TencentDB for TDSQL

API Documentation

Product Documentation

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API Documentation
Introduction

Last updated : 2020-06-19 15:00:07

The TencentDB for TDSQL APIs are upgraded to version 3.0. The new API documentation is more standardized and comprehensive. The unified parameter style, common error codes and SDK/CLI version are highly consistent with the API documentation, providing a simple and fast user experience. The support for local access in all regions allows faster connection to Tencent Cloud products.

TencentDB for TDSQL is a distributed high-performance database that supports automatic horizontal sharding, effectively solving the database performance bottleneck that hinders the rapid business development. As your business needs change, you can adjust the TDSQL instance specifications accordingly.

You can start, terminate and monitor the instances via the console or APIs.

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API Category

Last updated : 2020-06-24 11:07:37

Tencent Distributed SQL (TDSQL)

API Name	Feature
CloneAccount	Clones an instance account
CloseDBExtranetAccess	Disables public network access
CopyAccountPrivileges	Copies account permissions
CreateAccount	Creates an account
DeleteAccount	Deletes an account
DescribeAccountPrivileges	Queries account permissions
DescribeAccounts	Queries the list of accounts
DescribeDBLogFiles	Gets the list of logs
DescribeDBParameters	Views database parameters
DescribeDBSyncMode	Queries the sync mode
DescribeDCDBInstances	Queries the list of instances
DescribeDCDBShards	Queries shard information
DescribeDatabaseObjects	Queries the list of database objects
DescribeDatabaseTable	Queries table information
DescribeDatabases	Queries the list of databases
DescribeProjects	Queries the project list
GrantAccountPrivileges	Sets account permissions
InitDCDBInstances	Initializes instances
ModifyAccountDescription	Modifies account remarks
ModifyDBInstancesProject	Modifies the project to which instances belong
ModifyDBParameters	Modifies database parameters
ModifyDBSyncMode	Modifies the sync mode
OpenDBExtranetAccess	Enables public network access
ResetAccountPassword	Resets account password

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Making API Requests
Request Structure

Last updated : 2020-02-18 19:12:44

1. Service Address

The API supports access from either a nearby region (at dcdb.tencentcloudapi.com) or a specified region (at dcdb.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 "dcdb.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)	dcdb.tencentcloudapi.com
South China (Guangzhou)	dcdb.ap-guangzhou.tencentcloudapi.com
East China (Shanghai)	dcdb.ap-shanghai.tencentcloudapi.com
North China (Beijing)	dcdb.ap-beijing.tencentcloudapi.com
Southwest China (Chengdu)	dcdb.ap-chengdu.tencentcloudapi.com
Southwest China (Chongqing)	dcdb.ap-chongqing.tencentcloudapi.com
Hong Kong, Macao, Taiwan (Hong Kong, China)	dcdb.ap-hongkong.tencentcloudapi.com
Southeast Asia (Singapore)	dcdb.ap-singapore.tencentcloudapi.com
Southeast Asia (Bangkok)	dcdb.ap-bangkok.tencentcloudapi.com
South Asia (Mumbai)	dcdb.ap-mumbai.tencentcloudapi.com
Northeast Asia (Seoul)	dcdb.ap-seoul.tencentcloudapi.com
Northeast Asia (Tokyo)	dcdb.ap-tokyo.tencentcloudapi.com
U.S. East Coast (Virginia)	dcdb.na-ashburn.tencentcloudapi.com
U.S. West Coast (Silicon Valley)	dcdb.na-siliconvalley.tencentcloudapi.com
North America (Toronto)	dcdb.na-toronto.tencentcloudapi.com
Europe (Frankfurt)	dcdb.eu-frankfurt.tencentcloudapi.com
Europe (Moscow)	dcdb.eu-moscow.tencentcloudapi.com

Note: As financial availability zones and non-financial availability zones are isolated, when accessing the services in a financial availability zone (with the common parameter `Region` specifying a financial availability zone), it is

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necessary to specify a domain name of the financial availability zone, preferably in the same region as specified in `Region`.

Access region for financial availability zone	Domain name for financial availability zone
East China (Shanghai Finance)	dcdb.ap-shanghai-fsi.tencentcloudapi.com
South China (Shenzhen Finance)	dcdb.ap-shenzhen-fsi.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.

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Common Params

Last updated：2020-06-24 11:07:37

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

Signature Algorithm v3

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

Parameter Name	Type	Required	Description
X-TC-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`.
X-TC-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 it is passed.
X-TC-Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request was initiated, for example, 1529223702. Note: If the difference between the UNIX timestamp and the server time is greater than 5 minutes, a signature expiration error may occur.
X-TC-Version	String	Yes	API version of the action. For the valid values, see the description of the common input parameter `Version` in the API documentation. For example, the version of CVM is 2017-03-12.
Authorization	String	Yes	The HTTP authentication request header, for example: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/Date/service/tc3_request, SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc963176630326f1024 Here: - TC3-HMAC-SHA256: Signature method, currently fixed as this value; - Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date is a date in UTC time, and this value must match the value of X-TC-Timestamp (a common parameter) in UTC time format; service is the name of the product/service, and is generally a domain name prefix. For example, a domain name cvm.tencentcloudapi.com refers to the CVM product and the value would be cvm; - SignedHeaders: The headers that contains the authentication information; content-type and host are the required headers; - Signature: Signature digest.
X-TC-Token	String	No	The token used for a temporary certificate. It must be used with a temporary key. You can obtain the temporary key and token by calling a CAM API. No token is required for a long-term key.

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:

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

Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/2018-10-09/cvm/tc3_request, SignedHeaders=content-type;host, Signature=5da7a33f6993f0614b047e5df4582db9e9bf4672ba50567dba16c6ccf174c474
Content-Type: application/x-www-form-urlencoded
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1539084154
X-TC-Region: ap-guangzhou
```

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=582c400e06b5924a6f2b5d7d672d79c15b13162d9279b0855cfba6789a8edb4c
Content-Type: application/json
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

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

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=582c400e06b5924a6f2b5d7d672d79c15b13162d9279b0855cfba6789a8edb4c
Content-Type: multipart/form-data; boundary=58731222010402
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

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

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

10
--58731222010402--
```

Signature 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

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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&SignatureMethod=HmacSHA256&Timestamp=1527672334&Signature=37ac2f4fde00b0ac9bd9eadeb459b1bbee224158d66e7ae5fcadb70b2d181d02&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=37ac2f4fde00b0ac9bd9eadeb459b1bbee224158d66e7ae5fcadb70b2d181d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKIDEXAMPLE
```

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Region List

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

Region	Value
North China (Beijing)	ap-beijing
Southwest China (Chengdu)	ap-chengdu
Southwest China (Chongqing)	ap-chongqing
South China (Guangzhou)	ap-guangzhou
Hong Kong/Macao/Taiwan (Hong Kong, China)	ap-hongkong
East China (Nanjing)	ap-nanjing
East China (Shanghai)	ap-shanghai
East China (Shanghai Finance)	ap-shanghai-fsi
South China (Shenzhen Finance)	ap-shenzhen-fsi
Southeast Asia Pacific (Singapore)	ap-singapore
Northeast Asia Pacific (Tokyo)	ap-tokyo
Europe (Frankfurt)	eu-frankfurt
Eastern U.S. (Virginia)	na-ashburn
Western U.S. (Silicon Valley)	na-siliconvalley
North America (Toronto)	na-toronto

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Signature v3

Last updated：2020-07-23 09:20:16

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.

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

Assuming that your SecretId and SecretKey are AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE and Gu5t9xGARNpq86cd98joQYCN3EXAMPLE, respectively, if you want to view the status of the 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=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=63eae8f4b793c20564dafd5a5f62817d6e8de7ce5d4fb2d38f7babf1531c493c" ¥
-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 string "" for POST requests, and is the string after the question mark (?) for GET requests. For 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 special characters must be encoded and capitalized.
CanonicalHeaders	Header information for signature calculation, including at least two headers of `host` and `content-type`. Custom headers can be added to participate in the signature process to improve the uniqueness and security of the request. Concatenation rules: 1. Both the key and value of the header should be converted to lowercase with the leading and trailing spaces removed, so they are concatenated in the format of key:value\n format; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase). 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 that signature verification failed.

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Field Name	Explanation
SignedHeaders	Header information for signature calculation, indicating which headers of the request participate in the signature process (they must each individually correspond to the headers in CanonicalHeaders). `Content-type` and `host` are required headers. Concatenation rules: 1. Both the key and value of the header should be converted to lowercase; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase) and separated by semicolons (;). The value in this example is `content-type;host`
HashedRequestPayload	Hash value of the request payload (i.e., the body, such as `{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}` in this example). The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(RequestPayload))) by SHA256 hashing the payload of the HTTP request, performing hexadecimal encoding, and finally converting the encoded string to lowercase letters. For GET requests, `RequestPayload` is always an empty string. The calculation result in this example is `99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b4907`.

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 the 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 the date, requested service and termination string (tc3_request). `Date` **is a date in UTC time, whose value should match the UTC date converted by the common parameter** `X-TC-Timestamp`**;** `service` is the product name, which should match the domain name of the product called. The calculation result in this example is `2019-02-25/cvm/tc3_request`.
HashedCanonicalRequest	Hash value of the CanonicalRequest string concatenated in the steps above. The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(CanonicalRequest))). The calculation result in this example is `2815843035062fffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3adda7a`.

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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
2815843035062ffffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3adda7a
```

3. Calculating the Signature

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

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

Field Name	Explanation
SecretKey	The original SecretKey, i.e., `Gu5t9xGARNpq86cd98joQYCN3EXAMPLE` .
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., `AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE` .

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Field Name	Explanation
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 `63eae8f4b793c20564dafd5a5f62817d6e8de7ce5d4fb2d38f7babf1531c493c`.

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

```
TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=63eae8f4b793c20564dafd5a5f62817d6e8de7ce5d4fb2d38f7babf1531c493c
```

The following example shows a finished authorization header:

```
POST https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=63eae8f4b793c20564dafd5a5f62817d6e8de7ce5d4fb2d38f7babf1531c493c
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

Java

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

public class TencentCloudAPITC3Demo {
private final static Charset UTF8 = StandardCharsets.UTF_8;
private final static String SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE";
private final static String SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE";
private final static String CT_JSON = "application/json; charset=utf-8";

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

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

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```
}

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

// ************ Step 1: Concatenate the CanonicalRequest string ************
String httpRequestMethod = "POST";
String canonicalUri = "/";
String canonicalQueryString = "";
String canonicalHeaders = "content-type:application/json; charset=utf-8¥n" + "host:" + host + "¥n";
String signedHeaders = "content-type;host";

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

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

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

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

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

StringBuilder sb = new StringBuilder();
sb.append("curl -X POST https://").append(host)
.append(" -H ¥"Authorization: ").append(authorization).append("¥"")
.append(" -H ¥"Content-Type: application/json; charset=utf-8¥"")
.append(" -H ¥"Host: ").append(host).append("¥"")
.append(" -H ¥"X-TC-Action: ").append(action).append("¥"")
```

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```
.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 = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE"

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

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

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


# ************* Step 3: Calculate the Signature *************
# Function for computing signature digest
def sign(key, msg):
return hmac.new(key, msg.encode("utf-8"), hashlib.sha256).digest()
```

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```
secret_date = sign(("TC3" + secret_key).encode("utf-8"), date)
secret_service = sign(secret_date, service)
secret_signing = sign(secret_service, "tc3_request")
signature = hmac.new(secret_signing, string_to_sign.encode("utf-8"), hashlib.sha256).hexdigest()
print(signature)

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

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

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 := "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE"
secretKey := "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE"
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 := "/"
```

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```
canonicalQueryString := ""
canonicalHeaders := "content-type:application/json; charset=utf-8¥n" + "host:" + host + "¥n"
signedHeaders := "content-type;host"
payload := `{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}`
hashedRequestPayload := sha256hex(payload)
canonicalRequest := fmt.Sprintf("%s¥n%s¥n%s¥n%s¥n%s¥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
$secretId = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE";
$host = "cvm.tencentcloudapi.com";
$service = "cvm";
$version = "2017-03-12";
$action = "DescribeInstances";
```

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```
$region = "ap-guangzhou";
// $timestamp = time();
$timestamp = 1551113065;
$algorithm = "TC3-HMAC-SHA256";

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

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

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

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

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

Ruby

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

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```
require 'time'
require 'openssl'

# Key Parameters
secret_id = 'AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE'
secret_key = 'Gu5t9xGARNpq86cd98joQYCN3EXAMPLE'

service = 'cvm'
host = 'cvm.tencentcloudapi.com'
endpoint = 'https://' + host
region = 'ap-guangzhou'
action = 'DescribeInstances'
version = '2017-03-12'
algorithm = 'TC3-HMAC-SHA256'
# timestamp = 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-name"}]}'
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}, SignedHeaders=#{signed_headers}, Signature=#{signatur
e}"
```

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```
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 + "'"
```

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).

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Signature

Last updated : 2020-07-10 11:55:59

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: AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE
- SecretKey: Gu5t9xGARNpq86cd98joQYCN3EXAMPLE

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	AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE
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

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Parameter name	Description	Parameter value
Limit	Allowed maximum output	20
Version	API version number	2017-03-12

2.1. Sorting Parameters

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

```
{
'Action' : 'DescribeInstances',
'InstanceIds.0' : 'ins-09dx96dg',
'Limit' : 20,
'Nonce' : 11886,
'Offset' : 0,
'Region' : 'ap-guangzhou',
'SecretId' : 'AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE',
'Timestamp' : 1465185768,
'Version': '2017-03-12',
}
```

When developing in another programming language, you can sort these sample parameters and it 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=AKIDz8krbsJ5yKBZQ
pn74WFkmLPx3EXAMPLE&Timestamp=1465185768&Version=2017-03-12
```

2.3. Concatenating the Signature Original String

This step generates a signature original string.
The signature original string consists of the following parameters:

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

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

The concatenation result of the example is:

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```
GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE&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 = 'Gu5t9xGARNpq86cd98joQYCN3EXAMPLE';
$srcStr = 'GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE&Timestamp=1465185768&Version=2017-03-12';
$signStr = base64_encode(hash_hmac('sha1', $srcStr, $secretKey, true));
echo $signStr;
```

The final signature is:

```
EliP9YW3pW28FpsEdkXt/+WcGeI=
```

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 EliP9YW3pW28FpsEdkXt/+WcGeI=, the final signature string request parameter (Signature) is EliP9YW3pW28FpsEdkXt%2f%2bWcGeI%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

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Error code	Error description
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
- JavaScript
- .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=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE&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.io.UnsupportedEncodingException;
import java.net.URLEncoder;
import java.util.Random;
import java.util.TreeMap;
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
import javax.xml.bind.DatatypeConverter;

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

public static String sign(String s, String key, String method) throws Exception {
Mac mac = Mac.getInstance(method);
SecretKeySpec secretKeySpec = new SecretKeySpec(key.getBytes(CHARSET), mac.getAlgorithm());
```

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```
mac.init(secretKeySpec);
byte[] hash = mac.doFinal(s.getBytes(CHARSET));
return DatatypeConverter.printBase64Binary(hash);
}

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

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

public static void main(String[] args) throws Exception {
TreeMap<String, Object> params = new TreeMap<String, Object>(); // TreeMap enables automatic sorting
// A random number should be used when actually calling, for example: params.put("Nonce", new Random().nextInt(java.lang.Intege
r.MAX_VALUE));
params.put("Nonce", 11886); // Common parameter
// The current time of the system should be used when actually calling, for example: params.put("Timestamp", System.currentTimeM
illis() / 1000);
params.put("Timestamp", 1465185768); // Common parameter
params.put("SecretId", "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE"); // Common parameter
params.put("Action", "DescribeInstances"); // Common parameter
params.put("Version", "2017-03-12"); // Common parameter
params.put("Region", "ap-guangzhou"); // Common parameter
params.put("Limit", 20); // Business parameter
params.put("Offset", 0); // Business parameter
params.put("InstanceIds.0", "ins-09dx96dg"); // Business parameter
params.put("Signature", sign(getStringToSign(params), "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE", "HmacSHA1")); // Common parameter
System.out.println(getUrl(params));
}
}
```

Python

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

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

import requests

secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE"

def get_string_to_sign(method, endpoint, params):
```

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```
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 := "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE"
secretKey := "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE"
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("?")
```

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```
// 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 = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE";
$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

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```ruby
# -*- coding: UTF-8 -*-
# require ruby>=2.3.0
require 'time'
require 'openssl'
require 'base64'

secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3EXAMPLE"

method = 'GET'
endpoint = 'cvm.tencentcloudapi.com'
data = {
'Action' => 'DescribeInstances',
'InstanceIds.0' => 'ins-09dx96dg',
'Limit' => 20,
'Nonce' => 11886,
'Offset' => 0,
'Region' => 'ap-guangzhou',
'SecretId' => secret_id,
'Timestamp' => 1465185768, # Time.now.to_i
'Version' => '2017-03-12',
}
sign = method + endpoint + '/?'
params = []
data.sort.each do |item|
params << "#{item[0]}=#{item[1]}"
end
sign += params.join('&')
digest = OpenSSL::Digest.new('sha1')
data['Signature'] = Base64.encode64(OpenSSL::HMAC.digest(digest, secret_key, sign))
puts data['Signature']

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

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Responses

Last updated：2020-02-18 19:12:45

Response for Successful Requests

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

```
{
"Response": {
"TotalCount": 0,
"InstanceStatusSet": [],
"RequestId": "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 signature is correct."
},
"RequestId": "ed93f3cb-f35e-473f-b9f3-0d451b8b79c6"
}
}
```

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

Common Error Codes

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

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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.
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.

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Tencent Distributed SQL (TDSQL) CloneAccount

Last updated : 2020-07-31 10:05:28

1. API Description

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

This API is used to clone an instance account.

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

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: CloneAccount.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID
SrcUser	Yes	String	Source user account name
SrcHost	Yes	String	Source user host
DstUser	Yes	String	Target user account name
DstHost	Yes	String	Target user host
DstDesc	No	String	Description of a target account

3. Output Parameters

Parameter Name	Type	Description
FlowId	Integer	Async task flow ID

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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 Cloning an existing account

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=CloneAccount
&InstanceId=dcdbt-ovulpcjf
&SrcUser=testuser1
&SrcHost=172.17.%
&DstUser=testuser1
&DstHost=172.20.%
&DstDesc=test clone
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "8875137e-4ce2-43cb-a0ab-704b775790d1",
"FlowId": 4127
}
}
```

5. Developer Resources

API Explorer

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Command Line Interface

- Tencent Cloud CLI 3.0

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6. Error Code

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

Error Code	Description
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetUserListFailed	Failed to get the list of accounts.
InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountAlreadyExists	The account to be created already exists.
InvalidParameterValue.SuperUserForbidden	Operations by a system user are not allowed.
ResourceNotFound.AccountDoesNotExist	The specified account does not exist.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.

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CloseDBExtranetAccess

Last updated : 2020-07-31 10:05:27

1. API Description

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

This API is used to disable public network access for a TencentDB instance, which will make the public IP address inaccessible. The `DescribeDCDBInstances` API will not return the public domain name and port information of the corresponding instance.

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

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

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2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: CloseDBExtranetAccess.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	ID of an instance for which to disable public network access. The ID is in the format of dcdbt-ow728lmc and can be obtained through the `DescribeDCDBInstances` API.
Ipv6Flag	No	Integer	Whether IPv6 is used. Default value: 0

3. Output Parameters

Parameter Name	Type	Description
FlowId	Integer	Async task ID. The task status can be queried through the `DescribeFlow` API.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

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Example1 Disabling public network access for TencentDB instance

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=CloseDBExtranetAccess
&InstanceId=dcdbt-avw0207d
&<common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "2d1e21a2-b29a-490a-8be0-b61287d92e28",
"FlowId": 3024
}
}
```

5. Developer Resources

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.CreateFlowFailed	Failed to create the flow.
InternalError.CamAuthFailed	CAM authentication request failed.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceNotFound.NoInstanceFound	The specified database instance was not found.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.

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Error Code	Description
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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CopyAccountPrivileges

Last updated : 2020-07-31 10:05:27

1. API Description

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

This API is used to copy the permissions of a TencentDB account.
Note: Accounts with the same username but different hosts are different accounts. Permissions can only be copied between accounts with the same `Readonly` attribute.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: CopyAccountPrivileges.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow728lmc.
SrcUserName	Yes	String	Source username
SrcHost	Yes	String	Access host allowed for a source user
DstUserName	Yes	String	Target username
DstHost	Yes	String	Access host allowed for a target user
SrcReadOnly	No	String	`ReadOnly` attribute of a source account
DstReadOnly	No	String	`ReadOnly` attribute of a target account

3. Output Parameters

Parameter Name	Type	Description

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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 Copying the permissions of a TencentDB account

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=CopyAccountPrivileges
&InstanceId=dcdbt-fdpjf5zh
&DstUserName=testuser2
&DstHost=%
&SrcUserName=testuser1
&SrcHost=172.17.%
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "95208d7c-66dc-446c-bc03-856738604611"
}
}
```

5. Developer Resources

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.CopyRightError	Error copying account permissions.
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
InvalidParameterValue.BadUserType	Invalid account type.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceHasBeenLocked	The database instance has been locked. Operations are not allowed.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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CreateAccount

Last updated：2020-07-31 10:05:27

1. API Description

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

This API is used to create a TencentDB account. Multiple accounts can be created for one instance. Accounts with the same username but different hosts are different accounts.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: CreateAccount.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow728lmc, which can be obtained through the `DescribeDCDBInstances` API.
UserName	Yes	String	AccountName
Host	Yes	String	Host that can be logged in to, which is in the same format as the host of the MySQL account and supports wildcards, such as %, 10.%, and 10.20.%.
Password	Yes	String	Account password, which can contain 6-32 letters, digits, and common symbols but not semicolons, single quotation marks, and double quotation marks.
ReadOnly	No	Integer	Whether to create a read-only account. 0: no; 1: for the account's SQL requests, the secondary will be used first, and if it is unavailable, the primary will be used; 2: the secondary will be used first, and if it is unavailable, the operation will fail; 3: only the secondary will be read from.
Description	No	String	Account remarks, which can contain 0-256 letters, digits, and common symbols.

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Parameter Name	Required	Type	Description
DelayThresh	No	Integer	If the secondary delay exceeds the set value of this parameter, the secondary will be deemed to have failed. It is recommended that this parameter be set to a value greater than 10. This parameter takes effect when `ReadOnly` is 1 or 2.

3. Output Parameters

Parameter Name	Type	Description
InstanceId	String	Instance ID, which is passed through from the input parameters.
UserName	String	Username, which is passed through from the input parameters.
Host	String	Host allowed for access, which is passed through from the input parameters.
ReadOnly	Integer	Passed through from the input parameters.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Create an Access account for a cloud database instance

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=CreateAccount
&InstanceId=dcdbt-fdpjf5zh
&UserName=testuser1
&Host=172.17.%
&Password=1234qweri#
&Description=Test account
&<common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "2cc4e4dc-c3e9-4858-ab80-03e3526cf24d",
"CdbInstanceId": "dcdbt-fdpjf5zh",
"UserName": "testuser1",
"Host": "172.17.%",
"Readonly": 0
}
}
```

5. Developer Resources

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.CreateUserFailed	Failed to create the account.
FailedOperation.OssOperationFailed	Failed to request the backend API.
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetUserListFailed	Failed to get the list of accounts.
InvalidParameter.CharacterError	The password contains invalid characters.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
InvalidParameterValue.AccountAlreadyExists	The account to be created already exists.
InvalidParameterValue.SuperUserForbidden	Operations by a system user are not allowed.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceHasBeenLocked	The database instance has been locked. Operations are not allowed.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.
UnsupportedOperation.OldProxyVersion	The proxy program is too old. Please contact customer service for upgrade and try again.

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DeleteAccount

Last updated : 2020-07-31 10:05:27

1. API Description

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

This API is used to delete a TencentDB account, which is uniquely identified by username and host.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: DeleteAccount.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow728lmc, which can be obtained through the `DescribeDCDBInstances` API.
UserName	Yes	String	Username
Host	Yes	String	Access host allowed for a user

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 TencentDB account

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Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DeleteAccount
&InstanceId=dcdbt-fdpjf5zh
&UserName=testuser1
&Host=172.17.%
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "d9405fe4-65af-4936-a465-038578636567"
}
}
```

5. Developer Resources

API Explorer

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- API 3.0 Explorer

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.DeleteUserFailed	Failed to delete the account.
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
InvalidParameterValue.SuperUserForbidden	Operations by a system user are not allowed.

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Error Code	Description
ResourceUnavailable.InstanceHasBeenLocked	The database instance has been locked. Operations are not allowed.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeAccountPrivileges

Last updated : 2020-07-31 10:05:26

1. API Description

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

This API is used to query the permissions of a TencentDB account.
Note: accounts with the same username but different hosts are different accounts.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: DescribeAccountPrivileges.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow7t8lmc.
UserName	Yes	String	Login username.
Host	Yes	String	Access host allowed for a user. An account is uniquely identified by username and host.
DbName	Yes	String	Database name. `¥*` indicates that global permissions will be queried (i.e., `¥*.¥*`), in which case the `Type` and `Object` parameters will be ignored
Type	No	String	Type. Valid values: table; view; proc; func; *. If `DbName` is a specific database name and `Type` is `¥*` , the permissions of the database will be queried (i.e., `db.¥*`), in which case the `Object` parameter will be ignored
Object	No	String	Type name. For example, if `Type` is table, `Object` indicates a specific table name; if both `DbName` and `Type` are specific names, it indicates a specific object name and cannot be `¥*` or empty
ColName	No	String	If `Type` = table and `ColName` is `¥*` , the permissions of the table will be queried; if `ColName` is a specific field name, the permissions of the corresponding field will be queried

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3. Output Parameters

Parameter Name	Type	Description
InstanceId	String	Instance ID
Privileges	Array of String	List of permissions.
UserName	String	Database account username
Host	String	Database account host
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Query the global Permission of the cloud database account

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeAccountPrivileges
&InstanceId=dcdbt-fdpjf5zh
&UserName=testuser1
&Host=172.17.%
&DbName=*
&Type=*
&<common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "3381c9e9-d87f-4e21-ba1d-596d6f697a7e",
"InstanceId": "dcdbt-fdpjf5zh",
"UserName": "testuser1",
"Host": "172.17.%",
"Privileges": [
"SELECT",
"UPDATE"
]
}
}
```

5. Developer Resources

API Explorer

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

- API 3.0 Explorer

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SDK

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetRightFailed	Failed to get the current permissions of the account.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeAccounts

Last updated : 2020-07-31 10:05:26

1. API Description

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

This API is used to query the list of accounts of a specified TencentDB instance.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: DescribeAccounts.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow728lmc.

3. Output Parameters

Parameter Name	Type	Description
InstanceId	String	Instance ID, which is passed through from the input parameters.
Users	Array of DBAccount	List of instance users. Note: this field may return null, indicating that no valid values can be obtained.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the list of TencentDB accounts

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Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeAccounts
&InstanceId=dcdbt-fdpjf5zh
&<Common request parameters>
```

Output Example


```
{
"Response": {
"RequestId": "1e74e824-6d2b-495d-b347-5250cdf8e964",
"InstanceId": "dcdbt-fdpjf5zh",
"Users": [
{
"UserName": "testuser1",
"Host": "172.17.%",
"Description": "Test account",
"CreateTime": "2016-07-15 18:39:47",
"UpdateTime": "2016-07-18 12:42:31",
"ReadOnly": 0,
"DelayThresh": 0
},
{
"UserName": "testuser2",
"Host": "%",
"Description": "Test account",
"CreateTime": "2016-07-18 11:51:33",
"UpdateTime": "2016-07-18 12:42:44",
"ReadOnly": 0,
"DelayThresh": 0
}
]
}
}
```


5. Developer Resources

API Explorer

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- Tencent Cloud SDK 3.0 for .NET

Command Line Interface

- Tencent Cloud CLI 3.0

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6. Error Code

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

Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetUserListFailed	Failed to get the list of accounts.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeDBLogFiles

Last updated : 2020-07-31 10:05:26

1. API Description

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

This API is used to get the list of various logs of a database, including cold backups, binlogs, errlogs, and slowlogs.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: DescribeDBLogFiles.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow7t8lmc.
ShardId	Yes	String	Shard ID in the format of shard-7noic7tv
Type	Yes	Integer	Requested log type. Valid values: 1 (binlog); 2 (cold backup); 3 (errlog); 4 (slowlog).

3. Output Parameters

Parameter Name	Type	Description
InstanceId	String	Instance ID in the format of dcdbt-ow728lmc.
Type	Integer	Requested log type. Valid values: 1 (binlog); 2 (cold backup); 3 (errlog); 4 (slowlog).
Total	Integer	Total number of requested logs
Files	Array of LogFileInfo	List of log files

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Parameter Name	Type	Description
VpcPrefix	String	For an instance in a VPC, this prefix plus URI can be used as the download address
NormalPrefix	String	For an instance in a common network, this prefix plus URI can be used as the download address
ShardId	String	Shard ID in the format of shard-7noic7tv
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the list of logs

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeDBLogFiles
&InstanceId=dcdbt-2t4cf98d
&ShardId=shard-gdqcdn39
&Type=1
&<Common request parameters>
```

Output Example

```
{
"Response": {
"Files": [
{
"Length": 5253724,
"Mtime": 1468822981,
"Uri": "/1/noshard_108/group_1520844319_37793941/1468578832/859932065/000001/5ce7d1a8f26c2dfcf1de22d4e9792b11b0b0057450684d266e1bf9a8aa6ea272/1/shard-5ps4rppj/set_1516333432_6"
}
],
"InstanceId": "dcdbt-2t4cf98d",
"ShardId": "shard-gdqcdn39",
"NormalPrefix": "http://10.66.255.253:8083",
"RequestId": "7212a9ec-a235-2144-98d4-59fbe6f14d79",
"Total": 1,
"Type": 1,
"VpcPrefix": "http://169.254.0.27:8083"
}
}
```

5. Developer Resources

API Explorer

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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.CamAuthFailed	CAM authentication request failed.
InternalError.CosConfiguration	Invalid COS instance address configuration.
InternalError.CosSignUrl	Backup filename signature failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetInstanceInfoFailed	Failed to get the instance information.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceNotFound.NoInstanceFound	The specified database instance was not found.
ResourceUnavailable.CosApiFailed	An error occurred while calling COS APIs.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeDBParameters

Last updated : 2020-07-31 10:05:25

1. API Description

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

This API is used to get the current parameter settings of a database.

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

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

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Try it
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2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: DescribeDBParameters.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow7t8lmc.

3. Output Parameters

Parameter Name	Type	Description
InstanceId	String	Instance ID in the format of dcdbt-ow7t8lmc.
Params	Array of ParamDesc	Requests the current parameter values of a DB
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the current parameters of a database

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Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeDBParameters
&InstanceId=dcdbt-ige1a5k3
&<Common request parameters>
```

Output Example


```
{
"Response": {
"InstanceId": "dcdbt-ige1a5k3",
"Params": [
{
"Default": "1",
"SetValue": "",
"Value": "1",
"Param": "auto_increment_increment",
"Constraint": {
"Range": {
"Max": "65535",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "1",
"SetValue": "",
"Value": "1",
"Param": "auto_increment_offset",
"Constraint": {
"Range": {
"Max": "65535",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "ON",
"SetValue": "",
"Value": "ON",
"Param": "autocommit",
"Constraint": {
"Enum": "ON,OFF",
"Type": "enum"
}
},
{
"Default": "ROW",
"SetValue": "",
"Value": "ROW",
"Param": "binlog_format",
"Constraint": {
"Enum": "ROW,STATEMENT,MIXED",
"Type": "enum"
}
},
{
"Default": "utf8",
"SetValue": "",
```


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```
"Value": "utf8",
"Param": "character_set_server",
"Constraint": {
"Enum": "utf8,latin1,gbk,utf8mb4",
"Type": "enum"
}
},
{
"Default": "",
"SetValue": "",
"Value": "utf8_general_ci",
"Param": "collation_server",
"Constraint": {
"Enum": "latin1_general_cs,latin1_general_ci,latin1_bin,latin1_swedish_ci,gbk_chinese_ci,gbk_bin,utf8_general_ci,utf8_bin,utf8_unicode_ci,utf8mb4_general_ci,utf8mb4_bin,utf8mb4_unicode_ci",
"Type": "enum"
}
},
{
"Default": "10",
"SetValue": "",
"Value": "10",
"Param": "connect_timeout",
"Constraint": {
"Range": {
"Max": "3600",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "0",
"SetValue": "",
"Value": "0",
"Param": "default_week_format",
"Constraint": {
"Range": {
"Max": "7",
"Min": "0"
},
"Type": "section"
}
},
{
"Default": "ON",
"SetValue": "",
"Value": "ON",
"Param": "delay_key_write",
"Constraint": {
"Enum": "ON,OFF,ALL",
"Type": "enum"
}
},
{
"Default": "100",
"SetValue": "",
"Value": "100",
"Param": "delayed_insert_limit",
"Constraint": {
"Range": {
"Max": "4294967295",
```


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```
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "300",
"SetValue": "",
"Value": "300",
"Param": "delayed_insert_timeout",
"Constraint": {
"Range": {
"Max": "3600",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "1000",
"SetValue": "",
"Value": "1000",
"Param": "delayed_queue_size",
"Constraint": {
"Range": {
"Max": "4294967295",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "4",
"SetValue": "",
"Value": "4",
"Param": "div_precision_increment",
"Constraint": {
"Range": {
"Max": "30",
"Min": "0"
},
"Type": "section"
}
},
{
"Default": "OFF",
"SetValue": "",
"Value": "OFF",
"Param": "event_scheduler",
"Constraint": {
"Enum": "ON,OFF",
"Type": "enum"
}
},
{
"Default": "1024",
"SetValue": "",
"Value": "1024",
"Param": "group_concat_max_len",
"Constraint": {
"Range": {
"Max": "18446744073709547520",
```


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```
"Min": "4"
},
"Type": "section"
}
},
{
"Default": "5000",
"SetValue": "",
"Value": "5000",
"Param": "innodb_concurrency_tickets",
"Constraint": {
"Range": {
"Max": "10000",
"Min": "100"
},
"Type": "section"
}
},
{
"Default": "OFF",
"SetValue": "",
"Value": "ON",
"Param": "innodb_large_prefix",
"Constraint": {
"Enum": "OFF,ON",
"Type": "enum"
}
},
{
"Default": "50",
"SetValue": "",
"Value": "20",
"Param": "innodb_lock_wait_timeout",
"Constraint": {
"Range": {
"Max": "1073741824",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "10",
"SetValue": "",
"Value": "70.000000",
"Param": "innodb_max_dirty_pages_pct",
"Constraint": {
"Range": {
"Max": "90",
"Min": "10"
},
"Type": "section"
}
},
{
"Default": "37",
"SetValue": "",
"Value": "37",
"Param": "innodb_old_blocks_pct",
"Constraint": {
"Range": {
"Max": "95",
```


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```
"Min": "5"
},
"Type": "section"
}
},
{
"Default": "1000",
"SetValue": "",
"Value": "1000",
"Param": "innodb_old_blocks_time",
"Constraint": {
"Range": {
"Max": "1000",
"Min": "0"
},
"Type": "section"
}
},
{
"Default": "4096",
"SetValue": "",
"Value": "16384",
"Param": "innodb_page_size",
"Constraint": {
"Enum": "4096,8192,16384,32768,65536",
"Type": "enum"
}
},
{
"Default": "300",
"SetValue": "",
"Value": "1000",
"Param": "innodb_purge_batch_size",
"Constraint": {
"Range": {
"Max": "1024",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "56",
"SetValue": "",
"Value": "56",
"Param": "innodb_read_ahead_threshold",
"Constraint": {
"Range": {
"Max": "64",
"Min": "0"
},
"Type": "section"
}
},
{
"Default": "nulls_equal",
"SetValue": "",
"Value": "nulls_equal",
"Param": "innodb_stats_method",
"Constraint": {
"Enum": "nulls_equal,nulls_unequal,nulls_ignored",
"Type": "enum"
```


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```
}
},
{
"Default": "OFF",
"SetValue": "",
"Value": "OFF",
"Param": "innodb_stats_on_metadata",
"Constraint": {
"Enum": "ON,OFF",
"Type": "enum"
}
},
{
"Default": "8",
"SetValue": "",
"Value": "8",
"Param": "innodb_stats_sample_pages",
"Constraint": {
"Range": {
"Max": "4294967296",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "OFF",
"SetValue": "",
"Value": "OFF",
"Param": "innodb_strict_mode",
"Constraint": {
"Enum": "ON,OFF",
"Type": "enum"
}
},
{
"Default": "ON",
"SetValue": "",
"Value": "ON",
"Param": "innodb_table_locks",
"Constraint": {
"Enum": "ON,OFF",
"Type": "enum"
}
},
{
"Default": "0",
"SetValue": "",
"Value": "64",
"Param": "innodb_thread_concurrency",
"Constraint": {
"Range": {
"Max": "128",
"Min": "0"
},
"Type": "section"
}
},
{
"Default": "10000",
"SetValue": "",
"Value": "0",
```


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```
"Param": "innodb_thread_sleep_delay",
"Constraint": {
"Range": {
"Max": "3600000",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "28800",
"SetValue": "",
"Value": "28800",
"Param": "interactive_timeout",
"Constraint": {
"Range": {
"Max": "86400",
"Min": "10"
},
"Type": "section"
}
},
{
"Default": "262144",
"SetValue": "",
"Value": "2097152",
"Param": "join_buffer_size",
"Constraint": {
"Range": {
"Max": "18446744073709547520",
"Min": "128"
},
"Type": "section"
}
},
{
"Default": "300",
"SetValue": "",
"Value": "300",
"Param": "key_cache_age_threshold",
"Constraint": {
"Range": {
"Max": "4294967295",
"Min": "100"
},
"Type": "section"
}
},
{
"Default": "1024",
"SetValue": "",
"Value": "1024",
"Param": "key_cache_block_size",
"Constraint": {
"Range": {
"Max": "16384",
"Min": "512"
},
"Type": "section"
}
},
{
```


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```
"Default": "100",
"SetValue": "",
"Value": "100",
"Param": "key_cache_division_limit",
"Constraint": {
"Range": {
"Max": "100",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "5",
"SetValue": "",
"Value": "5",
"Param": "lock_wait_timeout",
"Constraint": {
"Range": {
"Max": "31536000",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "OFF",
"SetValue": "",
"Value": "OFF",
"Param": "log_queries_not_using_indexes",
"Constraint": {
"Enum": "ON,OFF",
"Type": "enum"
}
},
{
"Default": "1.000000",
"SetValue": "",
"Value": "1.000000",
"Param": "long_query_time",
"Constraint": {
"Range": {
"Max": "10",
"Min": "0.05"
},
"Type": "section"
}
},
{
"Default": "OFF",
"SetValue": "",
"Value": "OFF",
"Param": "low_priority_updates",
"Constraint": {
"Enum": "OFF,ON",
"Type": "enum"
}
},
{
"Default": "1",
"SetValue": "",
"Value": "0",
```


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```
"Param": "lower_case_table_names",
"Constraint": {
"Enum": "0,1",
"Type": "enum"
}
},
{
"Default": "134217728",
"SetValue": "",
"Value": "1073741824",
"Param": "max_allowed_packet",
"Constraint": {
"Range": {
"Max": "1073741824",
"Min": "16384"
},
"Type": "section"
}
},
{
"Default": "2000",
"SetValue": "",
"Value": "2000",
"Param": "max_connect_errors",
"Constraint": {
"Range": {
"Max": "4096",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "4096",
"SetValue": "",
"Value": "10000",
"Param": "max_connections",
"Constraint": {
"Range": {
"Max": "32768",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "16382",
"SetValue": "",
"Value": "200000",
"Param": "max_prepared_stmt_count",
"Constraint": {
"Range": {
"Max": "1048576",
"Min": "0"
},
"Type": "section"
}
},
{
"Default": "4194304",
"SetValue": "",
"Value": "4194304",
```


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```
"Param": "myisam_sort_buffer_size",
"Constraint": {
"Range": {
"Max": "16777216",
"Min": "262144"
},
"Type": "section"
}
},
{
"Default": "16384",
"SetValue": "",
"Value": "16384",
"Param": "net_buffer_length",
"Constraint": {
"Enum": "4096,8192,16384,32768,65536,1048576",
"Type": "enum"
}
},
{
"Default": "30",
"SetValue": "",
"Value": "30",
"Param": "net_read_timeout",
"Constraint": {
"Range": {
"Max": "3153600",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "10",
"SetValue": "",
"Value": "10",
"Param": "net_retry_count",
"Constraint": {
"Range": {
"Max": "4294967295",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "60",
"SetValue": "",
"Value": "60",
"Param": "net_write_timeout",
"Constraint": {
"Range": {
"Max": "3153600",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "index_merge=on,index_merge_union=on,index_merge_sort_union=on,index_merge_intersection=on,optimize_join_buffer_size=
on",
"SetValue": "",
```


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```
"Value": "batched_key_access=off,block_nested_loop=on,condition_fanout_filter=on,derived_merge=on,duplicateweedout=on,engine_condition_pushdown=on,firstmatch=on,index_condition_pushdown=on,index_merge=on,index_merge_intersection=on,index_merge_sort_union=on,index_merge_union=on,loosescan=on,materialization=on,mrr=on,mrr_cost_based=on,semijoin=on,subquery_materialization_cost_based=on,use_index_extensions=on",
"Param": "optimizer_switch",
"Constraint": {
"Type": "string"
}
},
{
"Default": "8192",
"SetValue": "",
"Value": "16384",
"Param": "query_alloc_block_size",
"Constraint": {
"Range": {
"Max": "16384",
"Min": "1024"
},
"Type": "section"
}
},
{
"Default": "1048576",
"SetValue": "",
"Value": "1048576",
"Param": "query_cache_limit",
"Constraint": {
"Range": {
"Max": "1048576",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "0",
"SetValue": "",
"Value": "0",
"Param": "query_cache_size",
"Constraint": {
"Range": {
"Max": "104857600",
"Min": "0"
},
"Type": "section"
}
},
{
"Default": "OFF",
"SetValue": "",
"Value": "OFF",
"Param": "query_cache_type",
"Constraint": {
"Enum": "OFF,ON,DEMAND",
"Type": "enum"
}
},
{
"Default": "8192",
"SetValue": "",
"Value": "24576",
```


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```
"Param": "query_prealloc_size",
"Constraint": {
"Range": {
"Max": "1048576",
"Min": "8192"
},
"Type": "section"
}
},
{
"Default": "10",
"SetValue": "",
"Value": "",
"Param": "slave_parallel_threads",
"Constraint": {
"Range": {
"Max": "16383",
"Min": "0"
},
"Type": "section"
}
},
{
"Default": "2",
"SetValue": "",
"Value": "2",
"Param": "slow_launch_time",
"Constraint": {
"Range": {
"Max": "1024",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "2097152",
"SetValue": "",
"Value": "2097152",
"Param": "sort_buffer_size",
"Constraint": {
"Range": {
"Max": "1073741824",
"Min": "32768"
},
"Type": "section"
}
},
{
"Default": "",
"SetValue": "",
"Value": "NO_ENGINE_SUBSTITUTION,STRICT_TRANS_TABLES",
"Param": "sql_mode",
"Constraint": {
"Type": "string"
}
},
{
"Default": "10",
"SetValue": "",
"Value": "30",
"Param": "sqlasyntimeout",
```


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```
"Constraint": {
"Range": {
"Max": "100",
"Min": "10"
},
"Type": "section"
}
},
{
"Default": "400",
"SetValue": "",
"Value": "400",
"Param": "table_definition_cache",
"Constraint": {
"Range": {
"Max": "2048",
"Min": "400"
},
"Type": "section"
}
},
{
"Default": "1024",
"SetValue": "",
"Value": "10240",
"Param": "table_open_cache",
"Constraint": {
"Range": {
"Max": "524288",
"Min": "400"
},
"Type": "section"
}
},
{
"Default": "3",
"SetValue": "",
"Value": "30",
"Param": "thread_pool_oversubscribe",
"Constraint": {
"Range": {
"Max": "65536",
"Min": "1"
},
"Type": "section"
}
},
{
"Default": "33554432",
"SetValue": "",
"Value": "33554432",
"Param": "tmp_table_size",
"Constraint": {
"Range": {
"Max": "67108864",
"Min": "262144"
},
"Type": "section"
}
},
{
"Default": "REPEATABLE-READ",
```


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```
"SetValue": "",
"Value": "REPEATABLE-READ",
"Param": "tx_isolation",
"Constraint": {
"Enum": "REPEATABLE-READ,SERIALIZABLE,READ-COMMITTED,READ-UNCOMMITTED",
"Type": "enum"
}
},
{
"Default": "28800",
"SetValue": "",
"Value": "28800",
"Param": "wait_timeout",
"Constraint": {
"Range": {
"Max": "259200",
"Min": "60"
},
"Type": "section"
}
}
],
"RequestId": "affa5c39-02b7-482a-a16f-a74e660e7b7f"
}
}
```


5. Developer Resources

API Explorer

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6. Error Code

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

Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.

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Error Code	Description
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetDbConfigFailed	Failed to get database instance parameters.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeDBSyncMode

Last updated : 2020-07-31 10:05:25

1. API Description

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

This API is used to query the sync mode of a TencentDB instance.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: DescribeDBSyncMode.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	ID of an instance for which to modify the sync mode. The ID is in the format of dcdbt-ow728lmc.

3. Output Parameters

Parameter Name	Type	Description
SyncMode	Integer	Sync mode. 0: async; 1: strong sync; 2: downgradable strong sync
IsModifying	Integer	Whether a modification is in progress. 1: yes; 0: no.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the sync mode of a TencentDB instance

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Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeDBSyncMode
&InstanceId=dcdbt-avw0207d
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "901bd41c-08a2-4001-8364-5a63f32056ae",
"SyncMode": 0,
"IsModifying": 1
}
}
```

5. Developer Resources

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Command Line Interface

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6. Error Code

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

Error Code	Description
FailedOperation.OssOperationFailed	Failed to request the backend API.
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.InnerSystemError	Internal system error.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.

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Error Code	Description
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeDCDBInstances

Last updated : 2020-07-31 10:05:25

1. API Description

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

This API is used to query the list of TencentDB instances. It supports filtering instances by project ID, instance ID, private network address, and instance name.
If no filter is specified, 10 instances will be returned by default. Up to 100 instances can be returned for a single request.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: DescribeDCDBInstances.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceIds.N	No	Array of String	Query by instance ID or IDs. Instance ID is in the format of dcdbt-2t4cf98d
SearchName	No	String	Search field name. Valid values: instancename (search by instance name); vip (search by private IP); all (search by instance ID, instance name, and private IP).
SearchKey	No	String	Search keyword. Fuzzy search is supported. Multiple keywords should be separated by line breaks (`¥n`).
ProjectIds.N	No	Array of Integer	Query by project ID
IsFilterVpc	No	Boolean	Whether to search by VPC
VpcId	No	String	VPC ID, which is valid when `IsFilterVpc` is 1
SubnetId	No	String	VPC subnet ID, which is valid when `IsFilterVpc` is 1
OrderBy	No	String	Sort by field. Valid values: projectId; createtime; instancename

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Parameter Name	Required	Type	Description
OrderByType	No	String	Sort by type. Valid values: desc; asc
Offset	No	Integer	Offset. Default value: 0
Limit	No	Integer	Number of returned results. Default value: 10. Maximum value: 100.
ExclusterType	No	Integer	1: non-dedicated cluster; 2: dedicated cluster; 0: all
IsFilterExcluster	No	Boolean	Identifies whether to use the `ExclusterType` field. false: no; true: yes
ExclusterIds.N	No	Array of String	Dedicated cluster ID

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Number of eligible instances
Instances	Array of DCDBInstanceInfo	List of instance details
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 instances by instance ID

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeDCDBInstances
&InstanceIds.0=dcdbt-52s53yyh
&<Common request parameters>
```

Output Example


```
{
"Response": {
"RequestId": "f5301a70-8a4b-4e5e-b7e4-68d9c2f9c7c6",
"TotalCount": 1,
"Instances": [
{
"Id": 40965,
"InstanceId": "dcdbt-52s53yyh",
"InstanceName": "dcdbt-52s53yyh",
"AppId": 1251006373,
"ProjectId": 0,
"Region": "ap-guangzhou",
"Zone": "ap-guangzhou-2",
"VpcId": 75203,
"SubnetId": 45109,
```


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```
"UniqueVpcId": "vpc-5rkcp0wb",
"UniqueSubnetId": "subnet-6ffate6q",
"Status": 2,
"StatusDesc": "Running",
"Vip": "172.17.0.10",
"Vport": 3306,
"WanDomain": "",
"WanVip": "",
"WanPort": 0,
"CreateTime": "2018-05-04 16:42:18",
"UpdateTime": "2018-05-20 18:04:17",
"AutoRenewFlag": 0,
"NodeCount": 2,
"IsTmp": 0,
"ExclusterId": "",
"Memory": 4,
"Storage": 20,
"ShardCount": 2,
"PeriodEndTime": "2018-05-11 16:42:18",
"IsolatedTimestamp": "0000-00-00 00:00:00",
"DbVersion": "10.1.9",
"DbEngine": "MySQL",
"Uin": "20548499",
"Pid": 11128,
"ShardDetail": [
{
"ShardId": 10240,
"ShardInstanceId": "shard-8m3rgssh",
"ShardSerialId": "set_1525423498_1",
"Status": 2,
"Createtime": "2018-05-04 16:42:19",
"Memory": 2,
"Storage": 10,
"Pid": 11128,
"NodeCount": 2
},
{
"ShardId": 10241,
"ShardInstanceId": "shard-n8f80yrv",
"ShardSerialId": "set_1525427618_3",
"Status": 2,
"Createtime": "2018-05-04 16:42:19",
"Memory": 2,
"Storage": 10,
"Pid": 11128,
"NodeCount": 2
}
]
}
]
}
}
```


5. Developer Resources

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.FenceError	Failed to query the information of a dedicated cluster.
InternalError.GetSubnetFailed	Failed to query the VPC subnet information.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
InvalidParameter.SubnetNotFound	The specified VPC subnet was not found.
InvalidParameterValue.IllegalExclusterID	The dedicated cluster to which the database instance belongs was not found.
InvalidParameterValue.SpecIdIllegal	The specification information of the database instance was not found.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeDCDBShards

Last updated : 2020-07-31 10:05:25

1. API Description

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

This API is used to query the information of shards of a TencentDB instance.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: DescribeDCDBShards.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow728lmc.
ShardInstanceIds.N	No	Array of String	Shard ID list.
Offset	No	Integer	Offset. Default value: 0
Limit	No	Integer	Number of returned results. Default value: 20. Maximum value: 100.
OrderBy	No	String	Sort by field. Only `createtime` is supported currently
OrderByType	No	String	Sort by type. Valid values: desc; asc

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Number of eligible shards

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Parameter Name	Type	Description
Shards	Array of DCDBShardInfo	Shard information list
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Query cloud database sharding information

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeDCDBShards
&InstanceId=dcdbt-ovulpcjf
&<common request parameters>
```

Output Example


```
{
"Response": {
"RequestId": "09d5c691-c180-4c7f-8bcf-1ef6d1bab40c",
"TotalCount": 2,
"Shards": [
{
"ShardId": 10244,
"InstanceId": "dcdbt-ovulpcjf",
"ShardSerialId": "set_1536756357_1",
"ShardInstanceId": "shard-5d4efnj7",
"Status": 2,
"StatusDesc": "running",
"CreateTime": "2018-09-12 20:44:47",
"VpcId": "vpc-5rkcp0wb",
"SubnetId": "subnet-6ffate6q",
"ProjectId": 0,
"Region": "ap-guangzhou",
"Zone": "ap-guangzhou-1",
"Memory": 2,
"Storage": 10,
"PeriodEndTime": "2018-10-12 20:44:47",
"NodeCount": 2,
"StorageUsage": 0.1,
"MemoryUsage": 37.2
},
{
"ShardId": 10245,
"InstanceId": "dcdbt-ovulpcjf",
"ShardSerialId": "set_1536756415_3",
"ShardInstanceId": "shard-8huhv1y9",
"Status": 2,
"StatusDesc": "running",
"CreateTime": "2018-09-12 20:44:47",
"VpcId": "vpc-5rkcp0wb",
"SubnetId": "subnet-6ffate6q",
"ProjectId": 0,
"Region": "ap-guangzhou",
```


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```
"Zone": "ap-guangzhou-1",
"Memory": 2,
"Storage": 10,
"PeriodEndTime": "2018-10-12 20:44:47",
"NodeCount": 2,
"StorageUsage": 0.1,
"MemoryUsage": 15.1
}
]
}
}
```


5. Developer Resources

API Explorer

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

- API 3.0 Explorer

SDK

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

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.FenceError	Failed to query the information of a dedicated cluster.
InternalError.GetInstanceDetailFailed	Failed to get the instance details.
InternalError.GetInstanceInfoFailed	Failed to get the instance information.
InternalError.GetVpcFailed	Failed to query the VPC information.
InternalError.InnerSystemError	Internal system error.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.

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Error Code	Description
InvalidParameterValue.IllegalExclusterID	The dedicated cluster to which the database instance belongs was not found.
InvalidParameterValue.SpecIdIllegal	The specification information of the database instance was not found.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeDatabaseObjects

Last updated : 2020-07-31 10:05:24

1. API Description

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

This API is used to query the list of database objects in a TencentDB instance, including tables, stored procedures, views, and functions.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: DescribeDatabaseObjects.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow7t8lmc.
DbName	Yes	String	Database name, which can be obtained through the `DescribeDatabases` API.

3. Output Parameters

Parameter Name	Type	Description
InstanceId	String	Passed through from the input parameters.
DbName	String	Database name.
Tables	Array of DatabaseTable	List of tables.
Views	Array of DatabaseView	List of views.

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Parameter Name	Type	Description
Procs	Array of DatabaseProcedure	List of stored procedures.
Funcs	Array of DatabaseFunction	List of functions.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the information of database objects

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeDatabaseObjects
&InstanceId=dcdbt-52s53yyh
&DbName=test
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "742443a5-4683-48ba-b30e-5151d26cf62d",
"InstanceId": "dcdbt-52s53yyh",
"DbName": "test",
"Tables": [],
"Views": [],
"Procs": [
{
"Proc": "AddGeometryColumn"
},
{
"Proc": "DropGeometryColumn"
}
],
"Funcs": []
}
}
```

5. Developer Resources

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Command Line Interface

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6. Error Code

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

Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetDbObjectFailed	Failed to get the database objects.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeDatabaseTable

Last updated : 2020-07-31 10:05:24

1. API Description

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

This API is used to query the table information of a TencentDB instance.

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

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

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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 parameter. The value used for this API: DescribeDatabaseTable.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow7t8lmc.
DbName	Yes	String	Database name, which can be obtained through the `DescribeDatabases` API.
Table	Yes	String	Table name, which can be obtained through the `DescribeDatabaseObjects` API.

3. Output Parameters

Parameter Name	Type	Description
InstanceId	String	Instance name.
DbName	String	Database name.
Table	String	Table name.
Cols	Array of TableColumn	Column information.

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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 Querying the columns in a database table

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeDatabaseTable
&InstanceId=dcdbt-52s53yyh
&DbName=test
&Table=persons
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "6defc797-13eb-47ec-9a8f-dd3e407ff12c",
"InstanceId": "dcdbt-52s53yyh",
"DbName": "test",
"Table": "persons",
"Cols": [
{
"Col": "id",
"Type": "bigint(20) unsigned"
},
{
"Col": "name",
"Type": "varchar(60)"
},
{
"Col": "nick",
"Type": "varchar(60)"
}
]
}
}
```

5. Developer Resources

API Explorer

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Command Line Interface

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6. Error Code

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

Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetTableInfoFailed	Failed to get the table information.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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DescribeProjects

Last updated : 2020-07-31 10:05:23

1. API Description

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

This API is used to query the project list.

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

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

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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 parameter. The value used for this API: DescribeProjects.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.

3. Output Parameters

Parameter Name	Type	Description
Projects	Array of Project	Project list
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Pulling the projects under an account

Input Example

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```
https://dcdb.tencentcloudapi.com/?Action=DescribeProjects
&<common request parameters>
```

Output Example


```
{
"Response": {
"Projects": [
{
"AppId": 0,
"CreateTime": "0000-00-00 00:00:00",
"CreatorUin": 0,
"Info": "Default project",
"IsDefault": 1,
"Name": "Default project",
"OwnerUin": 0,
"ProjectId": 0,
"SrcAppId": 0,
"SrcPlat": "qcloud",
"Status": 3
},
{
"AppId": 1251966477,
"CreateTime": "2019-09-17 15:47:05",
"CreatorUin": 3374998458,
"Info": "",
"IsDefault": 0,
"Name": "ryanforredis",
"OwnerUin": 3374998458,
"ProjectId": 1159121,
"SrcAppId": 0,
"SrcPlat": "qcloud",
"Status": 0
}
],
"RequestId": "31666e3c-f5bf-4862-8876-68f81131eef1"
}
}
```


5. Developer Resources

API Explorer

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6. Error Code

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

Error Code	Description
InternalError.ListProjectFailed	Failed to pull the project list.

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DescribeDatabases

Last updated : 2020-07-31 10:05:24

1. API Description

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

This API is used to query the list of databases of a TencentDB instance.

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

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

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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 parameter. The value used for this API: DescribeDatabases.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow7t8lmc.

3. Output Parameters

Parameter Name	Type	Description
Databases	Array of Database	List of databases on an instance.
InstanceId	String	Passed through from the input parameters.
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 databases on a TencentDB instance

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Input Example

```
https://dcdb.tencentcloudapi.com/?Action=DescribeDatabases
&InstanceId=dcdbt-52s53yyh
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "d0f51893-e15f-44ac-be6d-900450a6b8c2",
"InstanceId": "dcdbt-52s53yyh",
"Databases": [
{
"DbName": "information_schema"
},
{
"DbName": "mysql"
},
{
"DbName": "performance_schema"
},
{
"DbName": "test"
}
]
}
}
```

5. Developer Resources

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- Tencent Cloud CLI 3.0

6. Error Code

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

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Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetDbListFailed	Failed to get the list of databases.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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GrantAccountPrivileges

Last updated : 2020-07-31 10:05:23

1. API Description

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

This API is used to grant permissions to a TencentDB account.
Note: accounts with the same username but different hosts are different accounts.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: GrantAccountPrivileges.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow728lmc.
UserName	Yes	String	Login username.
Host	Yes	String	Access host allowed for a user. An account is uniquely identified by username and host.
DbName	Yes	String	Database name. `*` indicates that global permissions will be queried (i.e., `*.*`), in which case the `Type` and `Object` parameters will be ignored
Privileges.N	Yes	Array of String	Global permission. Valid values: SELECT; INSERT; UPDATE; DELETE; CREATE; DROP; REFERENCES; INDEX; ALTER; CREATE TEMPORARY TABLES; LOCK TABLES; EXECUTE; CREATE VIEW; SHOW VIEW; CREATE ROUTINE; ALTER ROUTINE; EVENT; TRIGGER; SHOW DATABASES Database permission. Valid values: SELECT; INSERT; UPDATE; DELETE; CREATE; DROP; REFERENCES; INDEX; ALTER; CREATE TEMPORARY TABLES; LOCK TABLES; EXECUTE; CREATE VIEW; SHOW VIEW; CREATE ROUTINE; ALTER ROUTINE; EVENT; TRIGGER Table/view permission. Valid values: SELECT; INSERT; UPDATE; DELETE; CREATE; DROP; REFERENCES; INDEX; ALTER; CREATE VIEW; SHOW VIEW; TRIGGER Stored procedure/function permission. Valid values: ALTER ROUTINE; EXECUTE Field permission. Valid values: INSERT; REFERENCES; SELECT; UPDATE

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Parameter Name	Required	Type	Description
Type	No	String	Type. Valid values: table; view; proc; func; *. If `DbName` is a specific database name and `Type` is `¥*`, the permissions of the database will be set (i.e., `db.¥*`), in which case the `Object` parameter will be ignored
Object	No	String	Type name. For example, if `Type` is table, `Object` indicates a specific table name; if both `DbName` and `Type` are specific names, it indicates a specific object name and cannot be `¥*` or empty
ColName	No	String	If `Type` = table and `ColName` is `¥*`, the permissions will be granted to the table; if `ColName` is a specific field name, the permissions will be granted to the field

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 Empower the cloud database account

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=GrantAccountPrivileges
&InstanceId=dcdbt-fdpjf5zh
&UserName=testuser1
&Host=172.17.%
&DbName=*
&Type=*
&Privileges.0=select
&Privileges.1=update
&<common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "87201772-351f-4fb5-9164-fe757fbadb79"
}
}
```

5. Developer Resources

API Explorer

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Command Line Interface

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6. Error Code

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

Error Code	Description
FailedOperation.ModifyRightFailed	Failed to modify account permissions.
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetRightFailed	Failed to get the current permissions of the account.
InternalError.InnerSystemError	Internal system error.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
InvalidParameterValue.BadUserRight	The specified permission could not be granted to this account.
InvalidParameterValue.SuperUserForbidden	Operations by a system user are not allowed.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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InitDCDBInstances

Last updated : 2020-07-31 10:05:23

1. API Description

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

This API is used to initialize instances, including setting the default character set and table name case sensitivity.

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

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

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Try it

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2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: InitDCDBInstances.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceIds.N	Yes	Array of String	List of IDs of instances to be initialized. The ID is in the format of `dcdbt-ow728lmc` and can be obtained through the `DescribeDCDBInstances` API.
Params.N	Yes	Array of DBParamValue	List of parameters. Valid values: character_set_server (character set; required); lower_case_table_names (table name case sensitivity; required; 0: case-sensitive; 1: case-insensitive); innodb_page_size (InnoDB data page; default size: 16 KB); sync_mode (sync mode; 0: async; 1: strong sync; 2: downgradable strong sync; default value: strong sync).

3. Output Parameters

Parameter Name	Type	Description
FlowIds	Array of Integer	Async task ID. The task status can be queried through the `DescribeFlow` API.
InstanceIds	Array of String	Passed through from the input parameters.

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

4. Example

Example1 Batch initialize cloud database instances

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=InitDCDBInstances
&InstanceIds.0=dcdbt-fdpjf5zh
&InstanceIds.1=dcdbt-avw0207d
&Params.0.Param=lower_case_table_names
&Params.0.Value=1
&Params.1.Param=innodb_page_size
&Params.1.Value=16384
&Params.2.Param=character_set_server
&Params.2.Value=utf8
&<common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "d94ef093-ff84-4851-b2e0-a5c5920d618e",
"InstanceIds": [
"dcdbt-fdpjf5zh",
"dcdbt-avw0207d"
],
"FlowIds": [
3340,
3341
]
}
}
```

5. Developer Resources

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Command Line Interface

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6. Error Code

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

Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.InnerSystemError	Internal system error.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
InvalidParameterValue.IllegalInitParam	An error occurred while initializing database instance parameters.
ResourceUnavailable.BadInstanceStatus	Incorrect instance status. Unable to initialize.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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ModifyAccountDescription

Last updated : 2020-07-31 10:05:23

1. API Description

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

This API is used to modify the remarks of a TencentDB account.
Note: accounts with the same username but different hosts are different accounts.

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

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

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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 parameter. The value used for this API: ModifyAccountDescription.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow728lmc.
UserName	Yes	String	Login username.
Host	Yes	String	Access host allowed for a user. An account is uniquely identified by username and host.
Description	Yes	String	New account remarks, which can contain 0-256 characters.

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.

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4. Example

Example1 Modifying the remarks of a TencentDB account

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=ModifyAccountDescription
&InstanceId=dcdbt-fdpjf5zh
&UserName=testuser1
&Host=172.17.%
&Description=Test account
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "aef9be24-4d49-4358-8022-3405a361fd3b"
}
}
```

5. Developer Resources

API Explorer

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.

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Error Code	Description
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceNotFound.AccountDoesNotExist	The specified account does not exist.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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ModifyDBInstancesProject

Last updated : 2020-07-31 10:05:22

1. API Description

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

This API is used to modify the project to which TencentDB instances belong.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: ModifyDBInstancesProject.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceIds.N	Yes	Array of String	List of IDs of instances to be modified. Instance ID is in the format of dcdbt-ow728lmc.
ProjectId	Yes	Integer	ID of the project to be assigned, which can be obtained through the `DescribeProjects` API.

3. Output Parameters

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

4. Example

Example1 Modifying the project to which TencentDB instances belong

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Input Example

```
https://dcdb.tencentcloudapi.com/?Action=ModifyDBInstancesProject
&InstanceIds.0=dcdbt-fdpjf5zh
&ProjectId=0
&<Common request parameters>
```

Output Example

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

5. Developer Resources

API Explorer

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

- API 3.0 Explorer

SDK

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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ModifyDBParameters

Last updated : 2020-07-31 10:05:22

1. API Description

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

This API is used to modify database parameters.

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

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

We recommend you to use API Explorer
Try it
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2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: ModifyDBParameters.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow728lmc.
Params.N	Yes	Array of DBParamValue	List of parameters. Every element is a combination of `Param` and `Value`.

3. Output Parameters

Parameter Name	Type	Description
InstanceId	String	Instance ID in the format of dcdbt-ow728lmc.
Result	Array of ParamModifyResult	Parameter modification results
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

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4. Example

Example1 Modifying database parameters

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=ModifyDBParameters
&InstanceId=dcdbt-ige1a5k3
&Params.0.Param=character_set_server
&Params.0.Value=utf8
&<Common request parameters>
```

Output Example

```
{
"Response": {
"InstanceId": "dcdbt-ige1a5k3",
"Result": [
{
"Code": 0,
"Param": "character_set_server"
}
],
"RequestId": "3381c9e9-d87f-4e21-ba1d-596d6f697a7e"
}
}
```

5. Developer Resources

API Explorer

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

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Error Code	Description
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.GetDbConfigFailed	Failed to get database instance parameters.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceHasBeenLocked	The database instance has been locked. Operations are not allowed.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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ModifyDBSyncMode

Last updated : 2020-07-31 10:05:21

1. API Description

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

This API is used to modify the sync mode of a TencentDB instance.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: ModifyDBSyncMode.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	ID of an instance for which to modify the sync mode. The ID is in the format of dcdbt-ow728lmc.
SyncMode	Yes	Integer	Sync mode. 0: async; 1: strong sync; 2: downgradable strong sync

3. Output Parameters

Parameter Name	Type	Description
FlowId	Integer	Async task ID. The task status can be queried through the `DescribeFlow` API.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Modifying the sync mode of a TencentDB instance

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Input Example

```
https://dcdb.tencentcloudapi.com/?Action=ModifyDBSyncMode
&InstanceId=dcdbt-avw0207d
&SyncMode=0
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "901bd41c-08a2-4001-8364-5a63f32056ae",
"FlowId": 3521
}
}
```

5. Developer Resources

API Explorer

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- API 3.0 Explorer

SDK

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

Command Line 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.CreateFlowFailed	Failed to create the flow.
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.GetInstanceInfoFailed	Failed to get the instance information.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
InvalidParameterValue.BadSyncMode	The instance does not support this sync mode.

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Error Code	Description
ResourceNotFound.NoInstanceFound	The specified database instance was not found.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.
UnsupportedOperation.InvalidOperation	Unsupported operation.

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OpenDBExtranetAccess

Last updated : 2020-07-31 10:05:21

1. API Description

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

This API is used to enable public network access for a TencentDB instance. After that, you can access the instance with the public domain name and port obtained through the `DescribeDCDBInstances` API.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: OpenDBExtranetAccess.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	ID of an instance for which to enable public network access. The ID is in the format of dcdbt-ow728lmc.
Ipv6Flag	No	Integer	Whether IPv6 is used. Default value: 0

3. Output Parameters

Parameter Name	Type	Description
FlowId	Integer	Async task ID. The task status can be queried through the `DescribeFlow` API.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

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Example1 Public network Access of Enable's cloud database instance

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=OpenDBExtranetAccess
&InstanceId=dcdbt-avw0207d
&<common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "901bd41c-08a2-4001-8364-5a63f32056ae",
"FlowId": 3023
}
}
```

5. Developer Resources

API Explorer

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- API 3.0 Explorer

SDK

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- Tencent Cloud SDK 3.0 for .NET

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.CreateFlowFailed	Failed to create the flow.
InternalError.CamAuthFailed	CAM authentication request failed.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceNotFound.NoInstanceFound	The specified database instance was not found.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.

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Error Code	Description
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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ResetAccountPassword

Last updated : 2020-07-31 10:05:20

1. API Description

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

This API is used to reset the password of a TencentDB account.
Note: accounts with the same username but different hosts are different accounts.

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

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: ResetAccountPassword.
Version	Yes	String	Common parameter. The value used for this API: 2018-04-11.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
InstanceId	Yes	String	Instance ID in the format of dcdbt-ow728lmc.
UserName	Yes	String	Login username.
Host	Yes	String	Access host allowed for a user. An account is uniquely identified by username and host.
Password	Yes	String	New password, which can contain 6-32 letters, digits, and common symbols but not semicolons, single quotation marks, and double quotation marks.

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.

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4. Example

Example1 Modifying the password of a TencentDB account

Input Example

```
https://dcdb.tencentcloudapi.com/?Action=ResetAccountPassword
&InstanceId=dcdbt-fdpjf5zh
&UserName=testuser1
&Host=172.17.%
&Password=abcd8765_.
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "c7b1680d-db03-4f20-8684-a865ce7bcd38"
}
}
```

5. Developer Resources

API Explorer

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.ResetPasswordFailed	Failed to reset the account password.
InternalError.CamAuthFailed	CAM authentication request failed.

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Error Code	Description
InternalError.DbOperationFailed	Failed to query the database.
InvalidParameter.CharacterError	The password contains invalid characters.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceHasBeenLocked	The database instance has been locked. Operations are not allowed.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.

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Data Types

Last updated : 2020-07-31 10:05:28

ConstraintRange

Range of constraint type values

Used by actions: DescribeDBParameters.

Name	Type	Description
Min	String	Minimum value when constraint type is `section`
Max	String	Maximum value when constraint type is `section`

DBAccount

TencentDB account information

Used by actions: DescribeAccounts.

Name	Type	Description
UserName	String	Username
Host	String	Host from which a user can log in (corresponding to the `host` field for a MySQL user; a user is uniquely identified by username and host; this parameter is in IP format and ends with % for IP range; % can be entered; if this parameter is left empty, % will be used by default)
Description	String	User remarks
CreateTime	Timestamp	Creation time
UpdateTime	Timestamp	Last updated time
ReadOnly	Integer	Read-only flag. 0: no; 1: for the account's SQL requests, the secondary will be used first, and if it is unavailable, the primary will be used; 2: the secondary will be used first, and if it is unavailable, the operation will fail.
DelayThresh	Integer	If the secondary delay exceeds the set value of this parameter, the secondary will be deemed to have failed. It is recommended that this parameter be set to a value greater than 10. This parameter takes effect when `ReadOnly` is 1 or 2.

DBParamValue

TencentDB parameter information.

Used by actions: InitDCDBInstances, ModifyDBParameters.

Name	Type	Required	Description
Param	String	Yes	Parameter name
Value	String	Yes	Parameter value

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DCDBInstanceInfo

TDSQL instance information

Used by actions: DescribeDCDBInstances.

Name	Type	Description
InstanceId	String	Instance ID
InstanceName	String	Instance name
AppId	Integer	AppID
ProjectId	Integer	Project ID
Region	String	Region
Zone	String	AZ
VpcId	Integer	Numeric ID of a VPC
SubnetId	Integer	Subnet Digital ID
StatusDesc	String	Status description
Status	Integer	Status
Vip	String	Private IP
Vport	Integer	Private network port
CreateTime	Timestamp	Creation time
AutoRenewFlag	Integer	Auto-renewal flag
Memory	Integer	Memory size in GB
Storage	Integer	Storage capacity in GB
ShardCount	Integer	Number of shards
PeriodEndTime	Timestamp	Expiration time
IsolatedTimestamp	Timestamp	Isolation time
Uin	String	UIN
ShardDetail	Array of ShardInfo	Shard details
NodeCount	Integer	Number of nodes. 2: one primary and one secondary; 3: one primary and two secondaries
IsTmp	Integer	Temporary instance flag. 0: non-temporary instance
ExclusterId	String	Dedicated cluster ID. If this parameter is empty, the instance is a non-dedicated cluster instance
UniqueVpcId	String	VPC ID in string type
UniqueSubnetId	String	VPC subnet ID in string type
Id	Integer	Numeric ID of instance (this field is obsolete and should not be depended on)

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Name	Type	Description
WanDomain	String	Domain name for public network access, which can be resolved by the public network
WanVip	String	Public IP address, which can be accessed over the public network
WanPort	Integer	Public network port
Pid	Integer	Product type ID (this field is obsolete and should not be depended on)
UpdateTime	Timestamp	Last updated time of an instance in the format of 2006-01-02 15:04:05
DbEngine	String	Database engine
DbVersion	String	Database engine version
Paymode	String	Billing mode
Locker	Integer	Async task flow ID when an async task is in progress on an instance Note: this field may return null, indicating that no valid values can be obtained.
WanStatus	Integer	Public network access status. 0: not enabled; 1: enabled; 2: disabled; 3: enabling
IsAuditSupported	Integer	Whether the instance supports audit. 1: yes; 0: no
Cpu	Integer	Number of CPU cores

DCDBShardInfo

Information of a TDSQL shard.

Used by actions: DescribeDCDBShards.

Name	Type	Description
InstanceId	String	Instance ID
ShardSerialId	String	Shard SQL passthrough ID, which is used to pass through SQL statements to the specified shard for execution
ShardInstanceId	String	Globally unique shard ID
Status	Integer	Status. 0: creating; 1: processing; 2: running; 3: shard not initialized
StatusDesc	String	Status description
CreateTime	Timestamp	Creation time
VpcId	String	VPC ID in string format
SubnetId	String	VPC subnet ID in string format
ProjectId	Integer	Project ID
Region	String	Region
Zone	String	AZ
Memory	Integer	Memory size in GB
Storage	Integer	Storage capacity in GB

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Name	Type	Description
PeriodEndTime	Timestamp	Expiration time
NodeCount	Integer	Number of nodes. 2: one primary and one secondary; 3: one primary and two secondaries
StorageUsage	Float	Storage utilization in %
MemoryUsage	Float	Memory utilization in %
ShardId	Integer	Numeric ID of a shard (this field is obsolete and should not be depended on)
Pid	Integer	ProductID
ProxyVersion	String	Proxy version
Paymode	String	Billing mode Note: this field may return null, indicating that no valid values can be obtained.
ShardMasterZone	String	Master AZ of a shard Note: this field may return null, indicating that no valid values can be obtained.
ShardSlaveZones	Array of String	List of secondary AZs of a shard Note: this field may return null, indicating that no valid values can be obtained.
Cpu	Integer	Number of CPU cores

Database

Database information

Used by actions: DescribeDatabases.

Name	Type	Description
DbName	String	Database name

DatabaseFunction

Database function information

Used by actions: DescribeDatabaseObjects.

Name	Type	Description
Func	String	Function name

DatabaseProcedure

Database stored procedure information

Used by actions: DescribeDatabaseObjects.

Name	Type	Description
Proc	String	Stored procedure name

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DatabaseTable

Database table information

Used by actions: DescribeDatabaseObjects.

Name	Type	Description
Table	String	Table name

DatabaseView

Database view information

Used by actions: DescribeDatabaseObjects.

Name	Type	Description
View	String	View name

LogFileInfo

Information of a pulled log

Used by actions: DescribeDBLogFiles.

Name	Type	Description
Mtime	Integer	Last modified time of a log
Length	Integer	File length
Uri	String	Uniform resource identifier (URI) used during log download
FileName	String	Filename

ParamConstraint

Parameter constraint

Used by actions: DescribeDBParameters.

Name	Type	Description
Type	String	Constraint type, such as enum and section
Enum	String	List of valid values when constraint type is `enum`
Range	ConstraintRange	Range when constraint type is `section` Note: this field may return null, indicating that no valid values can be obtained.
String	String	List of valid values when constraint type is `string`

ParamDesc

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DB parameter description

Used by actions: DescribeDBParameters.

Name	Type	Description
Param	String	Parameter name
Value	String	Current parameter value
SetValue	String	Previously set value, which is the same as `value` after the parameter takes effect. If no value has been set, this field will not be returned. Note: this field may return null, indicating that no valid values can be obtained.
Default	String	Default value
Constraint	ParamConstraint	Parameter constraint
HaveSetValue	Boolean	Whether a value has been set. false: no, true: yes

ParamModifyResult

Parameter modification result

Used by actions: ModifyDBParameters.

Name	Type	Description
Param	String	Renames a parameter
Code	Integer	Result of parameter modification. 0: success; -1: failure; -2: invalid parameter value

Project

Project description

Used by actions: DescribeProjects.

Name	Type	Description
ProjectId	Integer	Project ID
OwnerUin	Integer	The `uin` of the resource owner (root account)
AppId	Integer	Application ID
Name	String	Project name
CreatorUin	Integer	Creator `uin`
SrcPlat	String	Source platform
SrcAppId	Integer	Source `AppId`
Status	Integer	Project status. 0: normal; -1: disabled; 3: default project.
CreateTime	Timestamp	Creation time
IsDefault	Integer	Whether it is the default project. 1: yes; 0: no.

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Name	Type	Description
Info	String	Description

ShardInfo

Shard information

Used by actions: DescribeDCDBInstances.

Name	Type	Description
ShardInstanceId	String	Shard ID
ShardSerialId	String	Shard set ID
Status	Integer	Status. 0: creating; 1: processing; 2: running; 3: shard not initialized; -2: shard deleted
Createtime	String	Creation time
Memory	Integer	Memory size in GB
Storage	Integer	Storage capacity in GB
ShardId	Integer	Numeric ID of a shard
NodeCount	Integer	Number of nodes. 2: one primary and one secondary; 3: one primary and two secondaries
Pid	Integer	Product type ID (this field is obsolete and should not be depended on)
Cpu	Integer	Number of CPU cores

TableColumn

Database column information

Used by actions: DescribeDatabaseTable.

Name	Type	Description
Col	String	Column name
Type	String	Column type

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Error Codes

Last updated : 2020-06-24 11:07:44

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
UnsupportedOperation	Unsupported operation.
ResourceInUse	Resource is in use.
InternalError	Internal error.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
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.
LimitExceeded	Quota limit exceeded.
NoSuchVersion	The API version does not exist.
ResourceNotFound	The resource does not exist.
AuthFailure.SignatureFailure	Invalid signature. Signature calculation error. Please ensure you've followed the signature calculation process described in the Signature API documentation.
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.
UnsupportedRegion	API does not support the requested region.
UnauthorizedOperation	Unauthorized operation.
InvalidParameter	Incorrect parameter.
ResourceUnavailable	Resource is unavailable.

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Error Code	Description
AuthFailure.MFAFailure	MFA failed.
AuthFailure.UnauthorizedOperation	The request is not authorized. For more information, see the CAM documentation.
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type).
AuthFailure.TokenFailure	Token error.
DryRunOperation	DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.
FailedOperation	Operation failed.
UnknownParameter	Unknown parameter.
UnsupportedProtocol	HTTP(S) request protocol error; only GET and POST requests are supported.
InvalidParameterValue	Invalid parameter value.
InvalidAction	The API does not exist.
MissingParameter	A parameter is missing.
ResourceInsufficient	Insufficient resource.

Service Error Codes

Error Code	Description
FailedOperation.CopyRightError	Error copying account permissions.
FailedOperation.CreateFlowFailed	Failed to create the flow.
FailedOperation.CreateUserFailed	Failed to create the account.
FailedOperation.DeleteUserFailed	Failed to delete the account.
FailedOperation.ModifyRightFailed	Failed to modify account permissions.
FailedOperation.OssOperationFailed	Failed to request the backend API.
FailedOperation.ResetPasswordFailed	Failed to reset the account password.
InternalError.CamAuthFailed	CAM authentication request failed.
InternalError.CosConfiguration	Invalid COS instance address configuration.
InternalError.CosSignUrl	Backup filename signature failed.
InternalError.DbOperationFailed	Failed to query the database.
InternalError.FenceError	Failed to query the information of a dedicated cluster.
InternalError.GetDbConfigFailed	Failed to get database instance parameters.
InternalError.GetDbListFailed	Failed to get the list of databases.
InternalError.GetDbObjectFailed	Failed to get the database objects.
InternalError.GetInstanceDetailFailed	Failed to get the instance details.

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Error Code	Description
InternalError.GetInstanceInfoFailed	Failed to get the instance information.
InternalError.GetRightFailed	Failed to get the current permissions of the account.
InternalError.GetSubnetFailed	Failed to query the VPC subnet information.
InternalError.GetTableInfoFailed	Failed to get the table information.
InternalError.GetUserListFailed	Failed to get the list of accounts.
InternalError.GetVpcFailed	Failed to query the VPC information.
InternalError.InnerSystemError	Internal system error.
InternalError.ListProjectFailed	Failed to pull the project list.
InvalidParameter.CharacterError	The password contains invalid characters.
InvalidParameter.GenericParameterError	An error occurred while verifying parameter validity.
InvalidParameter.SubnetNotFound	The specified VPC subnet was not found.
InvalidParameterValue.AccountAlreadyExists	The account to be created already exists.
InvalidParameterValue.BadSyncMode	The instance does not support this sync mode.
InvalidParameterValue.BadUserRight	The specified permission could not be granted to this account.
InvalidParameterValue.BadUserType	Invalid account type.
InvalidParameterValue.IllegalExclusterID	The dedicated cluster to which the database instance belongs was not found.
InvalidParameterValue.IllegalInitParam	An error occurred while initializing database instance parameters.
InvalidParameterValue.SpecIdIllegal	The specification information of the database instance was not found.
InvalidParameterValue.SuperUserForbidden	Operations by a system user are not allowed.
ResourceNotFound.AccountDoesNotExist	The specified account does not exist.
ResourceNotFound.NoInstanceFound	The specified database instance was not found.
ResourceUnavailable.BadInstanceStatus	Incorrect instance status. Unable to initialize.
ResourceUnavailable.CosApiFailed	An error occurred while calling COS APIs.
ResourceUnavailable.InstanceAlreadyDeleted	The database instance has been dropped.
ResourceUnavailable.InstanceHasBeenLocked	The database instance has been locked. Operations are not allowed.
ResourceUnavailable.InstanceStatusAbnormal	Incorrect database instance status. Operations are not allowed.
UnauthorizedOperation.PermissionDenied	You have no permission to manipulate this API or resource.
UnsupportedOperation.InvalidOperation	Unsupported operation.
UnsupportedOperation.OldProxyVersion	The proxy program is too old. Please contact customer service for upgrade and try again.

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