather than along with a CVM instance. It has an independent (billing) lifecycle and can be freely attached and detached across CVM instances. It cannot be attached to multiple CVM instances at the same time though.
Snapshot	A cloud disk snapshot is used to save a copy of the cloud disk at a point in time. You can use the snapshot to restore the cloud disk to the point in time when the snapshot was created.

Request and response parameters

- Limit and Offset
  These parameters are used for paging control. "Limit" indicates the maximum number of entries returned at a time, and "Offset" is the offset value. If the number of results exceeds the Limit, the number of returned results equals to the value of Limit.
  For example, if Offset=0&Limit=20, the 0th to 20th entries are returned; if Offset=20&Limit=20, the 20th to 40th entries are returned; if Offset=40&Limit=20, the 40th to 60th entries are returned, and so on.

- Ids.N
  Format for inputting multiple parameters at a time. The format below indicates that multiple parameters can be input at the same time:
  Ids.0=10.12.243.21&Ids.1=10.11.243.21&Ids.2=10.12.243.21&Ids.3=10.13.243.21...
  and so on (starting from the subscript 0).

Getting Started with APIs

To use an elastic cloud disk through APIs, you need to complete the following three steps:

1. Create an elastic cloud disk by using the CreateDisks API.
2. Attach the elastic cloud disk to the specified CVM instance by using the AttachDisks API. **Note: Attaching here refers to assigning the elastic cloud disk to the specified CVM instance, which is equivalent to hot-plugging a disk to the instance**.
3. Log in to the CVM instance to initialize the elastic cloud disk. When using the newly created elastic cloud disk for the first time, you need to perform a series of operations such as partitioning and formatting. For detailed directions, see Initializing Data Disk (Windows CVM) and Initializing Cloud Disk (≥ 2 TB). Note that partitioning is not necessary on Linux, so you can directly format the disk.

To use a cloud disk snapshot through APIs, you need to complete the following two steps:

1. Create a snapshot for the specified cloud disk through the CreateSnapshot API.
2. Roll back the cloud disk snapshot as needed to the specified cloud disk through the ApplySnapshot API.

Limits

For the limits of cloud disks and snapshots, see Use Limits. For specific parameter restrictions, see the descriptions of output parameters in the API documentation.

API Category

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Cloud Disk APIs

API Name	Feature	Frequency Limit (maximum requests per second)
DescribeDiskOperationLogs	Querying a Cloud Disk Operation Log List	1
InquirePriceModifyDiskBackupQuota	Queries the price of a cloud disk after its backup point quota is modified	20
InquirePriceModifyDiskExtraPerformance	Queries the price for adjusting the cloud disk's extra performance	20
InquiryPriceCreateDisks	Queries the price of creating cloud disks	20
InquiryPriceResizeDisk	Inquires the price for expanding the capacity of a cloud disk	20
TerminateDisks	Returns a cloud disk	20
AttachDisks	Mounting Cloud Disks	20
CreateDisks	Creates cloud disks	20
DescribeDiskConfigQuota	Queries cloud disk quota	20
ApplyDiskBackup	Rolls back a backup point	20
CreateDiskBackup	Creates a backup point for a cloud disk	20
DeleteDiskBackups	Deletes the backup points of a cloud disk	20
DescribeDiskBackups	Queries the list of backup points	20
DescribeDisks	Queries the list of cloud disks	100

DescribeInstancesDiskNum	Queries the number of cloud disks associated to an instance	20
DetachDisks	Unmounts cloud disks	20
InitializeDisks	Reinitializes cloud disks	20
ModifyDiskAttributes	Modifies cloud disk attributes	20
ModifyDiskBackupQuota	Modifies the cloud disk backup point quota	20
ModifyDiskExtraPerformance	Adjusts the cloud disk's extra performance	20
ResizeDisk	Expanding Cloud Disk Capacity	20

Snapshot APIs

API Name	Feature	Frequency Limit (maximum requests per second)
ApplySnapshot	Rolls back a snapshot	20
DescribeSnapshotOperationLogs	Querying a Snapshot Operation Log List	20
GetSnapOverview	Gets snapshot overview information	20
ModifySnapshotAttribute	Modifies snapshot information	20
BindAutoSnapshotPolicy	Binding a Scheduled Snapshot Policy	20
CopySnapshotCrossRegions	Replicates a snapshot to another region	20
DeleteAutoSnapshotPolicies	Deleting a Scheduled Snapshot Policy	20
DescribeDiskAssociatedAutoSnapshotPolicy	Querying a Cloud Disk Associated Scheduled Snapshot Policy	20

UnbindAutoSnapshotPolicy	Unbinding a Scheduled Snapshot Policy	20
CreateAutoSnapshotPolicy	Creating a Scheduled Snapshot Policy	20
CreateSnapshot	Creates a snapshot	20
DeleteSnapshots	Deletes a snapshot	20
DescribeAutoSnapshotPolicies	Querying a Scheduled Snapshot Policy	20
DescribeSnapshotSharePermission	Views snapshot sharing information	20
DescribeSnapshots	Queries the list of snapshots	20
ModifyAutoSnapshotPolicyAttribute	Modifying Scheduled Snapshot Policy Information	20
ModifySnapshotsSharePermission	Modifies snapshot sharing information	20

Making API Requests
Request Structure

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1. Service Address

The API supports access from either a nearby region (at cbs.tencentcloudapi.com) or a specified region (at cbs.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 "cbs.ap-guangzhou.tencentcloudapi.com".

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

Tencent Cloud currently supports the following regions:

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

South Asia (Mumbai)	cbs.ap-mumbai.tencentcloudapi.com
Northeast Asia (Seoul)	cbs.ap-seoul.tencentcloudapi.com
Northeast Asia (Tokyo)	cbs.ap-tokyo.tencentcloudapi.com
U.S. East Coast (Virginia)	cbs.na-ashburn.tencentcloudapi.com
U.S. West Coast (Silicon Valley)	cbs.na-siliconvalley.tencentcloudapi.com
North America (Toronto)	cbs.na-toronto.tencentcloudapi.com
Europe (Frankfurt)	cbs.eu-frankfurt.tencentcloudapi.com

2. Communications Protocol

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

3. Request Methods

Supported HTTP request methods:

- POST (recommended)
- GET

The Content-Type types supported by POST requests:

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

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

4. Character Encoding

Only UTF-8 encoding is used.

Common Params

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

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

Common parameters for Signature Algorithm v3

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

Parameter Name	Type	Required	Description
X-TC-Action	String	Yes	The name of the API for the desired operation. For the specific value, see description of common parameter `Action` in the input parameters in r documentation. For example, the API for querying the CVM instance list i `DescribeInstances` .
X-TC-Region	String	Yes	Region parameter, which is used to identify the region to which the data y work with belongs. For values supported for an API, see the description c parameter `Region` in the input parameters in related API documentati parameter is not required for some APIs (which will be indicated in relate documentation), and will not take effect even it is passed.
X-TC-Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request for example, 1529223702. Note: If the difference between the UNIX times server time is greater than 5 minutes, a signature expiration error may oc
X-TC-Version	String	Yes	API version of the action. For the valid values, see the description of the c parameter `Version` in the API documentation. For example, the versi 2017-03-12.
Authorization	String	Yes	The HTTP authentication request header, for example: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/Date/service/tc3_requ SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc96317 Here: - TC3-HMAC-SHA256: Signature method, currently fixed as this value; - Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date i UTC time, and this value must match the value of X-TC-Timestamp (a co

			parameter) in UTC time format; service is the name of the product/service generally a domain name prefix. For example, a domain name cvm.tencen refers to the CVM product and the value would be cvm; - SignedHeaders: The headers that contains the authentication informatic type and host are the required headers; - Signature: Signature digest.
X-TC-Token	String	No	The token used for a temporary certificate. It must be used with a tempora can obtain the temporary key and token by calling a CAM API. No token i a long-term key.

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

Example of an HTTP GET request structure:

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

Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/20
18-10-09/cvm/tc3_request, SignedHeaders=content-type;host, Signature=5da7a33f6993
f0614b047e5df4582db9e9bf4672ba50567dba16c6ccf174c474
Content-Type: application/x-www-form-urlencoded
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1539084154
X-TC-Region: ap-guangzhou
```

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

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

Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request,
SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b1316
2d9279b0855cfba6789a8edb4c
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=582c400e06b5924a6f2b5d7d672d79c15b1316
2d9279b0855cfba6789a8edb4c
Content-Type: multipart/form-data; boundary=58731222010402
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

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

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

10
--58731222010402--
```

Common parameters for Signature Algorithm v1

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

Parameter Name	Type	Required	Description
Action	String	Yes	The name of the API for the desired operation. For the specific value, see the description of common parameter `Action` in the input parameters in related API documentation. For example, the API for querying the CVM instance list is `DescribeInstances`.
Region	String	Yes	Region parameter, which is used to identify the region to which the data you want to work with belongs. For values supported for an API, see the description of common parameter `Region` in the input parameters in related API documentation. Note: This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even if it is passed.

Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request was initiated, for example, 1529223702. If the difference between the value and the current system time is too large, a signature expiration error may occur.
Nonce	Integer	Yes	A random positive integer used along with `Timestamp` to prevent replay attacks.
SecretId	String	Yes	The identifying SecretId obtained on the Cloud API Key page. A SecretId corresponds to a unique SecretKey which is used to generate the request signature (Signature).
Signature	String	Yes	Request signature used to verify the validity of this request. This is calculated based on the actual input parameters. For more information about how this is calculated, see the API authentication documentation.
Version	String	Yes	API version of the action. For the valid values, see the description of the common input parameter `Version` in the API documentation. For example, the version of CVM is 2017-03-12.
SignatureMethod	String	No	Signature method. Currently, only HmacSHA256 and HmacSHA1 are supported. The HmacSHA256 algorithm is used to verify the signature only when this parameter is specified as HmacSHA256. In other cases, the signature is verified with HmacSHA1.
Token	String	No	The token used for a temporary certificate. It must be used with a temporary key. You can obtain the temporary key and token by calling a CAM API. No token is required for a long-term key.

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

Example of an HTTP GET request structure:

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

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

Example of an HTTP POST request structure:

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

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

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

Signature

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

1. Applying for Security Credentials

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

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

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

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

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

2. Generating a Signature

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

Assume that the SecretId and SecretKey are:

- SecretId: `AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******`
- 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:

Parameter name	Description	Parameter value
Action	Method name	DescribeInstances
SecretId	Key ID	`AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******`
Timestamp	Current timestamp	1465185768
Nonce	Random positive integer	11886
Region	Region where the instance is located	ap-guangzhou
InstanceIds.0	ID of the instance to query	ins-09dx96dg
Offset	Offset	0
Limit	Allowed maximum output	20
Version	API version number	2017-03-12

2.1. Sorting Parameters

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

```
{
'Action' : 'DescribeInstances',
'InstanceIds.0' : 'ins-09dx96dg',
'Limit' : 20,
'Nonce' : 11886,
'Offset' : 0,
'Region' : 'ap-guangzhou',
'SecretId' : 'AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******',
'Timestamp' : 1465185768,
'Version': '2017-03-12',
}
```

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

2.2. Concatenating a Request String

This step generates a request string.

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

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

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

```
Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0
&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******&Timestamp=1465
185768&Version=2017-03-12
```

2.3. Concatenating the Signature Original String

This step generates a signature original string.

The signature original string consists of the following parameters:

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

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

The concatenation result of the example is:

```
GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&L
imit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WF
kmLPx3*******&Timestamp=1465185768&Version=2017-03-12
```

2.4. Generating a Signature String

This step generates a signature string.

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

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

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

```
$secretKey = 'Gu5t9xGARNpq86cd98joQYCN3*******';
$srcStr = 'GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******&Timestamp=1465185768&Version=2017-03-12';
$signStr = base64_encode(hash_hmac('sha1', $srcStr, $secretKey, true));
echo $signStr;
```

The final signature is:

```
zmmjn35mikh6pM3V7sUEuX4wyYM=
```

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.

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

5. Signature Demo

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

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

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

The final output URL might be:

```
https://cvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******&Signature=zmmjn35mikh6pM3V7sUEuX4wyYM%3D&Timestamp=1465185768&Version=2017-03-12`
```

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

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

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

Java

```
import java.io.UnsupportedEncodingException;
import java.net.URLEncoder;
import java.util.Random;
import java.util.TreeMap;
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
import javax.xml.bind.DatatypeConverter;
public class TencentCloudAPIDemo {
private final static String CHARSET = "UTF-8";
public static String sign(String s, String key, String method) throws Exception {
Mac mac = Mac.getInstance(method);
SecretKeySpec secretKeySpec = new SecretKeySpec(key.getBytes(CHARSET), mac.getAlg
orithm());
mac.init(secretKeySpec);
byte[] hash = mac.doFinal(s.getBytes(CHARSET));
return DatatypeConverter.printBase64Binary(hash);
}
public static String getStringToSign(TreeMap<String, Object> params) {
StringBuilder s2s = new StringBuilder("GETcvm.tencentcloudapi.com/?");
// When signing, the parameters need to be sorted in lexicographical order. TreeM
ap is used here to guarantee the correct order.
for (String k : params.keySet()) {
s2s.append(k).append("=").append(params.get(k).toString()).append("&");
}
return s2s.toString().substring(0, s2s.length() - 1);
}
public static String getUrl(TreeMap<String, Object> params) throws UnsupportedEnc
odingException {
StringBuilder url = new StringBuilder("https://cvm.tencentcloudapi.com/?");
// There is no requirement for the order of the parameters in the actual request
URL.
for (String k : params.keySet()) {
// The request string needs to be URL encoded. As the Key is all in English lette
rs, only the value is URL encoded here.
url.append(k).append("=").append(URLEncoder.encode(params.get(k).toString(), CHAR
SET)).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 enable
s 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 examp
le: params.put("Timestamp", System.currentTimeMillis() / 1000);
params.put("Timestamp", 1465185768); // Common parameter
params.put("SecretId", "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"); // Common paramet
er
params.put("Action", "DescribeInstances"); // Common parameter
params.put("Version", "2017-03-12"); // Common parameter
params.put("Region", "ap-guangzhou"); // Common parameter
params.put("Limit", 20); // Business parameter
params.put("Offset", 0); // Business parameter
params.put("InstanceIds.0", "ins-09dx96dg"); // Business parameter
params.put("Signature", sign(getStringToSign(params), "Gu5t9xGARNpq86cd98joQYCN3*
******", "HmacSHA1")); // Common parameter
System.out.println(getUrl(params));
}
}
```

Python

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

```
# -*- coding: utf8 -*-
import base64
import hashlib
import hmac
import time
import requests
secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*******"
def get_string_to_sign(method, endpoint, params):
s = method + endpoint + "/?"
query_str = "&".join("%s=%s" % (k, params[k]) for k in sorted(params))
return s + query_str
def sign_str(key, s, method):
hmac_str = hmac.new(key.encode("utf8"), s.encode("utf8"), method).digest()
return base64.b64encode(hmac_str)
```

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

Golang

```
package main
import (
"bytes"
"crypto/hmac"
"crypto/sha1"
"encoding/base64"
"fmt"
"sort"
)
func main() {
secretId := "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secretKey := "Gu5t9xGARNpq86cd98joQYCN3*******"
params := map[string]string{
"Nonce": "11886",
"Timestamp": "1465185768",
"Region": "ap-guangzhou",
"SecretId": secretId,
"Version": "2017-03-12",
"Action": "DescribeInstances",
"InstanceIds.0": "ins-09dx96dg",
"Limit": "20",
"Offset": "0",
}
var buf bytes.Buffer
```

```
buf.WriteString("GET")
buf.WriteString("cvm.tencentcloudapi.com")
buf.WriteString("/")
buf.WriteString("?")
// sort keys by ascii asc order
keys := make([]string, 0, len(params))
for k, _ := range params {
keys = append(keys, k)
}
sort.Strings(keys)
for i := range keys {
k := keys[i]
buf.WriteString(k)
buf.WriteString("=")
buf.WriteString(params[k])
buf.WriteString("&")
}
buf.Truncate(buf.Len() - 1)
hashed := hmac.New(sha1.New, []byte(secretKey))
hashed.Write(buf.Bytes())
fmt.Println(base64.StdEncoding.EncodeToString(hashed.Sum(nil)))
}
```

PHP

```
<?php
$secretId = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
$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["InstanceIds.0"] = "ins-09dx96dg";
$param["Limit"] = 20;
$param["Offset"] = 0;
ksort($param);
$signStr = "GETcvm.tencentcloudapi.com/?";
foreach ( $param as $key => $value ) {
$signStr = $signStr . $key . "=" . $value . "&";
}
$signStr = substr($signStr, 0, -1);
$signature = base64_encode(hash_hmac("sha1", $signStr, $secretKey, true));
echo $signature.PHP_EOL;
// need to install and enable curl extension in php.ini
```

```
// $param["Signature"] = $signature;
// $url = "https://cvm.tencentcloudapi.com/?".http_build_query($param);
// echo $url.PHP_EOL;
// $ch = curl_init();
// curl_setopt($ch, CURLOPT_URL, $url);
// $output = curl_exec($ch);
// curl_close($ch);
// echo json_decode($output);
```

Ruby

```
# -*- coding: UTF-8 -*-
# require ruby>=2.3.0
require 'time'
require 'openssl'
require 'base64'
secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*******"
method = 'GET'
endpoint = 'cvm.tencentcloudapi.com'
data = {
'Action' => 'DescribeInstances',
'InstanceIds.0' => 'ins-09dx96dg',
'Limit' => 20,
'Nonce' => 11886,
'Offset' => 0,
'Region' => 'ap-guangzhou',
'SecretId' => secret_id,
'Timestamp' => 1465185768, # Time.now.to_i
'Version' => '2017-03-12',
}
sign = method + endpoint + '/?'
params = []
data.sort.each do |item|
params << "#{item[0]}=#{item[1]}"
end
sign += params.join('&')
digest = OpenSSL::Digest.new('sha1')
data['Signature'] = Base64.encode64(OpenSSL::HMAC.digest(digest, secret_key, sig
n))
puts data['Signature']
# require 'net/http'
# uri = URI('https://' + endpoint)
# uri.query = URI.encode_www_form(data)
# p uri
```

```
# res = Net::HTTP.get_response(uri)
# puts res.body
```

DotNet

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Security.Cryptography;
using System.Text;
public class Application {
public static string Sign(string signKey, string secret)
{
string signRet = string.Empty;
using (HMACSHA1 mac = new HMACSHA1(Encoding.UTF8.GetBytes(signKey)))
{
byte[] hash = mac.ComputeHash(Encoding.UTF8.GetBytes(secret));
signRet = Convert.ToBase64String(hash);
}
return signRet;
}
public static string MakeSignPlainText(SortedDictionary<string, string> requestPa
rams, string requestMethod, string requestHost, string requestPath)
{
string retStr = "";
retStr += requestMethod;
retStr += requestHost;
retStr += requestPath;
retStr += "?";
string v = "";
foreach (string key in requestParams.Keys)
{
v += string.Format("{0}={1}&", key, requestParams[key]);
}
retStr += v.TrimEnd('&');
return retStr;
}
public static void Main(string[] args)
{
string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
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("Nonce", Math.Abs(new Random().Next()).ToString());
param.Add("Timestamp", RequestTimestamp.ToString());
param.Add("Version", version);
param.Add("SecretId", SECRET_ID);
param.Add("Region", region);
SortedDictionary<string, string> headers = new SortedDictionary<string, string>(p
aram, StringComparer.Ordinal);
string sigInParam = MakeSignPlainText(headers, "GET", endpoint, "/");
Console.WriteLine(sigInParam);
string sigOutParam = Sign(SECRET_KEY, sigInParam);
Console.WriteLine("GET https://cvm.tencentcloudapi.com");
foreach (KeyValuePair<string, string> kv in headers)
{
Console.WriteLine(kv.Key + ": " + kv.Value);
}
Console.WriteLine("Signature" + ": " + WebUtility.UrlEncode(sigOutParam));
Console.WriteLine();
string result = "https://cvm.tencentcloudapi.com/?";
foreach (KeyValuePair<string, string> kv in headers)
{
result += WebUtility.UrlEncode(kv.Key) + "=" + WebUtility.UrlEncode(kv.Value) +
"&";
}
result += WebUtility.UrlEncode("Signature") + "=" + WebUtility.UrlEncode(sigOutPa
ram);
Console.WriteLine("GET " + result);
}
}
```

NodeJS

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

```
let strSign = reqMethod + endpoint + path + "?" + strParam.slice(1);
return strSign;
}
function sha1(secretKey, strsign){
let signMethodMap = {'HmacSHA1': "sha1"};
let hmac = crypto.createHmac(signMethodMap['HmacSHA1'], secretKey || "");
return hmac.update(Buffer.from(strsign, 'utf8')).digest('base64')
}
function sort_params(params){
let strParam = "";
let keys = Object.keys(params);
keys.sort();
for (let k in keys) {
//k = k.replace(/_/g, '.');
strParam += ("&" + keys[k] + "=" + params[keys[k]]);
}
return strParam
}
function main(){
const SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
const SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******"
const endpoint = "cvm.tencentcloudapi.com"
const Region = "ap-guangzhou"
const Version = "2017-03-12"
const Action = "DescribeInstances"
const Timestamp = 1465185768
// const Timestamp = Math.round(Date.now() / 1000)
const Nonce = 11886
//const nonce = Math.round(Math.random() * 65535)
let params = {};
params['Action'] = Action;
params['InstanceIds.0'] = 'ins-09dx96dg';
params['Limit'] = 20;
params['Offset'] = 0;
params['Nonce'] = Nonce;
params['Region'] = Region;
params['SecretId'] = SECRET_ID;
params['Timestamp'] = Timestamp;
params['Version'] = Version;
strParam = sort_params(params)
const reqMethod = "GET";
const path = "/";
strSign = formatSignString(reqMethod, endpoint, path, strParam)
console.log(strSign)
console.log("-----------------------")
params['Signature'] = sha1(SECRET_KEY, strSign)
console.log(params['Signature'])
```

```
console.log("----------------------")
const req_url = get_req_url(params, endpoint)
console.log(params['Signature'])
console.log("----------------------")
console.log(req_url)
}
main()
```

Signature v3

Last updated：2020-09-10 18:02:22

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 `AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******` and `Gu5t9xGARNpq86cd98joQYCN3*******`, 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=AKIDz8krbsJ5yKBZQpn74WFkmLPx3******
*/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e4
1437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff" \
-H "Content-Type: application/json; charset=utf-8" \
-H "Host: cvm.tencentcloudapi.com" \
-H "X-TC-Action: DescribeInstances" \
-H "X-TC-Timestamp: 1551113065" \
-H "X-TC-Version: 2017-03-12" \
-H "X-TC-Region: ap-guangzhou" \
-d '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}'
```

The signature calculation process is explained in detail below.

1. Concatenating the CanonicalRequest String

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

```
CanonicalRequest =
HTTPRequestMethod + '\n' +
CanonicalURI + '\n' +
```

```
CanonicalQueryString + '\n' +
CanonicalHeaders + '\n' +
SignedHeaders + '\n' +
HashedRequestPayload
```

Field Name	Explanation
HTTPRequestMethod	HTTP request method (GET or POST). This example uses `POST` .
CanonicalURI	URI parameter. Slash ("/") is used for API 3.0.
CanonicalQueryString	The query string in the URL of the originating HTTP request. This is always an empty st “” for POST requests, and is the string after the question mark (?) for GET requests. Fo example: Limit=10&Offset=0。 Note: `CanonicalQueryString` must be URL-encoded, referencing RFC3986, the UTF8 character set. We recommend using the programming language library. All speci characters must be encoded and capitalized.
CanonicalHeaders	Header information for signature calculation, including at least two headers of `host` `content-type` . Custom headers can be added to participate in the signature proce 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 lead and trailing spaces removed, so they are concatenated in the format of key:value\n format; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase). The calculation result in this example is `content-type:application/json; charset=utf-8\nhost:cvm.tencentcloudapi.com\n` . Note: `content-type` must match the actually sent content. In some programming languages, a charset value would be added even if it is not specified. In this case, the request sent is different from the one signed, and the sever will return an error indicating 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 heac 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, "Filter`

	`[{"Values": ["unnamed"], "Name": "instance-name"}]` in this exampl The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(RequestPayload))) by SHA256 hashing the pay of the HTTP request, performing hexadecimal encoding, and finally converting the enco string to lowercase letters. For GET requests, `RequestPayload` is always an empt string. The calculation result in this example is `99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b49`

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

```
POST
/

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

content-type;host
99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b4907
```

2. Concatenating the String to Be Signed

The string to sign is concatenated as follows:

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

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

HashedCanonicalRequest	Hash value of the CanonicalRequest string concatenated in the steps above. The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(CanonicalRequ The calculation result in this example is `2815843035062fffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3ad`

Note:

1. Date has to be calculated from the timestamp "X-TC-Timestamp" and the time zone is UTC+0. If you add the system's local time zone information (such as UTC+8), calls can succeed both day and night but will definitely fail at 00:00. For example, if the timestamp is 1551113065 and the time in UTC+8 is 2019-02-26 00:44:25, the UTC+0 date in the calculated Date value should be 2019-02-25 instead of 2019-02-26.
2. Timestamp must be the same as your current system time, and your system time and standard time must be synced; if the difference between Timestamp and your current system time is larger than five minutes, the request will fail. If your system time is out of sync with the standard time for a while, the request will fail and return a signature expiration error.

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

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

3. Calculating the Signature

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

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

Field Name	Explanation
SecretKey	The original SecretKey, i.e., `Gu5t9xGARNpq86cd98joQYCN3*******` .
Date	The Date field information in `Credential` , such as `2019-02-25` in this example.
Service	Value in the Service field in `Credential` , such as `cvm` in this example.

2) Calculate the signature with the following pseudocode:

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

4. Concatenating the Authorization

The Authorization is concatenated as follows:

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

Field Name	Explanation
Algorithm	Signature algorithm, which is always `TC3-HMAC-SHA256`.
SecretId	The SecretId in the key pair, i.e., `AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******`.
CredentialScope	Credential scope (see above). The calculation result in this example is `2019-02-25/cvm/tc3_request`.
SignedHeaders	Header information for signature calculation (see above), such as `content-type;host` in this example.
Signature	Signature value. The calculation result in this example is `c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff`.

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=c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
```

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=c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
Content-Type: application/json; charset=utf-8
Host: cvm.tencentcloudapi.com
```

```
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1551113065
X-TC-Region: ap-guangzhou

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

5. Signature Demo

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

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

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

The final output URL might be: https://cvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******&Signature=EliP9YW3pW28FpsEdkXt%2F%2BWcGeI%3D&Timestamp=1465185768&Version=2017-03-12.

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

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

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

Java

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

public class TencentCloudAPITC3Demo {
private final static Charset UTF8 = StandardCharsets.UTF_8;
private final static String SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
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\n" + "hos
t:" + host + "\n";
String signedHeaders = "content-type;host";

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

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

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

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

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

StringBuilder sb = new StringBuilder();
sb.append("curl -X POST https://").append(host)
.append(" -H \"Authorization: ").append(authorization).append("\"")
```

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

Python

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

# Key Parameters
secret_id = "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")).hexd
igest()
string_to_sign = (algorithm + "\n" +
str(timestamp) + "\n" +
credential_scope + "\n" +
hashed_canonical_request)
print(string_to_sign)


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

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

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

Golang

```
package main

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

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

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

func main() {
secretId := "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secretKey := "Gu5t9xGARNpq86cd98joQYCN3*******"
host := "cvm.tencentcloudapi.com"
algorithm := "TC3-HMAC-SHA256"
service := "cvm"
version := "2017-03-12"
action := "DescribeInstances"
region := "ap-guangzhou"
//var timestamp int64 = time.Now().Unix()
var timestamp int64 = 1551113065

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

```
canonicalQueryString,
canonicalHeaders,
signedHeaders,
hashedRequestPayload)
fmt.Println(canonicalRequest)

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

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

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

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

PHP

```php
<?php
$secretId = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3*******";
$host = "cvm.tencentcloudapi.com";
$service = "cvm";
$version = "2017-03-12";
$action = "DescribeInstances";
$region = "ap-guangzhou";
// $timestamp = time();
$timestamp = 1551113065;
$algorithm = "TC3-HMAC-SHA256";

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

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

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

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

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

Ruby

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

# Key Parameters
secret_id = '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 = Time.now.to_i
timestamp = 1551113065
date = Time.at(timestamp).utc.strftime('%Y-%m-%d')

# ************* Step 1: Concatenate the CanonicalRequest string *************
http_request_method = 'POST'
canonical_uri = '/'
canonical_querystring = ''
```

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

puts canonical_request

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

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

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

puts 'curl -X POST ' + endpoint \
```

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

DotNet

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

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

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

```
dpointRounding.AwayFromZero) / 1000;
// ************* Step 1: Concatenate the CanonicalRequest string *************
string algorithm = "TC3-HMAC-SHA256";
string httpRequestMethod = "POST";
string canonicalUri = "/";
string canonicalQueryString = "";
string contentType = "application/json";
string canonicalHeaders = "content-type:" + contentType + "; charset=utf-8\n" +
"host:" + endpoint + "\n";
string signedHeaders = "content-type;host";
string hashedRequestPayload = SHA256Hex(requestPayload);
string canonicalRequest = httpRequestMethod + "\n"
+ canonicalUri + "\n"
+ canonicalQueryString + "\n"
+ canonicalHeaders + "\n"
+ signedHeaders + "\n"
+ hashedRequestPayload;
Console.WriteLine(canonicalRequest);
Console.WriteLine("-----------------------------------");

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

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

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

```
Console.WriteLine("-----------------------------------");

Dictionary<string, string> headers = new Dictionary<string, string>();
headers.Add("Authorization", authorization);
headers.Add("Host", endpoint);
headers.Add("Content-Type", contentType + "; charset=utf-8");
headers.Add("X-TC-Timestamp", requestTimestamp.ToString());
headers.Add("X-TC-Version", version);
headers.Add("X-TC-Action", action);
headers.Add("X-TC-Region", region);
return headers;
}
public static void Main(string[] args)
{
// SecretID and SecretKey
string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******";

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

// The timestamp `2019-02-26 00:44:25` used here is only for reference. In a proj
ect, use the following parameter:
// DateTime date = DateTime.UtcNow;
// Enter the correct time zone. We recommend using UTC timestamp to avoid errors.
DateTime date = new DateTime(1970, 1, 1, 0, 0, 0, 0, DateTimeKind.Utc).AddSeconds
(1551113065);
string requestPayload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"\\u672a\\u5
47d\\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.getUTCFullYear()
const month = ('0' + (date.getUTCMonth() + 1)).slice(-2)
const day = ('0' + date.getUTCDate()).slice(-2)
return `${year}-${month}-${day}`
}
function main(){

const SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
const SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******"

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

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

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

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

const canonicalRequest = httpRequestMethod + "\n"
```

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

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

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

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

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

C++

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

using namespace std;

string get_data(int64_t &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 *h;
#if OPENSSL_VERSION_NUMBER < 0x10100000L
HMAC_CTX hmac;
HMAC_CTX_init(&hmac);
h = &hmac;
#else
h = HMAC_CTX_new();
#endif

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

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

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

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

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

```
return output;
}

int main()
{
string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
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 = 1551113065;
string date = get_data(timestamp);

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

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

// ************* Step 3: Calculate the signature ***************
string kKey = "TC3" + SECRET_KEY;
string kDate = HmacSha256(kKey, date);
string kService = HmacSha256(kDate, service);
string kSigning = HmacSha256(kService, "tc3_request");
```

```
string signature = HexEncode(HmacSha256(kSigning, stringToSign));
cout << signature << endl;
cout << "-----------------------" << endl;

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

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

Signature Failure

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

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

Responses

Last updated：2019-12-05 18:14:13

Response for Successful Requests

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

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

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

Response for Failed Requests

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

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

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

Common Error Codes

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

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

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

Snapshot APIs
ApplySnapshot

Last updated：2023-03-16 16:17:27

1. API Description

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

This API (ApplySnapshot) is used to roll back a snapshot to the original cloud disk.

- The snapshot can only be rolled back to the original cloud disk. For data disk snapshots, if you need to copy the snapshot data to other cloud disks, use the API CreateDisks to create an elastic cloud disk and then copy the snapshot data to the created cloud disk.
- The snapshot for rollback must be in NORMAL status. The snapshot status can be queried in the SnapshotState field in the output parameters through the API DescribeSnapshots.
- For elastic cloud disks, the cloud disk must be in UNMOUNTED status. The cloud disk status can be queried in the Attached field returned by the API DescribeDisks. For non-elastic cloud disks purchased together with instances, the instance must be in SHUTDOWN status. The instance status can be queried through the API DescribeInstancesStatus.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ApplySnapshot.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.

Region	No	String	Common Params. This parameter is not required for this API.
SnapshotId	Yes	String	Snapshot ID, which can be queried via DescribeSnapshots.
DiskId	Yes	String	ID of the original cloud disk corresponding to the snapshot, which can be queried via the API DescribeDisks.
AutoStopInstance	No	Boolean	Specifies whether to shut down a CVM automatically before a rollback
AutoStartInstance	No	Boolean	Specifies whether to start up a CVM automatically after a rollback

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 Rolling back a snapshot

This example shows you how to roll back a cloud disk to the specified snapshot point in time.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=ApplySnapshot
&DiskId=disk-lzrg2pwi
&SnapshotId=snap-gybrif0z
&<common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "cc96242e-566c-ae6a-b74a-5a1f823683b2"
}
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidDisk.Busy	The cloud disk is busy. Try again later.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDisk.SnapshotCreating	A snapshot is being created for the cloud disk. Try again later.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidInstance.NotSupported	Cloud Virtual Machine does not support mounting cloud disk.
InvalidInstanceId.NotFound	The 'InstanceId' entered does not exist.
InvalidParameter.DiskSizeNotMatch	The size of the cloud disk does not match the snapshot size.

InvalidParameter.ShouldConvertSnapshotToImage	You need to convert the snapshot into an image first.
InvalidParameterValue	Invalid parameter value.
InvalidSnapshot.NotSupported	Indicates that the operation is not supported for the snapshot.
InvalidSnapshotId.NotFound	The 'SnapshotId' entered does not exist.
MissingParameter	Missing parameter.
ResourceBusy	The resource is busy. Try again later.
ResourceInUse.DiskRollbacking	The cloud disk is being rolled back. Please try again later.
ResourceInsufficient	Insufficient resources.
ResourceNotFound.NotFound	The resource is not found.
ResourceUnavailable.NotSupported	The resource does not support this operation.
ResourceUnavailable.SnapshotCreating	Unable to use: the snapshot is being created
UnauthorizedOperation.MFAExpired	Multi-factor authentication (MFA) has expired. Please try again.

DeleteSnapshots

Last updated：2023-06-21 15:01:14

1. API Description

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

This API is used to delete snapshots.

- Only snapshots in the `NORMAL` state can be deleted. To query the state of a snapshot, you can call the DescribeSnapshots API and check the `SnapshotState` field in the response.
- Batch operations are supported. If there is any snapshot that cannot be deleted, the operation will not be performed and a specific error code will be returned.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteSnapshots.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
SnapshotIds.N	Yes	Array of String	List of IDs of snapshots to be deleted, which can be queried via DescribeSnapshots.
DeleteBindImages	No	Boolean	Whether to forcibly delete the image associated with the snapshot

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 Deleting snapshot

This example shows you how to delete a specified snapshot.

Input Example

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

{
"SnapshotIds": [
"snap-cgrmci8t"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "b4770576-d9eb-4689-0866-5a1f8200a722"
}
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameterValue	Invalid parameter value.
InvalidSnapshot.NotSupported	Indicates that the operation is not supported for the snapshot.
InvalidSnapshotId.NotFound	The 'SnapshotId' entered does not exist.
MissingParameter	Missing parameter.
ResourceBusy	The resource is busy. Try again later.
ResourceUnavailable.SnapshotCreating	Unable to use: the snapshot is being created
UnauthorizedOperation.MFAExpired	Multi-factor authentication (MFA) has expired. Please try again.
UnsupportedOperation	Unsupported operation
UnsupportedOperation.SnapHasShared	The snapshot is shared with others. Please cancel the sharing first.
UnsupportedOperation.SnapshotHasBindedImage	A custom snapshot was created for this snapshot. First

	delete the corresponding image.

DescribeSnapshots

Last updated：2023-06-21 15:01:13

1. API Description

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

This API (DescribeSnapshots) is used to query the details of snapshots.

- Filter the results by the snapshot ID, the ID of cloud disk, for which the snapshot is created, and the type of cloud disk, for which the snapshot is created. The relationship between different conditions is AND. For more information about filtering, please see `Filter` .
- If the parameter is empty, a certain number (specified by `Limit` ; the default is 20) of snapshot lists are returned to the current user.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeSnapshots.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
SnapshotIds.N	No	Array of String	List of snapshot IDs to be queried. The parameter does not support specifying both `SnapshotIds` and `Filters` .

Filters.N	No	Array of Filter	Filters. It cannot be specified together with `SnapshotIds`. • snapshot-id - Array of String - Optional - Filters by snapshot ID, such as `snap-11112222`. • snapshot-name - Array of String - Optional - Filters by snapshot name. • snapshot-state - Array of String - Optional - Filters by snapshot state (NORMAL: normal | CREATING: creating | ROLLBACKING: rolling back). • disk-usage - Array of String - Optional - Filters by the type of the cloud disk from which a snapshot is created (SYSTEM_DISK: system disk | DATA_DISK: data disk). • project-id - Array of String - Optional - Filters by the ID of the project to which a cloud disk belongs. • disk-id - Array of String - Optional - Filters by the ID of the cloud disk from which a snapshot is created. • zone - Array of String - Optional - Filters by availability zone. • encrypt - Array of String - Optional - Filters by whether a snapshot is created from an encrypted cloud disk. (TRUE: a snapshot of an encrypted cloud disk | FALSE: not a snapshot of an encrypted cloud disk.) • snapshot-type- Array of String - Optional - Filters by the snapshot type specified in `snapshot-type`. (SHARED_SNAPSHOT: a shared snapshot | PRIVATE_SNAPSHOT: a private snapshot.)
Offset	No	Integer	Offset. Default is 0. For more information on `Offset`, please see relevant sections in API Introduction.
Limit	No	Integer	Number of results to be returned. Default is 20. Maximum is 100. For more information on `Limit`, please see relevant sections in API Introduction.
Order	No	String	Outputs the ordering of the cloud disk list. Value range: • ASC: Ascending order • DESC: Descending order.
OrderField	No	String	The field by which the snapshot list is sorted. Value range: • CREATE_TIME: sorted by the creation time of the snapshots By default, the snapshot list is sorted by the creation time of snapshots.

3. Output Parameters

Parameter	Type	Description

Name		
TotalCount	Integer	Number of snapshots.
SnapshotSet	Array of Snapshot	List of snapshot details.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying snapshots in `NORMAL` status in Guangzhou Zone 2

This example shows you how to query snapshots in `NORMAL` status in Guangzhou Zone 2.

Input Example

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

{
"Filters": [
{
"Name": "snapshot-state",
"Values": [
"NORMAL"
]
},
{
"Name": "zone",
"Values": [
"ap-guangzhou-2"
]
}
]
}
```

Output Example

```
{
"Response": {
"TotalCount": 2,
"RequestId": "7974489b-8d50-4bbd-8dd2-b700bb98b8cf",
"SnapshotSet": [
{
"Tags": [],
"Placement": {
"CageId": "",
"Zone": "ap-guangzhou-2",
"ProjectId": 0,
"CdcName": "",
"CdcId": "",
"ProjectName": "",
"DedicatedClusterId": ""
},
"CopyFromRemote": false,
"IsPermanent": true,
"DiskUsage": "DATA_DISK",
"DeadlineTime": "2023-04-09 10:45:11",
"Percent": 100,
"SnapshotId": "snap-0jfkjwl1",
"ShareReference": 0,
"SnapshotType": "PRIVATE_SNAPSHOT",
"DiskSize": 70,
"DiskId": "disk-omp7wl2m",
"SnapshotName": "TEST",
"Images": [],
"CopyingToRegions": [],
"Encrypt": false,
"CreateTime": "2023-03-09 10:45:11",
"TimeStartShare": "2023-03-09",
"ImageCount": 0,
"SnapshotState": "NORMAL"
},
{
"Tags": [],
"Placement": {
"CageId": "",
"Zone": "ap-guangzhou-2",
"ProjectId": 0,
"CdcName": "",
"CdcId": "",
"ProjectName": "",
"DedicatedClusterId": ""
},
```

```
"CopyFromRemote": false,
"IsPermanent": true,
"DiskUsage": "SYSTEM_DISK",
"DeadlineTime": "2023-04-09 10:45:11",
"Percent": 100,
"SnapshotId": "snap-obgelzpb",
"ShareReference": 0,
"SnapshotType": "PRIVATE_SNAPSHOT",
"DiskSize": 50,
"DiskId": "disk-1en5p0sq",
"SnapshotName": "test-stevenkli",
"Images": [],
"CopyingToRegions": [],
"Encrypt": false,
"CreateTime": "2023-03-08 17:12:42",
"ImageCount": 0,
"TimeStartShare": "2023-03-09",
"SnapshotState": "NORMAL"
}
]
}
}
```


5. Developer Resources

SDK

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

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidFilter	The specified Filter is not supported.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
UnsupportedOperation	Unsupported operation

CreateSnapshot

Last updated：2023-06-21 15:01:14

1. API Description

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

This API is used to create a snapshot for the specified cloud disk.

- You can only create snapshots for cloud disks with the snapshot capability. To check whether a cloud disk is snapshot-enabled, call the DescribeDisks API and see the `SnapshotAbility` field in the response.
- For the maximum number of snapshots that can be created, see Use Limits.
- Currently, you can convert backup points into general snapshots. After the conversion, snapshot usage fees may be charged, backup points will not be retained, and the occupied backup point quota will be released.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateSnapshot.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskId	Yes	String	ID of the cloud disk for which to create a snapshot, which can be queried through the DescribeDisks API.

SnapshotName	No	String	Snapshot name. If it is not specified, "Unnamed" will be used by default.
Deadline	No	Timestamp ISO8601	Expiration time of the snapshot. It must be in UTC ISO-8601 format, eg. 2022-01-08T09:47:55+00:00. The snapshot will be automatically deleted when it expires.
DiskBackupId	No	String	ID of the cloud disk backup point. When this parameter is specified, the snapshot will be created from the backup point.
Tags.N	No	Array of Tag	Tags bound to the snapshot.

3. Output Parameters

Parameter Name	Type	Description
SnapshotId	String	ID of the created snapshot Note: This field may return null, indicating that no valid values can be obtained.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a snapshot

This example shows you how to create a snapshot.

Input Example

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

{
"SnapshotName": "snap_201711301015",
"Deadline": "2022-01-08T09:47:55+00:00",
"DiskId": "disk-lzrg2pwi"
}
```

Output Example

```
{
"Response": {
"SnapshotId": "snap-gybrif0z",
"RequestId": "1bd35eca-0c9a-6e0b-938a-5a1f80511c19"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InsufficientSnapshotQuota	Insufficient snapshot quota.
InternalError.ComponentError	Dependent component request failed. Please contact customer service.

InternalError.ResourceOpFailed	The operation performed on the resource failed. For error message, see the "Message" field in error description. Try again later or contact customer service.
InvalidAccount.InsufficientBalance	Insufficient account balance
InvalidDisk.Busy	The cloud disk is busy. Try again later.
InvalidDisk.NotSupportSnapshot	The cloud disk does not support snapshot.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDisk.SnapshotCreating	A snapshot is being created for the cloud disk. Try again later.
InvalidDisk.TypeError	Invalid cloud disk type.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidParameter.ProjectIdNotExist	The project ID does not exist.
LimitExceeded.InstanceAttachedDisk	Number of instances mounted to cloud disk exceeds the limit.
MissingParameter	Missing parameter.
ResourceBusy	The resource is busy. Try again later.
ResourceInUse	The resource is in use.
ResourceInUse.DiskRollbacking	The cloud disk is being rolled back. Please try again later.
ResourceInsufficient.OverQuota	Quota insufficient.
ResourceNotFound.NotFound	The resource is not found.
ResourceUnavailable.DiskSnapshotChainTooLarge	The snapshot chain of the cloud disk is too long, so snapshot creation is refused.
ResourceUnavailable.NotSupported	The resource does not support this operation.
ResourceUnavailable.SnapshotCreating	Unable to use: the snapshot is being created
ResourceUnavailable.TooManyCreatingSnapshot	Too many snapshots are being created in the entire network.
UnsupportedOperation.DiskEncrypt	The disk is encrypted.

ModifySnapshotAttribute

Last updated：2023-03-16 16:17:24

1. API Description

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

This API (ModifySnapshotAttribute) is used to modify the attributes of a specified snapshot.

- Currently, you can only modify snapshot name and change non-permanent snapshots into permanent snapshots.
- "Snapshot name" is only used by users for their management. Tencent Cloud does not use the name as the basis for ticket submission or snapshot management.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ModifySnapshotAttribute.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
SnapshotId	Yes	String	Snapshot ID, which can be queried via DescribeSnapshots.
SnapshotName	No	String	Name of new snapshot. Maximum length is 60 bytes.
IsPermanent	No	Boolean	Snapshot retention mode. Valid values: `FALSE` : non-permanent retention; `TRUE` : permanent retention.

Deadline	No	Timestamp ISO8601	Expiration time of the snapshot. Setting this parameter will set the snapshot retention mode to `FALSE` (non-permanent retention) and the snapshot will be automatically deleted upon expiration.

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 Renaming a snapshot

This example shows you how to rename a cloud disk.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=ModifySnapshotAttribute
&SnapshotId=snap-gybrif0z
&SnapshotName=snap_201711301143
&<Common Request Parameters>
```

Output Example

```
{
"Response": {
"RequestId": "55db49cf-b9d7-da27-825b-5a02ba6884ca"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameterValue	Invalid parameter value.
InvalidSnapshot.NotSupported	Indicates that the operation is not supported for the snapshot.
InvalidSnapshotId.NotFound	The 'SnapshotId' entered does not exist.
MissingParameter	Missing parameter.
UnsupportedOperation.SnapHasShared	The snapshot is shared with others. Please cancel the sharing first.
UnsupportedOperation.SnapshotHasBindedImage	A custom snapshot was created for this snapshot. First delete the corresponding image.

UnbindAutoSnapshotPolicy

Last updated：2023-06-21 15:01:12

1. API Description

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

This API (UnbindAutoSnapshotPolicy) is used to unbind the cloud disk from the specified scheduled snapshot policy.

- Batch operations are supported. Multiple cloud disks can be unbound from a snapshot policy at one time.
- If the passed-in cloud disks are not bound to the current scheduled snapshot policy, they will be skipped. Only cloud disks that are bound to the current scheduled snapshot policy are processed.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UnbindAutoSnapshotPolicy.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskIds.N	Yes	Array of String	List of cloud disk IDs scheduled snapshot policy to be unbound from.
AutoSnapshotPolicyId	Yes	String	ID of scheduled snapshot policy to be unbound.

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 Disassociating a cloud disk from a scheduled snapshot policy

This example shows you how to disassociate a cloud disk from a scheduled snapshot policy.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=UnbindAutoSnapshotPolicy
&AutoSnapshotPolicyId=asp-mrsrn243
&DiskIds.0=disk-dw0bbzws
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "52ba40b8-018b-d906-cad3-5a1fa6542fd6"
}
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidAutoSnapshotPolicyId.NotFound	`AutoSnapshotPolicyId` entered does not exist.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
ResourceUnavailable.NotSupported	The resource does not support this operation.

DescribeDiskAssociatedAutoSnapshotPolicy

Last updated：2023-03-22 14:36:15

1. API Description

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

This API (DescribeDiskAssociatedAutoSnapshotPolicy) is used to query the scheduled snapshot policy bound to a cloud disk.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeDiskAssociatedAutoSnapshotPolicy.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskId	Yes	String	The ID of the queried cloud disk.

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	The quantity of scheduled snapshots binded to cloud disk.

AutoSnapshotPolicySet	Array of AutoSnapshotPolicy	List of scheduled snapshots bound to cloud disk.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the scheduled snapshot policies associated with a cloud disk whose ID is `disk-dw0bbzws`

This example shows you how to query the scheduled snapshot policies associated with a cloud disk by cloud disk ID.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=DescribeDiskAssociatedAutoSnapshotPolicy
&DiskId=disk-dw0bbzws
&<Common request parameters>
```

Output Example


```
{
"Response": {
"AutoSnapshotPolicySet": [
{
"DiskIdSet": [],
"IsActivated": true,
"AdvancedRetentionPolicy": null,
"IsCopyToRemote": 0,
"IsPermanent": false,
"AutoSnapshotPolicyState": "NORMAL",
"NextTriggerTime": "2023-02-24 23:00:00",
"AutoSnapshotPolicyName": "Orch-data-1h-3d",
"AutoSnapshotPolicyId": "asp-3drodm1k",
"CopyFromAccountUin": null,
"InstanceIdSet": [],
"RetentionAmount": 0,
"RetentionDays": 3,
"Policy": [
{
"DayOfWeek": [
0,
1,
2,
```

```
3,
4,
5,
6
],
"Hour": [
0,
1,
2,
3,
4,
5,
6,
7,
8,
9,
10,
11,
12,
13,
14,
15,
16,
17,
18,
19,
20,
21,
22,
23
]
}
],
"RetentionMonths": 0,
"CreateTime": "2023-02-15 16:56:04",
"CopyToAccountUin": null
}
],
"TotalCount": 1,
"RequestId": "a9f6fd41-242f-4053-89c2-73ac5465ed9c"
}
}
```


5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
UnsupportedOperation	Unsupported operation

DescribeAutoSnapshotPolicies

Last updated：2023-06-21 15:01:13

1. API Description

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

This API is used to query scheduled snapshot policies.

- You can filter scheduled snapshot policies by ID, name, state, etc. The relationship between different filters is logical `AND`. For details on filters, see `Filter`.
- If no parameter is specified, a certain number of scheduled snapshot policies under the current account will be returned. The number is specified by `Limit` and is 20 by default.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeAutoSnapshotPolicies.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
AutoSnapshotPolicyIds.N	No	Array of String	List of scheduled snapshot policy IDs to be queried. The parameter does not support specifying both `SnapshotIds` and `Filters`.

Filters.N	No	Array of Filter	Filter conditions. Specification of both the `AutoSnapshotPolicyIds` and `Filters` parameters is not supported. • auto-snapshot-policy-id - Array of String - Required or not: No - (Filter condition) Filters according to the scheduled snapshot policy ID. The format of the scheduled snapshot policy ID is as follows: `asp-11112222` . • auto-snapshot-policy-state - Array of String - Required or not: No - (Filter condition) Filters according to the status of the scheduled snapshot policy. The format of the scheduled snapshot policy ID is as follows: `asp-11112222` . (NORMAL: normal | ISOLATED: isolated) • auto-snapshot-policy-name - Array of String - Required or not: No - (Filter condition) Filters according to the name of the scheduled snapshot policy.
Limit	No	Integer	Number of results to be returned. Default is 20. Maximum is 100. For more information on `Limit` , please see relevant sections in API Introduction.
Offset	No	Integer	Offset. Default is 0. For more information on `Offset` , please see relevant sections in API Introduction.
Order	No	String	Outputs the ordering of the scheduled snapshot lists. Value range: • ASC: Ascending order • DESC: Descending order.
OrderField	No	String	The sorting filter applied to the scheduled snapshot list. Value range: <Sort by creation time of scheduled snapshot. By default, this is sorted by creation time.

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	The quantity of valid scheduled snapshot policies.
AutoSnapshotPolicySet	Array of AutoSnapshotPolicy	List of scheduled snapshot policies.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying scheduled snapshot policies in the `NORMAL` status

This example shows you how to query scheduled snapshot policies in the `NORMAL` status

Input Example

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

{
"Filters": [
{
"Name": "auto-snapshot-policy-state",
"Values": [
"NORMAL"
]
}
]
}
```

Output Example

```
{
"Response": {
"AutoSnapshotPolicySet": [
{
"DiskIdSet": [],
"IsActivated": true,
"AdvancedRetentionPolicy": null,
"IsCopyToRemote": 0,
"IsPermanent": false,
"AutoSnapshotPolicyState": "NORMAL",
"Tags": [],
"NextTriggerTime": "2023-03-03 07:00:00",
"AutoSnapshotPolicyName": "default-policy",
"AutoSnapshotPolicyId": "asp-3stvwfxx",
"CopyFromAccountUin": null,
"InstanceIdSet": [],
"RetentionAmount": 0,
"RetentionDays": 15,
```

```
"Policy": [
{
"DayOfWeek": [
6,
5
],
"Hour": [
7
]
}
],
"RetentionMonths": 0,
"CreateTime": "2022-05-16 14:00:48",
"CopyToAccountUin": null
}
],
"TotalCount": 1,
"RequestId": "9c112e22-96c6-4300-831e-5d52c8d361fc"
}
}
```


5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidFilter	The specified Filter is not supported.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
UnsupportedOperation	Unsupported operation

DeleteAutoSnapshotPolicies

Last updated：2023-06-21 15:01:14

1. API Description

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

This API (DeleteAutoSnapshotPolicies) is used to delete scheduled snapshot policies.

- Batch operations are supported. If one of the scheduled snapshot policies in a batch cannot be deleted, the operation is not performed and a specific error code is returned.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteAutoSnapshotPolicies.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
AutoSnapshotPolicyIds.N	Yes	Array of String	List of scheduled snapshot policy IDs to be deleted.

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 Batch deleting scheduled snapshot policies

This example shows you how to delete scheduled snapshot policies: asp-mrsrn243 and asp-3lpl7ev3.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=DeleteAutoSnapshotPolicies
&AutoSnapshotPolicyIds.0=asp-mrsrn243
&AutoSnapshotPolicyIds.1=asp-3lpl7ev3
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "60874256-0230-6c3b-371d-5a1fa64e6b8c"
}
}
```

5. Developer Resources

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

- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
AuthFailure	Error with CAM signature/authentication.
InternalError	Internal error.
InvalidAutoSnapshotPolicyId.NotFound	`AutoSnapshotPolicyId` entered does not exist.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.LimitExceeded	Number of parameter values exceeds the limit.
MissingParameter	Missing parameter.

CreateAutoSnapshotPolicy

Last updated：2023-06-21 15:01:14

1. API Description

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

This API (CreateAutoSnapshotPolicy) is used to create a scheduled snapshot policy.

- For the limits on the number of scheduled snapshot policies that can be created in each region, see Scheduled Snapshots.
- The quantity and capacity of the snapshots that can be created in each region are limited. For more information, see the **Snapshots** page on the Tencent Cloud Console. If the number of snapshots exceeds the quota, the creation of the scheduled snapshots will fail.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateAutoSnapshotPolicy.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
Policy.N	Yes	Array of Policy	The policy for executing the scheduled snapshot.

AutoSnapshotPolicyName	No	String	The name of the scheduled snapshot policy to be created. If it is left empty, the default is 'Not named'. The maximum length cannot exceed 60 bytes.
IsActivated	No	Boolean	Whether or not the scheduled snapshot policy is activated. FALSE: Not activated. TRUE: Activated. The default value is TRUE.
IsPermanent	No	Boolean	Whether the snapshot created by this scheduled snapshot policy is retained permanently. FALSE: Not retained permanently. TRUE: Retained permanently. The default value is FALSE.
RetentionDays	No	Integer	The number of days that a snapshot created by this scheduled snapshot policy is retained. The default value is 7. If this parameter is specified, the IsPermanent input parameter can not be TRUE, otherwise a conflict will occur.
DryRun	No	Boolean	Whether to create an execution policy for the scheduled snapshot. TRUE: Only the time of the initial backup needs to be obtained, and no scheduled snapshot policy is actually created. FALSE: Create. The default value is FALSE.

3. Output Parameters

Parameter Name	Type	Description
AutoSnapshotPolicyId	String	The ID of the newly created scheduled snapshot policy.
NextTriggerTime	String	The time that initial backup will start.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a scheduled snapshot policy

This example shows you how to create and bind a scheduled snapshot policy to a cloud disk, for which a snapshot will be created at 00:00 every Friday.

Input Example

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

{
"AutoSnapshotPolicyName": "backup_data_friday",
"Policy": [
{
"DayOfWeek": [
4
],
"Hour": [
0
]
}
]
}
```

Output Example

```
{
"Response": {
"AutoSnapshotPolicyId": "asp-1lebc9r3",
"NextTriggerTime": "2018-08-08 16:00:00",
"RequestId": "88d95732-c4e9-bd97-4a23-5a1f978d3b72"
}
}
```

5. Developer Resources

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
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidAccount.InsufficientBalance	Insufficient account balance
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.LimitExceeded	Number of parameter values exceeds the limit.
LimitExceeded.AutoSnapshotPolicyOutOfQuota	The number of scheduled snapshot policies has reached the upper limit.
MissingParameter	Missing parameter.

BindAutoSnapshotPolicy

Last updated：2023-06-21 15:01:15

1. API Description

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

This API (BindAutoSnapshotPolicy) is used to bind the cloud disk to the specified scheduled snapshot policy.

- For the scheduled snapshot policy limit of each region, see Scheduled Snapshots.
- When a cloud disk that is bound to a scheduled snapshot policy is in the unused state (that is, an elastic cloud disk has not been mounted or the server of an inelastic disk is powered off) scheduled snapshots are not created.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: BindAutoSnapshotPolicy.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
AutoSnapshotPolicyId	Yes	String	ID of scheduled snapshot policy to be bound.
DiskIds.N	Yes	Array of String	List of cloud disk IDs to be bound. Maximum of 80 cloud disks can be bound per request.

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 Binding a scheduled snapshot policy to a single cloud disk

This example shows you how to bind a scheduled snapshot policy to a single cloud disk.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=BindAutoSnapshotPolicy
&AutoSnapshotPolicyId=asp-mrsrn243
&DiskIds.0=disk-dw0bbzws
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "bda8bd1a-754d-d71b-8300-5a1fa45c237f"
}
}
```

5. Developer Resources

SDK

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

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

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidAutoSnapshotPolicyId.NotFound	`AutoSnapshotPolicyId` entered does not exist.
InvalidDisk.AlreadyBound	Cloud disk is already bound to scheduled snapshot policy.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.BindDiskLimitExceeded	Number of labels bound to cloud disk exceeds the limit.
InvalidParameterValue.LimitExceeded	Number of parameter values exceeds the limit.
MissingParameter	Missing parameter.
ResourceNotFound.NotFound	The resource is not found.
ResourceUnavailable.NotSupported	The resource does not support this operation.

ModifyAutoSnapshotPolicyAttribute

Last updated：2023-06-21 15:01:13

1. API Description

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

This API (ModifyAutoSnapshotPolicyAttribute) is used to modify the attributes of an automatic snapshot policy.

- You can use this API to modify the attributes of a scheduled snapshot policy, including the execution policy, name, and activation.
- When modifying the number of days for retention, you must ensure that there is no clash with the permanent retention attribute. Otherwise, the entire operation will fail and a specific error code will be returned.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ModifyAutoSnapshotPolicyAttribute.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
AutoSnapshotPolicyId	Yes	String	Scheduled snapshot policy ID.
IsActivated	No	Boolean	Whether or not the scheduled snapshot policy is activated. FALSE: Not activated. TRUE: Activated. The

			default value is TRUE.
IsPermanent	No	Boolean	Whether the snapshot created by this scheduled snapshot policy is retained permanently. FALSE: Not retained permanently. TRUE: Retained permanently. The default value is FALSE.
AutoSnapshotPolicyName	No	String	The name of the scheduled snapshot policy to be created. If it is left empty, the default is 'Not named'. The maximum length cannot exceed 60 bytes.
Policy.N	No	Array of Policy	The policy for executing the scheduled snapshot.
RetentionDays	No	Integer	Number of days to retain the snapshots created according to this scheduled snapshot policy. If this parameter is specified, `IsPermanent` cannot be specified as `TRUE`; otherwise, they will conflict with each other.

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 Modifying the attributes of a scheduled snapshot policy

This example shows you how to rename a scheduled snapshot policy to `data_disk_auto_snapshot` and set the `IsPermanent` parameter to `TRUE` to permanently retain the snapshots created according to the scheduled snapshot policy.

Input Example

```
POST / HTTP/1.1
Host: cbs.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: ModifyAutoSnapshotPolicyAttribute
```

```
<Common request parameters>

{
"AutoSnapshotPolicyId": "asp-nqu08k2l",
"AutoSnapshotPolicyName": "data_disk_auto_snapshot",
"IsPermanent": "TRUE"
}
```

Output Example

```
{
"Response": {
"RequestId": "384c1fa8-6973-9623-b6bf-5a1fa9a7ad88"
}
}
```

Example2 Enabling automatic snapshot policies

This example shows you how to enable automatic snapshot policies.

Input Example

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

{
"AutoSnapshotPolicyId": "asp-01928374",
"IsActivated": "true"
}
```

Output Example

```
{
"Response": {
"RequestId": "88a4815c-4a09-4948-b0c9-fa6fdefe8e4a"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidAccount.InsufficientBalance	Insufficient account balance
InvalidAutoSnapshotPolicyId.NotFound	`AutoSnapshotPolicyId` entered does not exist.
InvalidParameter	Incorrect parameter.
MissingParameter	Missing parameter.
UnsupportedOperation.StateError	The resource does not support this operation in this status.

ModifySnapshotsSharePermission

Last updated：2023-06-21 15:01:13

1. API Description

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

This API is used to modify snapshot sharing information.

After snapshots are shared, the accounts they are shared to can use the snapshot to create cloud disks.

- Each snapshot can be shared to at most 50 accounts.
- You can use a shared snapshot to create cloud disks, but you cannot change its name or description.
- Snapshots can only be shared with accounts in the same region.
- Only data disk snapshots can be shared.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ModifySnapshotsSharePermission.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
AccountIds.N	Yes	Array of String	List of account IDs with which a snapshot is shared. For the format of array-type parameters, see API Introduction. You can find the account ID in Account Information.

Permission	Yes	String	Operations. Valid values: `SHARE` , sharing an image; `CANCEL` , cancelling the sharing of an image.
SnapshotIds.N	Yes	Array of String	The ID of the snapshot. You can obtain this by using DescribeSnapshots.

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 a snapshot with users

This example shows you how to share a snapshot with users.

Input Example

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

{
"AccountIds": [
"123456789"
],
"Permission": "SHARE",
"SnapshotIds": [
"snap-cgrmci8t",
"snap-124p95lf"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "4ab150b9-538d-48fb-8821-7fa185f1d07c"
}
}
```


5. Developer Resources

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
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameter	Incorrect parameter.
InvalidSnapshot.NotSupported	Indicates that the operation is not supported for the snapshot.
InvalidSnapshotId.NotFound	The ‘SnapshotId’ entered does not exist.
MissingParameter	Missing parameter.
ResourceInsufficient.OverQuota	Quota insufficient.

DescribeSnapshotSharePermission

Last updated：2023-03-22 14:36:15

1. API Description

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

This API is used to query the sharing information of snapshots.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeSnapshotSharePermission.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
SnapshotId	Yes	String	The ID of the snapshot to be queried. You can obtain this by using DescribeSnapshots.

3. Output Parameters

Parameter Name	Type	Description
SharePermissionSet	Array of	The set of snapshot sharing information

	SharePermission	
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the sharing information of a snapshot

This example shows you how to query the sharing information of a snapshot.

Input Example

```
https://ecm.tencentcloudapi.com/?Action=DescribeSnapshotSharePermission
&SnapshotId=snap-asxafa65
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "4ab150b9-538d-48fb-8821-7fa185f1d07c",
"SharePermissionSet": [
{
"CreatedTime": "2019-07-08 00:00:06",
"AccountId": "123456789"
}
]
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.

GetSnapOverview

Last updated：2023-06-21 15:01:13

1. API Description

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

This API is used to get snapshot overview information.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetSnapOverview.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.

3. Output Parameters

Parameter Name	Type	Description
TotalSize	Float	The total snapshot size of the user
RealTradeSize	Float	The total billed snapshot size of the user
FreeQuota	Float	Free tier of snapshot

TotalNums	Integer	Total number of snapshots
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the snapshot overview information of the current user

Input Example

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

Output Example

```
{
"Response": {
"RequestId": "55db49cf-b9d7-da27-825b-5a02ba6884cc"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.

CopySnapshotCrossRegions

Last updated：2023-07-10 16:36:12

1. API Description

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

This API is used to replicate a snapshot to another region.

- This is an async API. A new snapshot ID is issued when the cross-region replication task is generated. It does not mean that the snapshot has been replicated successfully. You can all the DescribeSnapshots API in the destination region to check for this snapshot. If the snapshot status is `NORMAL` , the snapshot is replicated successfully.
- The snapshot cross-region replication service will be commercialized in the Q3 of 2022. We will notify users about the commercialization in advance. Please check your messages in the Message Center.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CopySnapshotCrossRegions.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DestinationRegions.N	Yes	Array of String	Destination regions of the replication task. You can query the value of regions by calling DescribeRegions API. Note that you can only specify regions that support snapshots.

Parameter Name	Required	Type	Description
SnapshotId	No	String	Snapshot ID, which can be queried via the DescribeSnapshots API.
SnapshotName	No	String	Name of the snapshot replica. If it's not specified, it defaults to "Copied [source snapshot ID from [region name]"

3. Output Parameters

Parameter Name	Type	Description
SnapshotCopyResultSet	Array of SnapshotCopyResult	Result of the cross-region replication task. The ID of the new snapshot replica is returned if the request succeeds. Otherwise `Error` is returned.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Replicating a snapshot from Guangzhou to Beijing

This example shows you how to replicate a snapshot from Guangzhou to Beijing.

Input Example

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

{
"SnapshotId": "snap-ckgjwkqh",
"DestinationRegions": [
"ap-beijing"
]
}
```

Output Example

```
{
"Response": {
"SnapshotCopyResultSet": [
{
"SnapshotId": "snap-d012rm6t",
"DestinationRegion": "ap-beijing",
"Code": "Success",
"Message": ""
}
],
"RequestId": "98f0b5f0-7d84-4d11-9819-ee7804e524a4"
}
}
```


5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description

Error Code	Description
InsufficientSnapshotQuota	Insufficient snapshot quota.
InternalError.ComponentError	Dependent component request failed. Please contact customer service.
InvalidAccount.InsufficientBalance	Insufficient account balance
InvalidParameterValue	Invalid parameter value.
InvalidSnapshot.NotSupported	Indicates that the operation is not supported for the snapshot.
InvalidSnapshotId.NotFound	The ‘SnapshotId’ entered does not exist.
ResourceBusy	The resource is busy. Try again later.
ResourceInUse.CopySnapshotConflict	The specified snapshot is being replicated to the destination region.
UnsupportedOperation.SnapshotNotSupportCopy	The snapshot does not support cross-region replication.

Cloud Disk APIs
CreateDiskBackup

Last updated：2023-03-16 16:17:31

1. API Description

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

This API is used to create a backup point for a cloud disk.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateDiskBackup.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskId	Yes	String	Name of the cloud disk for which to create a backup point.
DiskBackupName	No	String	Name of the cloud disk backup point, which can contain up to 100 characters.

3. Output Parameters

Parameter Name	Type	Description
DiskBackupId	String	ID of the cloud disk backup point.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a backup point for a cloud disk

This example shows you how to manually create a backup point for a cloud disk with a backup point quota.

Input Example

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

{
"DiskId": "disk-xxxxxxxx"
}
```

Output Example

```
{
"Response": {
"DiskBackupId": "dbp-xxxxxxxx",
"RequestId": "a79a4333-ac8e-426c-8cfe-2923c4010d64"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidDisk.Busy	The cloud disk is busy. Try again later.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidParameter	Incorrect parameter.
ResourceInUse	The resource is in use.
ResourceInsufficient.OverQuota	Quota insufficient.
ResourceNotFound.NotFound	The resource is not found.
ResourceUnavailable.NotSupported	The resource does not support this operation.
ResourceUnavailable.SnapshotCreating	Unable to use: the snapshot is being created

ModifyDiskAttributes

Last updated：2023-07-10 16:37:18

1. API Description

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

- Only the project ID of elastic cloud disk can be modified. The project ID of the cloud disk created with the CVM is linked with the CVM. The project ID can be can be queried in the Portable field in the output parameters through the API DescribeDisks.
- "Cloud disk name" is only used by users for their management. Tencent Cloud does not use the name as the basis for ticket submission or cloud disk management.
- Batch operations are supported. If multiple cloud disk IDs are specified, all the specified cloud disks must have the same attribute. If there is a cloud disk that does not allow this operation, the operation is not performed and a specific error code is returned.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ModifyDiskAttributes.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.

Parameter Name	Required	Type	Description
DiskIds.N	Yes	Array of String	IDs of one or more cloud disks to be operated. If multiple cloud disk IDs are selected, it only supports modifying all cloud disks with the same attributes.
DiskName	No	String	Name of new cloud disk.
Portable	No	Boolean	Whether it is an elastic cloud disk. FALSE: non-elastic cloud disk; TRUE: elastic cloud disk. You can only modify non-elastic cloud disks to elastic cloud disks.
ProjectId	No	Integer	The new project ID of the cloud disk. Only the project ID of elastic cloud disk can be modified. The available projects and their IDs can be queried via the API DescribeProject.
DeleteWithInstance	No	Boolean	Whether the cloud disk is terminated with the CVM after it has been successfully mounted. `TRUE` indicates that it is terminated with the CVM. `FALSE` indicates that it is not terminated with the CVM. This is only supported for cloud disks and data disks that are pay-as-you-go.
DiskType	No	String	When changing the type of a cloud disk, this parameter can be passed to indicate the desired cloud disk type. Value range: • CLOUD_PREMIUM: Premium cloud storage. • CLOUD_SSD: SSD cloud disk. Currently, batch operations are not supported for changing type. That is, when `DiskType` is passed, only one cloud disk can be passed through `DiskIds` . When the cloud disk type is changed, the changing of other attributes is not supported concurrently.
BurstPerformanceOperation	No	String	Enable/disable disk bursting.

3. Output Parameters

Parameter Name	Type	Description

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 Renaming a cloud disk

This example shows you how to rename the specified cloud disk `test_data_disk` .

Input Example

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

{
"DiskName": "test_data_disk",
"DiskIds": [
"disk-fyctkqsf"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "bf84fb00-6949-c0f6-aea8-5a1f806401c2"
}
}
```

5. Developer Resources

SDK

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.ComponentError	Dependent component request failed. Please contact customer service.
InvalidAccount.InsufficientBalance	Insufficient account balance
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidInstanceId.NotFound	The 'InstanceId' entered does not exist.
InvalidParameter.DiskConfigNotSupported	Currently configured cloud disk not supported in current region.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.LimitExceeded	Number of parameter values exceeds the limit.
MissingParameter	Missing parameter.
ResourceInUse.DiskMigrating	The cloud disk is being migrated. Try again later.
ResourceInsufficient	Insufficient resources.
ResourceNotFound.NotFound	The resource is not found.

Error Code	Description
ResourceUnavailable.NotSupported	The resource does not support this operation.

ResizeDisk

Last updated：2023-06-21 15:01:15

1. API Description

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

This API is used to expand cloud disks.

*This API supports only the expansion of elastic cloud disks. To query the type of a cloud disk, you can call the DescribeDisks API and check the `Portable` field in the response. To expand non-elastic cloud disks, you can call the ResizeInstanceDisks API. *This is an async API. A successful return of this API does not mean that the cloud disk has been expanded successfully. You can call the DescribeDisks API to query the status of a cloud disk. `EXPANDING` indicates that the expansion is in process.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ResizeDisk.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskId	Yes	String	ID of the cloud disk, which can be queried via the API DescribeDisks.
DiskSize	Yes	Integer	Cloud disk size after scale out (in GB). This must be larger than the current size of the cloud disk. For the value range of the cloud disk sizes, see cloud disk Product Types.

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 Expanding a cloud disk to 200 GB

This example shows you how to expand a cloud disk to 200 GB.

Input Example

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

{
"DiskSize": "200",
"DiskId": "disk-lzrg2pwi"
}
```

Output Example

```
{
"Response": {
"RequestId": "adefc06d-2cf1-29f6-24a6-5a1f81b5c0ac"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.ComponentError	Dependent component request failed. Please contact customer service.
InvalidAccount.InsufficientBalance	Insufficient account balance
InvalidDisk.Busy	The cloud disk is busy. Try again later.
InvalidDisk.Expire	The cloud disk has expired.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidParameter.DiskConfigNotSupported	Currently configured cloud disk not supported in current region.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
ResourceInsufficient	Insufficient resources.

ResourceNotFound.NotFound	The resource is not found.
ResourceUnavailable.Expire	The cloud disk has expired.
ResourceUnavailable.NotSupported	The resource does not support this operation.
TradeDealConflict	Order conflict.
UnauthorizedOperation.NotHavePaymentRight	No payment permission.
UnsupportedOperation.InstanceNotStopped	Instance mounted on cloud disk not shut down.

DescribeInstancesDiskNum

Last updated：2023-06-21 15:01:17

1. API Description

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

This API (DescribeInstancesDiskNum) is used to query the number of cloud disks mounted in the instance.

- Batch operations are supported. If multiple CVM instance IDs are specified, the returned results will list the number of cloud disks mounted on each CVM.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeInstancesDiskNum.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
InstanceIds.N	Yes	Array of String	ID of the CVM instance can be queried via the API DescribeInstances.

3. Output Parameters

Parameter Name	Type	Description
AttachDetail	Array of AttachDetail	The quantity of mounted and mountable elastic cloud disks for each cloud virtual machine
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the number of cloud disks attached on multiple instances

This example shows you how to query the number of cloud disks attached on multiple instances.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=DescribeInstancesDiskNum
&InstanceIds.0=ins-9w5d2buw
&InstanceIds.1=ins-jw0vit58
&<Common request parameters>
```

Output Example

```
{
"Response": {
"AttachDetail": [
{
"InstanceId": "ins-9w5d2buw",
"AttachedDiskCount": 1,
"MaxAttachCount": 10
},
{
"InstanceId": "ins-jw0vit58",
"AttachedDiskCount": 2,
"MaxAttachCount": 10
}
],
"RequestId": "55db49cf-b9d7-da27-825b-5a02ba6884ca"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidDisk.NotPortable	Non-elastic cloud disks are not supported.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.

CreateDisks

Last updated：2023-06-21 15:01:18

1. API Description

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

This API is used to create cloud disks.

- This API supports creating a cloud disk with a data disk snapshot so that the snapshot data can be copied to the purchased cloud disk.
- This API is async. A cloud disk ID list will be returned when a request is made successfully, but it does not mean that the creation has been completed. You can call the DescribeDisks API to query cloud disks by `DiskId`. If a new cloud disk can be found and its status is `UNATTACHED` or `ATTACHED`, the cloud disk has been created successfully.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateDisks.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
Placement	Yes	Placement	Location of the instance. You can use

			this parameter to specify the attributes of the instance, such as its availability zone and project. If no project is specified, the default project will be used.
DiskChargeType	Yes	String	Cloud disk billing mode. POSTPAID_BY_HOUR: Pay-as-you-go by hour • CDCPAID: Billed together with the bound dedicated cluster For more information on the pricing in each mode, see Pricing Overview.
DiskType	Yes	String	Cloud disk media type. Valid values: • CLOUD_BASIC: HDD Cloud Storage • CLOUD_PREMIUM: Premium Cloud Disk • CLOUD_BSSD: Balanced SSD • CLOUD_SSD: SSD • CLOUD_HSSD: Enhanced SSD • CLOUD_TSSD: ulTra SSD.
DiskName	No	String	Cloud disk name. If it is not specified, "Unnamed" will be used by default. The maximum length is 60 bytes.
Tags.N	No	Array of Tag	Tags bound to the cloud disk.
SnapshotId	No	String	Snapshot ID. If this parameter is specified, the cloud disk will be created based on the snapshot. The snapshot must be a data disk snapshot. To query the type of a snapshot, call the DescribeSnapshots API and see the `DiskUsage` field in the response.
DiskCount	No	Integer	Number of cloud disks to be created. If it is not specified, `1` will be used by default. There is an upper limit on the maximum number of cloud disks that can be created in a single request. For more information, see Use Limits.
ThroughputPerformance	No	Integer	Extra performance purchased for a cloud disk. This optional parameter is only valid for

			ulTra SSD (CLOUD_TSSD) and Enhanced SSD (CLOUD_HSSD).
DiskSize	No	Integer	Cloud disk size in GB. • `DiskSize` is not required if `SnapshotId` is specified. In this case, the size of the cloud disk will be equal to that of the snapshot. • If you specify both `SnapshotId` and `DiskSize`, the specified disk size cannot be smaller than the snapshot size. • For the value range of cloud disk size, see Cloud Disk Types.
Shareable	No	Boolean	Optional parameter. Default value: `False`. If `True` is specified, the new cloud disk will be shared.
ClientToken	No	String	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.
Encrypt	No	String	This parameter is used to create encrypted cloud disks. It is fixed at `ENCRYPT`.
DiskChargePrepaid	No	DiskChargePrepaid	Relevant parameter settings for the prepaid mode (i.e., monthly subscription). The monthly subscription cloud disk purchase attributes such as usage period and whether or not auto-renewal is set up can be specified using this parameter. This parameter is required when creating a prepaid cloud disk. This parameter is not required when creating an hourly postpaid cloud disk.
DeleteSnapshot	No	Integer	Whether to delete the associated non-permanently reserved snapshots upon deletion of the source cloud disk. `0`: No (default value). `1`: Yes. To check whether a snapshot is permanently

			reserved, see the `IsPermanent` field returned by the `DescribeSnapshots` API.
AutoMountConfiguration	No	AutoMountConfiguration	Specifies whether to automatically attach and initialize the newly created data disk.
DiskBackupQuota	No	Integer	Specifies the cloud disk backup point quota.
BurstPerformance	No	Boolean	Specifies whether to enable disk bursting.

3. Output Parameters

Parameter Name	Type	Description
DiskIdSet	Array of String	ID list of the created cloud disks. Note: This field may return null, indicating that no valid values can be obtained.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Purchasing a cloud disk with basic parameters

This example shows you how to purchase a prepaid 50 GB HDD cloud disk in Guangzhou Zone 2 for one month, assign it to project 0, get a notification upon expiration, and enable automatic renewal for it.

Input Example

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

{
"Placement": {
"ProjectId": "0",
```

```
"Zone": "ap-guangzhou-2"
},
"DiskChargeType": "PREPAID",
"DiskCount": "1",
"DiskType": "CLOUD_HSSD",
"ThroughputPerformance": "100",
"DiskSize": "500",
"DiskChargePrepaid": {
"RenewFlag": "NOTIFY_AND_AUTO_RENEW",
"Period": "1"
}
}
```

Output Example

```
{
"Response": {
"DiskIdSet": [
"disk-lzrg2pwi"
],
"RequestId": "6a57da9a-2049-7182-2de3-5a1f8014ccfd"
}
}
```

Example2 Creating an hourly pay-as-you-go cloud disk

This example shows you how to create an hourly pay-as-you-go 100 GB premium cloud disk in Guangzhou Zone 3.

Input Example

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

{
"DiskName": "postPayDisk",
"Placement": {
"ProjectId": "0",
"Zone": "ap-guangzhou-3"
},
"DiskChargeType": "POSTPAID_BY_HOUR",
"DiskCount": "1",
"DiskType": "CLOUD_PREMIUM",
```

```
"DiskSize": "100"
}
```

Output Example

```
{
"Response": {
"DiskIdSet": [
"disk-ecjc4cpw"
],
"RequestId": "fe2274fa-eaec-4009-807b-6ffc00963fec"
}
}
```

Example3 Creating a cloud disk by using a snapshot

This example shows you how to create a cloud disk by specifying a snapshot without specifying `DiskSize`. In this example, the size of the new cloud disk is the same as that of the snapshot, and the snapshot data will be copied to the new cloud disk.

Input Example

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

{
"Placement": {
"ProjectId": "0",
"Zone": "ap-guangzhou-2"
},
"DiskChargeType": "PREPAID",
"DiskCount": "1",
"DiskType": "CLOUD_BASIC",
"DiskChargePrepaid": {
"RenewFlag": "NOTIFY_AND_AUTO_RENEW",
"Period": "1"
},
"SnapshotId": "snap-iepc4w3h"
}
```

Output Example

```
{
"Response": {
"DiskIdSet": [
"disk-6rz0ilvu"
],
"RequestId": "5e93a212-ca01-0fdc-eedd-5a1fce5e83e6"
}
}
```


5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.ComponentError	Dependent component request failed. Please contact customer service.
InvalidAccount.InsufficientBalance	Insufficient account balance
InvalidParameter.DiskConfigNotSupported	Currently configured cloud disk not supported in current

	region.
InvalidParameter.ProjectIdNotExist	The project ID does not exist.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.LimitExceeded	Number of parameter values exceeds the limit.
InvalidSnapshotId.NotFound	The ‘SnapshotId’ entered does not exist.
MissingParameter	Missing parameter.
ResourceBusy	The resource is busy. Try again later.
ResourceInsufficient	Insufficient resources.
TradeDealConflict	Order conflict.
UnauthorizedOperation	The operation is unauthorized.
UnauthorizedOperation.NotCertification	Payment failed as the account has not completed identity verification.
UnauthorizedOperation.NotHavePaymentRight	No payment permission.
UnauthorizedOperation.RoleNotExists	The authorization role does not exist.

AttachDisks

Last updated：2023-06-21 15:01:18

1. API Description

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

This API is used to mount one or more cloud disks.

- Batch operation is supported. You can mount multiple cloud disks to one CVM in a single request. If any of these cloud disks cannot be mounted, the operation fails and a specific error code returns.
- This is an async API. A successful request indicates that the mounting is initiated. You can call the DescribeDisks API to query the status of cloud disks. If the status changes from `ATTACHING` to `ATTACHED`, the mounting is successful.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: AttachDisks.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
InstanceId	Yes	String	ID of the CVM instance on which the cloud disk will be mounted. It can be queried via the API DescribeInstances.
DiskIds.N	Yes	Array of String	ID of the elastic cloud disk to be mounted, which can be queried through the API DescribeDisks. A maximum of 10

			elastic cloud disks can be mounted in a single request.
DeleteWithInstance	No	Boolean	Optional parameter. If this is not passed only the mount operation is executed. If `True` is passed, the cloud disk will be configured to be terminated when the server it is mounted to is terminated. This is only valid for pay-as-you-go cloud disks.
AttachMode	No	String	(Optional) Specifies the cloud disk mounting method. It's only valid for BM models. Valid values: • PF • VF

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 Attaching cloud disks

This example shows you how to attach cloud disk disk-lzrg2pwi to the CVM ins-dyzmimrw.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=AttachDisks
&DiskIds.0=disk-lzrg2pwi
&InstanceId=ins-dyzmimrw
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "e0f140e5-14d6-c4a1-91e0-5a1f7f05a68a"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.ComponentError	Dependent component request failed. Please contact customer service.
InternalError.ResourceOpFailed	The operation performed on the resource failed. For error message, see the "Message" field in error description. Try again later or contact customer service.
InvalidDisk.NotPortable	Non-elastic cloud disks are not supported.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDisk.TypeError	Invalid cloud disk type.
InvalidDiskId.NotFound	The ‘DiskId’ entered does not exist.
InvalidInstance.NotSupported	Cloud Virtual Machine does not support mounting cloud disk.
InvalidInstanceId.NotFound	The ‘InstanceId’ entered does not exist.

InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.LimitExceeded	Number of parameter values exceeds the limit.
LimitExceeded.InstanceAttachedDisk	Number of instances mounted to cloud disk exceeds the limit.
MissingParameter	Missing parameter.
ResourceBusy	The resource is busy. Try again later.
ResourceInUse.DiskMigrating	The cloud disk is being migrated. Try again later.
ResourceNotFound.NotFound	The resource is not found.
ResourceUnavailable.Attached	The cloud disk has been mounted to another CVM.
ResourceUnavailable.NotPortable	The non-elastic cloud disk does not support this operation.
ResourceUnavailable.NotSupported	The resource does not support this operation.
ResourceUnavailable.TypeError	Incorrect cloud disk type. For example, a system disk cannot be mounted to CVM.
ResourceUnavailable.ZoneNotMatch	

InquiryPriceCreateDisks

Last updated：2023-06-21 15:01:16

1. API Description

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

This API is used to query the price of creating cloud disks.

- You can query the price of creating multiple cloud disks in a single request. In this case, the price returned will be the total price.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: InquiryPriceCreateDisks.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskChargeType	Yes	String	Cloud disk billing mode. • POSTPAID_BY_HOUR: Hourly pay-as-you-go.
DiskType	Yes	String	Cloud disk media type. Valid values: • CLOUD_BASIC: HDD Cloud Storage

			• CLOUD_PREMIUM: Premium Cloud Disk • CLOUD_SSD: SSD • CLOUD_HSSD: Enhanced SSD • CLOUD_TSSD: ulTra SSD.
DiskSize	Yes	Integer	Cloud disk size in GB. For the value range, see Cloud Disk Types.
ProjectId	No	Integer	ID of the project to which the cloud disk belongs.
DiskCount	No	Integer	Number of cloud disks to be purchased. If it is not specified, `1` will be used by default.
ThroughputPerformance	No	Integer	Extra performance in MB/s purchased for a cloud disk. This parameter is only valid for Enhanced SSD (CLOUD_HSSD) and ulTra SSD (CLOUD_TSSD).
DiskChargePrepaid	No	DiskChargePrepaid	Relevant parameter settings for the prepaid mode (i.e., monthly subscription). The monthly subscription cloud disk purchase attributes such as usage period and whether or not auto-renewal is set up can be specified using this parameter. This parameter is required when creating a prepaid cloud disk. This parameter is not required when creating an hourly postpaid cloud disk.
DiskBackupQuota	No	Integer	Specifies the cloud disk backup point quota.

3. Output Parameters

Parameter Name	Type	Description
DiskPrice	Price	Describes the price of newly purchased cloud disks.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the price of purchasing a 500 GB ulTra SSD cloud disk with the extra performance of 100 MB/s for one month

Input Example

```
https://cbs.tencentcloudapi.com/?Action=InquiryPriceCreateDisks
&DiskType=CLOUD_TSSD
&DiskCount=1
&DiskSize=500
&DiskChargeType=PREPAID
&DiskChargePrepaid.Period=1
&ThroughputPerformance=100
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "55e84d71-26f1-4b7c-8dc4-6bc2611d0a2411",
"DiskPrice": {
"DiscountPrice": 800.0,
"UnitPriceHigh": null,
"OriginalPriceHigh": "800",
"OriginalPrice": 800.0,
"UnitPriceDiscount": null,
"UnitPriceDiscountHigh": null,
"DiscountPriceHigh": "800",
"UnitPrice": null,
"ChargeUnit": null
}
}
}
```

Example2 Querying the price of purchasing an hourly pay-as-you-go cloud disk

This example shows you how to query the price of purchasing an hourly pay-as-you-go 100 GB premium cloud disk.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=InquiryPriceCreateDisks
&DiskType=CLOUD_PREMIUM
&DiskSize=100
```

```
&DiskCount=1
&DiskChargeType=POSTPAID_BY_HOUR
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "55e84d71-26f1-4b7c-8dc4-6bc26d0a2411",
"DiskPrice": {
"DiscountPrice": null,
"UnitPrice": 0.04,
"UnitPriceHigh": "0.042",
"OriginalPriceHigh": null,
"OriginalPrice": null,
"UnitPriceDiscount": 0.04,
"UnitPriceDiscountHigh": "0.042",
"DiscountPriceHigh": null,
"ChargeUnit": "HOUR"
}
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.

DescribeDisks

Last updated：2023-06-21 15:01:17

1. API Description

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

This API (DescribeDisks) is used to query the list of cloud disks.

- The details of the cloud disk can be queried based on the ID, type or status of the cloud disk. The relationship between different conditions is AND. For more information about filtering, please see the `Filter` .
- If the parameter is empty, a certain number (specified by `Limit` ; the default is 20) of cloud disk lists are returned to the current user.

A maximum of 100 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeDisks.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskIds.N	No	Array of String	Query by one or more cloud disk IDs, such as `disk-11112222` . For the format of this parameter, please see the ids.N section of the API

			Introduction. This parameter does not support specifying both `DiskIds` and `Filters`.
Filters.N	No	Array of Filter	Filters. You cannot specify `DiskIds` and `Filters` at the same time. • disk-usage - Array of String - Optional - Filters by cloud disk type. (SYSTEM_DISK: system disk | DATA_DISK: data disk) • disk-charge-type - Array of String - Optional - Filters by cloud disk billing method. (POSTPAID_BY_HOUR: pay-as-you-go) • portable - Array of String- Optional - Filters by whether the cloud disk is elastic or not. (TRUE: elastic | FALSE: non-elastic) • project-id - Array of Integer - Optional - Filters by the ID of the project to which a cloud disk belongs. • disk-id - Array of String - Optional - Filters by cloud disk ID, such as `disk-11112222`. • disk-name - Array of String - Optional - Filters by cloud disk name. • disk-type - Array of String - Optional - Filters by cloud disk media type (CLOUD_BASIC: HDD cloud disk | CLOUD_PREMIUM: Premium Cloud Storage | CLOUD_SSD: SSD cloud disk.) • disk-state - Array of String - Optional - Filters by cloud disk state. (UNATTACHED: not mounted | ATTACHING: being mounted | ATTACHED: mounted | DETACHING: being unmounted | EXPANDING: being expanded | ROLLBACKING: being rolled back | TORECYCLE: to be repossessed.) • instance-id - Array of String - Optional - Filters by the ID of the CVM instance on which a cloud disk is mounted. You can use this parameter to query the cloud disks mounted on specific CVMs. • zone - Array of String - Optional - Filters by availability zone • instance-ip-address - Array of String - Optional - Filters by the private or public IP of the CVM on which a cloud disk is mounted. • instance-name - Array of String - Optional - Filters by the name of the instance on which a cloud disk is mounted.

			• tag-key - Array of String - Optional - Filters by tag key. • tag-value - Array of String - Optional - Filters by tag value. • tag:tag-key - Array of String - Optional - Filters by tag key-value pair. Please replace `tag-key` with a specific tag key.
Offset	No	Integer	Offset. Default is 0. For more information on `Offset`, please see relevant sections in API Introduction.
Limit	No	Integer	Number of results to be returned. Default is 20. Maximum is 100. For more information on `Limit`, please see relevant sections in API Introduction.
Order	No	String	Outputs the ordering of the cloud disk list. Value range: • ASC: Ascending order • DESC: Descending order.
OrderField	No	String	The field by which the cloud disk list is sorted. Value range: • CREATE_TIME: sorted by the creation time of cloud disks • DEADLINE: sorted by the expiration time of cloud disks By default, the cloud disk list is sorted by the creation time of cloud disks.
ReturnBindAutoSnapshotPolicy	No	Boolean	Whether the ID of the periodic snapshot policy bound to the cloud disk needs to be returned in the cloud disk details. TRUE: return; FALSE: do not return.

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	The quantity of cloud disks meeting the conditions.
DiskSet	Array of	List of cloud disk details.

	Disk	
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying all attached data disks

This example shows you how to query all attached data disks.

Input Example

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

{
"Filters": [
{
"Values": [
"ATTACHED"
],
"Name": "disk-state"
},
{
"Values": [
"DATA_DISK"
],
"Name": "disk-usage"
}
]
}
```

Output Example

```
{
"Response": {
"TotalCount": 1,
"RequestId": "e2386a23-48c1-4c18-9a36-4e7354f333b2",
"DiskSet": [
{
```

```
"DeleteWithInstance": false,
"Encrypt": false,
"DiskType": "CLOUD_BASIC",
"AutoRenewFlagError": false,
"Rollbacking": false,
"RenewFlag": "NOTIFY_AND_MANUAL_RENEW",
"DiskName": "test",
"Tags": [],
"InstanceId": "",
"DifferDaysOfDeadline": 1,
"DiskId": "disk-b94t5dzt",
"DiskState": "ATTACHED",
"Placement": {
"ProjectId": 0,
"Zone": "ap-guangzhou-2"
},
"IsReturnable": false,
"DeadlineTime": "2018-10-26 10:55:43",
"Attached": true,
"DiskSize": 10,
"DiskUsage": "DATA_DISK",
"Portable": true,
"DiskChargeType": "PREPAID",
"SnapshotAbility": true,
"DeadlineError": false,
"RollbackPercent": 100,
"AutoSnapshotPolicyIds": null,
"ReturnFailCode": 3,
"CreateTime": "2018-09-26 17:36:07",
"ThroughputPerformance": 1,
"Migrating": true,
"InstanceIdList": [
"ins-test1234"
],
"Shareable": true,
"MigratePercent": 100,
"SnapshotSize": 100,
"SnapshotCount": 0,
"BackupDisk": true,
"AttachMode": "PF",
"DiskBackupQuota": 1,
"DiskBackupCount": 1,
"DeleteSnapshot": 0,
"InstanceType": "CVM"
}
]
```

```
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidFilter	The specified Filter is not supported.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
UnsupportedOperation	Unsupported operation

DetachDisks

Last updated：2023-06-21 15:01:16

1. API Description

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

This API is used to unmount one or more cloud disks.

- Batch operation is supported. You can unmount multiple cloud disks from the same CVM in a single request. If any of these cloud disks cannot be unmounted, the operation fails and a specific error code returns.
- This is an async API. A successful request does not mean that the cloud disks have been unmounted successfully. You can call the DescribeDisks API to query the status of cloud disks. When the status changes from `ATTACHED` to `UNATTACHED` , the unmounting is successful.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DetachDisks.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskIds.N	Yes	Array of String	IDs of the cloud disks to be unmounted, which can be queried via the DescribeDisks API. Up to 10 elastic cloud disks can be unmounted in a single request.

InstanceId	No	String	Indicates the CVM from which you want to unmount the disks. This parameter is only available for shared cloud disks.

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 Detaching a single cloud disk

This example shows you how to detach a single cloud disk.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=DetachDisks
&DiskIds.0=disk-lzrg2pwi
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "aafa71a0-ed62-0fac-3ebf-5a1f808d1085"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.ComponentError	Dependent component request failed. Please contact customer service.
InternalError.ResourceOpFailed	The operation performed on the resource failed. For error message, see the "Message" field in error description. Try again later or contact customer service.
InvalidDisk.NotPortable	Non-elastic cloud disks are not supported.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDisk.TypeError	Invalid cloud disk type.
InvalidDiskId.NotFound	The ‘DiskId’ entered does not exist.
InvalidInstance.NotSupported	Cloud Virtual Machine does not support mounting cloud disk.
InvalidInstanceId.NotFound	The ‘InstanceId’ entered does not exist.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.LimitExceeded	Number of parameter values exceeds the limit.
MissingParameter	Missing parameter.
ResourceBusy	The resource is busy. Try again later.

ResourceInUse.DiskMigrating	The cloud disk is being migrated. Try again later.
ResourceNotFound.NotFound	The resource is not found.
ResourceUnavailable.NotPortable	The non-elastic cloud disk does not support this operation.
ResourceUnavailable.NotSupported	The resource does not support this operation.
ResourceUnavailable.TypeError	Incorrect cloud disk type. For example, a system disk cannot be mounted to CVM.
UnauthorizedOperation.MFAExpired	Multi-factor authentication (MFA) has expired. Please try again.
UnsupportedOperation	Unsupported operation
UnsupportedOperation.DetachPod	

DescribeDiskConfigQuota

Last updated：2023-06-21 15:01:17

1. API Description

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

This API (DescribeDiskConfigQuota) is used to query the cloud disk quota.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeDiskConfigQuota.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
InquiryType	Yes	String	Inquiry type. Value range: INQUIRY_CBS_CONFIG: query the configuration list of cloud disks • INQUIRY_CVM_CONFIG: query the configuration list of cloud disks and instances.
Zones.N	No	Array of String	Query configuration under one or more availability zone.
DiskChargeType	No	String	Billing mode. Value range: • POSTPAID_BY_HOUR: postpaid.

DiskTypes.N	No	Array of String	Cloud disk media type. Valid values: • CLOUD_BASIC: HDD cloud disk • CLOUD_PREMIUM: Premium Cloud Storage • CLOUD_SSD: SSD • CLOUD_HSSD: Enhanced SSD
DiskUsage	No	String	The system disk or data disk. Value range: • SYSTEM_DISK: System disk • DATA_DISK: Data disk.
InstanceFamilies.N	No	Array of String	Filter by the instance model series, such as S1, I1 and M1. For more information, please see Instance Types
CPU	No	Integer	Instance CPU cores.
Memory	No	Integer	Instance memory size.

3. Output Parameters

Parameter Name	Type	Description
DiskConfigSet	Array of DiskConfig	List of cloud disk configurations.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the purchasable specifications of Premium Cloud Disk in Shanghai Zone 5

This example shows you how to query the purchasable specifications of Premium Cloud Disk in Shanghai Zone 5.

Input Example

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

```
{
"InquiryType": "INQUIRY_CBS_CONFIG",
"DiskChargeType": "POSTPAID_BY_HOUR",
"Zones": [
"ap-shanghai-5"
],
"DiskTypes": [
"CLOUD_PREMIUM"
]
}
```

Output Example

```
{
"Response": {
"DiskConfigSet": [
{
"Available": true,
"MaxDiskSize": 32000,
"Zone": "ap-shanghai-5",
"InstanceFamily": null,
"DiskType": "CLOUD_PREMIUM",
"StepSize": 1,
"ExtraPerformanceRange": null,
"DeviceClass": null,
"DiskUsage": "DATA_DISK",
"MinDiskSize": 10,
"DiskChargeType": "PREPAID"
}
],
"RequestId": "50346458-c053-47f1-b60f-5507e7cc5b26"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
UnsupportedOperation	Unsupported operation

InquiryPriceResizeDisk

Last updated：2023-03-22 14:36:16

1. API Description

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

This API is used to query the price for expanding cloud disks.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: InquiryPriceResizeDisk.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskId	Yes	String	ID of the cloud disk, which can be queried via the API DescribeDisks.
DiskSize	Yes	Integer	Cloud disk size after scale out (in GB). This cannot be smaller than the current size of the cloud disk. For the value range of the cloud disk sizes, see cloud disk Product Types.
ProjectId	No	Integer	ID of project the cloud disk belongs to. If selected, it can only be used for authentication.

3. Output Parameters

Parameter Name	Type	Description
DiskPrice	PrepayPrice	Describes the price of expanding the cloud disk.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the price for expanding a cloud disk to 200 GB

This example shows you how to query the price for expanding a cloud disk to 200 GB.

Input Example

```
https://cbs.tencentcloudapi.com/?Action=InquiryPriceResizeDisk
&DiskId=disk-dw0bbzws
&DiskSize=200
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "6c6088bc-15e6-42e5-9d73-d5e41593117e",
"DiskPrice": {
"DiscountPrice": null,
"UnitPrice": 0.18,
"UnitPriceHigh": "0.18",
"OriginalPriceHigh": null,
"OriginalPrice": null,
"UnitPriceDiscount": 0.18,
"UnitPriceDiscountHigh": "0.18",
"DiscountPriceHigh": null,
"ChargeUnit": "HOUR"
}
}
}
```

5. Developer Resources

SDK

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidDisk.Expire	The cloud disk has expired.
InvalidDisk.NotPortable	Non-elastic cloud disks are not supported.
InvalidInstanceId.NotFound	The 'InstanceId' entered does not exist.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
ResourceUnavailable.Expire	The cloud disk has expired.

TerminateDisks

Last updated：2023-03-16 16:17:27

1. API Description

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

This API is used to return cloud disks.

- You can use this API to return cloud disks you no longer need.
- This API can be used to return pay-as-you-go cloud disks billed on hourly basis.
- Batch operations are supported. The maximum number of cloud disks in each request is 50. If there is any specified cloud disk that cannot be returned, an error code will be returned.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: TerminateDisks.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskIds.N	Yes	Array of String	List of cloud disk IDs required to be returned.
DeleteSnapshot	No	Integer	Delete the associated non-permanently reserved snapshots upon deletion of the source cloud disk. `0` : No (default). `1` : Yes. To

			check whether a snapshot is permanently reserved, refer to the `IsPermanent` field returned by the `DescribeSnapshots` API.

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 Batch returning cloud disks

This example shows you how to terminate two cloud disks.

Input Example

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

{
"DiskIds": [
"disk-g27hqeo2",
"disk-lzrg2pwi"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "52c965d2-5deb-459a-8b5a-b3b9a1376544"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InsufficientRefundQuota	Number of returned cloud disks has reached the limit and no more cloud disks can be returned.
InternalError.FailQueryResource	Resource query failed.
InvalidDisk.Expire	The cloud disk has expired.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
ResourceBusy	The resource is busy. Try again later.
ResourceInsufficient.OverRefundQuota	The number of returned cloud disks has reached the limit and no more cloud disks can be returned.
ResourceUnavailable.Expire	The cloud disk has expired.

ResourceUnavailable.NotSupportRefund	Cloud disks cannot be returned.
ResourceUnavailable.NotSupported	The resource does not support this operation.
ResourceUnavailable.RepeatRefund	The cloud disk has been repossessed.
TradeDealConflict	Order conflict.
UnsupportedOperation	Unsupported operation

ModifyDiskExtraPerformance

Last updated：2023-06-21 15:01:15

1. API Description

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

This API is used to adjust extra performance for Enhanced SSD (CLOUD_HSSD) and ulTra SSD.

*This API only supports adjust extra performance for Enhanced SSD and ulTra SSD.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ModifyDiskExtraPerformance.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskId	Yes	String	ID of the cloud disk to create a snapshot, which can be obtained via the DescribeDisks API.
ThroughputPerformance	Yes	Integer	The extra throughput to purchase, in MB/s

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 Purchasing the extra throughput performance of 300 Mbps for a 500 GB ulTra SSD.

This example shows you how to purchase the extra throughput performance of 300 Mbps for a 500 GB ulTra SSD.

Input Example

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

{
"ThroughputPerformance": 1,
"DiskId": "disk-xx"
}

{
"ThroughputPerformance": "300",
"DiskId": "disk-dritwhhm"
}
```

Output Example

```
{
"Response": {
"RequestId": "d010c751-3edb-4388-878c-123fe111d1111owngrade400"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidAccount.InsufficientBalance	Insufficient account balance
InvalidDisk.Busy	The cloud disk is busy. Try again later.
InvalidDisk.Expire	The cloud disk has expired.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidParameter	Incorrect parameter.
ResourceInsufficient	Insufficient resources.
UnsupportedOperation	Unsupported operation

InquirePriceModifyDiskExtraPerformance

Last updated：2023-03-22 14:36:16

1. API Description

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

This API is used to query the price for adjusting the cloud disk's extra performance.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: InquirePriceModifyDiskExtraPerformance.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskId	Yes	String	Cloud disk ID, which can be queried via the DescribeDisks API.
ThroughputPerformance	Yes	Integer	The extra throughput to purchase, in MB/s

3. Output Parameters

Parameter Name	Type	Description
DiskPrice	Price	Price for purchasing the extra performance
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the price of purchasing the extra throughput performance of 200 Mbps for a 500 GB Enhanced cloud disk

This example shows you how to query the price of purchasing the extra throughput performance of 200 Mbps for a 500 GB Enhanced cloud disk.

Input Example

```
https://ecm.tencentcloudapi.com/?Action=InquirePriceModifyDiskExtraPerformance
&DiskId=disk-dritwhhm
&ThroughputPerformance=200
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "2473a107-d3ee-49b6-98f1-2fa630610b85",
"DiskPrice": {
"DiscountPrice": 611.51,
"UnitPrice": null,
"UnitPriceHigh": null,
"OriginalPriceHigh": null,
"OriginalPrice": 611.51,
"UnitPriceDiscount": null,
"UnitPriceDiscountHigh": null,
"DiscountPriceHigh": null,
"ChargeUnit": null
}
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
MissingParameter	Missing parameter.
ResourceUnavailable.Expire	The cloud disk has expired.
ResourceUnavailable.NotSupported	The resource does not support this operation.

InitializeDisks

Last updated：2023-06-21 15:01:16

1. API Description

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

This API is used to reinitialize the cloud disks. Note the following when reinitializing the cloud disks:

1. For a cloud disk created from a snapshot, it is rolled back to the state of the snapshot;
2. For a cloud disk created from the scratch, all data are cleared. Please check and back up the necessary data before the reinitialization;
3. Currently, you can only re-initialize a cloud disk when it's not attached to a resource and not shared by others;
4. For a cloud disk created from a snapshot, if the snapshot has been deleted, it cannot be reinitialized.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: InitializeDisks.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskIds.N	Yes	Array of String	ID list of the cloud disks to be reinitialized. Up to 20 disks can be reinitialized at a time.

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 Reinitializing cloud disks

This example shows you how to reinitialize the cloud disk with ID disk-ixya2wzy.

Input Example

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

{
"DiskIds": [
"disk-ixya2wzy"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "aafa71a0-ed62-0fac-3ebf-5a1f808d1085"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameterValue.LimitExceeded	Number of parameter values exceeds the limit.
ResourceBusy	The resource is busy. Try again later.

ModifyDiskBackupQuota

Last updated：2023-06-21 15:01:15

1. API Description

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

This API is used to modify the cloud disk backup point quota.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ModifyDiskBackupQuota.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskId	Yes	String	Cloud disk ID.
DiskBackupQuota	Yes	Integer	Cloud disk backup point quota after the adjustment

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 Modifying the cloud disk backup point quota

This example shows you how to modify the cloud disk backup point quota.

Input Example

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

{
"DiskId": "disk-xxxxxxxx",
"DiskBackupQuota": 1
}
```

Output Example

```
{
"Response": {
"RequestId": "5d41fd68-372a-4c90-81c6-a6f982328058"
}
}
```

5. Developer Resources

SDK

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.ComponentError	Dependent component request failed. Please contact customer service.
InvalidAccount.InsufficientBalance	Insufficient account balance
InvalidParameter	Incorrect parameter.
ResourceUnavailable.NotSupported	The resource does not support this operation.
TradeDealConflict	Order conflict.
UnauthorizedOperation.NotHavePaymentRight	No payment permission.

InquirePriceModifyDiskBackupQuota

Last updated：2023-06-21 15:01:16

1. API Description

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

This API is used to query the price of a cloud disk after its backup point quota is modified.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: InquirePriceModifyDiskBackupQuota.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskId	Yes	String	Cloud disk ID, which can be queried through the `DescribeDisks` API.
DiskBackupQuota	Yes	Integer	Cloud disk backup point quota after the modification, i.e., the number of backup points that a cloud disk can have.

3. Output Parameters

Parameter	Type	Description

Name		
DiskPrice	Price	Price of the cloud disk after its backup point quota is modified.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the price of a cloud disk after its backup point quota is modified

Input Example

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

{
"DiskId": "disk-xxxxxxxx",
"DiskBackupQuota": 1
}
```

Output Example

```
{
"Response": {
"RequestId": "0195b2d8-fec5-490a-ace9-579f49435e69",
"DiskPrice": {
"UnitPriceDiscountHigh": "0.059",
"DiscountPrice": null,
"UnitPriceHigh": "0.059",
"OriginalPriceHigh": null,
"ChargeUnit": "HOUR",
"OriginalPrice": null,
"UnitPriceDiscount": 0.06,
"DiscountPriceHigh": null,
"UnitPrice": 0.06
}
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidDisk.Busy	The cloud disk is busy. Try again later.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidParameter	Incorrect parameter.

DescribeDiskBackups

Last updated：2023-06-21 15:01:17

1. API Description

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

This API is used to query the details of backup points.

You can filter results by backup point ID. You can also look for certain backup points by specifying the ID or type of the cloud disk for which the backup points are created. The relationship between different filters is logical `AND`. For more information on filters, see `Filter`.
If the parameter is empty, a certain number (as specified by `Limit` and 20 by default) of backup points will be returned.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeDiskBackups.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskBackupIds.N	No	Array of String	List of IDs of the backup points to be queried. `DiskBackupIds` and `Filters` cannot be specified at the same time.
Filters.N	No	Array	Filter. `DiskBackupIds` and `Filters` cannot be specified

		of Filter	at the same time. Valid values: • disk-backup-id - Array of String - Required: No - (Filter) Filter by backup point ID in the format of `dbp-11112222` . • disk-id - Array of String - Required: No - (Filter) Filter by ID of the cloud disk for which backup points are created. • disk-usage - Array of String - Required: No - (Filter) Filter by type of the cloud disk for which backup points are created. (SYSTEM_DISK: System disk | DATA_DISK: Data disk)
Offset	No	Integer	Offset. Default value: 0. For more information on `Offset` , see the relevant section of the API Overview.
Limit	No	Integer	Number of returned results. Default value: 20. Maximum value: 100. For more information on `Limit` , see the relevant section of the API Overview.
Order	No	String	Sorting order of cloud disk backup points. Valid values: • ASC: Ascending • DESC: Descending
OrderField	No	String	The field by which cloud disk backup points are sorted. Valid values: • CREATE_TIME: Sort by creation time Backup points are sorted by creation time by default.

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Number of eligible cloud disk backup points.
DiskBackupSet	Array of DiskBackup	List of details of cloud disk backup points.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the list of backup points

This example shows you how to query the list of backup points.

Input Example

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

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

Output Example

```
{
"Response": {
"TotalCount": 1,
"DiskBackupSet": [
{
"DiskBackupName": "11111",
"Encrypt": false,
"Percent": 100,
"DiskBackupId": "dbp-xxxxxxxx",
"DiskSize": 100,
"DiskBackupState": "NORMAL",
"DiskUsage": "DATA_DISK",
"CreateTime": "2022-04-02T17:44:55+00:00",
"DiskId": "disk-xxxxxxxx"
}
],
"RequestId": "6cd062f5-aa65-4477-a253-1ab41ab963fd"
}
}
```

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.

Error Code	Description
InvalidFilter	The specified Filter is not supported.
InvalidParameter	Incorrect parameter.

DeleteDiskBackups

Last updated：2023-06-21 15:01:18

1. API Description

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

This API is used to delete the backup points of the specified cloud disk in batches.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteDiskBackups.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.
DiskBackupIds.N	Yes	Array of String	ID of the cloud disk backup point to be deleted.

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 Deleting the backup points of a cloud disk

This example shows you how to delete the cloud disk backup point with backup point ID dbp-xxxxxxxx.

Input Example

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

{
"DiskBackupIds": [
"dbp-xxxxxxxx"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "a79a4333-ac8e-426c-8cfe-2923c4010d64"
}
}
```

5. Developer Resources

SDK

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameter	Incorrect parameter.
ResourceNotFound	The resource does not exist.
ResourceNotFound.NotFound	The resource is not found.

ApplyDiskBackup

Last updated：2023-06-21 15:01:18

1. API Description

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

This API is used to roll back a backup point to the original cloud disk.

- Only rollback to the original cloud disk is supported. For a data disk backup point, if you want to copy the backup point data to another cloud disk, use the `CreateSnapshot` API to convert the backup point into a snapshot, use the `CreateDisks` API to create an elastic cloud disk, and then copy the snapshot data to it.
- Only backup points in `NORMAL` status can be rolled back. To query the status of a backup point, call the `DescribeDiskBackups` API and see the `BackupState` field in the response.
- For an elastic cloud disk, it must be in unattached status. To query the status of the cloud disk, call the `DescribeDisks` API and see the `Attached` field in the response. For a non-elastic cloud disk purchased together with an instance, the instance must be in shutdown status, which can be queried through the `DescribeInstancesStatus` API.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ApplyDiskBackup.
Version	Yes	String	Common Params. The value used for this API: 2017-03-12.
Region	No	String	Common Params. This parameter is not required for this API.

DiskBackupId	Yes	String	ID of the cloud disk backup point, which can be queried through the `DescribeDiskBackups` API.
DiskId	Yes	String	ID of the original cloud disk of the backup point, which can be queried through the `DescribeDisks` API.

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 Rolling back a backup point to the original cloud disk

This example shows you how to roll back a backup point to the original cloud disk.

Input Example

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

{
"DiskId": "disk-xxxxxxxx",
"DiskBackupId": "dbp-xxxxxxxx"
}
```

Output Example

```
{
"Response": {
"RequestId": "5d41fd68-372a-4c90-81c6-a6f982328058"
}
}
```

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.

Error Code	Description
InvalidDisk.Busy	The cloud disk is busy. Try again later.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidInstance.NotSupported	Cloud Virtual Machine does not support mounting cloud disk.
ResourceBusy	The resource is busy. Try again later.
ResourceInUse.DiskRollbacking	The cloud disk is being rolled back. Please try again later.
ResourceNotFound	The resource does not exist.
ResourceNotFound.NotFound	The resource is not found.
ResourceUnavailable	The resource is unavailable.

ResourceUnavailable.NotSupported	The resource does not support this operation.

Data Types

Last updated：2023-07-19 17:05:11

AdvancedRetentionPolicy

Retention policy for scheduled snapshots. All four parameters are required.

Used by actions: DescribeAutoSnapshotPolicies, DescribeDiskAssociatedAutoSnapshotPolicy.

Name	Type	Required	Description
Days	Integer	Yes	Retains one latest snapshot each day within `Days` days. Value range: [0, 100]. Note: This field may return null, indicating that no valid values can be obtained.
Weeks	Integer	Yes	Retains one latest snapshot each week within `Weeks` weeks. Value range: [0, 100]. Note: This field may return null, indicating that no valid values can be obtained.
Months	Integer	Yes	Retains one latest snapshot each month within `Months` months. Value range: [0, 100]. Note: This field may return null, indicating that no valid values can be obtained.
Years	Integer	Yes	Retains one latest snapshot each year within `Years` years. Value range: [0, 100]. Note: This field may return null, indicating that no valid values can be obtained.

AttachDetail

This describes the number of mounted and mountable data disks of an instance.

Used by actions: DescribeInstancesDiskNum.

Name	Type	Description
InstanceId	String	Instance ID

Name	Type	Description
AttachedDiskCount	Integer	The number of instances mounted to data disk.
MaxAttachCount	Integer	The maximum number of instances that can be mounted to data disk.

AutoMountConfiguration

Describes how a newly purchased cloud disk is initialized and attached to a CVM instance.

Used by actions: CreateDisks.

Name	Type	Required	Description
InstanceId	Array of String	Yes	ID of the instance to which the cloud disk is attached.
MountPoint	Array of String	Yes	Mount point in the instance.
FileSystemType	String	Yes	File system type. Valid values: `ext4` , `xfs` .

AutoSnapshotPolicy

This describes the detailed information of the scheduled snapshot policy.

Used by actions: DescribeAutoSnapshotPolicies, DescribeDiskAssociatedAutoSnapshotPolicy.

Name	Type	Description
DiskIdSet	Array of String	The list of cloud disk IDs that the current scheduled snapshot policy is bound to.
IsActivated	Boolean	Whether scheduled snapshot policy is activated.
AutoSnapshotPolicyState	String	Scheduled snapshot policy state. Value range: • NORMAL: Normal • ISOLATED: Isolated.
IsCopyToRemote	Integer	Whether it is to replicate a snapshot across accounts. `1` : yes, `0` : no. Note: This field may return null, indicating that no valid values can be obtained.

Name	Type	Description
IsPermanent	Boolean	Whether the snapshot created by this scheduled snapshot policy is retained permanently.
NextTriggerTime	Timestamp	The time the scheduled snapshot will be triggered again.
AutoSnapshotPolicyName	String	Scheduled snapshot policy name.
AutoSnapshotPolicyId	String	Scheduled snapshot policy ID.
Policy	Array of Policy	The policy for executing the scheduled snapshot.
CreateTime	Timestamp	The time the scheduled snapshot policy was created.
RetentionDays	Integer	Number of days the snapshot created by this scheduled snapshot policy is retained.
CopyToAccountUin	String	ID of the replication target account Note: This field may return null, indicating that no valid values can be obtained.
InstanceIdSet	Array of String	List of IDs of the instances associated with the scheduled snapshot policy. Note: This field may return null, indicating that no valid values can be obtained.
RetentionMonths	Integer	The number of months for which the snapshots created by this scheduled snapshot policy can be retained. Note: This field may return null, indicating that no valid values can be obtained.
RetentionAmount	Integer	The maximum number of snapshots created by this scheduled snapshot policy that can be retained. Note: This field may return null, indicating that no valid values can be obtained.
AdvancedRetentionPolicy	AdvancedRetentionPolicy	Retention policy for scheduled snapshots. Note: This field may return null, indicating that no valid values can be obtained.
CopyFromAccountUin	String	Source account ID of the copied snapshot policy Note: This field may return null, indicating that no valid values can be obtained.

Name	Type	Description
Tags	Array of Tag	Tag. Note: This field may return null, indicating that no valid values can be obtained.

DetailPrice

Pricing details for the cloud disk.

Used by actions: InquiryPriceResizeDisk.

Name	Type	Description
PriceTitle	String	Name of the billable item. Note: This field may return null, indicating that no valid values can be obtained.
PriceName	String	Name of the billable item displayed in the console.
OriginalPrice	Float	Original price of a monthly subscribed cloud disk, in USD. Note: This field may return null, indicating that no valid values can be obtained.
DiscountPrice	Float	Discounted price of a monthly subscribed cloud disk, in USD. Note: This field may return null, indicating that no valid values can be obtained.
UnitPrice	Float	Original unit price of a pay-as-you-go cloud disk, in USD. Note: This field may return null, indicating that no valid values can be obtained.
UnitPriceDiscount	Float	Discount unit price of a pay-as-you-go cloud disk, in USD. Note: This field may return null, indicating that no valid values can be obtained.
ChargeUnit	String	Billing unit for pay-as-you-go cloud disks. Valid value: `HOUR` (billed hourly). Note: This field may return null, indicating that no valid values can be obtained.
OriginalPriceHigh	String	Original highly-precise price of a monthly subscribed cloud disk, in USD. Note: This field may return null, indicating that no valid values can be obtained.

Name	Type	Description
DiscountPriceHigh	String	Discounted highly-precise price of a monthly subscribed cloud disk, in USD. Note: This field may return null, indicating that no valid values can be obtained.
UnitPriceHigh	String	Original highly-precise unit price of a pay-as-you-go cloud disk, in USD. Note: This field may return null, indicating that no valid values can be obtained.
UnitPriceDiscountHigh	String	Discounted highly-precise unit price of a pay-as-you-go cloud disk, in USD. Note: This field may return null, indicating that no valid values can be obtained.

Disk

The details of a cloud disk

Used by actions: DescribeDisks.

Name	Type	Description
DeleteWithInstance	Boolean	Whether the cloud disk terminates along with the instance mounted to it. • true: Cloud disk will also be terminated when instance terminates, so only hourly postpaid cloud disk are supported. • false: Cloud disk does not terminate when instance terminates. Note: This field may return null, indicating that no valid value was found.
RenewFlag	String	Auto renewal flag. Supported values: • NOTIFY_AND_AUTO_RENEW: Notify expiry and renew automatically • NOTIFY_AND_MANUAL_RENEW: Notify expiry but not renew automatically • DISABLE_NOTIFY_AND_MANUAL_RENEW: Neither notify expiry nor renew automatically. Note: This field may return null, indicating that no valid value was found.

Name	Type	Description
DiskType	String	Cloud disk types. Valid values: • CLOUD_BASIC: HDD cloud disk • CLOUD_PREMIUM: Premium Cloud Disk • CLOUD_BSSD: General Purpose SSD • CLOUD_SSD: SSD • CLOUD_HSSD: Enhanced SSD • CLOUD_TSSD: Tremendous SSD
DiskState	String	The state of the cloud disk. Value range: • UNATTACHED: Not mounted • ATTACHING: Mounting • ATTACHED: Mounted • DETACHING: Un-mounting • EXPANDING: Expanding • ROLLBACKING: Rolling back • TORECYCE: Pending recycling. • DUMPING: Copying the hard drive.
SnapshotCount	Integer	The total number of snapshots of the cloud disk.
AutoRenewFlagError	Boolean	Cloud disk already mounted to CVM, and both CVM and cloud disk use monthly subscription. • true: CVM has auto-renewal flag set up, but cloud disk does not. • false: Cloud disk auto-renewal flag set up normally. Note: This field may return null, indicating that no valid value was found.
Rollbacking	Boolean	Whether the cloud disk is in the status of snapshot rollback. Value range: • false: No • true: Yes
InstanceIdList	Array of String	For non-shareable cloud disks, this parameter is null. For shareable cloud disks, this parameters indicates this cloud disk's Instance IDs currently mounted to the CVM.
Encrypt	Boolean	Whether the cloud disk is encrypted. Value range: • false: Not encrypted • true: Encrypted.
DiskName	String	Cloud disk name.

Name	Type	Description
BackupDisk	Boolean	Specifies whether to create a snapshot when the cloud disk is terminated due to overdue payment or expiration. `true` : create snapshot; `false` : do not create snapshot.
Tags	Array of Tag	The tag bound to the cloud disk. The value Null is used when no tag is bound to the cloud disk. Note: This field may return null, indicating that no valid value was found.
InstanceId	String	ID of the CVM to which the cloud disk is mounted.
AttachMode	String	Cloud disk mount method. Valid values: • PF: mount as a PF (Physical Function) • VF: mount as a VF (Virtual Function) Note: this field may return `null` , indicating that no valid value is obtained.
AutoSnapshotPolicyIds	Array of String	ID of the periodic snapshot associated to the cloud disk. This parameter is returned only if the value of parameter ReturnBindAutoSnapshotPolicy is TRUE when the API DescribeDisks is called. Note: This field may return null, indicating that no valid value was found.
ThroughputPerformance	Integer	Extra performance for a cloud disk, in MB/sec. Note: this field may return `null` , indicating that no valid values can be obtained.
Migrating	Boolean	Whether cloud disk is in process of type change. Value range: • false: Cloud disk not in process of type change. • true: Cloud disk type change has been launched, and migration is in process. Note: This field may return null, indicating that no valid value was found.
DiskId	String	Cloud disk ID.
SnapshotSize	Integer	The total capacity of the snapshots of the cloud disk. Unit: MB.
Placement	Placement	Location of the cloud disk.

Name	Type	Description
IsReturnable	Boolean	Determines whether or not prepaid cloud disk supports active return. • true: Active return supported. • false: Active return not supported. Note: This field may return null, indicating that no valid value was found.
DeadlineTime	Timestamp	Expiration time of the cloud disk.
Attached	Boolean	Whether the cloud disk is mounted to the CVM. Value range: • false: Unmounted • true: Mounted.
DiskSize	Integer	Cloud disk size (in GB).
MigratePercent	Integer	Migration progress of cloud disk type change, from 0 to 100. Note: This field may return null, indicating that no valid value was found.
DiskUsage	String	Cloud disk type. Value range: • SYSTEM_DISK: System disk • DATA_DISK: Data disk.
DiskChargeType	String	Billing method. Value range: • PREPAID: Prepaid, that is, monthly subscription • POSTPAID_BY_HOUR: Postpaid, that is, pay as you go.
Portable	Boolean	Whether it is an elastic cloud disk. false: Non-elastic cloud disk; true: Elastic cloud disk.
SnapshotAbility	Boolean	Whether the cloud disk has the capability to create snapshots. Value range: • false: Cannot create snapshots. true: Can create snapshots.
DeadlineError	Boolean	This field is only applicable when the instance is already mounted to the cloud disk, and both the instance and the cloud disk use monthly subscription. • true: Expiration time of cloud disk is earlier than that of the instance. • false:Expiration time of cloud disk is later than that of the instance. Note: This field may return null, indicating that no valid value was found.
RollbackPercent	Integer	Rollback progress of a cloud disk snapshot.

Name	Type	Description
DifferDaysOfDeadline	Integer	Number of days from current time until disk expiration (only applicable for prepaid disks). Note: This field may return null, indicating that no valid value was found.
ReturnFailCode	Integer	In circumstances where the prepaid cloud disk does not support active return, this parameter indicates the reason that return is not supported. Value range: • 1: The cloud disk has already been returned. • 2: The cloud disk has already expired. • 3: The cloud disk does not support return. • 8: The limit on the number of returns is exceeded. Note: This field may return null, indicating that no valid value was found.
Shareable	Boolean	Whether or not cloud disk is shareable cloud disk.
CreateTime	Timestamp	Creation time of the cloud disk.
DeleteSnapshot	Integer	Delete the associated non-permanently reserved snapshots upon deletion of the source cloud disk. `0` : No (default). `1` : Yes. To check whether a snapshot is permanently reserved, refer to the `IsPermanent` field returned by the `DescribeSnapshots` API.
DiskBackupQuota	Integer	Quota of cloud disk backup points, i.e., the maximum number of backup points that a cloud disk can have.
DiskBackupCount	Integer	Number of used cloud disk backups.
InstanceType	String	Type of the instance mounted to the cloud disk. Valid values: • CVM • EKS
LastAttachInsId	String	ID of the last instance to which the cloud disk is attached Note: This field may return null, indicating that no valid values can be obtained.
ErrorPrompt	String	Error message for the last operation of the cloud disk Note: This field may return null, indicating that no valid values can be obtained.
BurstPerformance	Boolean	Whether the cloud disk has enabled disk bursting. Note: This field may return null, indicating that no valid values can be obtained.

DiskBackup

Cloud disk backup point.

Used by actions: DescribeDiskBackups.

Name	Type	Description
DiskBackupId	String	Cloud disk backup point ID.
DiskId	String	ID of the cloud disk with which the backup point is associated.
DiskSize	Integer	Cloud disk size in GB.
DiskUsage	String	Cloud disk type. Valid values: • SYSTEM_DISK: System disk • DATA_DISK: Data disk
DiskBackupName	String	Backup point name.
DiskBackupState	String	Cloud disk backup point status. Valid values: • NORMAL: Normal • CREATING: Creating • ROLLBACKING: Rolling back
Percent	Integer	Cloud disk creation progress in percentage.
CreateTime	Timestamp ISO8601	Creation time of the cloud disk backup point.
Encrypt	Boolean	Whether the cloud disk is encrypted. Valid values: • false: Not encrypted • true: Encrypted

DiskChargePrepaid

Billing mode of the instance

Used by actions: CreateDisks, InquiryPriceCreateDisks.

Name	Type	Required	Description
Period	Integer	Yes	Subscription period of the cloud disk in months. Valid values: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 24, 36.

Name	Type	Required	Description
RenewFlag	String	No	Auto-renewal flag. Valid values: • NOTIFY_AND_AUTO_RENEW: Notify upon expiration and renew automatically • NOTIFY_AND_MANUAL_RENEW: Notify upon expiration but do not renew automatically • DISABLE_NOTIFY_AND_MANUAL_RENEW: Neither notify upon expiration nor renew automatically Default value: NOTIFY_AND_MANUAL_RENEW.
CurInstanceDeadline	Timestamp	No	You can specify this parameter when you need to ensure that a cloud disk and the CVM instance to which it is attached have the same expiration time. This parameter represents the current expiration time of the instance. In this case, if you specify `Period`, `Period` will represent how long you want to renew the instance, and the cloud disk will be renewed based on the new expiration time of the instance. For example, the value of this parameter can be `2018-03-30 20:15:03`.

DiskConfig

Cloud disk configuration.

Used by actions: DescribeDiskConfigQuota.

Name	Type	Description
Available	Boolean	Whether the configuration is available.
DiskChargeType	String	Billing method. Value range: • PREPAID: Prepaid, that is, monthly subscription • POSTPAID_BY_HOUR: Postpaid, that is, pay as you go.
Zone	String	The Availability Region of the cloud drive.
InstanceFamily	String	Instance model series. For more information, please see Instance Models Note: This field may return null, indicating that no valid value was found.

Name	Type	Description
DiskType	String	Type of cloud disk medium. Value range: • CLOUD_BASIC: Ordinary cloud disk • CLOUD_PREMIUM: Premium cloud storage • CLOUD_SSD: SSD cloud disk.
StepSize	Integer	Minimum increment of cloud disk size adjustment in GB. Note: This field might return null, indicating that no valid values can be obtained.
ExtraPerformanceRange	Array of Integer	Additional performance range. Note: This field might return null, indicating that no valid values can be obtained.
DeviceClass	String	Instance model. Note: This field may return null, indicating that no valid value was found.
DiskUsage	String	Cloud disk type. Value range: • SYSTEM_DISK: System disk • DATA_DISK: Data disk.
MinDiskSize	Integer	The minimum configurable cloud disk size (in GB).
MaxDiskSize	Integer	The maximum configurable cloud disk size (in GB).
Price	Price	Price of a monthly subscribed or pay-as-you-go cloud disk. Note: This field may return null, indicating that no valid values can be obtained.

DiskOperationLog

The operation log of the cloud disk.

Used by actions: DescribeDiskOperationLogs.

Name	Type	Description
Operator	String	UIN of operator.

Name	Type	Description
Operation	String	Operation type. Value range: CBS_OPERATION_ATTACH: Mount cloud disk CBS_OPERATION_DETACH: Unmount cloud disk CBS_OPERATION_RENEW: Renew CBS_OPERATION_EXPAND: Expand CBS_OPERATION_CREATE: Create CBS_OPERATION_ISOLATE: Isolate CBS_OPERATION_MODIFY: Modify cloud disk attributes ASP_OPERATION_BIND: Associate scheduled snapshot policy ASP_OPERATION_UNBIND: Cancel associated scheduled snapshot policy
DiskId	String	Cloud disk ID of operation.
OperationState	String	Status of operation. Value range: SUCCESS: Operation successful FAILED: Operation failed PROCESSING: Operation in process
StartTime	String	Start time
EndTime	String	End time

Filter

Key-value pair filters for conditional filtering queries.

Used by actions: DescribeAutoSnapshotPolicies, DescribeDiskBackups, DescribeDiskOperationLogs, DescribeDisks, DescribeSnapshotOperationLogs, DescribeSnapshots.

Name	Type	Required	Description
Name	String	Yes	Name of filter key.
Values	Array of String	Yes	One or more filter values.

Image

Image

Used by actions: DescribeSnapshots.

Name	Type	Description
ImageId	String	Image instance ID.
ImageName	String	Image name.

Placement

This describes the abstract location of the instance, including the availability zone in which it is located, the projects to which it belongs, and the ID and name of the dedicated clusters to which it belongs.

Used by actions: CreateDisks, DescribeDisks, DescribeSnapshots.

Name	Type	Required	Description
Zone	String	Yes	The ID of the Availability Zone to which the cloud disk belongs. This parameter can be obtained from the Zone field in the returned values of DescribeZones.
CageId	String	No	Cage ID. When it is an input parameter, the specified CageID resource is operated, and it can be left blank. When it is an output parameter, it is the ID of the cage the resource belongs to, and it can be left blank. Note: This field may return null, indicating that no valid value was found.
ProjectId	Integer	No	ID of the project to which the instance belongs. This parameter can be obtained from the projectId field in the returned values of DescribeProject. If this is left empty, default project is used.
ProjectName	String	No	Project name of the instance. Note: This field may return null, indicating that no valid values can be obtained.
CdcName	String	No	Dedicated cluster name. When it is an input parameter, it is ignored. When it is an output parameter, it is the name of the dedicated cluster the cloud disk belongs to, and it can be left blank. Note: This field may return null, indicating that no valid value was found.

Name	Type	Required	Description
CdcId	String	No	ID of dedicated cluster which the instance belongs to. When it is an input parameter, the specified CdcId dedicated cluster resource is operated, and it can be left blank. When it is an output parameter, it is the ID of the dedicated cluster which the resource belongs to, and it can be left blank. Note: This field may return null, indicating that no valid value was found.
DedicatedClusterId	String	No	Dedicated cluster ID

Policy

Execution policy for scheduled snapshot. It indicates that a scheduled snapshot policy is executed at the specified `Hour` in the days specified by `DayOfWeek` or `DayOfMonth` or once every `IntervalDays` days. Note: `DayOfWeek` , `DayOfMonth` , and `IntervalDays` are mutually exclusive, and only one policy rule can be set.

Used by actions: CreateAutoSnapshotPolicy, DescribeAutoSnapshotPolicies, DescribeDiskAssociatedAutoSnapshotPolicy, ModifyAutoSnapshotPolicyAttribute.

Name	Type	Required	Description
Hour	Array of Integer	Yes	Specifies the time that that the scheduled snapshot policy will be triggered. The unit is hour. The value range is [0-23]. 00:00-23:00 is a total of 24 time points that can be selected. 1 indicates 01:00, and so on.
DayOfWeek	Array of Integer	No	Specifies the days of the week, from Monday to Sunday, on which a scheduled snapshot will be triggered. Value range: [0, 6]. 0 indicates triggering on Sunday, 1-6 indicate triggering on Monday-Saturday.
DayOfMonth	Array of Integer	No	Specifies the dates of the month on which a scheduled snapshot will be triggered. Value range: [1, 31]. `1` to `31` indicate the specific dates of the month; for example, `5` indicates the 5th day of the month. Note: If you set a date that does not exist in some months such as 29, 30, and 31, these months will be skipped for scheduled snapshot creation.

Name	Type	Required	Description
IntervalDays	Integer	No	Specifies the interval for creating scheduled snapshots in days. Value range: [1, 365]. For example, if it is set to `5`, scheduled snapshots will be created every 5 days. Note: If you choose to back up by day, the time for the first backup is theoretically the day when the backup policy is created. If the backup policy creation time on the current day is later than the set backup time, the first backup will be performed in the second backup cycle.

PrepayPrice

The cost of a prepaid order.

Used by actions: InquiryPriceResizeDisk.

Name	Type	Description
DiscountPrice	Float	Discounted price of a monthly-subscribed cloud disk or a snapshot, in USD.
ChargeUnit	String	Billing unit for pay-as-you-go cloud disks. Valid value: • HOUR: billed hourly. Note: this field may return `null`, indicating that no valid values can be obtained.
UnitPriceHigh	String	Original unit price of a pay-as-you-go cloud disk, in USD, with six decimal places. Note: this field may return `null`, indicating that no valid values can be obtained.
OriginalPriceHigh	String	Original payment of a monthly-subscribed cloud disk or a snapshot, in USD, with six decimal places.
OriginalPrice	Float	Original payment of a monthly-subscribed cloud disk or a snapshot, in USD.
UnitPriceDiscount	Float	Discount unit price of a pay-as-you-go cloud disk, in USD. Note: this field may return `null`, indicating that no valid values can be obtained.

Name	Type	Description
UnitPriceDiscountHigh	String	Discounted unit price of a pay-as-you-go cloud disk, in USD, with six decimal places. Note: this field may return `null`, indicating that no valid values can be obtained.
DiscountPriceHigh	String	Discounted price of a monthly-subscribed cloud disk or a snapshot, in USD, with six decimal places.
UnitPrice	Float	Original unit price of a pay-as-you-go cloud disk, in USD. Note: this field may return `null`, indicating that no valid values can be obtained.
DetailPrices	Array of DetailPrice	Detailed billing items Note: This field may return null, indicating that no valid values can be obtained.

Price

Describes the prepaid or postpaid price for the cloud disk.

Used by actions: DescribeDiskConfigQuota, InquirePriceModifyDiskBackupQuota, InquirePriceModifyDiskExtraPerformance, InquiryPriceCreateDisks.

Name	Type	Description
OriginalPrice	Float	Original price of a monthly-subscribed cloud disk, in USD. Note: this field may return `null`, indicating that no valid values can be obtained.
DiscountPrice	Float	Discounted price of a monthly-subscribed cloud disk, in USD. Note: this field may return `null`, indicating that no valid values can be obtained.
UnitPrice	Float	Original unit price of a pay-as-you-go cloud disk, in USD. Note: this field may return `null`, indicating that no valid values can be obtained.
ChargeUnit	String	Billing unit of a postpaid cloud disk. Value range: • HOUR: Billed by hour. Note: This field may return null, indicating that no valid value was found.

Name	Type	Description
UnitPriceDiscount	Float	Discount unit price of a pay-as-you-go cloud disk, in USD. Note: this field may return `null` , indicating that no valid values can be obtained.
OriginalPriceHigh	String	Original payment of a monthly-subscribed cloud disk, in USD, with six decimal places. Note: this field may return `null` , indicating that no valid values can be obtained.
DiscountPriceHigh	String	Discounted payment price of a monthly-subscribed cloud disk, in USD, with six decimal places. Note: this field may return `null` , indicating that no valid values can be obtained.
UnitPriceHigh	String	Original unit price of a pay-as-you-go cloud disk, in USD, with six decimal places. Note: this field may return `null` , indicating that no valid values can be obtained.
UnitPriceDiscountHigh	String	Discounted unit price of a pay-as-you-go cloud disk, in USD, with six decimal places. Note: this field may return `null` , indicating that no valid values can be obtained.

SharePermission

Snapshot sharing information set

Used by actions: DescribeSnapshotSharePermission.

Name	Type	Description
CreatedTime	Timestamp	Snapshot sharing time
AccountId	String	ID of the shared account

Snapshot

The details of a snapshot

Used by actions: DescribeSnapshots.

Name	Type	Description
Placement	Placement	Location of the snapshot.
CopyFromRemote	Boolean	Whether the snapshot is replicated across regions. Value range: • true: Indicates that the snapshot is replicated across regions. • false: Indicates that the snapshot belongs to the local region.
SnapshotState	String	Snapshot status. Valid values: • NORMAL: normal • CREATING: creating • ROLLBACKING: rolling back • COPYING_FROM_REMOTE: cross-region replicating • CHECKING_COPIED: verifying the cross-region replicated data • TORECYCLE: to be repossessed.
IsPermanent	Boolean	Whether it is a permanent snapshot. Value range: • true: Permanent snapshot • false: Non-permanent snapshot.
SnapshotName	String	Snapshot name, the user-defined snapshot alias. Call ModifySnapshotAttribute to modify this field.
DeadlineTime	Timestamp	The expiration time of the snapshot. If the snapshot is permanently retained, this field is blank.
Percent	Integer	The progress percentage for snapshot creation. This field is always 100 after the snapshot is created successfully.
Images	Array of Image	List of images associated with snapshot.
ShareReference	Integer	Number of snapshots currently shared
SnapshotType	String	Snapshot type. This value can currently be either PRIVATE_SNAPSHOT or SHARED_SNAPSHOT.
DiskSize	Integer	Size of the cloud disk used to create this snapshot (in GB).
DiskId	String	ID of the cloud disk used to create this snapshot.
CopyingToRegions	Array of String	The destination region to which the snapshot is being replicated. Default value is [ ].

Name	Type	Description
Encrypt	Boolean	Whether the snapshot is created from an encrypted disk. Value range: • true: Yes • false: No.
CreateTime	Timestamp	Creation time of the snapshot.
ImageCount	Integer	Number of images associated with snapshot.
DiskUsage	String	The type of the cloud disk used to create the snapshot. Value range: • SYSTEM_DISK: System disk • DATA_DISK: Data disk.
SnapshotId	String	Snapshot ID.
TimeStartShare	Date	The time when the snapshot sharing starts
Tags	Array of Tag	List of tags associated with the snapshot.

SnapshotCopyResult

Result of the cross-region replication task

Used by actions: CopySnapshotCrossRegions.

Name	Type	Description
SnapshotId	String	ID of the snapshot replica
Message	String	Error message. It's null if the request succeeds.
Code	String	Error code. It's `Success` if the request succeeds.
DestinationRegion	String	Destination region of the replication task

SnapshotOperationLog

Snapshot operation log (disused).

Used by actions: DescribeSnapshotOperationLogs.

Name	Type	Description
OperationState	String	Status of operation. Value range: SUCCESS: Operation successful FAILED: Operation failed PROCESSING: Operation in process
StartTime	String	Start time
Operator	String	UIN of operator. Note: This field may return null, indicating that no valid value was found.
SnapshotId	String	ID of snapshot being operated.
Operation	String	Operation type. Value range: SNAP_OPERATION_DELETE: Delete snapshot SNAP_OPERATION_ROLLBACK: Roll back snapshot SNAP_OPERATION_MODIFY: Modify snapshot attributes SNAP_OPERATION_CREATE: Create snapshot SNAP_OPERATION_COPY: Cross-region replication of snapshot ASP_OPERATION_CREATE_SNAP: Create snapshot with scheduled snapshot policy ASP_OPERATION_DELETE_SNAP: Delete snapshot from scheduled snapshot policy
EndTime	String	End time

Tag

Tag.

Used by actions: CreateDisks, CreateSnapshot, DescribeAutoSnapshotPolicies, DescribeDiskAssociatedAutoSnapshotPolicy, DescribeDisks, DescribeSnapshots.

Name	Type	Required	Description
Key	String	Yes	Tag key.
Value	String	Yes	Tag value.

Error Codes

Last updated：2023-06-21 15:01:19

Feature Description

If there is an Error field in the response, it means that the API call failed. For example:

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

Code in Error indicates the error code, and Message indicates the specific information of the error.

Error Code List

Common Error Codes

Error Code	Description
ActionOffline	This API has been deprecated.
AuthFailure.InvalidAuthorization	`Authorization` in the request header is invalid.
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type).
AuthFailure.MFAFailure	MFA failed.
AuthFailure.SecretIdNotFound	Key does not exist. Check if the key has been deleted or disabled in the console, and if not, check if the key is correctly entered. Note that whitespaces should not exist before or after the key.
AuthFailure.SignatureExpire	Signature expired. Timestamp and server time cannot differ by more than five minutes. Please

	ensure your current local time matches the standard time.
AuthFailure.SignatureFailure	Invalid signature. Signature calculation error. Please ensure you've followed the signature calculation process described in the Signature API documentation.
AuthFailure.TokenFailure	Token error.
AuthFailure.UnauthorizedOperation	The request is not authorized. For more information, see the CAM documentation.
DryRunOperation	DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.
FailedOperation	Operation failed.
InternalError	Internal error.
InvalidAction	The API does not exist.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidRequest	The multipart format of the request body is incorrect.
IpInBlacklist	Your IP is in uin IP blacklist.
IpNotInWhitelist	Your IP is not in uin IP whitelist.
LimitExceeded	Quota limit exceeded.
MissingParameter	A parameter is missing.
NoSuchProduct	The product does not exist.
NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
RequestLimitExceeded.GlobalRegionUinLimitExceeded	Uin exceeds the frequency limit.
RequestLimitExceeded.IPLimitExceeded	The number of ip requests exceeds the frequency limit.
RequestLimitExceeded.UinLimitExceeded	The number of uin requests exceeds the frequency

	limit.
RequestSizeLimitExceeded	The request size exceeds the upper limit.
ResourceInUse	Resource is in use.
ResourceInsufficient	Insufficient resource.
ResourceNotFound	The resource does not exist.
ResourceUnavailable	Resource is unavailable.
ResponseSizeLimitExceeded	The response size exceeds the upper limit.
ServiceUnavailable	Service is unavailable now.
UnauthorizedOperation	Unauthorized operation.
UnknownParameter	Unknown parameter.
UnsupportedOperation	Unsupported operation.
UnsupportedProtocol	HTTP(S) request protocol error; only GET and POST requests are supported.
UnsupportedRegion	API does not support the requested region.

Service Error Codes

Error Code	Description
AuthFailure	Error with CAM signature/authentication.
InsufficientRefundQuota	Number of returned cloud disks has reached the limit and no more cloud disks can be returned.
InsufficientSnapshotQuota	Insufficient snapshot quota.
InternalError.ComponentError	Dependent component request failed. Please contact customer service.
InternalError.FailQueryResource	Resource query failed.
InternalError.ResourceOpFailed	The operation performed on the resource failed. For error message, see the "Message" field in error description. Try again later or contact customer service.
InvalidAccount.InsufficientBalance	Insufficient account balance

InvalidAutoSnapshotPolicyId.NotFound	`AutoSnapshotPolicyId` entered does not exist.
InvalidDisk.AlreadyBound	Cloud disk is already bound to scheduled snapshot policy.
InvalidDisk.Busy	The cloud disk is busy. Try again later.
InvalidDisk.Expire	The cloud disk has expired.
InvalidDisk.NotPortable	Non-elastic cloud disks are not supported.
InvalidDisk.NotSupportSnapshot	The cloud disk does not support snapshot.
InvalidDisk.NotSupported	Indicates that the operation is not supported for the cloud disk.
InvalidDisk.SnapshotCreating	A snapshot is being created for the cloud disk. Try again later.
InvalidDisk.TypeError	Invalid cloud disk type.
InvalidDiskId.NotFound	The 'DiskId' entered does not exist.
InvalidFilter	The specified Filter is not supported.
InvalidInstance.NotSupported	Cloud Virtual Machine does not support mounting cloud disk.
InvalidInstanceId.NotFound	The 'InstanceId' entered does not exist.
InvalidParameter.DiskConfigNotSupported	Currently configured cloud disk not supported in current region.
InvalidParameter.DiskSizeNotMatch	The size of the cloud disk does not match the snapshot size.
InvalidParameter.ProjectIdNotExist	The project ID does not exist.
InvalidParameter.ShouldConvertSnapshotToImage	You need to convert the snapshot into an image first.
InvalidParameterValue.BindDiskLimitExceeded	Number of labels bound to cloud disk exceeds the limit.
InvalidParameterValue.LimitExceeded	Number of parameter values exceeds the limit.
InvalidSnapshot.NotSupported	Indicates that the operation is not supported for the snapshot.
InvalidSnapshotId.NotFound	The 'SnapshotId' entered does not exist.

LimitExceeded.AutoSnapshotPolicyOutOfQuota	The number of scheduled snapshot policies has reached the upper limit.
LimitExceeded.InstanceAttachedDisk	Number of instances mounted to cloud disk exceeds the limit.
ResourceBusy	The resource is busy. Try again later.
ResourceInUse.CopySnapshotConflict	The specified snapshot is being replicated to the destination region.
ResourceInUse.DiskMigrating	The cloud disk is being migrated. Try again later.
ResourceInUse.DiskRollbacking	The cloud disk is being rolled back. Please try again later.
ResourceInsufficient.OverQuota	Quota insufficient.
ResourceInsufficient.OverRefundQuota	The number of returned cloud disks has reached the limit and no more cloud disks can be returned.
ResourceNotFound.NotFound	The resource is not found.
ResourceUnavailable.Attached	The cloud disk has been mounted to another CVM.
ResourceUnavailable.DiskSnapshotChainTooLarge	The snapshot chain of the cloud disk is too long, so snapshot creation is refused.
ResourceUnavailable.Expire	The cloud disk has expired.
ResourceUnavailable.NotPortable	The non-elastic cloud disk does not support this operation.
ResourceUnavailable.NotSupportRefund	Cloud disks cannot be returned.
ResourceUnavailable.NotSupported	The resource does not support this operation.
ResourceUnavailable.RepeatRefund	The cloud disk has been repossessed.
ResourceUnavailable.SnapshotCreating	Unable to use: the snapshot is being created
ResourceUnavailable.TooManyCreatingSnapshot	Too many snapshots are being created in the entire network.
ResourceUnavailable.TypeError	Incorrect cloud disk type. For example, a system disk cannot be mounted to CVM.
ResourceUnavailable.ZoneNotMatch	

TradeDealConflict	Order conflict.
UnauthorizedOperation.MFAExpired	Multi-factor authentication (MFA) has expired. Please try again.
UnauthorizedOperation.NotCertification	Payment failed as the account has not completed identity verification.
UnauthorizedOperation.NotHavePaymentRight	No payment permission.
UnauthorizedOperation.RoleNotExists	The authorization role does not exist.
UnsupportedOperation.DetachPod	
UnsupportedOperation.DiskEncrypt	The disk is encrypted.
UnsupportedOperation.InstanceNotStopped	Instance mounted on cloud disk not shut down.
UnsupportedOperation.SnapHasShared	The snapshot is shared with others. Please cancel the sharing first.
UnsupportedOperation.SnapshotHasBindedImage	A custom snapshot was created for this snapshot. First delete the corresponding image.
UnsupportedOperation.SnapshotNotSupportCopy	The snapshot does not support cross-region replication.
UnsupportedOperation.StateError	The resource does not support this operation in this status.