文件存储

API 文档

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API 文档

History

最近更新时间：2023-07-04 17:29:53

Release 8

Release time: 2023-07-04 16:43:10

Release updates:

Improvement to existing documentation.

New APIs:

- CreateMigrationTask
- DeleteMigrationTask
- DescribeBucketList
- DescribeMigrationTasks
- ModifyFileSystemAutoScaleUpRule
- ScaleUpFileSystem
- StopMigrationTask

New data structures:

- BucketInfo
- MigrationTaskInfo

Modified data structures:

- SnapshotInfo
  - New members:SnapshotType
- TieringDetailInfo
  - New members:TieringSizeInBytes

Release 7

Release time: 2023-03-29 09:52:03

Release updates:

Improvement to existing documentation.

Modified APIs:

- CreateAutoSnapshotPolicy
  - New input parameters:DayOfMonth, IntervalDays
  - **Modified input parameters:** DayOfWeek
- UpdateAutoSnapshotPolicy
  - New input parameters:DayOfMonth, IntervalDays

New data structures:

- TieringDetailInfo

Modified data structures:

- AutoSnapshotPolicyInfo
  - New members:DayOfMonth, IntervalDays
- FileSystemInfo
  - New members:TieringState, TieringDetail

Release 6

Release time: 2023-02-07 10:15:13

Release updates:

Improvement to existing documentation.

Modified APIs:

- DeleteCfsSnapshot
  - New input parameters:SnapshotIds
  - **Modified input parameters:** SnapshotId

Release 5

Release time: 2022-10-18 15:23:52

Release updates:

Improvement to existing documentation.

New APIs:

- BindAutoSnapshotPolicy
- CreateAutoSnapshotPolicy
- CreateCfsSnapshot
- DeleteAutoSnapshotPolicy
- DeleteCfsSnapshot
- DescribeAutoSnapshotPolicies
- DescribeCfsSnapshotOverview
- DescribeCfsSnapshots
- DescribeSnapshotOperationLogs
- UnbindAutoSnapshotPolicy
- UpdateAutoSnapshotPolicy
- UpdateCfsSnapshotAttribute

New data structures:

- AutoSnapshotPolicyInfo
- FileSystemByPolicy
- Filter
- SnapshotInfo
- SnapshotOperateLog
- SnapshotStatistics

Release 4

Release time: 2022-02-21 09:58:51

Release updates:

Improvement to existing documentation.

Modified data structures:

- FileSystemInfo
  - New members:Tags

Release 3

Release time: 2021-09-09 17:41:47

Release updates:

Improvement to existing documentation.

Modified APIs:

- CreateCfsFileSystem
  - New input parameters:CcnId, CidrBlock, Capacity

Modified data structures:

- FileSystemInfo
  - New members:Capacity
- MountInfo
  - New members:CcnID, CidrBlock

Release 2

Release time: 2020-12-02 11:01:59

Release updates:

Improvement to existing documentation.

Modified APIs:

- CreateCfsFileSystem
  - New input parameters:ClientToken

Existing Release

Release time: 2020-09-03 20:38:59

Existing APIs/data structures are as follows:

Improvement to existing documentation.

Existing APIs:

- CreateCfsFileSystem
- CreateCfsPGroup
- CreateCfsRule
- DeleteCfsFileSystem
- DeleteCfsPGroup

- DeleteCfsRule
- DeleteMountTarget
- DescribeAvailableZoneInfo
- DescribeCfsFileSystemClients
- DescribeCfsFileSystems
- DescribeCfsPGroups
- DescribeCfsRules
- DescribeCfsServiceStatus
- DescribeMountTargets
- SignUpCfsService
- UpdateCfsFileSystemName
- UpdateCfsFileSystemPGroup
- UpdateCfsFileSystemSizeLimit
- UpdateCfsPGroup
- UpdateCfsRule

Existing data structures:

- AvailableProtoStatus
- AvailableRegion
- AvailableType
- AvailableZone
- FileSystemClient
- FileSystemInfo
- MountInfo
- PGroup
- PGroupInfo
- PGroupRuleInfo
- TagInfo

Introduction

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Cloud File Storage (CFS) provides a scalable shared file storage service that can be used with Tencent Cloud services such as CVM, TKE, and BatchCompute. CFS offers standard NFS and CIFS/SMB file system access protocols as well as shared data sources for multiple CVM instances or other computing services. It supports elastic capacity expansion and performance scaling. Your existing applications can be mounted for use without modification. As a highly available and reliable distributed file system, CFS is suitable for various scenarios such as big data analysis, media processing, and content management.

Regions and AZs

The regions and AZs where CFS is supported are as listed below. You need to enter the AZ parameter when creating a file system.

region	zone_id	zone_name	AZ
bj	800001	ap-beijing-1	Beijing Zone 1
	800002	ap-beijing-2	Beijing Zone 2
	800003	ap-beijing-3	Beijing Zone 3
	800004	ap-beijing-5	Beijing Zone 5
sh	200002	ap-shanghai-2	Shanghai Zone 2
	200003	ap-shanghai-3	Shanghai Zone 3
gz	100002	ap-guangzhou-2	Guangzhou Zone 2
	100003	ap-guangzhou-3	Guangzhou Zone 3
	100004	ap-guangzhou-4	Guangzhou Zone 4
cd	160001	ap-chengdu-1	Chengdu Zone 1
hk	300001	ap-hongkong-1	Hong Kong Zone 1
shjr	700001	ap-shanghai-fsi-1	Shanghai Finance Zone 1
	700002	ap-shanghai-fsi-2	Shanghai Finance Zone 2
szjr	110001	ap-shenzhen-fsi-1	Shenzhen Finance Zone 1
	110002	ap-shenzhen-fsi-2	Shenzhen Finance Zone 2

API Category

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Snapshot APIs

API Name	Feature	Frequency Limit (maximum requests per second)
DeleteAutoSnapshotPolicy	Deletes a snapshot policy	20
DescribeAutoSnapshotPolicies	Queries the list of snapshot policies of a file system	20
DescribeCfsSnapshotOverview	Gets the snapshot overview of a file system	20
DescribeCfsSnapshots	Queries the list of snapshots	20
DescribeSnapshotOperationLogs	Queries the operation logs of a snapshot	20
UnbindAutoSnapshotPolicy	Unbinds a snapshot policy	20
UpdateCfsSnapshotAttribute	Updates the information of a file system snapshot	20
BindAutoSnapshotPolicy	Binds a file system to a snapshot policy	20
CreateAutoSnapshotPolicy	Creates a scheduled snapshot policy	20
UpdateAutoSnapshotPolicy	Updates a scheduled snapshot policy	20

Permission Group APIs

API Name	Feature	Frequency Limit (maximum requests per second)
CreateCfsPGroup	Creates a permission group	20

CreateCfsRule	Creates a permission group rule	20
DeleteCfsPGroup	Deletes a permission group	20
DeleteCfsRule	Deletes a permission group rule	20
DescribeCfsPGroups	Queries the list of permission groups	20
DescribeCfsRules	Queries permission group rules	20
UpdateCfsPGroup	Updates the information of a permission group	20
UpdateCfsRule	Updates a permission group rule	20

File System APIs

API Name	Feature	Frequency Limit (maximum requests per second)
CreateCfsSnapshot	Creates a file system snapshot	20
DeleteCfsFileSystem	Deletes a file system	20
DeleteCfsSnapshot	Deletes a file system snapshot	20
DeleteMountTarget	Deletes a mount target	20
DescribeCfsFileSystemClients	Queries file system clients	20
DescribeCfsFileSystems	Queries file systems	20
DescribeMountTargets	Queries the mount targets of a file system	20
UpdateCfsFileSystemName	Updates a file system name	20
UpdateCfsFileSystemPGroup	Updates the permission group for a file system	20
UpdateCfsFileSystemSizeLimit	Updates the capacity limit of a file system	20
CreateCfsFileSystem	Creates a file system	10

Service APIs

API Name	Feature	Frequency Limit (maximum requests per second)
DescribeAvailableZoneInfo	Queries the availability of a region	20
DescribeCfsServiceStatus	Queries the status of the CFS service	20
SignUpCfsService	Activates the CFS service	20

Scaling APIs

API Name	Feature	Frequency Limit (maximum requests per second)
ModifyFileSystemAutoScaleUpRule	Modifies the automatic scaling policy of a file system	20
ScaleUpFileSystem	Scales up a file system	20

Data Migration APIs

API Name	Feature	Frequency Limit (maximum requests per second)
CreateMigrationTask	Creates a migration task	20
DeleteMigrationTask	Deletes a migration task	20
DescribeBucketList	Gets the bucket list	20
DescribeMigrationTasks	Gets the migration task list	20
StopMigrationTask	Stops a migration task	20

Making API Requests
Request Structure

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1. Service Address

The API supports access from either a nearby region (at cfs.tencentcloudapi.com) or a specified region (at cfs.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 "cfs.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)	cfs.tencentcloudapi.com
South China (Guangzhou)	cfs.ap-guangzhou.tencentcloudapi.com
East China (Shanghai)	cfs.ap-shanghai.tencentcloudapi.com
North China (Beijing)	cfs.ap-beijing.tencentcloudapi.com
Southwest China (Chengdu)	cfs.ap-chengdu.tencentcloudapi.com
Southwest China (Chongqing)	cfs.ap-chongqing.tencentcloudapi.com
Hong Kong, Macao, Taiwan (Hong Kong, China)	cfs.ap-hongkong.tencentcloudapi.com
Southeast Asia (Singapore)	cfs.ap-singapore.tencentcloudapi.com
Southeast Asia (Bangkok)	cfs.ap-bangkok.tencentcloudapi.com

South Asia (Mumbai)	cfs.ap-mumbai.tencentcloudapi.com
Northeast Asia (Seoul)	cfs.ap-seoul.tencentcloudapi.com
Northeast Asia (Tokyo)	cfs.ap-tokyo.tencentcloudapi.com
U.S. East Coast (Virginia)	cfs.na-ashburn.tencentcloudapi.com
U.S. West Coast (Silicon Valley)	cfs.na-siliconvalley.tencentcloudapi.com
North America (Toronto)	cfs.na-toronto.tencentcloudapi.com
Europe (Frankfurt)	cfs.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 tempor 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 v3

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

Applying for Security Credentials

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

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

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

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

Using the Resources for Developers

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

TC3-HMAC-SHA256 Signature Algorithm

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

TencentCloud API supports both GET and POST requests. For the GET method, only the Content-Type: application/x-www-form-urlencoded protocol format is supported. For the POST method, two protocol formats,

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

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

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

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

Assuming that your SecretId and SecretKey are `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 head 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;
```

```php
// 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

```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).

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&amp;InstanceIds.0=ins-09dx96dg&amp;Limit=20&amp;Nonce=11886&amp;Offset=0&amp;Region=ap-guangzhou&amp;SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******&amp;Signature=zmmjn35mikh6pM3V7sUEuX4wyYM%3D&amp;Timestamp=1465185768&amp;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()
```

Responses

最近更新时间：2020-02-19 09:20:36

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.

Permission Group APIs

UpdateCfsPGroup

最近更新时间：2023-07-04 17:29:56

1. API Description

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

This API is used to update the information of a permission group.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateCfsPGroup.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
PGroupId	Yes	String	Permission group ID
Name	No	String	Permission group name, which can contain 1-64 Chinese characters, letters, numbers, underscores, or dashes
DescInfo	No	String	Permission group description, which can contain 1-255 characters

3. Output Parameters

Parameter Name	Type	Description
PGroupId	String	Permission group ID
Name	String	Permission group name
DescInfo	String	Description
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Updating the information of a permission group

Input Example

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

{
"PGroupId": "pgroup-12345",
"DescInfo": "test",
"Name": "test"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"PGroupId": "pgroup-12345",
"Name": "test",
"DescInfo": "test"
}
}
```

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
FailedOperation	Operation failed.
FailedOperation.MountTargetExists	There are mount targets on the file system.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameterValue.DuplicatedPgroupName	The permission group name already exists.
InvalidParameterValue.InvalidPgroupName	Invalid permission group name.
InvalidParameterValue.MissingNameOrDescinfo	The permission group name and description cannot both be empty.
InvalidParameterValue.MissingPgroupName	The permission group name cannot be empty.
InvalidParameterValue.PgroupDescinfoLimitExceeded	The length of the permission group description

	exceeds the limit (255 bytes).
InvalidParameterValue.PgroupNameLimitExceeded	The length of the permission group name exceeds the limit (64 bytes).
ResourceNotFound.PgroupNotFound	The permission group does not exist.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeCfsRules

最近更新时间：2023-07-04 17:29:57

1. API Description

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

This API is used to query the list of permission group rules.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DescribeCfsRules.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
PGroupId	Yes	String	Permission group ID

3. Output Parameters

Parameter Name	Type	Description
RuleList	Array of PGroupRuleInfo	List of permission group rules

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

4. Example

Example1 Querying permission group rules

Input Example

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

{
"PGroupId": "pgroup-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"RuleList": [
{
"RuleId": "rule-12345",
"AuthClientIp": "10.1.1.100",
"RWPermission": "rw",
"UserPermission": "root_squash",
"Priority": 7
}
]
}
}
```

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
FailedOperation	Operation failed.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameterValue.InvalidPgroup	The permission group is not under this user.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeCfsPGroups

最近更新时间：2023-07-04 17:29:57

1. API Description

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

This API is used to query the list of permission groups.

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: DescribeCfsPGroups.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.

3. Output Parameters

Parameter Name	Type	Description
PGroupList	Array of PGroupInfo	Permission group information list

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 permission groups

Input Example

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

{}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"PGroupList": [
{
"PGroupId": "pgroup-12345",
"Name": "test",
"DescInfo": "test",
"BindCfsNum": 0,
"CDate": "2019-07-05 19:04:18"
},
{
"PGroupId": "pgroup-67890",
"Name": "test2",
"DescInfo": "test2",
"BindCfsNum": 0,
"CDate": "2019-07-06 10:57:29"
},
{
"PGroupId": "pgroup-54321",
"Name": "Test",
"DescInfo": "use for test",
"BindCfsNum": 1,
"CDate": "2019-07-03 16:06:38"
},
```

```
{
"PGroupId": "pgroupbasic",
"Name": "Default permission group",
"DescInfo": "Default permission group",
"BindCfsNum": 5,
"CDate": "2019-06-21 17:30:05"
}
]
}
}
```


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
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DeleteCfsRule

最近更新时间：2023-07-04 17:29:57

1. API Description

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

This API is used to delete a permission group rule.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteCfsRule.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
PGroupId	Yes	String	Permission group ID
RuleId	Yes	String	Rule ID

3. Output Parameters

Parameter Name	Type	Description
RuleId	String	Rule ID

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

4. Example

Example1 Deleting a permission group rule

Input Example

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

{
"PGroupId": "pgroup-12345",
"RuleId": "rule-12345"
}
```

Output Example

```
{
"Response": {
"PGroupId": "pgroup-12345",
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"RuleId": "rule-12345"
}
}
```

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
FailedOperation	Operation failed.
FailedOperation.PgroupInUse	The permission group has been bound to a file system.
FailedOperation.PgroupIsUpdating	The permission group is being updated.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameterValue.DuplicatedRuleAuthClientIp	The rule IP already exists.
InvalidParameterValue.InvalidAuthClientIp	Incorrect rule IP.
InvalidParameterValue.InvalidPgroup	The permission group is not under this user.
InvalidParameterValue.InvalidPriority	Incorrect priority settings.
InvalidParameterValue.InvalidRwPermission	Incorrect read/write permission settings.
InvalidParameterValue.InvalidUserPermission	Incorrect user permission settings.
ResourceNotFound.PgroupNotFound	The permission group does not exist.
ResourceNotFound.RuleNotFound	The permission rule does not exist.
UnsupportedOperation	Unsupported operation.

UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DeleteCfsPGroup

最近更新时间：2023-07-04 17:29:57

1. API Description

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

This API is used to delete a permission group.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteCfsPGroup.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
PGroupId	Yes	String	Permission group ID

3. Output Parameters

Parameter Name	Type	Description
PGroupId	String	Permission group ID
AppId	Integer	User ID

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

4. Example

Example1 Deleting a permission group

Input Example

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

{
"PGroupId": "pgroup-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"PGroupId": "pgroup-12345",
"AppId": 1250000000
}
}
```

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
FailedOperation	Operation failed.
FailedOperation.PgroupInUse	The permission group has been bound to a file system.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameterValue.InvalidPgroup	The permission group is not under this user.
ResourceNotFound.PgroupNotFound	The permission group does not exist.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

UpdateCfsRule

最近更新时间：2023-07-04 17:29:56

1. API Description

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

This API is used to update a permission rule.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateCfsRule.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
PGroupId	Yes	String	Permission group ID
RuleId	Yes	String	Rule ID
AuthClientIp	No	String	You can enter a single IP or IP range, such as 10.1.10.11 or 10.10.1.0/24. The default visiting address is `*`, indicating that all IPs are allowed. Please note that you need to enter the CVM instance's private IP here.
RWPermission	No	String	Read/write permission. Valid values: RO (read-only), RW (read & write). Default value: RO

UserPermission	No	String	User permission. Valid values: all_squash, no_all_squash, root_squash, no_root_squash. Specifically, all_squash: any visiting user will be mapped to an anonymous user or user group; no_all_squash: a visiting user will be first matched with a local user, and if the match fails, it will be mapped to an anonymous user or user group; root_squash: a visiting root user will be mapped to an anonymous user or user group; no_root_squash: a visiting root user will be allowed to maintain root account permissions. Default value: root_squash.
Priority	No	Integer	Rule priority. Value range: 1-100. 1 represents the highest priority, while 100 the lowest

3. Output Parameters

Parameter Name	Type	Description
PGroupId	String	Permission group ID
RuleId	String	Rule ID
AuthClientIp	String	Client IP or IP range allowed for access
RWPermission	String	Read & write permission
UserPermission	String	User permission
Priority	Integer	Priority
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Updating a permission group rule

Input Example

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

```
<Common request parameters>

{
"RWPermission": "rw",
"Priority": "7",
"PGroupId": "pgroup-12345",
"RuleId": "rule-12345",
"AuthClientIp": "10.0.0.10",
"UserPermission": "no_root_squash"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"PGroupId": "pgroup-12345",
"RuleId": "rule-12345",
"AuthClientIp": "10.0.0.10",
"RWPermission": "rw",
"UserPermission": "no_root_squash",
"Priority": 7
}
}
```

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
FailedOperation	Operation failed.
FailedOperation.PgroupInUse	The permission group has been bound to a file system.
FailedOperation.PgroupIsUpdating	The permission group is being updated.
FailedOperation.PgroupLinkCfsv10	The permission group has been associated with a legacy instance. Please unassociate it and try again.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameterValue.DuplicatedRuleAuthClientIp	The rule IP already exists.
InvalidParameterValue.InvalidAuthClientIp	Incorrect rule IP.
InvalidParameterValue.InvalidPgroup	The permission group is not under this user.
InvalidParameterValue.InvalidPriority	Incorrect priority settings.
InvalidParameterValue.InvalidRwPermission	Incorrect read/write permission settings.
InvalidParameterValue.InvalidUserPermission	Incorrect user permission settings.
InvalidParameterValue.RuleNotMatchPgroup	The permission group rule and permission group do not match.
ResourceNotFound.PgroupNotFound	The permission group does not exist.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

CreateCfsPGroup

最近更新时间：2023-07-04 17:29:57

1. API Description

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

This API is used to create a permission group.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateCfsPGroup.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
Name	Yes	String	Permission group name, which can contain 1-64 Chinese characters, letters, numbers, underscores, or dashes
DescInfo	No	String	Permission group description, which can contain 1-255 characters

3. Output Parameters

Parameter Name	Type	Description

PGroupId	String	Permission group ID
Name	String	Permission group name
DescInfo	String	Permission group description
BindCfsNum	Integer	The number of file systems bound to this permission group
CDate	String	Permission group creation time
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a permission group

Input Example

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

{
"DescInfo": "test_pgroup_desc",
"Name": "test_pgroup"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"PGroupId": "pgroup-12345",
"Name": "test_pgroup",
"DescInfo": "test_pgroup_desc",
"BindCfsNum": 0,
"CDate": "2019-7-20 10:25:33"
}
}
```

5. Developer Resources

SDK

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

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for 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
FailedOperation	Operation failed.
InvalidParameterValue.DuplicatedPgroupName	The permission group name already exists.
InvalidParameterValue.InvalidPgroupName	Invalid permission group name.
InvalidParameterValue.MissingPgroupName	The permission group name cannot be empty.
InvalidParameterValue.PgroupDescinfoLimitExceeded	The length of the permission group description exceeds the limit (255 bytes).
InvalidParameterValue.PgroupNameLimitExceeded	The length of the permission group name exceeds the limit (64 bytes).
ResourceInsufficient.PgroupNumberLimitExceeded	The number of permission groups has reached the upper limit.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try

	again.
UnsupportedOperation.UnverifiedUser	Unverified user.

CreateCfsRule

最近更新时间：2023-07-04 17:29:57

1. API Description

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

This API is used to create a permission group rule.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateCfsRule.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
PGroupId	Yes	String	Permission group ID
AuthClientIp	Yes	String	You can enter a single IP or IP range, such as 10.1.10.11 or 10.10.1.0/24. The default visiting address is `*`, indicating that all IPs are allowed. Please note that you need to enter the CVM instance's private IP here.
Priority	Yes	Integer	Rule priority. Value range: 1-100. 1 represents the highest priority, while 100 the lowest
RWPermission	No	String	Read/write permission. Valid values: RO (read-only), RW (read & write). Default value: RO

UserPermission	No	String	User permission. Valid values: all_squash, no_all_squash, root_squash, no_root_squash. Specifically, all_squash: any visiting user will be mapped to an anonymous user or user group; no_all_squash: a visiting user will be first matched with a local user, and if the match fails, it will be mapped to an anonymous user or user group; root_squash: a visiting root user will be mapped to an anonymous user or user group; no_root_squash: a visiting root user will be allowed to maintain root account permissions. Default value: root_squash.

3. Output Parameters

Parameter Name	Type	Description
RuleId	String	Rule ID
PGroupId	String	Permission group ID
AuthClientIp	String	Client IP
RWPermission	String	Read & write permissions
UserPermission	String	User permission
Priority	Integer	Priority
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a permission group rule

Input Example

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

```
{
"RWPermission": "rw",
"AuthClientIp": "10.1.1.10",
"PGroupId": "pgroup-12345",
"Priority": "9",
"UserPermission": "root_squash"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"RuleId": "rule-12345",
"PGroupId": "pgroup-12345",
"AuthClientIp": "10.1.1.10",
"RWPermission": "rw",
"UserPermission": "root_squash",
"Priority": 9
}
}
```

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
FailedOperation	Operation failed.
FailedOperation.PgroupInUse	The permission group has been bound to a file system.
FailedOperation.PgroupIsUpdating	The permission group is being updated.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameterValue.DuplicatedRuleAuthClientIp	The rule IP already exists.
InvalidParameterValue.InvalidAuthClientIp	Incorrect rule IP.
InvalidParameterValue.InvalidPgroup	The permission group is not under this user.
InvalidParameterValue.InvalidPriority	Incorrect priority settings.
InvalidParameterValue.InvalidRwPermission	Incorrect read/write permission settings.
InvalidParameterValue.InvalidUserPermission	Incorrect user permission settings.
ResourceInsufficient.RuleLimitExceeded	The number of rules exceeds the upper limit.
ResourceNotFound.PgroupNotFound	The permission group does not exist.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

Snapshot APIs
UpdateCfsSnapshotAttribute

最近更新时间：2023-07-04 17:29:53

1. API Description

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

This API is used to update the name and retention period of a file system snapshot.

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: UpdateCfsSnapshotAttribute.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
SnapshotId	Yes	String	File system snapshot ID
SnapshotName	No	String	File system snapshot name
AliveDays	No	Integer	File system snapshot retention period in days

3. Output Parameters

Parameter Name	Type	Description
SnapshotId	String	File system snapshot ID
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Updating the content of a snapshot

Input Example

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

{
"SnapshotId": "snapcfs-12345",
"SnapshotName": "xx"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"SnapshotId": "snapcfs-12345"
}
}
```

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
FailedOperation	Operation failed.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameter.InvalidSnapshotName	The file system snapshot parameter name is invalid.
InvalidParameter.SnapshotNameLimitExceeded	The file system snapshot name exceeds the upper limit.
InvalidParameterValue.InvalidSnapshotStatus	The snapshot is invalid.
ResourceNotFound	The resource does not exist.
ResourceNotFound.SnapshotNotFound	The snapshot ID does not exist.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.

UpdateAutoSnapshotPolicy

最近更新时间：2023-07-04 17:29:54

1. API Description

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

This API is used to update a scheduled snapshot policy.

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: UpdateAutoSnapshotPolicy.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
AutoSnapshotPolicyId	Yes	String	Snapshot policy ID
PolicyName	No	String	Snapshot policy name
DayOfWeek	No	String	The day of the week on which to regularly back up the snapshot
Hour	No	String	The hour of a day at which to regularly back up the snapshot
AliveDays	No	Integer	Snapshot retention period
IsActivated	No	Integer	Whether to activate the scheduled snapshot feature

DayOfMonth	No	String	The specific day of the month on which to create a snapshot. This parameter is mutually exclusive with `DayOfWeek` .
IntervalDays	No	Integer	The snapshot interval. This parameter is mutually exclusive with `DayOfWeek` and `DayOfMonth` .

3. Output Parameters

Parameter Name	Type	Description
AutoSnapshotPolicyId	String	Snapshot policy ID
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 UpdateAutoSnapshotPolicy

This example shows you how to update the snapshot policy of a file system.

Input Example

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

{
"AutoSnapshotPolicyId": "asp-12345",
"PolicyName": "abc"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"AutoSnapshotPolicyId": "asp-12345"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
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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
AuthFailure.UnauthorizedOperation	Request unauthorized.
InvalidParameter	Invalid parameter.
InvalidParameter.AutoPolicyNotFound	The snapshot policy was not found.
InvalidParameter.InvalidParamDayofWeek	The scheduled day of the week parameter is invalid.
InvalidParameter.InvalidParamHour	The value of the scheduled hour parameter is incorrect.
InvalidParameter.InvalidSnapPolicyStatus	The snapshot policy is invalid.
InvalidParameter.InvalidSnapshotPolicyName	The file system snapshot policy name is invalid.

InvalidParameter.MissingPolicyParam	The policy parameter is missing.
InvalidParameter.SnapshotPolicyNameLimitExceeded	The file system snapshot policy name exceeds the limit.
InvalidParameterValue	The parameter value is incorrect.
InvalidParameterValue.AutoPolicyNotFound	
InvalidParameterValue.InvalidDestinationRegions	
InvalidParameterValue.MissingPolicyParam	Snapshot policy parameters missing.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnauthorizedCfsQcsRole	The CFS role was not authorized.
UnsupportedOperation.UnverifiedUser	Unverified user.

UnbindAutoSnapshotPolicy

最近更新时间：2023-07-04 17:29:54

1. API Description

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

This API is used to unbind a snapshot policy from a file system.

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: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemIds	Yes	String	List of IDs of the file systems to be unbound, separated by comma
AutoSnapshotPolicyId	Yes	String	ID of the snapshot to be unbound

3. Output Parameters

Parameter Name	Type	Description

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

4. Example

Example1 Unbinding a file system

Input Example

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

{
"AutoSnapshotPolicyId": "asp-12345",
"FileSystemIds": "cfs-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"AutoSnapshotPolicyId": "asp-12345"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP

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- Tencent Cloud SDK 3.0 for 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.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameter.AutoPolicyNotFound	The snapshot policy was not found.
InvalidParameter.InvalidSnapPolicyStatus	The snapshot policy is invalid.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
ResourceNotFound	The resource does not exist.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeSnapshotOperationLogs

最近更新时间：2023-07-04 17:29:54

1. API Description

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

This API is used to query the operation logs of a snapshot.

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: DescribeSnapshotOperationLogs.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
SnapshotId	Yes	String	File system snapshot ID
StartTime	Yes	String	Start time
EndTime	Yes	String	End time

3. Output Parameters

Parameter Name	Type	Description
SnapshotId	String	Snapshot ID
SnapshotOperates	Array of SnapshotOperateLog	Operation log
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the operation logs of a snapshot

Input Example

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

{
"SnapshotId": "snapcfs-12345",
"EndTime": "2021-08-12 20:50:45",
"StartTime": "2021-08-11 20:50:45"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"SnapshotId": "snapcfs-12345",
"SnapshotOperates": [
{
"Action": "UpdateCfsSnapshotAttribute",
"ActionTime": "2021-08-13 20:03:28",
"ActionName": "UpdateCfsSnapshotAttribute",
"Operator": "",
"Result": 2
}
]
```

```
}
}
```

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
AuthFailure.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameterValue.InvalidSnapshotStatus	The snapshot is invalid.
ResourceNotFound.SnapshotNotFound	The snapshot ID does not exist.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnauthorizedCfsQcsRole	The CFS role was not authorized.

UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeCfsSnapshots

最近更新时间：2023-07-04 17:29:54

1. API Description

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

This API is used to query the list of snapshots of a file system.

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: DescribeCfsSnapshots.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	No	String	File system ID
SnapshotId	No	String	Snapshot ID
Offset	No	Integer	The starting position of paging
Limit	No	Integer	Page length
Filters.N	No	Array of Filter	Filters

OrderField	No	String	Order field
Order	No	String	Sorting order (ascending or descending)

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Total number
Snapshots	Array of SnapshotInfo	Snapshot information description
TotalSize	Integer	Total size 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 a snapshot

Input Example

```
https://cfs.tencentcloudapi.com/?Action=DescribeCfsSnapshots
&FileSystemId=cfs-12345
&<Common request parameters>
```

Output Example

```
{
"Response": {
"TotalSize": 1,
"TotalCount": 1,
"RequestId": "xx",
"Snapshots": [
{
"Status": 1,
"SnapshotName": "xx",
"Percent": 1,
"FileSystemId": "xx",
```

```
"Size": 1,
"AppId": 1,
"SnapshotId": "xx",
"AliveDay": 1,
"CreationTime": "xx",
"DeleteTime": "xx",
"FsName": "xx",
"RegionName": "xx"
}
]
}
}
```


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
AuthFailure.UnauthorizedOperation	Request unauthorized.

InternalError	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
ResourceNotFound.SnapshotNotFound	The snapshot ID does not exist.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeCfsSnapshotOverview

最近更新时间：2023-07-04 17:29:54

1. API Description

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

This API is used to get the snapshot overview of a file system.

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: DescribeCfsSnapshotOverview.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.

3. Output Parameters

Parameter Name	Type	Description
StatisticsList	Array of SnapshotStatistics	Statistics

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

Input Example

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

{}
```

Output Example

```
{
"Response": {
"StatisticsList": [
{
"Region": "ap-guangzhou",
"SnapshotNumber": 6,
"SnapshotSize": 33
},
{
"Region": "all",
"SnapshotNumber": 10,
"SnapshotSize": 330
}
],
"RequestId": "b398b508-6ac6-4a05-9c20-388399bd1965"
}
}
```

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
AuthFailure.UnauthorizedOperation	Request unauthorized.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnauthorizedCfsQcsRole	The CFS role was not authorized.
UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeAutoSnapshotPolicies

最近更新时间：2023-07-04 17:29:55

1. API Description

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

This API is used to query the list of scheduled snapshot policies of a file system.

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: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
AutoSnapshotPolicyId	No	String	Snapshot policy ID
Offset	No	Integer	Page offset
Limit	No	Integer	Page length
Filters.N	No	Array of Filter	Filters
Order	No	String	Ascending or descending order

OrderField	No	String	Sorting field

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Total number of snapshot policies
AutoSnapshotPolicies	Array of AutoSnapshotPolicyInfo	Snapshot policy information
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying snapshot policies

Input Example

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

{
"AutoSnapshotPolicyId": "asp-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"TotalCount": 1,
"AutoSnapshotPolicies": [
{
"AutoSnapshotPolicyId": "asp-12345",
"PolicyName": "Unnamed",
"RegionName": "ap-guangzhou",
```

```
"CreationTime": "2021-08-26 15:19:46",
"AliveDays": 1,
"DayOfWeek": "1",
"Hour": "1",
"IsActivated": 0,
"AppId": 1255558577,
"FileSystemNums": 0,
"Status": "available",
"NextActiveTime": "2021-11-22 01:00:00",
"FileSystems": []
}
]
}
}
```


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

AuthFailure.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameter.AutoPolicyNotFound	The snapshot policy was not found.
InvalidParameterValue	The parameter value is incorrect.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnauthorizedCfsQcsRole	The CFS role was not authorized.
UnsupportedOperation.UnverifiedUser	Unverified user.

DeleteAutoSnapshotPolicy

最近更新时间：2023-07-04 17:29:55

1. API Description

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

This API is used to delete a scheduled snapshot policy.

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: DeleteAutoSnapshotPolicy.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
AutoSnapshotPolicyId	Yes	String	Snapshot policy ID

3. Output Parameters

Parameter Name	Type	Description
AutoSnapshotPolicyId	String	Snapshot policy ID
RequestId	String	The unique request ID, which is returned for each request. RequestId is

		required for locating a problem.

4. Example

Example1 Deleting a policy

Input Example

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

{
"AutoSnapshotPolicyId": "asp-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"AutoSnapshotPolicyId": "asp-12345"
}
}
```

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
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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
AuthFailure.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameter.AutoPolicyNotFound	The snapshot policy was not found.
InvalidParameter.InvalidSnapPolicyStatus	The snapshot policy is invalid.
InvalidParameterValue	The parameter value is incorrect.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnauthorizedCfsQcsRole	The CFS role was not authorized.
UnsupportedOperation.UnverifiedUser	Unverified user.

CreateAutoSnapshotPolicy

最近更新时间：2023-07-04 17:29:55

1. API Description

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

This API is used to create a scheduled snapshot policy.

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: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
Hour	Yes	String	The time point when to repeat the snapshot operation
PolicyName	No	String	Policy name
DayOfWeek	No	String	The day of the week on which to repeat the snapshot operation
AliveDays	No	Integer	Snapshot retention period
DayOfMonth	No	String	The specific day (day 1 to day 31) of the month on which to automatically create a snapshot.

IntervalDays	No	Integer	The snapshot interval, in days.

3. Output Parameters

Parameter Name	Type	Description
AutoSnapshotPolicyId	String	Snapshot policy ID
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a file system snapshot policy

This example shows you how to create a file system snapshot policy.

Input Example

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

{
"DayOfWeek": "\"1,2\"",
"Hour": "\"2,3\""
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"AutoSnapshotPolicyId": "asp-12345"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for .NET
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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
AuthFailure.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameter.InvalidAlivedDays	The snapshot retention period is invalid.
InvalidParameter.InvalidParamDayofWeek	The scheduled day of the week parameter is invalid.
InvalidParameter.InvalidParamHour	The value of the scheduled hour parameter is incorrect.
InvalidParameter.InvalidSnapshotPolicyName	The file system snapshot policy name is invalid.
InvalidParameter.MissingPolicyParam	The policy parameter is missing.

InvalidParameter.SnapshotPolicyNameLimitExceeded	The file system snapshot policy name exceeds the limit.
InvalidParameterValue	The parameter value is incorrect.
InvalidParameterValue.AutoPolicyNotFound	
InvalidParameterValue.InvalidAliveDays	
InvalidParameterValue.InvalidParamDayOfMonth	Invalid value of `DayOfMonth`.
InvalidParameterValue.InvalidParamDayOfWeek	
InvalidParameterValue.InvalidParamIntervalDays	Invalid value of `IntervalDays`.
InvalidParameterValue.InvalidSnapPolicyStatus	
InvalidParameterValue.InvalidSnapshotName	
InvalidParameterValue.InvalidSnapshotPolicyName	
InvalidParameterValue.MissingSnapNameOrAliveDay	
InvalidParameterValue.SnapshotNameLimitExceeded	
InvalidParameterValue.SnapshotPolicyNameLimitExceeded	
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnauthorizedCfsQcsRole	The CFS role was not authorized.
UnsupportedOperation.UnverifiedUser	Unverified user.

BindAutoSnapshotPolicy

最近更新时间：2023-03-29 09:53:34

1. API Description

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

This API is used to bind one or multiple file systems to a snapshot policy. A file system can be bound to only one policy.

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: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
AutoSnapshotPolicyId	Yes	String	Snapshot policy ID
FileSystemIds	Yes	String	List of file systems

3. Output Parameters

Parameter Name	Type	Description

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

4. Example

Example1 Binding a file system to a snapshot policy

This example shows you how to bind a file system to a snapshot policy.

Input Example

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

{
"AutoSnapshotPolicyId": "asp-12345",
"FileSystemIds": "cfs-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"AutoSnapshotPolicyId": "asp-12345"
}
}
```

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
AuthFailure.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameter.AutoPolicyNotFound	The snapshot policy was not found.
InvalidParameter.InvalidSnapPolicyStatus	The snapshot policy is invalid.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
ResourceInsufficient.SnapshotSizeLimitExceeded	Snapshots are not supported because the file system is too large.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

File System APIs
UpdateCfsFileSystemPGroup

最近更新时间：2023-07-04 17:29:58

1. API Description

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

This API is used to update the permission group used by a file system.

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: UpdateCfsFileSystemPGroup.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
PGroupId	Yes	String	Permission group ID
FileSystemId	Yes	String	File system ID

3. Output Parameters

Parameter Name	Type	Description
PGroupId	String	Permission group ID
FileSystemId	String	File system ID
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Updating the permission group of a file system

Input Example

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

{
"FileSystemId": "cfs-12345",
"PGroupId": "pgroup-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"PGroupId": "pgroup-12345",
"FileSystemId": "cfs-12345"
}
}
```

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
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- Tencent Cloud SDK 3.0 for PHP
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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
FailedOperation	Operation failed.
FailedOperation.PgroupInUse	The permission group has been bound to a file system.
FailedOperation.PgroupIsUpdating	The permission group is being updated.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
InvalidParameterValue.InvalidPgroup	The permission group is not under this user.
InvalidParameterValue.InvalidPgroupId	Invalid permission group ID.
InvalidParameterValue.InvalidRegionZoneInfo	Either `ZoneName` or `ZoneId, Region` must be selected.
InvalidParameterValue.MissingFsParameter	`FileSystem` is missing.

ResourceNotFound	The resource does not exist.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
ResourceNotFound.PgroupNotFound	The permission group does not exist.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

UpdateCfsFileSystemName

最近更新时间：2023-07-04 17:29:58

1. API Description

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

This API is used to update a file system name.

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: UpdateCfsFileSystemName.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	Yes	String	File system ID
FsName	No	String	Custom file system name

3. Output Parameters

Parameter Name	Type	Description

CreationToken	String	Custom file system name
FileSystemId	String	File system ID
FsName	String	Custom file system name
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Renaming a file system

Input Example

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

{
"FileSystemId": "cfs-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"CreationToken": "test",
"FsName": "test",
"FileSystemId": "cfs-12345"
}
}
```

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
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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
FailedOperation	Operation failed.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameterValue.FsNameLimitExceeded	The length of the custom file system name exceeds the limit (64 bytes).
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
InvalidParameterValue.InvalidFsName	Invalid custom name.
InvalidParameterValue.InvalidRegionZoneInfo	Either `ZoneName` or `ZoneId, Region` must be selected.
InvalidParameterValue.MissingFsParameter	`FileSystem` is missing.
ResourceNotFound	The resource does not exist.

ResourceNotFound.FileSystemNotFound	The file system does not exist.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeMountTargets

最近更新时间：2023-07-04 17:29:59

1. API Description

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

This API is used to query the mount targets of a file system.

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: DescribeMountTargets.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	Yes	String	File system ID

3. Output Parameters

Parameter Name	Type	Description
MountTargets	Array of MountInfo	Mount target details

NumberOfMountTargets	Integer	The number of mount targets
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the mount targets of a file system

Input Example

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

{
"FileSystemId": "cfs-12345"
}
```

Output Example

```
{
"Response": {
"NumberOfMountTargets": 1,
"RequestId": "12345-54321-12345",
"MountTargets": [
{
"MountTargetId": "mount-12345",
"VpcId": "vpc-12345",
"CidrBlock": "xx",
"CcnID": "xx",
"NetworkInterface": "vpc",
"SubnetName": "test",
"FileSystemId": "cfs-12345",
"VpcName": "12345",
"LifeCycleState": "available",
"SubnetId": "subnet-12345",
"IpAddress": "10.0.0.10",
"FSID": "12345"
}
]
```

```
}
}
```

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 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	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
InvalidParameterValue.MissingFileSystemId	`FileSystemId` is missing.
InvalidParameterValue.MissingFsParameter	`FileSystem` is missing.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
ResourceNotFound.MountTargetNotFound	The mount target does not exist.

ResourceNotFound.PgroupNotFound	The permission group does not exist.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeCfsFileSystems

最近更新时间：2023-07-04 17:30:00

1. API Description

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

This API is used to query file systems.

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: DescribeCfsFileSystems.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	No	String	File system ID
VpcId	No	String	VPC ID
SubnetId	No	String	Subnet ID

3. Output Parameters

Parameter Name	Type	Description
FileSystems	Array of FileSystemInfo	File system information
TotalCount	Integer	Total number of file systems
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying file systems

Input Example

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

{
"FileSystemId": "cfs-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"TotalCount": 1,
"FileSystems": [
{
"Protocol": "NFS",
"Zone": "ap-guangzhou-3",
"CreationToken": "test_fs",
"StorageType": "SD",
"Encrypted": false,
"CreationTime": "2019-07-29 18:57:17",
"StorageResourcePkg": "",
"ZoneId": 100003,
"SizeByte": 0,
```

```
"FileSystemId": "cfs-12345",
"KmsKeyId": "",
"LifeCycleState": "mounting",
"Capacity": 1000,
"PGroup": {
"PGroupId": "pgroupbasic",
"Name": "Default permission group"
},
"SizeLimit": 0,
"BandwidthResourcePkg": "",
"FsName": "test_fs",
"AppId": 12700000,
"BandwidthLimit": 200,
"TieringDetail": {
"TieringSizeInBytes": 0
},
"TieringState": "xx",
"Tags": [
{
"TagKey": "xx",
"TagValue": "xx"
}
]
}
]
}
}
```


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
AuthFailure.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
InvalidParameterValue.MissingFileSystemIdOrRegion	Either `FileSystemId` or `Region` must be selected.
InvalidParameterValue.MissingFsParameter	`FileSystem` is missing.
InvalidParameterValue.TagKeyFilterLimitExceeded	Invalid parameter value: the number of tag keys exceeds the upper limit (6).
InvalidParameterValue.TagKeyLimitExceeded	The length of the tag key exceeds the upper limit of 127 bytes.
InvalidParameterValue.UnavailableRegion	Services are unavailable in this AZ.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DeleteMountTarget

最近更新时间：2023-07-04 17:30:00

1. API Description

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

This API is used to delete a mount target.

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: DeleteMountTarget.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	Yes	String	File system ID
MountTargetId	Yes	String	Mount target ID

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 a mount target

Input Example

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

{
"FileSystemId": "cfs-12345",
"MountTargetId": "mount-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81"
}
}
```

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
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
InvalidParameterValue.InvalidRegionZoneInfo	Either `ZoneName` or `ZoneId, Region` must be selected.
InvalidParameterValue.MissingFsParameter	`FileSystem` is missing.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
ResourceNotFound.MountTargetNotFound	The mount target does not exist.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DeleteCfsFileSystem

最近更新时间：2023-07-04 17:30:00

1. API Description

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

This API is used to delete a file system.

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: DeleteCfsFileSystem.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	Yes	String	File system ID. Note: please call the `DeleteMountTarget` API to delete the mount target first before deleting a file system; otherwise, the delete operation will fail.

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 a file system

Input Example

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

{
"FileSystemId": "cfs-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "xxxx"
}
}
```

5. Developer Resources

SDK

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

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for 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
FailedOperation.MountTargetExists	There are mount targets on the file system.
FailedOperation.UntagResourceFailed	Failed to unbind the resource tag.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter	Invalid parameter.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
InvalidParameterValue.InvalidFsStatus	Invalid file system status.
InvalidParameterValue.InvalidRegionZoneInfo	Either `ZoneName` or `ZoneId, Region` must be selected.
InvalidParameterValue.MissingFsParameter	`FileSystem` is missing.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

CreateCfsFileSystem

最近更新时间：2023-07-04 17:30:01

1. API Description

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

This API is used to create a file system.

A maximum of 10 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: CreateCfsFileSystem.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
Zone	Yes	String	AZ name, such as "ap-beijing-1". For the list of regions and AZs, please see Overview
NetInterface	Yes	String	Network type. Valid values: `VPC` and `CCN`. Select `VPC` for a Standard or High-Performance file system, and `CCN` for a Standard Turbo or High-Performance Turbo one.
PGroupId	Yes	String	Permission group ID
Protocol	No	String	File system protocol. Valid values: `NFS`, `CIFS`, `TURBO`. If this parameter is left empty, `NFS` is used by default. For the

			Turbo series, you must set this parameter to `TURBO`.
StorageType	No	String	Storage type of the file system. Valid values: `SD` (Standard), `HP` (High-Performance), `TB` (Standard Turbo), and `TP` (High-Performance Turbo). Default value: `SD`.
VpcId	No	String	VPC ID. This field is required if network type is VPC.
SubnetId	No	String	Subnet ID. This field is required if network type is VPC.
MountIP	No	String	IP address (this parameter supports only the VPC network type, and the Turbo series is not supported). If this parameter is left empty, a random IP in the subnet will be assigned.
FsName	No	String	Custom file system name
ResourceTags.N	No	Array of TagInfo	File system tag
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. This string is valid for 2 hours.
CcnId	No	String	CCN instance ID (required if the network type is CCN)
CidrBlock	No	String	CCN IP range used by the CFS (required if the network type is CCN), which cannot conflict with other IP ranges bound in CCN
Capacity	No	Integer	File system capacity, in GiB (required for the Turbo series). For Standard Turbo, the minimum purchase required is 40,960 GiB (40 TiB) and the expansion increment is 20,480 GiB (20 TiB). For High-Performance Turbo, the minimum purchase required is 20,480 GiB (20 TiB) and the expansion increment is 10,240 GiB (10 TiB).

3. Output Parameters

Parameter Name	Type	Description
CreationTime	String	File system creation time
CreationToken	String	Custom file system name

FileSystemId	String	File system ID
LifeCycleState	String	File system status. Valid values: `creating`, `create_failed`, `available`, `unserviced`, `upgrading`, `deleting`
SizeByte	Integer	Storage used by the file system, in bytes
ZoneId	Integer	AZ ID
FsName	String	Custom file system name
Encrypted	Boolean	Whether a file system is encrypted
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a file system instance

This example shows you how to create a file system.

Input Example

```
https://cfs.tencentcloudapi.com/?Action=CreateCfsFileSystem
&NetInterface=basic
&Zone=ap-beijing-1
&PGroupId=pgroupbasic
&FsName=test_fs
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"CreationTime": "2017-11-23 20:51:34",
"CreationToken": "test_fs",
"FileSystemId": "cfs-ocakq8tt",
"LifeCycleState": "creating",
"SizeByte": 0,
"ZoneId": 800001,
"FsName": "test_fs",
"Encrypted": false
```

```
}
}
```

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
FailedOperation	Operation failed.
FailedOperation.BindResourcePkgFailed	Failed to bind the resource pack to the file system.
FailedOperation.ClientTokenInUse	The resource is being created.
InternalError	Internal error.
InternalError.CreateFsFailed	Failed to create the file system.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.

InvalidParameter	Invalid parameter.
InvalidParameter.AutoPolicyNotFound	The snapshot policy was not found.
InvalidParameterValue.ClientTokenLimitExceeded	The length of the string used to ensure the idempotency of the request exceeds the upper limit of 64 bytes.
InvalidParameterValue.DuplicatedTagKey	Duplicate tag key.
InvalidParameterValue.FsNameLimitExceeded	The length of the custom file system name exceeds the limit (64 bytes).
InvalidParameterValue.InvalidClientToken	The string used to ensure the idempotency of the request is incorrect.
InvalidParameterValue.InvalidEncrypted	Invalid encryption parameter.
InvalidParameterValue.InvalidFsName	Invalid custom name.
InvalidParameterValue.InvalidMountTargetIp	Incorrect mount target IP.
InvalidParameterValue.InvalidNetInterface	Invalid network type.
InvalidParameterValue.InvalidPgroupId	Invalid permission group ID.
InvalidParameterValue.InvalidProtocol	Invalid protocol parameter.
InvalidParameterValue.InvalidRegionZoneInfo	Either `ZoneName` or `ZoneId`, `Region` must be selected.
InvalidParameterValue.InvalidResourceTags	Invalid parameter value: invalid resource tag value.
InvalidParameterValue.InvalidSnapshotStatus	The snapshot is invalid.
InvalidParameterValue.InvalidStorageResourcePkg	The resource pack does not exist or has been bound.
InvalidParameterValue.InvalidStorageType	Invalid storage class parameter.
InvalidParameterValue.InvalidSubnetId	Invalid subnet ID.
InvalidParameterValue.InvalidTagKey	The tag key cannot be empty.
InvalidParameterValue.InvalidTagValue	The tag value is empty or the character is invalid.
InvalidParameterValue.InvalidTurboCapacity	The capacity value is invalid.

InvalidParameterValue.InvalidVip	The specified VIP is unavailable.
InvalidParameterValue.InvalidVpcId	Invalid VPCID.
InvalidParameterValue.InvalidVpcParameter	Invalid VPC parameter.
InvalidParameterValue.InvalidZoneId	Invalid AZ.
InvalidParameterValue.InvalidZoneOrZoneId	Invalid AZ or AZ ID.
InvalidParameterValue.MissingKmsKeyId	Key ID or ARN is missing.
InvalidParameterValue.MissingStorageResourcePkg	No storage pack is bound to.
InvalidParameterValue.MissingSubnetidOrUnsubnetid	`SUBNETID` and `UNSUBNETID` cannot both be empty.
InvalidParameterValue.MissingVpcParameter	A VPC parameter is missing.
InvalidParameterValue.MissingVpcidOrUnvpcid	`VPCID` and `UNVPCID` cannot both be empty.
InvalidParameterValue.MissingZoneId	`ZoneID` is missing.
InvalidParameterValue.MissingZoneOrZoneId	Either `Zone` or `Zone_id` must be selected.
InvalidParameterValue.TagKeyFilterLimitExceeded	Invalid parameter value: the number of tag keys exceeds the upper limit (6).
InvalidParameterValue.TagKeyLimitExceeded	The length of the tag key exceeds the upper limit of 127 bytes.
InvalidParameterValue.TagValueFilterLimitExceeded	The number of tag values exceeds the maximum (10).
InvalidParameterValue.TagValueLimitExceeded	The length of the tag value exceeds the upper limit of 255 bytes.
InvalidParameterValue.UnavailableRegion	Services are unavailable in this AZ.
InvalidParameterValue.UnavailableZone	Services are unavailable in this region.
InvalidParameterValue.ZoneIdRegionNotMatch	`ZoneId` and `Region` do not match.
ResourceInsufficient.FileSystemLimitExceeded	The number of file systems has reached the upper limit.

ResourceInsufficient.RegionSoldOut	Resources in the region have been sold out.
ResourceInsufficient.SubnetIpAllOccupied	There is no IP available in this subnet.
ResourceInsufficient.TagLimitExceeded	The quantity of the resource tags reached the upper limit.
ResourceInsufficient.TagQuotasExceeded	The tag quota is insufficient.
ResourceInsufficient.TurboSpecialCapacityFileSystemCountLimit	The number of Turbo file systems with special capacity has reached the upper limit.
ResourceNotFound.PgroupNotFound	The permission group does not exist.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.BasicNetInterfaceNotSupported	This AZ does not support the basic network.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeCfsFileSystemClients

最近更新时间：2023-07-04 17:30:00

1. API Description

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

This API is used to query clients on which this file system is mounted. To do so, the client needs to have the CFS monitoring plugin installed.

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: DescribeCfsFileSystemClients.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	Yes	String	File system ID

3. Output Parameters

Parameter Name	Type	Description

ClientList	Array of FileSystemClient	Client list
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying file system clients

Input Example

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

{
"FileSystemId": "cfs-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "aaaa-bbbb-cccc-dddd",
"ClientList": [
{
"MountDirectory": "/mnt",
"ZoneName": "Guangzhou Zone 1",
"Zone": "ap-guangzhou-1",
"VpcId": "vpc-gvem39gr",
"ClientIp": "10.1.1.10",
"CfsVip": "10.1.1.11"
}
]
}
}
```

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	Internal error.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
InvalidParameterValue.MissingFileSystemId	`FileSystemId` is missing.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
ResourceNotFound.MountTargetNotFound	The mount target does not exist.
ResourceNotFound.PgroupNotFound	The permission group does not exist.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.

DeleteCfsSnapshot

最近更新时间：2023-07-04 17:30:00

1. API Description

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

This API is used to delete a file system snapshot.

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: DeleteCfsSnapshot.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
SnapshotId	No	String	File system snapshot ID
SnapshotIds.N	No	Array of String	The list of the IDs of the file system snapshots to be deleted. At least one of `SnapshotId` and `SnapshotIds` must be specified.

3. Output Parameters

Parameter	Type	Description

Name		
SnapshotId	String	File system ID
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Deleting a snapshot

Input Example

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

{
"SnapshotId": "snapcfs-12345"
}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"SnapshotId": "snapcfs-12345"
}
}
```

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	A CAM signature/authentication error occurred.
AuthFailure.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameterValue.InvalidSnapshotStatus	The snapshot is invalid.
ResourceNotFound.SnapshotNotFound	The snapshot ID does not exist.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnauthorizedCfsQcsRole	The CFS role was not authorized.
UnsupportedOperation.UnverifiedUser	Unverified user.

CreateCfsSnapshot

最近更新时间：2023-07-04 17:30:01

1. API Description

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

This API is used to create a file system snapshot.

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: CreateCfsSnapshot.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	Yes	String	File system ID
SnapshotName	No	String	Snapshot name
ResourceTags.N	No	Array of TagInfo	Snapshot tag

3. Output Parameters

Parameter Name	Type	Description
SnapshotId	String	File system snapshot ID
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a file system snapshot

Input Example

```
https://cfs.tencentcloudapi.com/?Action=CreateCfsSnapshot
&FileSystemId=cfs-abcdefgh
&SnapshotName=test
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"SnapshotId": "snapcfs-abababb"
}
}
```

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
AuthFailure.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InvalidParameter	Invalid parameter.
InvalidParameter.InvalidSnapshotName	The file system snapshot parameter name is invalid.
InvalidParameter.SnapshotNameLimitExceeded	The file system snapshot name exceeds the upper limit.
InvalidParameterValue	The parameter value is incorrect.
InvalidParameterValue.FsSizeLimitExceeded	The file system quota exceeds the upper limit.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
InvalidParameterValue.InvalidFsStatus	Invalid file system status.
InvalidParameterValue.InvalidResourceTags	Invalid parameter value: invalid resource tag value.
InvalidParameterValue.InvalidTagKey	The tag key cannot be empty.
InvalidParameterValue.InvalidTagValue	The tag value is empty or the character is invalid.
InvalidParameterValue.MissingFileSystemId	`FileSystemId` is missing.
InvalidParameterValue.TagKeyFilterLimitExceeded	Invalid parameter value: the number of tag keys exceeds the upper limit (6).
InvalidParameterValue.TagKeyLimitExceeded	The length of the tag key exceeds the upper limit of 127 bytes.

InvalidParameterValue.TagValueFilterLimitExceeded	The number of tag values exceeds the maximum (10).
InvalidParameterValue.TagValueLimitExceeded	The length of the tag value exceeds the upper limit of 255 bytes.
ResourceInsufficient.TagLimitExceeded	The quantity of the resource tags reached the upper limit.
ResourceInsufficient.TagQuotasExceeded	The tag quota is insufficient.
ResourceNotFound	The resource does not exist.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

Service APIs
DescribeCfsServiceStatus

最近更新时间：2023-07-04 17:29:55

1. API Description

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

This API is used to query the status of the CFS service.

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: DescribeCfsServiceStatus.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.

3. Output Parameters

Parameter Name	Type	Description
CfsServiceStatus	String	Current status of the CFS service for this user. Valid values: none (not activated), creating (activating), created (activated)

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

4. Example

Example1 Querying the status of the CFS service

Input Example

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

{}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"CfsServiceStatus": "none"
}
}
```

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
InternalError	Internal error.
InvalidParameter	Invalid parameter.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

SignUpCfsService

最近更新时间：2023-07-04 17:29:55

1. API Description

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

This API is used to activate the CFS service.

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: SignUpCfsService.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.

3. Output Parameters

Parameter Name	Type	Description
CfsServiceStatus	String	Current status of the CFS service for this user. Valid values: `creating` (activating); `created` (activated)
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Activating the CFS service

Input Example

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

{}
```

Output Example

```
{
"Response": {
"RequestId": "fjo8aejo-fjei-32eu-2je9-fhue83nd81",
"CfsServiceStatus": "creating"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Invalid parameter.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

DescribeAvailableZoneInfo

最近更新时间：2023-07-04 17:29:56

1. API Description

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

This API is used to query the availability of a region.

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: DescribeAvailableZoneInfo.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.

3. Output Parameters

Parameter Name	Type	Description
RegionZones	Array of AvailableRegion	Information such as resource availability in each AZ and the supported storage classes and protocols

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

4. Example

Example1 Querying the region availability

Input Example

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

{}
```

Output Example

```
{
"Response": {
"RegionZones": [
{
"Region": "ap-guangzhou",
"RegionName": "gz",
"RegionCnName": "Guangzhou",
"RegionStatus": "AVAILABLE",
"Zones": [
{
"Zone": "ap-guangzhou-2",
"ZoneId": 100002,
"ZoneName": "Guangzhou Zone 2",
"ZoneCnName": "Guangzhou Zone 2",
"Types": [
{
"Type": "SD",
"Prepayment": true,
"Protocols": [
{
"Protocol": "NFS",
"SaleStatus": "saling"
}
]
}
```

```
]
},
{
"Zone": "ap-guangzhou-3",
"ZoneId": 100003,
"ZoneName": "Guangzhou Zone 3",
"ZoneCnName": "Guangzhou Zone 3",
"Types": [
{
"Type": "SD",
"Prepayment": true,
"Protocols": [
{
"Protocol": "NFS",
"SaleStatus": "saling"
}
]
}
]
},
{
"Zone": "ap-guangzhou-4",
"ZoneId": 100004,
"ZoneName": "Guangzhou Zone 4",
"ZoneCnName": "Guangzhou Zone 4",
"Types": [
{
"Type": "SD",
"Prepayment": true,
"Protocols": [
{
"Protocol": "NFS",
"SaleStatus": "saling"
}
]
}
]
}
]
},
],
"RequestId": "a7493b9c-8650-409a-a950-8d4afa18b5ec"
}
}
```

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
AuthFailure.GetRoleFailed	Failed to get the CFS service role.
InternalError	Internal error.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnverifiedUser	Unverified user.

Scaling APIs
ModifyFileSystemAutoScaleUpRule

最近更新时间：2023-07-04 17:29:56

1. API Description

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

This API is used to modify the scaling policy of a file system.

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: ModifyFileSystemAutoScaleUpRule.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	Yes	String	File system ID
ScaleUpThreshold	Yes	Integer	Threshold for triggering scaling. Value range: 10-90
TargetThreshold	Yes	Integer	Target threshold after scaling. Value range: 10-90. The value of this parameter must be smaller than that of `ScaleUpThreshold`.
Status	No	Integer	Rule status. Valid values: `0` (disabled) and `1` (enabled).

3. Output Parameters

Parameter Name	Type	Description
FileSystemId	String	File system ID
Status	Integer	Rule status. Valid values: `0` (disabled) and `1` (enabled).
ScaleUpThreshold	Integer	Threshold for triggering scaling. Value range: 10-90
TargetThreshold	Integer	Target threshold after scaling. Value range: 10-90
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Modifying the automatic scaling policy of a file system

This example shows you how to modify the automatic scaling policy of a file system.

Input Example

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

{
"FileSystemId": "cfs-agaga",
"Status": 1,
"ScaleUpThreshold": 85,
"TargetThreshold": 70
}
```

Output Example

```
{
"Response": {
"RequestId": "gagagagad-xdx",
"FileSystemId": "cfs-agaga",
"Status": 1,
```

```
"ScaleUpThreshold": 85,
"TargetThreshold": 70
}
}
```

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
AuthFailure.GetRoleFailed	Failed to get the CFS service role.
InvalidParameterValue.InvalidAutoScaleUpParams	Invalid scaling policy parameters.
InvalidParameterValue.InvalidFsStatus	Invalid file system status.
ResourceNotFound.FsNotExist	The file system does not exist.
ResourceNotFound.ResourcePackageNotFound	The resource does not exist: The resource ID cannot be found.

ScaleUpFileSystem

最近更新时间：2023-07-04 17:29:56

1. API Description

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

This API is used to scale up a Turbo file system.

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: ScaleUpFileSystem.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
FileSystemId	Yes	String	File system ID
TargetCapacity	Yes	Integer	Target capacity after scaling

3. Output Parameters

Parameter Name	Type	Description

FileSystemId	String	File system ID
TargetCapacity	Integer	Target capacity after scaling
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Scaling up a file system

This example shows you how to scale up a file system.

Input Example

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

{
"FileSystemId": "cfs-agagag",
"TargetCapacity": 1
}
```

Output Example

```
{
"Response": {
"RequestId": "agagaga-tatatatata-tatata",
"FileSystemId": "cfs-agagag",
"TargetCapacity": 10
}
}
```

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
AuthFailure.UnauthorizedOperation	Request unauthorized.
InternalError	Internal error.
InvalidParameterValue	The parameter value is incorrect.
InvalidParameterValue.InvalidFsStatus	Invalid file system status.
InvalidParameterValue.InvalidScaleupTargetCapacity	Invalid target capacity.
InvalidParameterValue.InvalidTurboCapacity	The capacity value is invalid.
MissingParameter	Missing parameter.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
ResourceNotFound.FsNotExist	The file system does not exist.
UnauthorizedOperation	Unauthorized operation.
UnsupportedOperation	Unsupported operation.
UnsupportedOperation.MissingKmsAccessPermission	The appid is not on the allowlist of the KMS (the KMS allowlist is currently enabled).
UnsupportedOperation.UnverifiedUser	Unverified user.

Data Migration APIs
CreateMigrationTask

最近更新时间：2023-07-04 17:30:02

1. API Description

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

This API is used to create a migration task.
To use this API, submit a ticket for us to add you to the allowlist.

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: CreateMigrationTask.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
TaskName	Yes	String	Migration task name
MigrationType	Yes	Integer	Migration type. Valid values: `0` (bucket) and `1` (list). Default value: `0` .
MigrationMode	Yes	Integer	Migration mode. Default value: `0` (full migration).

SrcSecretId	Yes	String	SecretId of the data source account
SrcSecretKey	Yes	String	SecretKey of the data source account
FileSystemId	Yes	String	File system instance ID
FsPath	Yes	String	File system path
CoverType	Yes	Integer	Overwrite policy for files with the same name. Valid values: `0` (retain the file with the latest modified time), `1` (overwrite); and `2` (not overwrite). Default value: `0` .
SrcService	Yes	String	Data source service provider. Valid values: `COS` (Tencent Cloud COS), `OSS` (Alibaba Cloud OSS), and `OBS` (Huawei Cloud OBS).
BucketName	No	String	Data source bucket name. Specify at least one of the bucket name or address.
BucketRegion	No	String	Data source bucket region
BucketAddress	No	String	Data source bucket address. Specify at least one of the bucket name or address.
ListAddress	No	String	List address. This parameter is required if `MigrationType` is set to `1` (list).
FsName	No	String	Target file system name
BucketPath	No	String	Source bucket path, which defaults to `/`

3. Output Parameters

Parameter Name	Type	Description
TaskId	String	Migration task ID
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a migration task

This example shows you how to create a data migration task.

Input Example

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

{
"BucketRegion": "ap-nanjing",
"SrcService": "COS",
"CoverType": "1",
"SrcSecretKey": "*****************************",
"BucketPath": "cos/",
"MigrationMode": "0",
"FileSystemId": "cfs-8dd58fd7",
"BucketName": "test-1-1256238147",
"FsPath": "/test/",
"MigrationType": "0",
"TaskName": "test",
"SrcSecretId": "************************************************",
"FsName": "test"
}
```

Output Example

```
{
"Response": {
"TaskId": "cfsmigrate-dfe9b1f2",
"RequestId": "91cd4a08-a105-4c59-b229-82f0fs7363b8"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
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- Tencent Cloud SDK 3.0 for 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
FailedOperation	Operation failed.

DeleteMigrationTask

最近更新时间：2023-07-04 17:30:02

1. API Description

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

This API is used to delete a migration task.
To use this API, submit a ticket for us to add you to the allowlist.

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: DeleteMigrationTask.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
TaskId	Yes	String	Migration task ID

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 a migration task

This example shows you how to delete a data migration task.

Input Example

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

{
"TaskId": "cfsmigrate-4e78dae8"
}
```

Output Example

```
{
"Response": {
"RequestId": "b72e3de2-6770-4388-af42-7e511935ad8e"
}
}
```

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
AuthFailure	A CAM signature/authentication error occurred.
FailedOperation	Operation failed.
InternalError	Internal error.
InvalidParameter	Invalid parameter.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
ResourceInUse	The resource is in use.
ResourceNotFound	The resource does not exist.

DescribeBucketList

最近更新时间：2023-07-04 17:30:02

1. API Description

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

This API is used to get the list of data source buckets.
To use this API, submit a ticket for us to add you to the allowlist.

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: DescribeBucketList.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
SrcService	Yes	String	Data source service provider. Valid values: `COS` (Tencent Cloud COS), `OSS` (Alibaba Cloud OSS), and `OBS` (Huawei Cloud OBS).
SrcSecretId	Yes	String	SecretId of the data source account
SrcSecretKey	Yes	String	SecretKey of the data source account

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Number of buckets
BucketList	Array of BucketInfo	Bucket list
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the bucket list

This example shows you how to get the bucket list.

Input Example

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

{
"SrcSecretId": "*****************************",
"SrcSecretKey": "*****************************",
"SrcService": "COS"
}
```

Output Example

```
{
"Response": {
"BucketList": [
{
"Name": "1-1256238147",
"Region": "ap-nanjing"
}
],
"TotalCount": 1,
"RequestId": "ea7fe4ad-d508-41f9-bcc7-6e043102b5ba"
```

```
}
}
```

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

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

DescribeMigrationTasks

最近更新时间：2023-07-04 17:30:01

1. API Description

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

This API is used to get the list of migration tasks.
To use this API, submit a ticket for us to add you to the allowlist.

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: DescribeMigrationTasks.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
Offset	No	Integer	The pagination offset. Default value: 0.
Limit	No	Integer	Maximum number of entries per page. Default value: 20. Maximum value: 100.
Filters.N	No	Array of Filter	• taskId Filter by **migration task ID** Type: String

			Required: No • taskName Fuzzy filter by **migration task name** Type: String Required: No Each request can have up to 10 `Filters` and 100 `Filter.Values` .

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Number of migration tasks
MigrationTasks	Array of MigrationTaskInfo	Migration task details
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the migration task list

This example shows you how to get the migration task list.

Input Example

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

{
```

```
"Limit": 20,
"Offset": 0
}
```

Output Example

```
{
"Response": {
"MigrationTasks": [
{
"TaskName": "taskName",
"TaskId": "cfsmigrate-29d43e98",
"MigrationType": 0,
"MigrationMode": 0,
"BucketName": "bucket-1",
"BucketRegion": "oss-cn-beijing",
"BucketAddress": "https://test-1.oss-cn-beijing.aliyuncs.com",
"BucketPath": "",
"ListAddress": "",
"FsName": "t1",
"FileSystemId": "cfs-qz5c44o1",
"FsPath": "/ahh",
"CoverType": 0,
"Status": 6,
"FileTotalCount": 0,
"FileMigratedCount": 0,
"FileFailedCount": 0,
"FileTotalSize": 0,
"FileMigratedSize": 0,
"FileFailedSize": 0,
"FileTotalList": null,
"FileCompletedList": null,
"FileFailedList": null,
"CreateTime": 1662023240000,
"EndTime": 1662023548000
}
],
"TotalCount": 2,
"RequestId": "c0f7c5d9-c8c4-401a-a6da-2106f3c6db76"
}
}
```

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

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

StopMigrationTask

最近更新时间：2023-07-04 17:30:01

1. API Description

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

This API is used to stop a migration task.
To use this API, submit a ticket for us to add you to the allowlist.

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: StopMigrationTask.
Version	Yes	String	Common Params. The value used for this API: 2019-07-19.
Region	No	String	Common Params. This parameter is not required for this API.
TaskId	Yes	String	Migration task name

3. Output Parameters

Parameter Name	Type	Description
TaskId	String	Migration task ID

Status	Integer	Migration status. Valid values: `0` (completed), `1` (in progress), and `2` (stopped).
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Stopping a migration task

This example shows you how to stop a migration task.

Input Example

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

{
"TaskId": "cfsmigrate-29de0e87"
}
```

Output Example

```
{
"Response": {
"TaskId": "cfsmigrate-29de0e87",
"Status": 2,
"RequestId": "eff7c5d9-c8c4-401a-deda-2108d3cc8b76"
}
}
```

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

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

Data Types

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AutoSnapshotPolicyInfo

Snapshot policy information

Used by actions: DescribeAutoSnapshotPolicies.

Name	Type	Description
AutoSnapshotPolicyId	String	Snapshot policy ID
PolicyName	String	Snapshot policy name
CreationTime	String	Snapshot policy creation time
FileSystemNums	Integer	Number of bound file systems
DayOfWeek	String	The specific day of the week on which to create a snapshot. This parameter is mutually exclusive with `DayOfMonth` and `IntervalDays` .
Hour	String	The hour of a day at which to regularly back up the snapshot
IsActivated	Integer	Whether to activate the scheduled snapshot feature
NextActiveTime	String	Next time to trigger snapshot
Status	String	Snapshot policy status
AppId	Integer	Account ID
AliveDays	Integer	Retention period
RegionName	String	Region
FileSystems	Array of FileSystemByPolicy	File system information
DayOfMonth	String	The specific day of the month on which to create a snapshot. This parameter is mutually exclusive with `DayOfWeek` and `IntervalDays` . Note: This field may return null, indicating that no valid values can be obtained.

IntervalDays	Integer	The snapshot interval (1 to 365 days). This parameter is mutually exclusive with `DayOfWeek` and `DayOfMonth`. Note: This field may return null, indicating that no valid values can be obtained.

AvailableProtoStatus

Versioning - protocol details

Used by actions: DescribeAvailableZoneInfo.

Name	Type	Description
SaleStatus	String	Sale status. Valid values: sale_out (sold out), saling (purchasable), no_saling (non-purchasable)
Protocol	String	Protocol type. Valid values: NFS, CIFS

AvailableRegion

Versioning - array of regions

Used by actions: DescribeAvailableZoneInfo.

Name	Type	Description
Region	String	Region name, such as "ap-beijing"
RegionName	String	Region name, such as "bj"
RegionStatus	String	Region availability. If a region has at least one AZ where resources are purchasable, this value will be `AVAILABLE`; otherwise, it will be `UNAVAILABLE`
Zones	Array of AvailableZone	Array of AZs
RegionCnName	String	Region name, such as "Guangzhou"

AvailableType

Versioning - array of classes

Used by actions: DescribeAvailableZoneInfo.

Name	Type	Description
Protocols	Array of AvailableProtoStatus	Protocol and sale details
Type	String	Storage class. Valid values: `SD` (standard storage) and `HP` (high-performance storage)
Prepayment	Boolean	Indicates whether prepaid is supported. `true` : yes; `false` : no

AvailableZone

Versioning - array of AZs

Used by actions: DescribeAvailableZoneInfo.

Name	Type	Description
Zone	String	AZ name
ZoneId	Integer	AZ ID
ZoneCnName	String	Chinese name of an AZ
Types	Array of AvailableType	Array of classes
ZoneName	String	Chinese and English names of an AZ

BucketInfo

Bucket information

Used by actions: DescribeBucketList.

Name	Type	Description
Name	String	Bucket name
Region	String	Bucket region Note: This field may return null, indicating that no valid values can be obtained.

FileSystemByPolicy

Information of the file system bound to the snapshot policy

Used by actions: DescribeAutoSnapshotPolicies.

Name	Type	Description
CreationToken	String	File system name
FileSystemId	String	File system ID
SizeByte	Integer	File system size
StorageType	String	Storage class
TotalSnapshotSize	Integer	Total snapshot size
CreationTime	String	File system creation time
ZoneId	Integer	Region ID of the file system

FileSystemClient

Information on the file system client

Used by actions: DescribeCfsFileSystemClients.

Name	Type	Description
CfsVip	String	IP address of the file system
ClientIp	String	Client IP
VpcId	String	File system VPCID
Zone	String	Name of the availability zone, e.g. ap-beijing-1. For more information, see regions and availability zones in the Overview document
ZoneName	String	AZ name
MountDirectory	String	Path in which the file system is mounted to the client

FileSystemInfo

Basic information of a file system

Used by actions: DescribeCfsFileSystems.

Name	Type	Description
CreationTime	String	Creation time
CreationToken	String	Custom name
FileSystemId	String	File system ID
LifeCycleState	String	File system status. Valid values: - creating - mounting - create_failed - available - unserviced - upgrading
SizeByte	Integer	Used file system capacity
SizeLimit	Integer	Maximum storage limit of a file system
ZoneId	Integer	Region ID
Zone	String	Region name
Protocol	String	File system protocol type
StorageType	String	File system storage class
StorageResourcePkg	String	Prepaid storage pack bound with the file system
BandwidthResourcePkg	String	Prepaid bandwidth pack bound to a file system (not supported currently)
PGroup	PGroup	Information of permission groups bound to a file system
FsName	String	Custom name
Encrypted	Boolean	Whether a file system is encrypted
KmsKeyId	String	Key used for encryption, which can be the key ID or ARN
AppId	Integer	Application ID
BandwidthLimit	Float	The upper limit on the file system’s throughput, which is determined based on its current usage, and bound resource

		packs for both storage and throughput
Capacity	Integer	Total capacity of the file system
Tags	Array of TagInfo	File system tag list
TieringState	String	The lifecycle management status of a file system.
TieringDetail	TieringDetailInfo	The details about tiered storage. Note: This field may return null, indicating that no valid values can be obtained.

Filter

Conditional filter

Used by actions: DescribeAutoSnapshotPolicies, DescribeCfsSnapshots, DescribeMigrationTasks.

Name	Type	Required	Description
Values	Array of String	Yes	Value
Name	String	Yes	Name

MigrationTaskInfo

Information of a CFS data migration task

Used by actions: DescribeMigrationTasks.

Name	Type	Description
TaskName	String	Migration task name
TaskId	String	Migration task ID
MigrationType	Integer	Migration type. Valid values: `0` (bucket) and `1` (list). Default value: `0`.
MigrationMode	Integer	Migration mode. Default value: `0` (full migration).
BucketName	String	Data source bucket name Note: This field may return null, indicating that no valid values can be obtained.
BucketRegion	String	Data source bucket region

		Note: This field may return null, indicating that no valid values can be obtained.
BucketAddress	String	Data source bucket address Note: This field may return null, indicating that no valid values can be obtained.
ListAddress	String	List address Note: This field may return null, indicating that no valid values can be obtained.
FsName	String	File system instance name Note: This field may return null, indicating that no valid values can be obtained.
FileSystemId	String	File system instance ID
FsPath	String	File system path
CoverType	Integer	Overwrite policy for files with the same name. Valid values: `0` (retain the file with the latest modified time), `1` (overwrite); and `2` (not overwrite). Default value: `0` .
CreateTime	Integer	Creation time
EndTime	Integer	End time Note: This field may return null, indicating that no valid values can be obtained.
Status	Integer	Migration status. Valid values: `0` (completed), `1` (in progress), and `2` (stopped).
FileTotalCount	Integer	Number of files Note: This field may return null, indicating that no valid values can be obtained.
FileMigratedCount	Integer	Number of migrated files Note: This field may return null, indicating that no valid values can be obtained.
FileFailedCount	Integer	Number of files that failed to be migrated Note: This field may return null, indicating that no valid values can be obtained.
FileTotalSize	Integer	File size, in bytes Note: This field may return null, indicating that no valid values can be obtained.
FileMigratedSize	Integer	Size of migrated files, in bytes Note: This field may return null, indicating that no valid values can be obtained.
FileFailedSize	Integer	Size of files that failed to be migrated, in bytes Note: This field may return null, indicating that no valid values can be obtained.
FileTotalList	String	List of all files Note: This field may return null, indicating that no valid values can be obtained.

FileCompletedList	String	List of migrated files Note: This field may return null, indicating that no valid values can be obtained.
FileFailedList	String	List of files that failed to be migrated Note: This field may return null, indicating that no valid values can be obtained.
BucketPath	String	Source bucket path Note: This field may return null, indicating that no valid values can be obtained.

MountInfo

Mount target information

Used by actions: DescribeMountTargets.

Name	Type	Description
FileSystemId	String	File system ID
MountTargetId	String	Mount target ID
IpAddress	String	Mount target IP
FSID	String	Mount root-directory
LifeCycleState	String	Mount target status
NetworkInterface	String	Network type
VpcId	String	VPC ID
VpcName	String	VPC name
SubnetId	String	Subnet ID
SubnetName	String	Subnet name
CcnID	String	CCN instance ID used by CFS Turbo
CidrBlock	String	CCN IP range used by CFS Turbo

PGroup

Information of permission groups bound to a file system

Used by actions: DescribeCfsFileSystems.

Name	Type	Description
PGroupId	String	Permission group ID
Name	String	Permission group name

PGroupInfo

Array of permission groups

Used by actions: DescribeCfsPGroups.

Name	Type	Description
PGroupId	String	Permission group ID
Name	String	Permission group name
DescInfo	String	Description
CDate	String	Creation time
BindCfsNum	Integer	The number of bound file system

PGroupRuleInfo

List of permission group rules

Used by actions: DescribeCfsRules.

Name	Type	Description
RuleId	String	Rule ID
AuthClientIp	String	Client IP allowed for access
RWPermission	String	Read/write permission. ro: read-only; rw: read & write
UserPermission	String	User permission. all_squash: any visiting user will be mapped to an anonymous user or user group; no_all_squash: a visiting user will be first matched with a local user, and if the match fails, it will be mapped to an anonymous user or user group; root_squash: a visiting root user will be mapped to an anonymous user or

		user group; no_root_squash: a visiting root user will be allowed to maintain root account permissions.
Priority	Integer	Rule priority. Value range: 1-100. 1 represents the highest priority, while 100 the lowest

SnapshotInfo

Snapshot information

Used by actions: DescribeCfsSnapshots.

Name	Type	Description
CreationTime	String	Snapshot creation time
SnapshotName	String	Snapshot name
SnapshotId	String	Snapshot ID
Status	String	Snapshot status
RegionName	String	Region name
FileSystemId	String	File system ID
Size	Integer	Snapshot size
AliveDay	Integer	Retention period in days
Percent	Integer	Snapshot progress
AppId	Integer	Account ID
DeleteTime	String	Snapshot deletion time
FsName	String	File system name
Tags	Array of TagInfo	Snapshot tag
SnapshotType	String	Snapshot type Note: This field may return null, indicating that no valid values can be obtained.

SnapshotOperateLog

Snapshot operation log

Used by actions: DescribeSnapshotOperationLogs.

Name	Type	Description
Action	String	Operation type
ActionTime	String	Operation time
ActionName	String	Operation name
Operator	String	Operator
Result	Integer	Result

SnapshotStatistics

File system snapshot statistics

Used by actions: DescribeCfsSnapshotOverview.

Name	Type	Description
Region	String	Region
SnapshotNumber	Integer	Total number of snapshots
SnapshotSize	Integer	Total snapshot size

TagInfo

Tag information unit

Used by actions: CreateCfsFileSystem, CreateCfsSnapshot, DescribeCfsFileSystems, DescribeCfsSnapshots.

Name	Type	Required	Description
TagKey	String	Yes	Tag key
TagValue	String	Yes	Tag value

TieringDetailInfo

The details about tiered storage.

Used by actions: DescribeCfsFileSystems.

Name	Type	Required	Description
TieringSizeInBytes	Integer	No	STANDARD_IA storage usage Note: This field may return null, indicating that no valid values can be obtained.

Error Codes

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Feature Description

If there is an Error field in the response, it means that the API call failed. For example:

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

Code in Error indicates the error code, and Message indicates the specific information of the error.

Error Code List

Common Error Codes

Error Code	Description
ActionOffline	This API has been deprecated.
AuthFailure.InvalidAuthorization	`Authorization` in the request header is invalid.
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type).
AuthFailure.MFAFailure	MFA failed.
AuthFailure.SecretIdNotFound	Key does not exist. Check if the key has been deleted or disabled in the console, and if not, check if the key is correctly entered. Note that whitespaces should not exist before or after the key.
AuthFailure.SignatureExpire	Signature expired. Timestamp and server time cannot differ by more than five minutes. Please

	ensure your current local time matches the standard time.
AuthFailure.SignatureFailure	Invalid signature. Signature calculation error. Please ensure you've followed the signature calculation process described in the Signature API documentation.
AuthFailure.TokenFailure	Token error.
AuthFailure.UnauthorizedOperation	The request is not authorized. For more information, see the CAM documentation.
DryRunOperation	DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.
FailedOperation	Operation failed.
InternalError	Internal error.
InvalidAction	The API does not exist.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidRequest	The multipart format of the request body is incorrect.
IpInBlacklist	Your IP is in uin IP blacklist.
IpNotInWhitelist	Your IP is not in uin IP whitelist.
LimitExceeded	Quota limit exceeded.
MissingParameter	A parameter is missing.
NoSuchProduct	The product does not exist.
NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
RequestLimitExceeded.GlobalRegionUinLimitExceeded	Uin exceeds the frequency limit.
RequestLimitExceeded.IPLimitExceeded	The number of ip requests exceeds the frequency limit.
RequestLimitExceeded.UinLimitExceeded	The number of uin requests exceeds the frequency

	limit.
RequestSizeLimitExceeded	The request size exceeds the upper limit.
ResourceInUse	Resource is in use.
ResourceInsufficient	Insufficient resource.
ResourceNotFound	The resource does not exist.
ResourceUnavailable	Resource is unavailable.
ResponseSizeLimitExceeded	The response size exceeds the upper limit.
ServiceUnavailable	Service is unavailable now.
UnauthorizedOperation	Unauthorized operation.
UnknownParameter	Unknown parameter.
UnsupportedOperation	Unsupported operation.
UnsupportedProtocol	HTTP(S) request protocol error; only GET and POST requests are supported.
UnsupportedRegion	API does not support the requested region.

Service Error Codes

Error Code	Description
AuthFailure	A CAM signature/authentication error occurred.
AuthFailure.GetRoleFailed	Failed to get the CFS service role.
FailedOperation.BindResourcePkgFailed	Failed to bind the resource pack to the file system.
FailedOperation.ClientTokenInUse	The resource is being created.
FailedOperation.MountTargetExists	There are mount targets on the file system.
FailedOperation.PgroupInUse	The permission group has been bound to a file system.
FailedOperation.PgroupIsUpdating	The permission group is being updated.
FailedOperation.PgroupLinkCfsv10	The permission group has been associated

	with a legacy instance. Please unassociate it and try again.
FailedOperation.UntagResourceFailed	Failed to unbind the resource tag.
InternalError.CreateFsFailed	Failed to create the file system.
InternalError.GetAccountStatusFailed	Failed to get the payment status of the user.
InvalidParameter.AutoPolicyNotFound	The snapshot policy was not found.
InvalidParameter.InvalidAlivedDays	The snapshot retention period is invalid.
InvalidParameter.InvalidParamDayofWeek	The scheduled day of the week parameter is invalid.
InvalidParameter.InvalidParamHour	The value of the scheduled hour parameter is incorrect.
InvalidParameter.InvalidSnapPolicyStatus	The snapshot policy is invalid.
InvalidParameter.InvalidSnapshotName	The file system snapshot parameter name is invalid.
InvalidParameter.InvalidSnapshotPolicyName	The file system snapshot policy name is invalid.
InvalidParameter.MissingPolicyParam	The policy parameter is missing.
InvalidParameter.SnapshotNameLimitExceeded	The file system snapshot name exceeds the upper limit.
InvalidParameter.SnapshotPolicyNameLimitExceeded	The file system snapshot policy name exceeds the limit.
InvalidParameterValue.AutoPolicyNotFound	
InvalidParameterValue.ClientTokenLimitExceeded	The length of the string used to ensure the idempotency of the request exceeds the upper limit of 64 bytes.
InvalidParameterValue.DuplicatedPgroupName	The permission group name already exists.
InvalidParameterValue.DuplicatedRuleAuthClientIp	The rule IP already exists.
InvalidParameterValue.DuplicatedTagKey	Duplicate tag key.
InvalidParameterValue.FsNameLimitExceeded	The length of the custom file system name

	exceeds the limit (64 bytes).
InvalidParameterValue.FsSizeLimitExceeded	The file system quota exceeds the upper limit.
InvalidParameterValue.InvalidAliveDays	
InvalidParameterValue.InvalidAuthClientIp	Incorrect rule IP.
InvalidParameterValue.InvalidAutoScaleUpParams	Invalid scaling policy parameters.
InvalidParameterValue.InvalidClientToken	The string used to ensure the idempotency of the request is incorrect.
InvalidParameterValue.InvalidDestinationRegions	
InvalidParameterValue.InvalidEncrypted	Invalid encryption parameter.
InvalidParameterValue.InvalidFileSystemId	`FileSystemId` is invalid.
InvalidParameterValue.InvalidFsName	Invalid custom name.
InvalidParameterValue.InvalidFsSizeLimit	Invalid file system quota.
InvalidParameterValue.InvalidFsStatus	Invalid file system status.
InvalidParameterValue.InvalidMountTargetIp	Incorrect mount target IP.
InvalidParameterValue.InvalidNetInterface	Invalid network type.
InvalidParameterValue.InvalidParamDayOfMonth	Invalid value of `DayOfMonth` .
InvalidParameterValue.InvalidParamDayOfWeek	
InvalidParameterValue.InvalidParamIntervalDays	Invalid value of `IntervalDays` .
InvalidParameterValue.InvalidPgroup	The permission group is not under this user.
InvalidParameterValue.InvalidPgroupId	Invalid permission group ID.
InvalidParameterValue.InvalidPgroupName	Invalid permission group name.
InvalidParameterValue.InvalidPriority	Incorrect priority settings.
InvalidParameterValue.InvalidProtocol	Invalid protocol parameter.
InvalidParameterValue.InvalidRegionZoneInfo	Either `ZoneName` or `ZoneId`, `Region` must be selected.

InvalidParameterValue.InvalidResourceTags	Invalid parameter value: invalid resource tag value.
InvalidParameterValue.InvalidRwPermission	Incorrect read/write permission settings.
InvalidParameterValue.InvalidScaleupTargetCapacity	Invalid target capacity.
InvalidParameterValue.InvalidSnapPolicyStatus	
InvalidParameterValue.InvalidSnapshotName	
InvalidParameterValue.InvalidSnapshotPolicyName	
InvalidParameterValue.InvalidSnapshotStatus	The snapshot is invalid.
InvalidParameterValue.InvalidStorageResourcePkg	The resource pack does not exist or has been bound.
InvalidParameterValue.InvalidStorageType	Invalid storage class parameter.
InvalidParameterValue.InvalidSubnetId	Invalid subnet ID.
InvalidParameterValue.InvalidTagKey	The tag key cannot be empty.
InvalidParameterValue.InvalidTagValue	The tag value is empty or the character is invalid.
InvalidParameterValue.InvalidTurboCapacity	The capacity value is invalid.
InvalidParameterValue.InvalidUserPermission	Incorrect user permission settings.
InvalidParameterValue.InvalidVip	The specified VIP is unavailable.
InvalidParameterValue.InvalidVpcId	Invalid VPCID.
InvalidParameterValue.InvalidVpcParameter	Invalid VPC parameter.
InvalidParameterValue.InvalidZoneId	Invalid AZ.
InvalidParameterValue.InvalidZoneOrZoneId	Invalid AZ or AZ ID.
InvalidParameterValue.MissingFileSystemId	`FileSystemId` is missing.
InvalidParameterValue.MissingFileSystemIdOrRegion	Either `FileSystemId` or `Region` must be selected.
InvalidParameterValue.MissingFsParameter	`FileSystem` is missing.
InvalidParameterValue.MissingKmsKeyId	Key ID or ARN is missing.

InvalidParameterValue.MissingNameOrDescinfo	The permission group name and description cannot both be empty.
InvalidParameterValue.MissingPgroupName	The permission group name cannot be empty.
InvalidParameterValue.MissingPolicyParam	Snapshot policy parameters missing.
InvalidParameterValue.MissingSnapNameOrAliveDay	
InvalidParameterValue.MissingStorageResourcePkg	No storage pack is bound to.
InvalidParameterValue.MissingSubnetidOrUnsubnetid	`SUBNETID` and `UNSUBNETID` cannot both be empty.
InvalidParameterValue.MissingVpcParameter	A VPC parameter is missing.
InvalidParameterValue.MissingVpcidOrUnvpcid	`VPCID` and `UNVPCID` cannot both be empty.
InvalidParameterValue.MissingZoneId	`ZoneID` is missing.
InvalidParameterValue.MissingZoneOrZoneId	Either `Zone` or `Zone_id` must be selected.
InvalidParameterValue.PgroupDescinfoLimitExceeded	The length of the permission group description exceeds the limit (255 bytes).
InvalidParameterValue.PgroupNameLimitExceeded	The length of the permission group name exceeds the limit (64 bytes).
InvalidParameterValue.RuleNotMatchPgroup	The permission group rule and permission group do not match.
InvalidParameterValue.SnapshotNameLimitExceeded	
InvalidParameterValue.SnapshotPolicyNameLimitExceeded	
InvalidParameterValue.TagKeyFilterLimitExceeded	Invalid parameter value: the number of tag keys exceeds the upper limit (6).
InvalidParameterValue.TagKeyLimitExceeded	The length of the tag key exceeds the upper limit of 127 bytes.
InvalidParameterValue.TagValueFilterLimitExceeded	The number of tag values exceeds the maximum (10).
InvalidParameterValue.TagValueLimitExceeded	The length of the tag value exceeds the upper limit of 255 bytes.

InvalidParameterValue.UnavailableRegion	Services are unavailable in this AZ.
InvalidParameterValue.UnavailableZone	Services are unavailable in this region.
InvalidParameterValue.ZoneIdRegionNotMatch	`ZoneId` and `Region` do not match.
OperationDenied	Operation denied.
ResourceInsufficient.FileSystemLimitExceeded	The number of file systems has reached the upper limit.
ResourceInsufficient.PgroupNumberLimitExceeded	The number of permission groups has reached the upper limit.
ResourceInsufficient.RegionSoldOut	Resources in the region have been sold out.
ResourceInsufficient.RuleLimitExceeded	The number of rules exceeds the upper limit.
ResourceInsufficient.SnapshotSizeLimitExceeded	Snapshots are not supported because the file system is too large.
ResourceInsufficient.SubnetIpAllOccupied	There is no IP available in this subnet.
ResourceInsufficient.TagLimitExceeded	The quantity of the resource tags reached the upper limit.
ResourceInsufficient.TagQuotasExceeded	The tag quota is insufficient.
ResourceInsufficient.TurboSpecialCapacityFileSystemCountLimit	The number of Turbo file systems with special capacity has reached the upper limit.
ResourceNotFound.FileSystemNotFound	The file system does not exist.
ResourceNotFound.FsNotExist	The file system does not exist.
ResourceNotFound.MountTargetNotFound	The mount target does not exist.
ResourceNotFound.PgroupNotFound	The permission group does not exist.
ResourceNotFound.ResourcePackageNotFound	The resource does not exist: The resource ID cannot be found.
ResourceNotFound.RuleNotFound	The permission rule does not exist.
ResourceNotFound.SnapshotNotFound	The snapshot ID does not exist.

UnsupportedOperation.BasicNetInterfaceNotSupported	This AZ does not support the basic network.
UnsupportedOperation.MissingKmsAccessPermission	The appid is not on the allowlist of the KMS (the KMS allowlist is currently enabled).
UnsupportedOperation.OutOfService	Your account is in arrears. Please top up and try again.
UnsupportedOperation.UnauthorizedCfsQcsRole	The CFS role was not authorized.
UnsupportedOperation.UnverifiedUser	Unverified user.