

数据湖计算

API 文档

产品文档



腾讯云

【版权声明】

©2013-2024 腾讯云版权所有

本文档著作权归腾讯云单独所有，未经腾讯云事先书面许可，任何主体不得以任何形式复制、修改、抄袭、传播全部或部分本文档内容。

【商标声明】

及其它腾讯云服务相关的商标均为腾讯云计算（北京）有限责任公司及其关联公司所有。本文档涉及的第三方主体的商标，依法由权利人所有。

【服务声明】

本文档意在向客户介绍腾讯云全部或部分产品、服务的当时的整体概况，部分产品、服务的内容可能有所调整。您所购买的腾讯云产品、服务的种类、服务标准等应由您与腾讯云之间的商业合同约定，除非双方另有约定，否则，腾讯云对本文档内容不做任何明示或默示的承诺或保证。

文档目录

API 文档

History

Introduction

API Category

Making API Requests

Request Structure

Common Params

Signature v3

Signature

Responses

Task APIs

CreateSparkSessionBatchSQL

CancelSparkSessionBatchSQL

DescribeSparkSessionBatchSqlLog

ModifySparkAppBatch

CancelTask

CreateResultDownload

CreateSparkAppTask

CreateTask

CreateTasks

DeleteSparkApp

DescribeEngineUsagelInfo

DescribeResultDownload

DescribeSparkAppTasks

DescribeTaskResult

DescribeTasks

CreateSparkApp

DescribeSparkAppJob

DescribeSparkAppJobs

ModifySparkApp

Table APIs

CreateInternalTable

DescribeLakeFsDirSummary

DescribeLakeFsInfo

GenerateCreateMangedTableSql

Metadata APIs

DescribeForbiddenTablePro

Service Configuration APIs

SwitchDataEngine

Permission Management APIs

DescribeUserRoles

UpdateRowFilter

Data Source Connection APIs

SuspendResumeDataEngine

CreateDataEngine

Database APIs

ModifyGovernEventRule

Data Types

Error Codes

API 文档

History

最近更新时间：2023-09-19 11:26:17

Release 9

Release time: 2023-09-19 11:17:17

Release updates:

Improvement to existing documentation.

New APIs:

- [DescribeUserRoles](#)

Modified APIs:

- [CreateDataEngine](#)
 - **Deprecate input parameters:** DefaultDataEngine
- [CreateSparkApp](#)
 - New input parameters: IsSessionStarted
- [CreateSparkSessionBatchSQL](#)
 - New input parameters: IsInherit
- [ModifySparkApp](#)
 - New input parameters: IsSessionStarted

New data structures:

- [CosPermission](#)
- [UserRole](#)

Modified data structures:

- [CommonMetrics](#)
 - **Modified members:** CreateTaskTime, ProcessTime, QueueTime, ExecutionTime, IsResultCacheHit, MatchedMVBytes, MatchedMVs, AffectedBytes, AffectedRows, ProcessedBytes, ProcessedRows
- [SparkJobInfo](#)
 - New members: IsSessionStarted

- **Modified members:** JobExecutorMaxNumbers, SparkImageVersion, SessionId, DataEngineClusterType, DataEngineImageVersion, IsInherit
- [TaskResponseInfo](#)
 - **Modified members:** DriverSize, ExecutorSize, ExecutorNums, ExecutorMaxNumbers, CommonMetrics, SparkMonitorMetrics, PrestoMonitorMetrics

Release 8

Release time: 2023-06-26 17:05:33

Release updates:

Improvement to existing documentation.

New APIs:

- [CancelSparkSessionBatchSQL](#)
- [CreateSparkSessionBatchSQL](#)
- [DescribeSparkSessionBatchSqlLog](#)
- [ModifySparkAppBatch](#)

Modified APIs:

- [CreateDataEngine](#)
 - New input parameters:SessionResourceTemplate
- [CreateSparkApp](#)
 - New input parameters:IsInherit
- [GenerateCreateMangedTableSql](#)
 - New input parameters:UpsertKeys
- [ModifySparkApp](#)
 - New input parameters:IsInherit

New data structures:

- [CommonMetrics](#)
- [PrestoMonitorMetrics](#)
- [SessionResourceTemplate](#)
- [SparkMonitorMetrics](#)
- [SparkSessionBatchLog](#)
- [SparkSessionBatchLogOperate](#)

Modified data structures:

- [DataGovernPolicy](#)
 - New members:RuleType, GovernEngine
- [SparkJobInfo](#)
 - New members:IsInherit
- [TableBaseInfo](#)
 - New members:DbGovernPolicyIsDisable
- [TaskResponseInfo](#)
 - New members:ImageVersion, DriverSize, ExecutorSize, ExecutorNums, ExecutorMaxNumbers, CommonMetrics, SparkMonitorMetrics, PrestoMonitorMetrics

Release 7

Release time: 2023-04-28 10:15:13

Release updates:

Improvement to existing documentation.

Modified APIs:

- [CreateSparkApp](#)
 - New input parameters:SessionId
- [ModifySparkApp](#)
 - New input parameters:SessionId

Modified data structures:

- [SparkJobInfo](#)
 - New members:SessionId, DataEngineClusterType, DataEngineImageVersion

Release 6

Release time: 2023-04-11 14:29:22

Release updates:

Improvement to existing documentation.

Modified data structures:

- [SparkJobInfo](#)
 - New members:SparkImageVersion

Release 5

Release time: 2023-04-10 17:12:30

Release updates:

Improvement to existing documentation.

New APIs:

- [CreateDataEngine](#)
- [DescribeEngineUsageInfo](#)
- [DescribeForbiddenTablePro](#)
- [DescribeLakeFsDirSummary](#)
- [DescribeLakeFsInfo](#)
- [SwitchDataEngine](#)
- [UpdateRowFilter](#)

New data structures:

- [CrontabResumeSuspendStrategy](#)
- [DataEngineConfigPair](#)
- [Policy](#)
- [TagInfo](#)

Release 4

Release time: 2023-03-17 16:36:51

Release updates:

Improvement to existing documentation.

New APIs:

- [CreateInternalTable](#)
- [CreateResultDownload](#)
- [DescribeResultDownload](#)
- [GenerateCreateMangedTableSql](#)

- [ModifyGovernEventRule](#)

Modified APIs:

- [CreateSparkApp](#)
 - New input parameters:SparkImage, SparkImageVersion, AppExecutorMaxNumbers
 - New output parameters:SparkAppId
- [ModifySparkApp](#)
 - New input parameters:SparkImage, SparkImageVersion, AppExecutorMaxNumbers

New data structures:

- [DataGovernPolicy](#)
- [Execution](#)
- [Property](#)
- [TColumn](#)
- [TPartition](#)
- [TableBaseInfo](#)

Modified data structures:

- [SparkJobInfo](#)
 - New members:SparkImage, JobExecutorMaxNumbers

Release 3

Release time: 2023-02-03 11:20:59

Release updates:

Improvement to existing documentation.

New APIs:

- [SuspendResumeDataEngine](#)

Release 2

Release time: 2022-09-21 16:03:46

Release updates:

Improvement to existing documentation.

Modified APIs:

- [DescribeTasks](#)
 - New output parameters:TasksOverview

New data structures:

- [TasksOverview](#)

Modified data structures:

- [TaskResponseInfo](#)
 - New members:TotalTime, CmdArgs
- [TaskResultInfo](#)
 - New members:TotalTime

Release 1

Release time: 2022-08-02 11:16:01

Release updates:

Improvement to existing documentation.

New APIs:

- [CancelTask](#)
- [CreateSparkApp](#)
- [CreateSparkAppTask](#)
- [CreateTask](#)
- [CreateTasks](#)
- [DeleteSparkApp](#)
- [DescribeSparkAppJob](#)
- [DescribeSparkAppJobs](#)
- [DescribeSparkAppTasks](#)
- [DescribeTaskResult](#)
- [DescribeTasks](#)
- [ModifySparkApp](#)

New data structures:

-
- [Column](#)
 - [Filter](#)
 - [KVPair](#)
 - [SQLTask](#)
 - [SparkJobInfo](#)
 - [StreamingStatistics](#)
 - [Task](#)
 - [TaskResponseInfo](#)
 - [TaskResultInfo](#)
 - [TasksInfo](#)

Introduction

最近更新时间：2022-09-02 16:25:54

Data Lake Compute is a storage-free serverless interactive federated query service, where data from object storage services, databases, data warehouses, and NoSQL data sources can be analyzed with standard SQL statements without going through ETL. You can compute and analyze scattered multi-source heterogeneous data in the cloud with no need to perform traditional hierarchical data modeling. This accelerates the preparations and reduces the costs of data analysis.

API Category

最近更新时间：2023-09-19 11:26:17

Table APIs

API Name	Feature	Frequency Limit (maximum requests per second)
CreateInternalTable	Creates a managed internal table	20
DescribeLakeFsDirSummary	Queries the summary of a specified directory in a managed storage	20
DescribeLakeFsInfo	Queries managed storage information	20
GenerateCreateMangedTableSql	Generates SQL statements for creating a managed table	20

Task APIs

API Name	Feature	Frequency Limit (maximum requests per second)
CreateSparkSessionBatchSQL	Creates and executes a Spark SQL batch task	20
CancelSparkSessionBatchSQL	Cancel a Spark SQL batch task	20
CancelTask	Cancel a task	20
CreateResultDownload	Creates a query result download task	20
CreateSparkAppTask	Starts a Spark job	20
CreateTask	Creates and executes a Spark SQL task	20
CreateTasks	Creates and executes SQL tasks in batches	20
DeleteSparkApp	Deletes a Spark job	20

DescribeEngineUsageInfo	Queries the resource usage of a data engine	20
DescribeResultDownload	Gets a query result download task	20
DescribeSparkAppTasks	Queries the list of running task instances of a Spark application	20
DescribeTaskResult	Queries the result of a task	20
DescribeTasks	Queries the list of tasks	500
CreateSparkApp	Creates a Spark job	20
DescribeSparkAppJob	Queries the information of a Spark job	20
DescribeSparkSessionBatchSqlLog	Obtains the logs of a Spark SQL batch task	50
ModifySparkApp	Updates a Spark job	20
DescribeSparkAppJobs	Queries the list of Spark jobs	20
ModifySparkAppBatch	Modifies Spark job parameters in batches	20

Metadata APIs

API Name	Feature	Frequency Limit (maximum requests per second)
DescribeForbiddenTablePro	Gets the list of disabled table attributes (new)	20

Service Configuration APIs

API Name	Feature	Frequency Limit (maximum requests per second)
SwitchDataEngine	Switches between the primary and standby clusters	20

Permission Management APIs

API Name	Feature	Frequency Limit (maximum requests per second)
DescribeUserRoles	Enumerates user roles	20
UpdateRowFilter	Updates row filters	20

Data Source Connection APIs

API Name	Feature	Frequency Limit (maximum requests per second)
SuspendResumeDataEngine	Suspends or starts a data engine	20
CreateDataEngine	Creates a data engine	20

Database APIs

API Name	Feature	Frequency Limit (maximum requests per second)
ModifyGovernEventRule	Changes data governance event thresholds	20

Making API Requests

Request Structure

最近更新时间：2023-03-17 16:38:28

1. Service Address

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

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

2. Communications Protocol

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

3. Request Methods

Supported HTTP request methods:

- POST (recommended)
- GET

The Content-Type types supported by POST requests:

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

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

4. Character Encoding

Only UTF-8 encoding is used.

Common Params

最近更新时间：2023-02-03 11:24:48

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

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

Common parameters for Signature Algorithm v3

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

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

			parameter) in UTC time format; service is the name of the product/service generally a domain name prefix. For example, a domain name cvm.tencent refers to the CVM product and the value would be cvm; - SignedHeaders: The headers that contains the authentication information 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:

```

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=582c400e06b5924a6f2b5d7d672d79c15b1316
2d9279b0855cfba6789a8edb4c
```

```
Content-Type: multipart/form-data; boundary=58731222010402
```

```
Host: cvm.tencentcloudapi.com
```

```
X-TC-Action: DescribeInstances
```

```
X-TC-Version: 2017-03-12
```

```
X-TC-Timestamp: 1527672334
```

```
X-TC-Region: ap-guangzhou
```

```
--58731222010402
```

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

```
0
```

```
--58731222010402
```

```
Content-Disposition: form-data; name="Limit"
```

```
10
```

```
--58731222010402--
```

Common parameters for Signature Algorithm v1

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

Parameter Name	Type	Required	Description
Action	String	Yes	The name of the API for the desired operation. For the specific value, see the description of common parameter <code>Action</code> in the input parameters in related API documentation. For example, the API for querying the CVM instance list is <code>DescribeInstances</code> .
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 <code>Region</code> in the input parameters in related API documentation. Note: This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even if it is passed.

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 <code>Timestamp</code> 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 <code>Version</code> 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=37ac2f4fde00b0ac9bd9eadeb459b1bbec224158d66e7ae5fcadb70b2d181d02&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
```

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
Hong Kong/Macao/Taiwan (Hong Kong, China)	ap-hongkong
Southeast Asia Pacific (Singapore)	ap-singapore
Eastern U.S. (Virginia)	na-ashburn

Signature v3

最近更新时间：2022-09-02 16:25:55

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

Applying for Security Credentials

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

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

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

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

Using the Resources for Developers

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

TC3-HMAC-SHA256 Signature Algorithm

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

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

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

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

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

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

Assuming that your SecretId and SecretKey are `AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****` and `Gu5t9xGARNpq86cd98joQYCN3*****`, respectively, if you want to view the status of the instance in the Guangzhou region whose CVM instance name is "unnamed" and have only one data entry returned, then the request may be:

```
curl -X POST https://cvm.tencentcloudapi.com \
-H "Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****
*/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e4
1437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff" \
-H "Content-Type: application/json; charset=utf-8" \
-H "Host: cvm.tencentcloudapi.com" \
-H "X-TC-Action: DescribeInstances" \
-H "X-TC-Timestamp: 1551113065" \
-H "X-TC-Version: 2017-03-12" \
-H "X-TC-Region: ap-guangzhou" \
-d '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}'
```

The signature calculation process is explained in detail below.

1. Concatenating the CanonicalRequest String

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

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



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

Field Name	Explanation
HTTPRequestMethod	HTTP request method (GET or POST). This example uses <code>POST</code> .
CanonicalURI	URI parameter. Slash ("/") is used for API 3.0.
CanonicalQueryString	<p>The query string in the URL of the originating HTTP request. This is always an empty string for POST requests, and is the string after the question mark (?) for GET requests. For example: <code>Limit=10&Offset=0</code>.</p> <p>Note: <code>CanonicalQueryString</code> 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.</p>
CanonicalHeaders	<p>Header information for signature calculation, including at least two headers of <code>host</code> and <code>content-type</code>. Custom headers can be added to participate in the signature process to improve the uniqueness and security of the request.</p> <p>Concatenation rules:</p> <ol style="list-style-type: none"> 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 <code>key:value\n</code> format; If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase). <p>The calculation result in this example is <code>content-type:application/json; charset=utf-8\nhost:cvm.tencentcloudapi.com\n</code>.</p> <p>Note: <code>content-type</code> 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 server will return an error indicating signature verification failed.</p>
SignedHeaders	<p>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). <code>Content-type</code> and <code>host</code> are required headers.</p> <p>Concatenation rules:</p> <ol style="list-style-type: none"> Both the key and value of the header should be converted to lowercase; If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase) and separated by semicolons (;). <p>The value in this example is <code>content-type;host</code></p>
HashedRequestPayload	Hash value of the request payload (i.e., the body, such as <code>{"Limit": 1, "Filter</code>

```
[{"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 <code>TC3-HMAC-SHA256</code> .
RequestTimestamp	Request timestamp, i.e., the value of the common parameter <code>X-TC-Timestamp</code> in request header, which is the UNIX timestamp of the current time in seconds, such as <code>1551113065</code> in this example.
CredentialScope	Scope of the credential in the format of <code>Date/service/tc3_request</code> , including 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 ; <code>service</code> is the product name, which should match the domain name of the product called. The calculation result in this example is <code>20180525/cvm/tc3_request</code> .

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 2815843035062fffd6f2a44ea8a34818b0dc46f024b8b3786976a3ad
------------------------	---

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
2815843035062fffd6f2a44ea8a34818b0dc46f024b8b3786976a3adda7a
```

3. Calculating the Signature

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

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

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

Service	Value in the Service field in <code>Credential</code> , such as <code>cvm</code> 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 <code>TC3-HMAC-SHA256</code> .
SecretId	The SecretId in the key pair, i.e., <code>AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****</code> .
CredentialScope	Credential scope (see above). The calculation result in this example is <code>2019-02-25/cvm/tc3_request</code> .
SignedHeaders	Header information for signature calculation (see above), such as <code>content-type;host</code> in this example.
Signature	Signature value. The calculation result in this example is <code>c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff</code> .

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

```
TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
```

The following example shows a finished authorization header:

```
POST https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
```

```
Content-Type: application/json; charset=utf-8
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1551113065
X-TC-Region: ap-guangzhou

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

5. Signature Demo

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

- [Python](#)
- [Java](#)
- [PHP](#)
- [Go](#)
- [NodeJS](#)
- [.NET](#)

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

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

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

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

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

Java

```

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

public class TencentCloudAPITC3Demo {
    private final static Charset UTF8 = StandardCharsets.UTF_8;
    private final static String SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****";
    private final static String SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*****";
    private final static String CT_JSON = "application/json; charset=utf-8";

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

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

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

        // ***** Step 1: Concatenate the CanonicalRequest string *****
    }
}

```

```

String httpRequestMethod = "POST";
String canonicalUri = "/";
String canonicalQueryString = "";
String canonicalHeaders = "content-type:application/json; charset=utf-8\n" + "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("\")
.append(" -H \"X-TC-Timestamp: ").append(timestamp).append("\")
.append(" -H \"X-TC-Version: ").append(version).append("\")
.append(" -H \"X-TC-Region: ").append(region).append("\")
.append(" -d ").append(payload).append(" ");
System.out.println(sb.toString());
}
}

```

Python

```

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

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

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

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

```



```

canonical_querystring + "\n" +
canonical_headers + "\n" +
signed_headers + "\n" +
hashed_request_payload)
print(canonical_request)

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

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

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

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

Golang

```
package main

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

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

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

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

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

```
canonicalQueryString,  
canonicalHeaders,  
signedHeaders,  
hashedRequestPayload)  
fmt.Println(canonicalRequest)  
  
// step 2: build string to sign  
date := time.Unix(timestamp, 0).UTC().Format("2006-01-02")  
credentialScope := fmt.Sprintf("%s/%s/tc3_request", date, service)  
hashedCanonicalRequest := sha256hex(canonicalRequest)  
string2sign := fmt.Sprintf("%s\n%d\n%s\n%s",  
algorithm,  
timestamp,  
credentialScope,  
hashedCanonicalRequest)  
fmt.Println(string2sign)  
  
// step 3: sign string  
secretDate := hmacsha256(date, "TC3"+secretKey)  
secretService := hmacsha256(service, secretDate)  
secretSigning := hmacsha256("tc3_request", secretService)  
signature := hex.EncodeToString([]byte(hmacsha256(string2sign, secretSigning)))  
fmt.Println(signature)  
  
// step 4: build authorization  
authorization := fmt.Sprintf("%s Credential=%s/%s, SignedHeaders=%s, Signature=%  
s",  
algorithm,  
secretId,  
credentialScope,  
signedHeaders,  
signature)  
fmt.Println(authorization)  
  
curl := fmt.Sprintf(`curl -X POST https://%s\  
-H "Authorization: %s"\  
-H "Content-Type: application/json; charset=utf-8"\  
-H "Host: %s" -H "X-TC-Action: %s"\  
-H "X-TC-Timestamp: %d"\  
-H "X-TC-Version: %s"\  
-H "X-TC-Region: %s"\  
-d '%s'`, host, authorization, host, action, timestamp, version, region, payload)  
fmt.Println(curl)  
}
```

PHP

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

// step 1: build canonical request string
$httpRequestMethod = "POST";
$canonicalUri = "/";
$canonicalQueryString = "";
$canonicalHeaders = "content-type:application/json; charset=utf-8\n"."host:". $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'
require 'time'
require 'openssl'

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

service = 'cvm'
host = 'cvm.tencentcloudapi.com'
endpoint = 'https://' + host
region = 'ap-guangzhou'
action = 'DescribeInstances'
version = '2017-03-12'
algorithm = 'TC3-HMAC-SHA256'
# timestamp = Time.now.to_i
timestamp = 1551113065
date = Time.at(timestamp).utc.strftime('%Y-%m-%d')

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

```

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

puts canonical_request

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

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

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

puts 'curl -X POST ' + endpoint \

```

```

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

DotNet

```

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

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

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

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

```

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

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

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

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



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

Dictionary<string, string> headers = new Dictionary<string, string>();
headers.Add("Authorization", authorization);
headers.Add("Host", endpoint);
headers.Add("Content-Type", contentType + "; charset=utf-8");
headers.Add("X-TC-Timestamp", requestTimestamp.ToString());
headers.Add("X-TC-Version", version);
headers.Add("X-TC-Action", action);
headers.Add("X-TC-Region", region);
return headers;
}

public static void Main(string[] args)
{
    // SecretID and SecretKey
    string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****";
    string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*****";

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

    // The timestamp `2019-02-26 00:44:25` used here is only for reference. In a project, use the following parameter:
    // DateTime date = DateTime.UtcNow;
    // Enter the correct time zone. We recommend using UTC timestamp to avoid errors.
    DateTime date = new DateTime(1970, 1, 1, 0, 0, 0, 0, DateTimeKind.Utc).AddSeconds(1551113065);
    string requestPayload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"\\u672a\\u547d\\u540d\"], \"Name\": \"instance-name\"}]\"}";

    Dictionary<string, string> headers = BuildHeaders(SECRET_ID, SECRET_KEY, service, endpoint, region, action, version, date, requestPayload);

    Console.WriteLine("POST https://cvm.tencentcloudapi.com");
    foreach (KeyValuePair<string, string> kv in headers)
    {
        Console.WriteLine(kv.Key + ": " + kv.Value);
    }
    Console.WriteLine();
    Console.WriteLine(requestPayload);
}
}
```

NodeJS

```

const crypto = require('crypto');

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

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

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

function main(){

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

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

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

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

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

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

```

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

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

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

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

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

C++

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

using namespace std;

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

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

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

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

    HMAC_CTX *h;
    #if OPENSSSL_VERSION_NUMBER < 0x10100000L
    HMAC_CTX hmac;
    HMAC_CTX_init(&hmac);
    h = &hmac;
    #else
    h = HMAC_CTX_new();
    #endif

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

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

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

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

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

```

return output;
}

int main()
{
string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****";
string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*****";

string service = "cvm";
string host = "cvm.tencentcloudapi.com";
string region = "ap-guangzhou";
string action = "DescribeInstances";
string version = "2017-03-12";
int64_t timestamp = 1551113065;
string date = get_data(timestamp);

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

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

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

```

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

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

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

Signature Failure

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

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

Signature

最近更新时间：2022-09-02 16:25:55

Tencent Cloud API authenticates each access request, i.e. each request needs to include authentication information (Signature) in the common parameters to verify the identity of the requester.

The Signature is generated by the security credentials which include SecretId and SecretKey. If you don't have the security credentials yet, go to the [TencentCloud API Key](#) page to apply for them; otherwise, you cannot invoke the TencentCloud API.

1. Applying for Security Credentials

Before using the TencentCloud API for the first time, go to the [TencentCloud API Key](#) page to apply for security credentials.

Security credentials consist of SecretId and SecretKey:

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

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

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

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

2. Generating a Signature

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

Assume that the SecretId and SecretKey are:

- SecretId: AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****
- SecretKey: Gu5t9xGARNpq86cd98joQYCN3*****

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

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

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

2.1. Sorting Parameters

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

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

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

2.2. Concatenating a Request String

This step generates a request string.

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

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

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

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

2.3. Concatenating the Signature Original String

This step generates a signature original string.

The signature original string consists of the following parameters:

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

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

The concatenation result of the example is:

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

2.4. Generating a Signature String

This step generates a signature string.

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

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

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

```
$secretKey = 'Gu5t9xGARNpq86cd98joQYCN3*****';

```

The final signature is:

```
zmmjn35mikh6pM3V7sUEuX4wyYM=
```

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

3. Encoding a Signature String

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

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

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

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

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

4. Signature Failure

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

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

5. Signature Demo

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

- [Python](#)
- [Java](#)
- [PHP](#)
- [Go](#)
- [NodeJS](#)
- [.NET](#)

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

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

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

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

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

Java

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

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

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

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

    public static String getUrl(TreeMap<String, Object> params) throws UnsupportedEncodingException {
        StringBuilder url = new StringBuilder("https://cvm.tencentcloudapi.com/?");
        // There is no requirement for the order of the parameters in the actual request
        // URL.
        for (String k : params.keySet()) {
```

```

// The request string needs to be URL encoded. As the Key is all in English letters, only the value is URL encoded here.
url.append(k).append("=").append(URLEncoder.encode(params.get(k).toString(), CHARSET)).append("&");
}
return url.toString().substring(0, url.length() - 1);
}

public static void main(String[] args) throws Exception {
    TreeMap<String, Object> params = new TreeMap<String, Object>(); // TreeMap enables automatic sorting
    // A random number should be used when actually calling, for example: params.put("Nonce", new Random().nextInt(Integer.MAX_VALUE));
    params.put("Nonce", 11886); // Common parameter
    // The current time of the system should be used when actually calling, for example: params.put("Timestamp", System.currentTimeMillis() / 1000);
    params.put("Timestamp", 1465185768); // Common parameter
    params.put("SecretId", "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****"); // 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), "Gu5t9xGARNpq86cd98joQYCN3*****", "HmacSHA1")); // Common parameter
    System.out.println(getUrl(params));
}
}

```

Python

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

```

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

import requests

secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*****"

```

```

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

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

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

Golang

```

package main

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

func main() {
    secretId := "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****"
    secretKey := "Gu5t9xGARNpq86cd98joQYCN3*****"
    
```

```

params := map[string]string{
    "Nonce": "11886",
    "Timestamp": "1465185768",
    "Region": "ap-guangzhou",
    "SecretId": secretId,
    "Version": "2017-03-12",
    "Action": "DescribeInstances",
    "InstanceIds.0": "ins-09dx96dg",
    "Limit": "20",
    "Offset": "0",
}

var buf bytes.Buffer
buf.WriteString("GET")
buf.WriteString("cvm.tencentcloudapi.com")
buf.WriteString("/")
buf.WriteString("?")

// sort keys by ascii asc order
keys := make([]string, 0, len(params))
for k, _ := range params {
    keys = append(keys, k)
}
sort.Strings(keys)

for i := range keys {
    k := keys[i]
    buf.WriteString(k)
    buf.WriteString("=")
    buf.WriteString(params[k])
    buf.WriteString("&")
}
buf.Truncate(buf.Len() - 1)

hashed := hmac.New(sha1.New, []byte(secretKey))
hashed.Write(buf.Bytes())

fmt.Println(base64.StdEncoding.EncodeToString(hashed.Sum(nil)))
}
    
```

PHP

```

<?php
$secretId = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3*****";
$params["Nonce"] = 11886;//rand();
    
```



```

$params["Timestamp"] = 1465185768;//time();
$params["Region"] = "ap-guangzhou";
$params["SecretId"] = $secretId;
$params["Version"] = "2017-03-12";
$params["Action"] = "DescribeInstances";
$params["InstanceIds.0"] = "ins-09dx96dg";
$params["Limit"] = 20;
$params["Offset"] = 0;

ksort($params);

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

Ruby

```

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

secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*****"

method = 'GET'
endpoint = 'cvm.tencentcloudapi.com'
data = {
  'Action' => 'DescribeInstances',
  'InstanceIds.0' => 'ins-09dx96dg',
  'Limit' => 20,
    
```

```

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

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

DotNet

```

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

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

    public static string MakeSignPlainText(SortedDictionary<string, string> requestParams, string requestMethod, string requestHost, string requestPath)
    
```

```

{
    string retStr = "";
    retStr += requestMethod;
    retStr += requestHost;
    retStr += requestPath;
    retStr += "?";
    string v = "";
    foreach (string key in requestParams.Keys)
    {
        v += string.Format("{0}={1}&", key, requestParams[key]);
    }
    retStr += v.TrimEnd('&');
    return retStr;
}

public static void Main(string[] args)
{
    string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****";
    string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*****";

    string endpoint = "cvm.tencentcloudapi.com";
    string region = "ap-guangzhou";
    string action = "DescribeInstances";
    string version = "2017-03-12";
    double RequestTimestamp = 1465185768;
    // long timestamp = ToTimestamp() / 1000;
    // string requestTimestamp = timestamp.ToString();
    Dictionary<string, string> param = new Dictionary<string, string>();
    param.Add("Limit", "20");
    param.Add("Offset", "0");
    param.Add("InstanceIds.0", "ins-09dx96dg");
    param.Add("Action", action);
    param.Add("Nonce", "11886");
    // param.Add("Nonce", Math.Abs(new Random().Next()).ToString());

    param.Add("Timestamp", RequestTimestamp.ToString());
    param.Add("Version", version);

    param.Add("SecretId", SECRET_ID);
    param.Add("Region", region);
    SortedDictionary<string, string> headers = new SortedDictionary<string, string>(p
    am, StringComparer.Ordinal);
    string sigInParam = MakeSignPlainText(headers, "GET", endpoint, "/");
    Console.WriteLine(sigInParam);
    string sigOutParam = Sign(SECRET_KEY, sigInParam);
}

```

```

Console.WriteLine("GET https://cvm.tencentcloudapi.com");
foreach (KeyValuePair<string, string> kv in headers)
{
    Console.WriteLine(kv.Key + ": " + kv.Value);
}
Console.WriteLine("Signature" + ": " + WebUtility.UrlEncode(sigOutParam));
Console.WriteLine();

string result = "https://cvm.tencentcloudapi.com/?";
foreach (KeyValuePair<string, string> kv in headers)
{
    result += WebUtility.UrlEncode(kv.Key) + "=" + WebUtility.UrlEncode(kv.Value) +
"&";
}
result += WebUtility.UrlEncode("Signature") + "=" + WebUtility.UrlEncode(sigOutPa
ram);
Console.WriteLine("GET " + result);
}
}
    
```

NodeJS

```

const crypto = require('crypto');

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

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

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

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

```

strParam += ("%&" + keys[k] + "=" + params[keys[k]]);
}
return strParam
}

function main(){
const SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****"
const SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*****"

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

let params = {};
params['Action'] = Action;
params['InstanceIds.0'] = 'ins-09dx96dg';
params['Limit'] = 20;
params['Offset'] = 0;
params['Nonce'] = Nonce;
params['Region'] = Region;
params['SecretId'] = SECRET_ID;
params['Timestamp'] = Timestamp;
params['Version'] = Version;

strParam = sort_params(params)

const reqMethod = "GET";
const path = "/";
strSign = formatSignString(reqMethod, endpoint, path, strParam)
console.log(strSign)
console.log("-----")

params['Signature'] = sha1(SECRET_KEY, strSign)
console.log(params['Signature'])
console.log("-----")

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

```


Responses

最近更新时间：2022-09-02 16:25:55

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.

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

Task APIs

CreateSparkSessionBatchSQL

最近更新时间：2023-09-19 11:26:20

1. API Description

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

This API is used to submit a Spark SQL batch task to the job engine.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CreateSparkSessionBatchSQL.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
DataEngineName	Yes	String	The name of the engine for executing the Spark job.
ExecuteSQL	Yes	String	The SQL statement to execute.
DriverSize	No	String	The driver size. Valid values: <code>small</code> (default, 1 CU), <code>medium</code> (2 CUs), <code>large</code> (4 CUs), and <code>xlarge</code> (8 CUs).
ExecutorSize	No	String	The executor size. Valid values: <code>small</code> (default, 1 CU),

			<code>medium</code> (2 CUs), <code>large</code> (4 CUs), and <code>xlarge</code> (8 CUs).
ExecutorNumbers	No	Integer	The executor count, which defaults to 1.
ExecutorMaxNumbers	No	Integer	The maximum executor count, which defaults to 1. This parameter applies if the "Dynamic" mode is selected. If the "Dynamic" mode is not selected, the value of this parameter is the same as that of <code>ExecutorNumbers</code> .
TimeoutInSecond	No	Integer	The session timeout period in seconds. Default value: 3600
SessionId	No	String	The unique ID of a session. If this parameter is specified, the task will be run using the specified session.
SessionName	No	String	The name of the session to create.
Arguments.N	No	Array of <code>KVPair</code>	The session configurations. Valid values: <code>1.dlc.eni</code> for user-defined ENI gateway information; <code>2.dlc.role.arn</code> for user-defined roleArn configurations; and <code>3.dlc.sql.set.config</code> for user-defined cluster configurations.
IsInherit	No	Integer	Whether to inherit the resource configurations from the cluster. Valid values: <code>0</code> for no (default) and <code>1</code> for yes.

3. Output Parameters

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

4. Example

Example1 Creating and executing a Spark SQL batch task

This example shows you how to submit a Spark SQL batch task to the Spark job engine.

Input Example

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

{
  "DataEngineName": "data_engine_1",
  "ExecuteSQL": "select 1",
  "DriverSize": "small",
  "ExecutorSize": "small",
  "ExecutorNumbers": 1,
  "ExecutorMaxNumbers": 1,
  "TimeoutInSeconds": 2,
  "SessionId": "",
  "SessionName": "livy-session-123",
  "Arguments": [
    {
      "Value": "eni",
      "Key": "test_eni"
    }
  ]
}
```

Output Example

```
{
  "Response": {
    "RequestId": "b8sd7dd7-ekd4-4e5e-993e-e5db64fa21c1",
    "BatchId": "d3018ad4-9a7e-4f64-a3f4-f38507c69742"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)

- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InternalServerError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidSQL	SQL parsing failed.
ResourceNotFound	The resource does not exist.
ResourceNotFound.ResourceNotFoundCode_SessionInsufficientResources	No resources are available to create a session currently. Please try again later or use a monthly subscription cluster.
ResourceNotFound.SessionNotFound	The session does not exist.
ResourceNotFound.SessionStateDead	The session has expired.

CancelSparkSessionBatchSQL

最近更新时间：2023-09-19 11:26:21

1. API Description

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

This API is used to cancel a Spark SQL batch task.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CancelSparkSessionBatchSQL.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
BatchId	Yes	String	The unique identifier of a batch task.

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 Canceling a Spark SQL batch task

This example shows you how to cancel a Spark SQL batch task.

Input Example

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

{
  "BatchId": "d3018ad4-9a7e-4f64-a3f4-f38507c69742"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "b8sd7dd7-ekd4-4e5e-993e-e5db64fa21c1"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)

- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InternalError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidSQL	SQL parsing failed.
ResourceNotFound	The resource does not exist.

DescribeSparkSessionBatchSqlLog

最近更新时间：2023-09-19 11:26:18

1. API Description

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

This API is used to obtain the logs of a Spark SQL batch task.

A maximum of 50 requests can be initiated per second for this API.

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeSparkSessionBatchSqlLog.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
BatchId	Yes	String	The unique ID of a Spark SQL job.

3. Output Parameters

Parameter Name	Type	Description

State	Integer	The status. Valid values: <code>0</code> (initializing), <code>1</code> (successful), <code>2</code> (failed), <code>3</code> (canceled), and <code>4</code> (exception).
LogSet	Array of SparkSessionBatchLog	The log information list. 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 Obtaining the logs of a Spark SQL batch task

This example shows you how to obtain the logs of a Spark SQL batch task.

Input Example

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

{
  "BatchId": "d3018ad4-9a7e-4f64-a3f4-f38507c69742"
}
```

Output Example

```
{
  "Response": {
    "State": 0,
    "LogSet": [
      {
        "Step": "BEG",
        "Time": "2023-03-20 12:12:12",
        "Message": "Cluster name",
        "Operate": [
          {
            "Text": "dateEngine-1",
            "Operate": "COPY",
            "Supplement": [
              {
```

```

"Key": "TASKID",
"Value": "d0ds1sad4-9d7e-4f64-a3f4-f385dcs6742"
}
]
}
]
}
],
"RequestId": "b8sd7dd7-ekd4-4e5e-993e-e5db64fa21c1"
}
}
    
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InternalError	An internal error occurred.

InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidSQL	SQL parsing failed.
ResourceNotFound	The resource does not exist.

ModifySparkAppBatch

最近更新时间：2023-09-19 11:26:18

1. API Description

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

This API is used to modify Spark job parameters in batches.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: ModifySparkAppBatch.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
SparkAppId.N	Yes	Array of String	The list of the IDs of the Spark job tasks to be modified in batches.
DataEngine	No	String	The engine ID.
AppDriverSize	No	String	The driver size. Valid values for the standard resource type: <code>small</code> , <code>medium</code> , <code>large</code> , and <code>xlarge</code> .

			Valid values for the memory resource type: <code>m.small</code> , <code>m.medium</code> , <code>m.large</code> , and <code>m.xlarge</code> .
AppExecutorSize	No	String	The executor size. Valid values for the standard resource type: <code>small</code> , <code>medium</code> , <code>large</code> , and <code>xlarge</code> . Valid values for the memory resource type: <code>m.small</code> , <code>m.medium</code> , <code>m.large</code> , and <code>m.xlarge</code> .
AppExecutorNums	No	Integer	The executor count. The minimum value is 1 and the maximum value is less than the cluster specification.
AppExecutorMaxNumbers	No	Integer	The maximum executor count (in dynamic configuration scenarios). The minimum value is 1 and the maximum value is less than the cluster specification. If you set <code>ExecutorMaxNumbers</code> to a value smaller than that of <code>ExecutorNums</code> , the value of <code>ExecutorMaxNumbers</code> is automatically changed to that of <code>ExecutorNums</code> .
IsInherit	No	Integer	Whether to inherit the task resource configuration from the cluster template. Valid values: <code>0</code> (default): No; <code>1</code> : Yes.

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 Spark job parameters in batches

This example shows you how to modify Spark job parameters in batches.

Input Example

```
POST / HTTP/1.1
Host: dlc.tencentcloudapi.com
```

```
Content-Type: application/json
X-TC-Action: ModifySparkAppBatch
<Common request parameters>

{
  "SparkAppId": [
    "batch_a7dca867-b941-4294-af9e-3dsefc086f1e"
  ],
  "DataEngine": "DataEngine-dde2f7vq",
  "AppDriverSize": "small",
  "AppExecutorSize": "small",
  "AppExecutorNums": 1,
  "AppExecutorMaxNumbers": 1,
  "IsInherit": 0
}
```

Output Example

```
{
  "Response": {
    "RequestId": "b8sd7dd7-ekd4-4e5e-993e-e5db64fa21c1"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InternalServerError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidSQL	SQL parsing failed.
ResourceNotFound	The resource does not exist.

CancelTask

最近更新时间：2023-09-19 11:26:20

1. API Description

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

This API is used to cancel a task.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CancelTask.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
TaskId	Yes	String	Globally unique task ID

3. Output Parameters

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

locating a problem.

4. Example

Example1 Canceling a task

This example shows you how to cancel a task.

Input Example

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

{
  "TaskId": "4ad30ca9-8b0e-499f-b4e1-d6e43ba0e564"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "48d09166-9ddc-4734-8cea-0cdf69c7d685"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)

- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
FailedOperation.AnotherRequestProcessing	Another request is being processed. Try again later.
FailedOperation.HttpClientDoRequestFailed	The HTTP client request failed.
InternalError	An internal error occurred.
InvalidParameter.InvalidTaskId	The <code>taskId</code> is invalid.
InvalidParameter.TaskAlreadyFinished	The task has ended and cannot be canceled.

CreateResultDownload

最近更新时间：2023-09-19 11:26:20

1. API Description

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

This API is used to create a query result download task.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CreateResultDownload.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
TaskId	Yes	String	The result query task ID.
Format	Yes	String	The result format.
Force	No	Boolean	Whether to re-generate a file to download. This parameter applies only when the last task is <code>timeout</code> or <code>error</code> .

3. Output Parameters

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

4. Example

Example1 Example 1

Input Example

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

{
  "Force": true,
  "TaskId": "xx",
  "Format": "xx"
}
```

Output Example

```
{
  "Response": {
    "DownloadId": "xx",
    "RequestId": "xx"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
FailedOperation.NoPermission	No permission.

CreateSparkAppTask

最近更新时间：2023-09-19 11:26:20

1. API Description

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

This API is used to start a Spark job.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CreateSparkAppTask.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobName	Yes	String	Spark job name
CmdArgs	No	String	The input parameters of the Spark job, separated by space. They are generally used for periodic calls.

3. Output Parameters

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

Name		
BatchId	String	Batch ID
TaskId	String	Task ID
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Starting a Spark job

This example shows you how to start a Spark job.

Input Example

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

{
  "JobName": "spark-app-test",
  "CmdArgs": "10 test 20"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "2ae4707a-9f72-44aa-9fd4-65cb739d6301",
    "BatchId": "batch-9vsx3lh0",
    "TaskId": "4a7cad6bb86211ec9c616e6f30623d72"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InvalidParameter.InvalidRoleArn	The CAM role arn is invalid.
InvalidParameter.InvalidSparkAppParam	The <code>SparkAppParam</code> is invalid.
ResourceUnavailable	The resource is unavailable.
UnauthorizedOperation.UseComputingEngine	The sub-user does not have permission to use the compute engine.

CreateTask

最近更新时间：2023-09-19 11:26:20

1. API Description

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

This API is used to create and execute a SQL task. (`CreateTasks` is recommended.)

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CreateTask.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
Task	Yes	Task	Computing task. This parameter contains the task type and related configuration information.
DatabaseName	No	String	Database name. If there is a database name in the SQL statement, the database in the SQL statement will be used first; otherwise, the database specified by this parameter will be used (note: when submitting the database creation SQL statement, passed in an empty string for this field).

DatasourceConnectionName	No	String	Name of the default data source
DataEngineName	No	String	Data engine name. If this parameter is not specified, the task will be submitted to the default engine.

3. Output Parameters

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

4. Example

Example1 Creating and executing a Spark task

This example shows you how to create and execute a SQL task.

Input Example

```

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

{
  "Task": {
    "SQLTask": {
      "SQL": "U0VMRUNUICogRlJPTSBgdGVzdGh5d2AuYHRlc3QxMDBtYCBMSU1JVCAxMDs=",
      "Config": [
        {
          "Key": "",
          "Value": ""
        }
      ]
    },
    "SparkSQLTask": {
      "SQL": ""
    }
  }
}
    
```

```
"Config": [  
  {  
    "Key": "",  
    "Value": ""  
  }  
],  
"DatabaseName": "testdb"  
}
```

Output Example

```
{  
  "Response": {  
    "RequestId": "13bfd2b2-b92e-4c49-9c7e-3662b5f32165",  
    "TaskId": "4ad30ca9-8b0e-499f-b4e1-d6e43ba0e564"  
  }  
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError	An internal error occurred.
InternalError.DBError	A database error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidDataEngineName	The data engine name is invalid.
InvalidParameter.InvalidSQL	SQL parsing failed.
InvalidParameter.InvalidSQLNum	The number of SQL statements does not meet the specification.
InvalidParameter.InvalidStoreLocation	The storage location is incorrect.
ResourceNotFound	The resource does not exist.
ResourceNotFound.ResultOutputPathNotFound	The result path was not found.
ResourceUnavailable.BalanceInsufficient	The account balance is insufficient to run the SQL task.
UnauthorizedOperation.UseComputingEngine	The sub-user does not have permission to use the compute engine.

CreateTasks

最近更新时间：2023-09-19 11:26:19

1. API Description

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

This API is used to create and execute SQL tasks in batches.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CreateTasks.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
DatabaseName	Yes	String	Database name. If there is a database name in the SQL statement, the database in the SQL statement will be used first; otherwise, the database specified by this parameter will be used (note: when submitting the database creation SQL statement, passed in an empty string for this field).
Tasks	Yes	TasksInfo	SQL task information
DatasourceConnectionName	No	String	Data source name. Default value:

			DataLakeCatalog.
DataEngineName	No	String	Compute engine name. If this parameter is not specified, the task will be submitted to the default engine.

3. Output Parameters

Parameter Name	Type	Description
BatchId	String	ID of the current batch of submitted tasks
TaskIdSet	Array of String	Collection of task IDs arranged in order of execution
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating and executing SQL tasks in batch

This example shows you how to create and execute SQL tasks in batches.

Input Example

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

{
  "Tasks": {
    "TaskType": "SQLTask",
    "SQL": "U0VMRUNUICogRlJPTSBgdGVzdGh5d2AuYHRlc3QxMDBtYCBMSU1JVCAxMDs=",
    "Config": [
      {
        "Key": "",
        "Value": ""
      }
    ],
  },
}
```

```
"FailureTolerance": "Proceed"
},
"DatabaseName": "testdb",
"DatasourceConnectionName": "DataLakeCatalog"
}
```

Output Example

```
{
  "Response": {
    "BatchId": "batch-45nyt3ee",
    "RequestId": "b577857e-041f-46c7-b5cf-4b3d3f50bc51",
    "TaskIdSet": [
      "e9663251-3a14-423a-b003-13c77c3fae11"
    ]
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError	An internal error occurred.
InternalError.DBError	A database error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidDataEngineName	The data engine name is invalid.
InvalidParameter.InvalidFailureTolerance	The fault tolerance policy is invalid.
InvalidParameter.InvalidSQL	SQL parsing failed.
InvalidParameter.InvalidSQLNum	The number of SQL statements does not meet the specification.
InvalidParameter.InvalidStoreLocation	The storage location is incorrect.
InvalidParameter.InvalidTaskType	The task type is invalid.
ResourceNotFound	The resource does not exist.
ResourceNotFound.ResultOutputPathNotFound	The result path was not found.
ResourceUnavailable.BalanceInsufficient	The account balance is insufficient to run the SQL task.
UnauthorizedOperation.UseComputingEngine	The sub-user does not have permission to use the compute engine.

DeleteSparkApp

最近更新时间：2023-09-19 11:26:19

1. API Description

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

This API is used to delete a Spark job.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DeleteSparkApp.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
AppName	Yes	String	The Spark job name.

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 Spark job

This example shows you how to delete a Spark job.

Input Example

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

{
  "AppName": "spark-app"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "2ae4707a-9f72-44aa-9fd4-65cb739d6301"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)

-
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

DescribeEngineUsageInfo

最近更新时间：2023-09-19 11:26:19

1. API Description

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

This API is used to query the resource usage of a data engine based on its ID.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeEngineUsageInfo.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
DataEngineId	Yes	String	The data engine ID.

3. Output Parameters

Parameter Name	Type	Description
----------------	------	-------------

Total	Integer	The total cluster spec.
Used	Integer	The used cluster spec.
Available	Integer	The available cluster spec.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the resource usage of a data engine

This example shows you how to query the resource usage of a data engine.

Input Example

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

{
  "DataEngineId": "abc"
}
```

Output Example

```
{
  "Response": {
    "Total": 0,
    "Used": 0,
    "Available": 0,
    "RequestId": "abc"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalServerError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
ResourceNotFound	The resource does not exist.

DescribeResultDownload

最近更新时间：2023-09-19 11:26:19

1. API Description

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

This API is used to get a query result download task.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeResultDownload.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
DownloadId	Yes	String	The query task ID.

3. Output Parameters

Parameter Name	Type	Description

Path	String	The file save path. Note: This field may return null, indicating that no valid values can be obtained.
Status	String	The task status. Valid values: <code>init</code> , <code>queue</code> , <code>format</code> , <code>compress</code> , <code>success</code> , <code>timeout</code> , and <code>error</code> .
Reason	String	The task exception cause. Note: This field may return null, indicating that no valid values can be obtained.
SecretId	String	The temporary secret ID. Note: This field may return null, indicating that no valid values can be obtained.
SecretKey	String	The temporary secret key. Note: This field may return null, indicating that no valid values can be obtained.
Token	String	The temporary token. 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 Example 1

Input Example

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

{
  "DownloadId": "xx"
}
```

Output Example

```
{
  "Response": {
    "Status": "xx",
    "Token": "xx",
    "SecretKey": "xx",
```

```
"Reason": "xx",
"SecretId": "xx",
"RequestId": "xx",
"Path": "xx"
}
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.

DescribeSparkAppTasks

最近更新时间：2023-09-19 11:26:18

1. API Description

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

This API is used to query the list of running task instances of a Spark job.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeSparkAppTasks.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	Yes	String	Spark job ID
Offset	No	Integer	Paginated query offset
Limit	No	Integer	Paginated query limit
TaskId	No	String	Execution instance ID
StartTime	No	String	The update start time in the format of yyyy-MM-dd HH:mm:ss.

EndTime	No	String	The update end time in the format of yyyy-MM-dd HH:mm:ss.
Filters.N	No	Array of Filter	Filter by this parameter, which can be <code>task-state</code> .

3. Output Parameters

Parameter Name	Type	Description
Tasks	TaskResponseInfo	Task result (this field has been disused) Note: This field may return null, indicating that no valid values can be obtained.
TotalCount	Integer	Total number of tasks
SparkAppTasks	Array of TaskResponseInfo	List of task results 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 running task instances of a Spark job

This example shows you how to query the list of running task instances of a Spark job.

Input Example

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

{
  "JobId": "batch_133e005d-6486-4517-8ea7-b6b97b183a6b",
  "Offset": 0,
  "Limit": 10
}
```

Output Example

```
{
  "Response": {
    "Tasks": {
      "DatabaseName": "abc",
      "DataAmount": 0,
      "Id": "abc",
      "UsedTime": 0,
      "OutputPath": "abc",
      "CreateTime": "abc",
      "State": 0,
      "SQLType": "abc",
      "SQL": "abc",
      "ResultExpired": true,
      "RowAffectInfo": "abc",
      "DataSet": "abc",
      "Error": "abc",
      "Percentage": 0,
      "OutputMessage": "abc",
      "TaskType": "abc",
      "ProgressDetail": "abc",
      "UpdateTime": "abc",
      "DataEngineId": "abc",
      "OperateUin": "abc",
      "DataEngineName": "abc",
      "InputType": "abc",
      "InputConf": "abc",
      "DataNumber": 0,
      "CanDownload": true,
      "UserAlias": "abc",
      "SparkJobName": "abc",
      "SparkJobId": "abc",
      "SparkJobFile": "abc",
      "UiUrl": "abc",
      "TotalTime": 0,
      "CmdArgs": "abc",
      "ImageVersion": "abc",
      "DriverSize": "abc",
      "ExecutorSize": "abc",
      "ExecutorNums": 1,
      "ExecutorMaxNumbers": 1
    },
    "TotalCount": 0,
    "SparkAppTasks": [
      {
        "DatabaseName": "abc",
```

```
"DataAmount": 0,
"Id": "abc",
"UsedTime": 0,
"OutputPath": "abc",
"CreateTime": "abc",
"State": 0,
"SQLType": "abc",
"SQL": "abc",
"ResultExpired": true,
"RowAffectInfo": "abc",
"DataSet": "abc",
"Error": "abc",
"Percentage": 0,
"OutputMessage": "abc",
"TaskType": "abc",
"ProgressDetail": "abc",
"UpdateTime": "abc",
"DataEngineId": "abc",
"OperateUin": "abc",
"DataEngineName": "abc",
"InputType": "abc",
"InputConf": "abc",
"DataNumber": 0,
"CanDownload": true,
"UserAlias": "abc",
"SparkJobName": "abc",
"SparkJobId": "abc",
"SparkJobFile": "abc",
"UiUrl": "abc",
"TotalTime": 0,
"CmdArgs": "abc",
"ImageVersion": "abc",
"DriverSize": "abc",
"ExecutorSize": "abc",
"ExecutorNums": 1,
"ExecutorMaxNumbers": 1
}
],
"RequestId": "abc"
}
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.

DescribeTaskResult

最近更新时间：2023-09-19 11:26:18

1. API Description

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

This API is used to query the result of a task.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeTaskResult.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
TaskId	Yes	String	Unique task ID
NextToken	No	String	The pagination information returned by the last response. This parameter can be omitted for the first response, where the data will be returned from the beginning. The data with a volume set by the <code>MaxResults</code> field is returned each time.
MaxResults	No	Integer	Maximum number of returned rows. Value range: 0-1,000. Default value: 1,000.

3. Output Parameters

Parameter Name	Type	Description
TaskInfo	TaskResultInfo	The queried task information. If the returned value is empty, the task with the entered task ID does not exist. The task result will be returned only if the task status is 2 (succeeded). 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 result of a task

This example shows you how to query the result of a task. 1,000 rows of data are returned each time.

Input Example

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

{
  "TaskId": "9e20f9c021cb11ec835f5254006c64af",
  "NextToken": ""
}
```

Output Example

```
{
  "Response": {
    "RequestId": "9328049f-30bc-4feb-aecf-e3b4ff2d1b00",
    "TaskInfo": {
      "TaskId": "9e20f9c021cb11ec835f5254006c64af",
      "DatasourceConnectionName": "CosDataCatalog",
      "DatabaseName": "auth_test",
      "SQL": "SELECT * FROM `auth_test`.`hive_test` LIMIT 10",
      "SQLType": "DQL",
```

```

"State": 2,
"DataAmount": 850363,
"UsedTime": 1761,
"TotalTime": 2000,
"OutputPath": "cosn://dlc-nj-1258469122/test/DLCQueryResults/2021/09/30/9e20f9c021cb11ec835f5254006c64af/",
"CreateTime": "1632991895728",
"OutputMessage": "success",
"RowAffectInfo": "59378 rows affected (1.761000 seconds)",
"ResultSchema": [
{
"Name": "a",
"Type": "integer",
"Comment": "",
"Precision": 0,
"Scale": 0,
"Nullable": "NULLABLE"
},
{
"Name": "b",
"Type": "varchar",
"Comment": "",
"Precision": 0,
"Scale": 0,
"Nullable": "NULLABLE"
}
],
"ResultSet": "[[\"3\", \"kk\"], [\"3\", \"kk\"], [\"9143\", \" \\\"28992\\\"\"], [\"19048\", \" \\\"11266\\\"\"], [\"16711\", \" \\\"17422\\\"\"], [\"3816\", \" \\\"18501\\\"\"], [\"16428\", \" \\\"13774\\\"\"], [\"30190\", \" \\\"5177\\\"\"], [\"24824\", \" \\\"19479\\\"\"], [\"9709\", \" \\\"5532\\\"\"]]",
"NextToken": "",
"Percentage": 100,
"ProgressDetail": "[{\"jobId\": \"0\", \"stages\": [{\"stageId\": \"0\", \"schedule\": 1}, {\"stageId\": \"1\", \"schedule\": 1}, {\"stageId\": \"2\", \"schedule\": 1}, {\"stageId\": \"3\", \"schedule\": 1}], \"jobState\": \"\"}]",
"DisplayFormat": "table"
}
}
}

```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
FailedOperation.HttpClientDoRequestFailed	The HTTP client request failed.
InternalError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidMaxResults	Invalid maximum number of results.
InvalidParameter.InvalidTaskId	The <code>taskid</code> is invalid.

DescribeTasks

最近更新时间：2023-09-19 11:26:18

1. API Description

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

This API is used to query the list of tasks.

A maximum of 500 requests can be initiated per second for this API.

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeTasks.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
Limit	No	Integer	Number of returned results. Default value: 10. Maximum value: 100.
Offset	No	Integer	Offset. Default value: 0.
Filters.N	No	Array of Filter	Filter. The following filters are supported, and the <code>Name</code> input parameter must be one of them. Up to 50 <code>task-id</code> values can be filtered, while up to 5 other parameters can be filtered in total. task-id - String - (filter by task ID). <code>task-id</code> format: e386471f-139a-4e59-877f-50ece8135b99. task-state - String - (filter exactly by task status). Valid values: <code>0</code> (initial), <code>1</code> (running), <code>2</code> (succeeded), <code>-1</code> (failed).

			task-sql-keyword - String - (filter fuzzily by SQL statement keyword, such as <code>DROP TABLE</code>). task-operator- string (filter by sub-UIN) task-kind - string (filter by task type)
SortBy	No	String	Sorting field. Valid values: <code>create-time</code> (default value), <code>update-time</code> .
Sorting	No	String	Sorting order. Valid values: <code>asc</code> (ascending order), <code>desc</code> (descending order). Default value: <code>asc</code> .
StartTime	No	String	Start time in the format of <code>yyyy-mm-dd HH:MM:SS</code> , which is the current time seven days ago by default.
EndTime	No	String	End time in the format of <code>yyyy-mm-dd HH:MM:SS</code> , which is the current time by default. The time span is (0, 30] days. Data in the last 45 days can be queried.
DataEngineName	No	String	The data engine name for filtering.

3. Output Parameters

Parameter Name	Type	Description
TaskList	Array of TaskResponseInfo	List of task objects.
TotalCount	Integer	Total number of instances
TasksOverview	TasksOverview	The task overview. 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 tasks

This example shows you how to query the list of tasks.

Input Example

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

{
  "Limit": 0,
  "Offset": 0,
  "Filters": [
    {
      "Name": "abc",
      "Values": [
        "abc"
      ]
    }
  ],
  "SortBy": "abc",
  "Sorting": "abc",
  "StartTime": "abc",
  "EndTime": "abc",
  "DataEngineName": "abc"
}
```

Output Example

```
{
  "Response": {
    "TaskList": [
      {
        "DatabaseName": "abc",
        "DataAmount": 0,
        "Id": "abc",
        "UsedTime": 0,
        "OutputPath": "abc",
        "CreateTime": "abc",
        "State": 0,
        "SQLType": "abc",
        "SQL": "abc",
        "ResultExpired": true,
        "RowAffectInfo": "abc",
        "DataSet": "abc",
        "Error": "abc",
        "Percentage": 0,

```

```
"OutputMessage": "abc",
"TaskType": "abc",
"ProgressDetail": "abc",
"UpdateTime": "abc",
"DataEngineId": "abc",
"OperateUin": "abc",
"DataEngineName": "abc",
"InputType": "abc",
"InputConf": "abc",
"DataNumber": 0,
"CanDownload": true,
"UserAlias": "abc",
"SparkJobName": "abc",
"SparkJobId": "abc",
"SparkJobFile": "abc",
"UiUrl": "abc",
"TotalTime": 0,
"CmdArgs": "abc",
"ImageVersion": "abc",
"DriverSize": "abc",
"ExecutorSize": "abc",
"ExecutorNums": 1,
"ExecutorMaxNumbers": 1,
"CommonMetrics": {
  "CreateTaskTime": 0,
  "ProcessTime": 0,
  "QueueTime": 0,
  "ExecutionTime": 0,
  "IsResultCacheHit": true,
  "MatchedMVBytes": 0,
  "MatchedMVs": "abc",
  "AffectedBytes": "abc",
  "AffectedRows": 0,
  "ProcessedBytes": 0,
  "ProcessedRows": 0
},
"SparkMonitorMetrics": {
  "ShuffleWriteBytesCos": 0,
  "ShuffleWriteBytesTotal": 0
},
"PrestoMonitorMetrics": {
  "LocalCacheHitRate": 0,
  "FragmentCacheHitRate": 0
}
},
"TotalCount": 1,
```

```
"TasksOverview": {
  "TaskQueuedCount": 0,
  "TaskInitCount": 0,
  "TaskRunningCount": 0,
  "TotalTaskCount": 0
},
"RequestId": "abc"
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalServerError	An internal error occurred.
InternalServerError.DBError	A database error occurred.
InvalidParameter	The parameter is incorrect.

InvalidParameterValue

The parameter value is incorrect.

CreateSparkApp

最近更新时间：2023-09-19 11:26:20

1. API Description

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

This API is used to create a Spark job.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CreateSparkApp.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
AppName	Yes	String	The Spark job name.
AppType	Yes	Integer	The Spark job type. Valid values: <code>1</code> for Spark JAR job and <code>2</code> for Spark streaming job.
DataEngine	Yes	String	The data engine executing the Spark job.
AppFile	Yes	String	The path of the Spark job package.
RoleArn	Yes	Integer	The data access policy (CAM role arn).

AppDriverSize	Yes	String	The driver size. Valid values: <code>small</code> (default, 1 CU), <code>medium</code> (2 CUs), <code>large</code> (4 CUs), and <code>xlarge</code> (8 CUs).
AppExecutorSize	Yes	String	The executor size. Valid values: <code>small</code> (default, 1 CU), <code>medium</code> (2 CUs), <code>large</code> (4 CUs), and <code>xlarge</code> (8 CUs).
AppExecutorNums	Yes	Integer	Number of Spark job executors
Eni	No	String	This field has been disused. Use the <code>Datasource</code> field instead.
IsLocal	No	String	The source of the Spark job package. Valid values: <code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
MainClass	No	String	The main class of the Spark job.
AppConf	No	String	Spark configurations separated by line break
IsLocalJars	No	String	The source of the dependency JAR packages of the Spark job. Valid values: <code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
AppJars	No	String	The dependency JAR packages of the Spark JAR job (JAR packages), separated by comma.
IsLocalFiles	No	String	The source of the dependency files of the Spark job. Valid values: <code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
AppFiles	No	String	The dependency files of the Spark job (files other than JAR and ZIP packages) separated by comma.
CmdArgs	No	String	The input parameters of the Spark job, separated by comma.
MaxRetries	No	Integer	The maximum number of retries, valid for Spark streaming tasks only.
DataSource	No	String	The data source name.
IsLocalPythonFiles	No	String	The source of the PySpark dependencies. Valid values:

			<code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
AppPythonFiles	No	String	The PySpark dependencies (Python files), separated by comma, with <code>.py</code> , <code>.zip</code> , and <code>.egg</code> formats supported.
IsLocalArchives	No	String	The source of the dependency archives of the Spark job. Valid values: <code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
AppArchives	No	String	The dependency archives of the Spark job, separated by comma, with <code>tar.gz</code> , <code>.tgz</code> , and <code>.tar</code> formats supported.
SparkImage	No	String	The Spark image version.
SparkImageVersion	No	String	The Spark image version name.
AppExecutorMaxNumbers	No	Integer	The specified executor count (max), which defaults to 1. This parameter applies if the "Dynamic" mode is selected. If the "Dynamic" mode is not selected, the executor count is equal to <code>AppExecutorNums</code> .
SessionId	No	String	The ID of the associated Data Lake Compute query script.
IsInherit	No	Integer	Whether to inherit the task resource configuration from the cluster template. Valid values: <code>0</code> (default): No; <code>1</code> : Yes.
IsSessionStarted	No	Boolean	Whether to run the task with the session SQLs. Valid values: <code>false</code> for no and <code>true</code> for yes.

3. Output Parameters

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

4. Example

Example1 Creating a Spark job

This example shows you how to create a Spark job.

Input Example

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

{
  "AppName": "spark-test",
  "AppType": 1,
  "DataEngine": "spark-engine",
  "Eni": "kafka-eni",
  "IsLocal": "cos",
  "AppFile": "test.jar",
  "RoleArn": 12,
  "MainClass": "com.test.WordCount",
  "AppConf": "spark-default.properties",
  "IsLocalJars": "cos",
  "AppJars": "com.test2.jar",
  "IsLocalFiles": "cos",
  "AppFiles": "spark-default.properties",
  "AppDriverSize": "small",
  "AppExecutorSize": "small",
  "AppExecutorNums": 1,
  "AppExecutorMaxNumbers": 1
}
```

Output Example

```
{
  "Response": {
    "SparkAppId": "2aedsa7a-9f72-44aa-9fd4-65cb739d6301",
    "RequestId": "2ae4707a-9f72-44aa-9fd4-65cb739d6301"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InvalidParameter.InvalidRoleArn	The CAM role arn is invalid.

DescribeSparkAppJob

最近更新时间：2023-09-19 11:26:19

1. API Description

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

u200cThis API is used to query the information of a Spark job.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeSparkAppJob.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	No	String	The Spark job ID. If it co-exists with <code>JobName</code> , <code>JobName</code> is invalid. At least <code>JobId</code> or <code>JobName</code> must be used.
JobName	No	String	Spark job name

3. Output Parameters

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

Name		
Job	SparkJobInfo	Spark job details Note: This field may return null, indicating that no valid values can be obtained.
IsExists	Boolean	Whether the queried Spark job exists
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 a Spark job

This example shows you how to query the information of a Spark job.

Input Example

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

{
  "JobId": "batch_133e005d-6486-4517-8ea7-b6b97b183a6b",
  "JobName": "spark_app"
}
```

Output Example

```
{
  "Response": {
    "Job": {
      "JobId": "batch_e6c5ae75-fb02-4831-a5b8-88999d09003c",
      "JobName": "abc",
      "JobType": 1,
      "DataEngine": "testjar3",
      "Eni": "testeni2",
      "IsLocal": "cos",
      "JobFile": "cosn://danierwei-test-1305424723/sparkjar/spark-ckafka-1.0-SNAPSHOT.jar",
      "RoleArn": 3,
    }
  }
}
```



```
"MainClass": "org.apache.spark.examples.SparkPi",
"CmdArgs": "testArgs",
"JobConf": "",
"IsLocalJars": "abc",
"JobJars": "lakefs://4000002928ef2638d7ab6aabb088bd51b7db914729a5c43b13a998ffa9750511f511d0ab@dlcda57-100018379117-1636704841-100017307912-1304028854/1305424723/system/sparkAppJar/20220513/dd3c6ad3-a746-40d8-806c-fa8b15b5e9f9/spark-examples_2.12-3.1.2.jar",
"IsLocalFiles": "lakefs",
"JobFiles": "",
"JobDriverSize": "small",
"JobExecutorSize": "small",
"JobExecutorNums": 1,
"JobMaxAttempts": 1,
"JobCreator": "admin",
"JobCreateTime": 1652769991248,
"JobUpdateTime": 1652769991248,
"CurrentTaskId": "2aedsa7a-9ds2-44ds-9fdd-65cbds9d6301",
"JobStatus": 1,
"StreamingStat": {
  "StartTime": "2022-01-01 12:12:12",
  "Receivers": 0,
  "NumActiveReceivers": 0,
  "NumInactiveReceivers": 0,
  "NumActiveBatches": 0,
  "NumRetainedCompletedBatches": 0,
  "NumTotalCompletedBatches": 0,
  "AverageInputRate": 0,
  "AverageSchedulingDelay": 0,
  "AverageProcessingTime": 0,
  "AverageTotalDelay": 0
},
"DataSource": "DataLakeCatalog",
"IsLocalPythonFiles": "cos",
"AppPythonFiles": "",
"IsLocalArchives": "cos",
"JobArchives": "",
"SparkImage": "Spark 3.2",
"JobPythonFiles": "cos",
"TaskNum": 1,
"DataEngineStatus": 0,
"JobExecutorMaxNumbers": 1,
"SessionId": "xxssd-dsakjj-dkslk-doeks"
},
"IsExists": true,
"RequestId": "2ae4707a-9f72-44aa-9fd4-65cb739d6301"
```

```
}
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidSparkAppParam	The <code>SparkAppParam</code> is invalid.

DescribeSparkAppJobs

最近更新时间：2023-09-19 11:26:19

1. API Description

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

This API is used to query the list of Spark jobs.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeSparkAppJobs.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
SortBy	No	String	The returned results are sorted by this field.
Sorting	No	String	Descending or ascending order, such as <code>desc</code> .
Filters.N	No	Array of Filter	The filters. The following types are supported, and <code>Name</code> of the parameter passed in must be one of them: <code>spark-job-name</code> (job name), <code>spark-job-id</code> (job ID), <code>spark-app-type</code> (job type: <code>1</code> for batch, <code>2</code> for streaming, and <code>4</code> for SQL), <code>user-name</code> (creator), and <code>key-word</code> (job name or ID keywords for fuzzy search).
StartTime	No	String	The update start time in the format of yyyy-mm-dd HH:MM:SS.

EndTime	No	String	The update end time in the format of yyyy-mm-dd HH:MM:SS.
Offset	No	Integer	The query list offset, which defaults to 0.
Limit	No	Integer	The maximum number of queries allowed in the list, which defaults to 100.

3. Output Parameters

Parameter Name	Type	Description
SparkAppJobs	Array of SparkJobInfo	Detailed list of Spark jobs
TotalCount	Integer	Total number of Spark jobs
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Queries the list of Spark jobs

This example shows you how to query the list of Spark jobs.

Input Example

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

{
  "Sorting": "desc",
  "SortBy": "create-time",
  "StartTime": "2022-01-01 00:00:00",
  "EndTime": "2022-01-01 00:00:00",
  "Filters": [
    {
      "Values": [
```

```
"value"  
],  
"Name": "key"  
}  
],  
"Offset": 0,  
"Limit": 10  
}
```

Output Example

```
{  
  "Response": {  
    "RequestId": "2ae4707a-9f72-44aa-9fd4-65cb739d6301",  
    "SparkAppJobs": [],  
    "TotalCount": 0  
  }  
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InternalError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidSQL	SQL parsing failed.
ResourceNotFound	The resource does not exist.

ModifySparkApp

最近更新时间：2023-09-19 11:26:18

1. API Description

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

This API is used to update a Spark job.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: ModifySparkApp.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
AppName	Yes	String	The Spark job name.
AppType	Yes	Integer	The Spark job type. Valid values: <code>1</code> for Spark JAR job and <code>2</code> for Spark streaming job.
DataEngine	Yes	String	The data engine executing the Spark job.
AppFile	Yes	String	The path of the Spark job package.
RoleArn	Yes	Integer	The data access policy (CAM role arn).

AppDriverSize	Yes	String	The driver size. Valid values: <code>small</code> (default, 1 CU), <code>medium</code> (2 CUs), <code>large</code> (4 CUs), and <code>xlarge</code> (8 CUs).
AppExecutorSize	Yes	String	The executor size. Valid values: <code>small</code> (default, 1 CU), <code>medium</code> (2 CUs), <code>large</code> (4 CUs), and <code>xlarge</code> (8 CUs).
AppExecutorNums	Yes	Integer	Number of Spark job executors
SparkAppId	Yes	String	The Spark job ID.
Eni	No	String	This field has been disused. Use the <code>Datasource</code> field instead.
IsLocal	No	String	The source of the Spark job package. Valid values: <code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
MainClass	No	String	The main class of the Spark job.
AppConf	No	String	Spark configurations separated by line break
IsLocalJars	No	String	The source of the dependency JAR packages of the Spark job. Valid values: <code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
AppJars	No	String	The dependency JAR packages of the Spark JAR job (JAR packages), separated by comma.
IsLocalFiles	No	String	The source of the dependency files of the Spark job. Valid values: <code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
AppFiles	No	String	The dependency files of the Spark job (files other than JAR and ZIP packages), separated by comma.
IsLocalPythonFiles	No	String	The source of the PySpark dependencies. Valid values: <code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
AppPythonFiles	No	String	The PySpark dependencies (Python files), separated by comma, with <code>.py</code> , <code>.zip</code> , and <code>.egg</code> formats supported.

CmdArgs	No	String	The input parameters of the Spark job, separated by comma.
MaxRetries	No	Integer	The maximum number of retries, valid for Spark streaming tasks only.
DataSource	No	String	Data source name
IsLocalArchives	No	String	The source of the dependency archives of the Spark job. Valid values: <code>cos</code> for COS and <code>lakefs</code> for the local system (for use in the console, but this method does not support direct API calls).
AppArchives	No	String	The dependency archives of the Spark job, separated by comma, with <code>tar.gz</code> , <code>.tgz</code> , and <code>.tar</code> formats supported.
SparkImage	No	String	The Spark image version.
SparkImageVersion	No	String	The Spark image version name.
AppExecutorMaxNumbers	No	Integer	The specified executor count (max), which defaults to 1. This parameter applies if the "Dynamic" mode is selected. If the "Dynamic" mode is not selected, the executor count is equal to <code>AppExecutorNums</code> .
SessionId	No	String	The associated Data Lake Compute query script.
IsInherit	No	Integer	Whether to inherit the task resource configuration from the cluster configuration template. Valid values: <code>0</code> (default): No; <code>1</code> : Yes.
IsSessionStarted	No	Boolean	Whether to run the task with the session SQLs. Valid values: <code>false</code> for no and <code>true</code> for yes.

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 Updating a Spark job

This example shows you how to update a Spark job.

Input Example

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

{
  "SparkAppId": "batch_sadfafd",
  "AppName": "spark-test",
  "AppType": 1,
  "DataEngine": "spark-engine",
  "Eni": "kafka-eni",
  "IsLocal": "cos",
  "AppFile": "test.jar",
  "RoleArn": 12,
  "MainClass": "com.test.WordCount",
  "AppConf": "spark-default.properties",
  "IsLocalJars": "cos",
  "AppJars": "com.test2.jar",
  "IsLocalFiles": "cos",
  "AppFiles": "spark-default.properties",
  "AppDriverSize": "small",
  "AppExecutorSize": "small",
  "AppExecutorNums": 1,
  "AppExecutorMaxNumbers": 1
}
```

Output Example

```
{
  "Response": {
    "RequestId": "2ae4707a-9f72-44aa-9fd4-65cb739d6301"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InvalidParameter.InvalidDataEngineName	The data engine name is invalid.

Table APIs

CreateInternalTable

最近更新时间：2023-09-19 11:26:21

1. API Description

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

This API is used to create a managed internal table. It has been disused.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CreateInternalTable.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
TableBaseInfo	Yes	TableBaseInfo	The basic table information.
Columns.N	Yes	Array of TColumn	The table fields.
Partitions.N	No	Array of TPartition	The table partitions.

Properties.N	No	Array of Property	The table properties.
--------------	----	----------------------	-----------------------

3. Output Parameters

Parameter Name	Type	Description
Execution	String	The SQL statements for creating the managed internal table.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a managed internal table

Input Example

```

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

{
  "Columns": [
    {
      "Comment": "xx",
      "Default": "xx",
      "Type": "xx",
      "Name": "xx",
      "NotNull": true
    }
  ],
  "TableBaseInfo": {
    "TableName": "xx",
    "DatasourceConnectionName": "xx",
    "DatabaseName": "xx",
    "TableComment": "xx"
  },
  "Partitions": [

```

```
{
  "Comment": "xx",
  "PartitionDot": 0,
  "Name": "xx",
  "PartitionFormat": "xx",
  "Type": "xx",
  "PartitionType": "xx",
  "Transform": "xx",
  "TransformArgs": []
}
```

Output Example

```
{
  "Response": {
    "Execution": "<create sql>",
    "RequestId": "RequestId"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InternalError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
ResourceUnavailable	The resource is unavailable.
UnauthorizedOperation	Unauthorized operation.
UnsupportedOperation	Unsupported operation.

DescribeLakeFsDirSummary

最近更新时间：2023-09-19 11:26:21

1. API Description

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

This API is used to query the summary of a specified directory in a managed storage.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeLakeFsDirSummary.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.

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 Example 1

Input Example

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

{}
```

Output Example

```
{
  "Response": {
    "RequestId": "xx"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure	CAM signature/authentication error.
FailedOperation	The operation failed.
InternalError	An internal error occurred.
InternalError.DBError	A database error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameterValue	The parameter value is incorrect.
OperationDenied	Operation denied.
ResourceNotFound	The resource does not exist.

DescribeLakeFsInfo

最近更新时间：2023-09-19 11:26:21

1. API Description

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

This API is used to query managed storage information.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeLakeFsInfo.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.

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 Example 1

Input Example

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

{}
```

Output Example

```
{
  "Response": {
    "RequestId": "xx"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure	CAM signature/authentication error.
FailedOperation	The operation failed.
InternalError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameterValue	The parameter value is incorrect.
LimitExceeded	The quota limit is reached.
MissingParameter	Missing parameters.
OperationDenied	Operation denied.
ResourceNotFound	The resource does not exist.

GenerateCreateMangedTableSql

最近更新时间：2023-09-19 11:26:21

1. API Description

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

This API is used to generate SQL statements for creating a managed table.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: GenerateCreateMangedTableSql.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
TableBaseInfo	Yes	TableBaseInfo	The basic table information.
Columns.N	Yes	Array of TColumn	The table fields.
Partitions.N	No	Array of TPartition	The table partitions.
Properties.N	No	Array of Property	The table properties.

UpsertKeys.N	No	Array of String	The Upsert key for a v2 table (in Upsert mode).
--------------	----	-----------------	---

3. Output Parameters

Parameter Name	Type	Description
Execution	Execution	The SQL statements for creating the managed internal table.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a managed internal table

This example shows you how to create a managed internal table.

Input Example

```

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

{
  "TableBaseInfo": {
    "DatabaseName": "abc",
    "TableName": "abc",
    "DatasourceConnectionName": "abc",
    "TableComment": "abc",
    "Type": "abc",
    "TableFormat": "abc",
    "UserAlias": "abc",
    "UserSubUin": "abc",
    "GovernPolicy": {},
    "DbGovernPolicyIsDisable": "abc"
  },
  "Columns": [
    {
      "Name": "abc",
    
```

```
"Type": "abc",
"Comment": "abc",
"Default": "abc",
"NotNull": true
},
"Partitions": [
{
"Name": "abc",
"Type": "abc",
"Comment": "abc",
"PartitionType": "abc",
"PartitionFormat": "abc",
"PartitionDot": 0,
"Transform": "abc",
"TransformArgs": [
"abc"
]
}
],
"Properties": [
{
"Key": "abc",
"Value": "abc"
}
],
"UpsertKeys": [
"abc"
]
}
```

Output Example

```
{
"Response": {
"Execution": {
"SQL": "<create sql>"
},
"RequestId": "RequestId"
}
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InternalError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
ResourceUnavailable	The resource is unavailable.
UnauthorizedOperation	Unauthorized operation.
UnsupportedOperation	Unsupported operation.

Metadata APIs

DescribeForbiddenTablePro

最近更新时间：2023-09-19 11:26:22

1. API Description

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

This API is used to get the list of disabled table attributes (new).

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeForbiddenTablePro.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.

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 Getting the list of disabled table attributes (new)

This example shows you how to get the list of disabled table attributes (new).

Input Example

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

{}
```

Output Example

```
{
  "Response": {
    "RequestId": "abc"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)

- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.
InternalError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidSQL	SQL parsing failed.
ResourceNotFound	The resource does not exist.

Service Configuration APIs

SwitchDataEngine

最近更新时间：2023-09-19 11:26:21

1. API Description

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

This API is used to switch between the primary and standby clusters.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: SwitchDataEngine.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
DataEngineName	Yes	String	The name of the primary cluster.
StartStandbyCluster	Yes	Boolean	Whether to start the standby cluster.

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 test

Input Example

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

{
  "DataEngineName": "test",
  "StartStandbyCluster": false
}
```

Output Example

```
{
  "Response": {
    "RequestId": "2f67771a-a384-4b4e-86a5-146d8829ae2d"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)

-
- [Tencent Cloud SDK 3.0 for Go](#)
 - [Tencent Cloud SDK 3.0 for Node.js](#)
 - [Tencent Cloud SDK 3.0 for .NET](#)
 - [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Permission Management APIs

DescribeUserRoles

最近更新时间：2023-09-19 11:26:22

1. API Description

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

This API is used to enumerate user roles.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeUserRoles.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
Limit	Yes	Integer	The number limit of enumerated user roles.
Offset	Yes	Integer	The offset for starting enumeration.
Fuzzy	No	String	Fuzzy enumeration by arn.
SortBy	No	String	The field for sorting the returned results.
Sorting	No	String	The sorting order, descending or ascending, such as <code>desc</code> .

3. Output Parameters

Parameter Name	Type	Description
Total	Integer	The total number of user roles meeting the enumeration conditions.
UserRoles	Array of UserRole	The user roles.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Enumerating user roles

Input Example

```

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

{
  "Fuzzy": "1",
  "Limit": 0,
  "Offset": 0
}
    
```

Output Example

```

{
  "Response": {
    "Total": 1,
    "UserRoles": [
      {
        "RoleId": 0,
        "AppId": "1234",
        "Uin": "1234",
        "ModifyTime": 1650424290,
        "Arn": "11",
    
```

```
"Desc": "test role"
}
],
"RequestId": "2ae4707a-9f72-44aa-9fd4-65cb739d6301"
}
}
```

Example2 test

Input Example

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

{
  "Limit": 0,
  "Offset": 0,
  "Fuzzy": "abc",
  "SortBy": "abc",
  "Sorting": "abc"
}
```

Output Example

```
{
  "Response": {
    "Total": 0,
    "UserRoles": [
      {
        "RoleId": 0,
        "AppId": "abc",
        "Uin": "abc",
        "Arn": "abc",
        "ModifyTime": 0,
        "Desc": "abc",
        "RoleName": "abc",
        "Creator": "abc",
        "CosPermissionList": [
          {
            "CosPath": "abc",
            "Permissions": [
              "abc"
            ]
          }
        ]
      }
    ]
  }
}
```

```
]
}
],
"PermissionJson": "abc"
}
],
"RequestId": "abc"
}
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation	The operation failed.

UpdateRowFilter

最近更新时间：2023-09-19 11:26:22

1. API Description

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

This API is used to update row filters. Please note that it updates filters only but not catalogs, databases, or tables.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: UpdateRowFilter.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
PolicyId	Yes	Integer	The ID of the row filter policy, which can be obtained using the <code>DescribeUserInfo</code> or <code>DescribeWorkGroupInfo</code> API.
Policy	Yes	Policy	The new filter policy.

3. Output Parameters

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

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

4. Example

Example1 Updating the row filter policy

Input Example

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

{
  "Policy": {
    "Table": "TableName",
    "Catalog": "COSDataCatalog",
    "Operation": "ALL",
    "Database": "DatabaseName"
  },
  "PolicyId": 0
}
```

Output Example

```
{
  "Response": {
    "RequestId": "1287310-badou889lody-1231jk12"
  }
}
```

5. Developer Resources

SDK

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

-
- [Tencent Cloud SDK 3.0 for Python](#)
 - [Tencent Cloud SDK 3.0 for Java](#)
 - [Tencent Cloud SDK 3.0 for PHP](#)
 - [Tencent Cloud SDK 3.0 for Go](#)
 - [Tencent Cloud SDK 3.0 for Node.js](#)
 - [Tencent Cloud SDK 3.0 for .NET](#)
 - [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Data Source Connection APIs

SuspendResumeDataEngine

最近更新时间：2023-09-19 11:26:22

1. API Description

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

This API is used to suspend or start a data engine.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: SuspendResumeDataEngine.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
DataEngineName	Yes	String	The name of a virtual cluster.
Operate	Yes	String	The operation type: <code>suspend</code> or <code>resume</code> .

3. Output Parameters

--	--	--

Parameter Name	Type	Description
DataEngineName	String	The details of the virtual cluster.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Suspending or starting a data engine

This example shows you how to suspend or start a data engine.

Input Example

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

{
  "DataEngineName": "abc",
  "Operate": "suspend"
}
```

Output Example

```
{
  "Response": {
    "DataEngineName": "abc",
    "RequestId": "abc"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalServerError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidSQL	SQL parsing failed.
UnauthorizedOperation.OperateComputingEngine	Unauthorized engine operation by a sub-user.

CreateDataEngine

最近更新时间：2023-09-19 11:26:22

1. API Description

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

This API is used to create a data engine.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CreateDataEngine.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
EngineType	Yes	String	The engine type. Valid values: <code>spark</code> and <code>presto</code> .

DataEngineName	Yes	String	The name of the virtual cluster.
ClusterType	Yes	String	The cluster type. Valid values: <code>spark_private</code> , <code>presto_private</code> , <code>presto_cu</code> , and <code>spark_cu</code> .
Mode	Yes	Integer	The billing mode. Valid values: <code>0</code> (shared engine), <code>1</code> (pay-as-you-go), and <code>2</code> (monthly subscription).
AutoResume	Yes	Boolean	Whether to automatically start the clusters.
MinClusters	No	Integer	The minimum number of clusters.
MaxClusters	No	Integer	The maximum number of clusters.
CidrBlock	No	String	The VPC CIDR block.
Message	No	String	The description.
Size	No	Integer	The cluster size.
PayMode	No	Integer	The pay mode. Valid value: <code>0</code> (postpaid, default) and <code>1</code> (prepaid) (currently not available).
TimeSpan	No	Integer	The resource period. For the postpaid mode, the value is 3600 (default); for the prepaid mode, the value must be in the range of 1-120, representing purchasing the

			resource for 1-120 months.
TimeUnit	No	String	The unit of the resource period. Valid values: <code>s</code> (default) for the postpaid mode and <code>m</code> for the prepaid mode.
AutoRenew	No	Integer	The auto-renewal status of the resource. For the postpaid mode, no renewal is required, and the value is fixed to <code>0</code> . For the prepaid mode, valid values are <code>0</code> (manual), <code>1</code> (auto), and <code>2</code> (no renewal). If this parameter is set to <code>0</code> for a key account in the prepaid mode, auto-renewal applies. It defaults to <code>0</code> .
Tags.N	No	Array of TagInfo	The tags to be set for the resource being created.
AutoSuspend	No	Boolean	Whether to automatically suspend clusters. Valid values: <code>false</code> (default, no) and <code>true</code> (yes).
CrontabResumeSuspend	No	Integer	Whether to enable scheduled start and suspension of clusters. Valid values: <code>0</code> (disable) and <code>1</code> (enable). Note: This policy and the auto-suspension policy are mutually exclusive.

CrontabResumeSuspendStrategy	No	CrontabResumeSuspendStrategy	The complex policy for scheduled start and suspension, including the start/suspension time and suspension policy.
EngineExecType	No	String	The type of tasks to be executed by the engine, which defaults to SQL. Valid values: <code>SQL</code> and <code>BATCH</code> .
MaxConcurrency	No	Integer	The max task concurrency of a cluster, which defaults to 5.
TolerableQueueTime	No	Integer	The task queue time limit, which defaults to 0. When the actual queue time exceeds the value set here, scale-out may be triggered. Setting this parameter to 0 represents that scale-out may be triggered immediately after a task queues up.
AutoSuspendTime	No	Integer	The cluster auto-suspension time, which defaults to 10 min.
ResourceType	No	String	The resource type. Valid values: <code>Standard_CU</code> (standard) and <code>Memory_CU</code> (memory).
DataEngineConfigPairs.N	No	Array of DataEngineConfigPair	The advanced configurations of clusters.

ImageVersionName	No	String	The version name of cluster image, such as SuperSQL-P 1.1 and SuperSQL-S 3.2. If no value is passed in, a cluster is created using the latest image version.
MainClusterName	No	String	The primary cluster, which is specified when a failover cluster is created.
ElasticSwitch	No	Boolean	Whether to enable the scaling feature for a monthly subscribed Spark job cluster.
ElasticLimit	No	Integer	The upper limit (in CUs) for scaling of the monthly subscribed Spark job cluster.
SessionResourceTemplate	No	SessionResourceTemplate	The session resource configuration template for a Spark job cluster.

3. Output Parameters

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

4. Example

Example1 Creating a data engine

This example shows you how to create a data engine.

Input Example

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

{
  "EngineType": "spark",
  "DataEngineName": "test",
  "ClusterType": "spark",
  "MinClusters": 0,
  "MaxClusters": 0,
  "DefaultDataEngine": true,
  "CidrBlock": "10.255.255.0/16",
  "Mode": 0,
  "Message": "test",
  "AutoResume": true,
  "Size": 0,
  "PayMode": 0,
  "TimeSpan": 1,
  "TimeUnit": "h",
  "AutoRenew": 0,
  "Tags": [
    {
      "TagKey": "key",
      "TagValue": "value"
    }
  ],
  "AutoSuspend": true,
  "CrontabResumeSuspend": 0,
  "CrontabResumeSuspendStrategy": {
    "ResumeTime": "10",
    "SuspendTime": "10",
    "SuspendStrategy": 0
  },
  "EngineExecType": "BATCH",
  "MaxConcurrency": 0,
  "TolerableQueueTime": 0,
  "AutoSuspendTime": 0,
  "ResourceType": "standard_cu",
  "ImageVersionName": "SuperSQL-P 1.1"
}
```

Output Example

```
{
  "Response": {
    "DataEngineId": "DataEngine-abc123",
    "RequestId": "sd01m2-fasfki-231safas"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.AbnormalOrderStatus	Order status exception.
FailedOperation.AnotherCreateProcessRunning	Another data source is being created.
FailedOperation.AnotherProcessRunning	Another operation is in progress. Please try again later.

FailedOperation.AnotherRequestProcessing	Another request is being processed. Try again later.
FailedOperation.BalanceNotEnough	Insufficient account balance.
FailedOperation.BillingSystemError	Billing system exception.
FailedOperation.BindTooManyTags	The number of tags set reached the limit.
FailedOperation.CreateDataEngineFailed	Failed to create the engine.
FailedOperation.DeliverGoodsFailed	Failed to deliver the goods.
FailedOperation.DuplicateTagKey	Duplicate tag keys.
FailedOperation.FeeDeductionFailed	Deduction failed.
FailedOperation.GetProductInformationFailed	Failed to get product information.
FailedOperation.IllegalResource	Invalid resources.
FailedOperation.IllegalTagKey	Invalid characters in the tag key.
FailedOperation.IllegalTagValue	Invalid characters in the tag value.
FailedOperation.InquirePriceFailed	Price query failed.
FailedOperation.ModifyInstanceFailed	Failed to scale up/down the instance.
FailedOperation.NoPermission	No permission.
FailedOperation.NoRealNameAuthentication	Unverified account.
FailedOperation.NumberExceedLimit	Reached the allowed limit of engines.
FailedOperation.ParameterValidationFailed	Failed to verify parameters.
FailedOperation.RefundDepositFailed	Refunding failed.
FailedOperation.TagAlreadyAttached	A tag key of the same name has been set for the resource.
FailedOperation.TagKeyTooLong	The tag key exceeded the length limit.
FailedOperation.TagNotExist	The tag does not exist.
FailedOperation.TagValueTooLong	The tag value exceeded the length limit.
FailedOperation.TooManyResources	The number of resources reached the limit.
FailedOperation.TooManyTags	The number of tags reached the limit.

InternalError	An internal error occurred.
InternalError.DBError	A database error occurred.
InvalidParameter.DuplicateDataEngineName	Duplicate engine name.
InvalidParameter.InvalidDataEngineMode	Invalid data engine mode.
InvalidParameter.InvalidDataEngineName	The data engine name is invalid.
InvalidParameter.InvalidDataEngineSpecs	Invalid data engine spec.
InvalidParameter.InvalidEngineType	Invalid engine type.
InvalidParameter.InvalidPayMode	Invalid billing mode.
InvalidParameter.InvalidTimeSpan	Invalid billing period.
InvalidParameter.InvalidTimeUnit	Invalid unit of billing period.
InvalidParameter.VpcCidrFormatError	Invalid VPC CIDR format.
ResourceNotFound	The resource does not exist.
UnauthorizedOperation.NoPaymentAuthority	No permission to pay.

Database APIs

ModifyGovernEventRule

最近更新时间：2023-09-19 11:26:22

1. API Description

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

This API is used to change data governance event thresholds.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: ModifyGovernEventRule.
Version	Yes	String	Common Params . The value used for this API: 2021-01-25.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.

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 Example 1

Input Example

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

{}
```

Output Example

```
{
  "Response": {
    "RequestId": "xx"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for Node.js](#)
- [Tencent Cloud SDK 3.0 for .NET](#)
- [Tencent Cloud SDK 3.0 for C++](#)

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure	CAM signature/authentication error.
FailedOperation	The operation failed.
InternalError	An internal error occurred.
InternalError.DBError	A database error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameterValue	The parameter value is incorrect.
LimitExceeded	The quota limit is reached.
OperationDenied	Operation denied.
ResourceNotFound	The resource does not exist.
UnknownParameter	Unknown parameter error.

Data Types

最近更新时间：2023-09-19 11:26:23

Column

Column information of the data table.

Used by actions: DescribeTaskResult.

Name	Type	Required	Description
Name	String	Yes	Column name, which is case-insensitive and can contain up to 25 characters.
Type	String	Yes	Column type. Valid values: string tinyint smallint int bigint boolean float double decimal timestamp cdata_type> struct<col_name : data_type [COMMENT col_comment], ...>.
Comment	String	No	Class comment. Note: This field may return null, indicating that no valid values can be obtained.
Precision	Integer	No	Length of the entire numeric value. Note: This field may return null, indicating that no valid values can be obtained.
Scale	Integer	No	Length of the decimal part. Note: This field may return null, indicating that no valid values can be obtained.
Nullable	String	No	Whether the column is null. Note: This field may return null, indicating that no valid values can be obtained.
Position	Integer	No	Field position. Note: This field may return null, indicating that no valid values can be obtained.
CreateTime	String	No	Field creation time. Note: This field may return null, indicating that no valid values can be obtained.
ModifiedTime	String	No	Field modification time. Note: This field may return null, indicating that no valid values can be obtained.
IsPartition	Boolean	No	Whether the column is the partition field. Note: This field may return null, indicating that no valid values can be obtained.

CommonMetrics

Common task metrics

Used by actions: DescribeSparkAppTasks, DescribeTasks.

Name	Type	Description
CreateTaskTime	Float	The task creation time in ms. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.
ProcessTime	Float	The processing time in ms. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.
QueueTime	Float	The queue time in ms. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.
ExecutionTime	Float	The execution duration in ms. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.
IsResultCacheHit	Boolean	Whether the result cache is hit. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.
MatchedMVBytes	Integer	The volume of matched materialized views, in bytes. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.
MatchedMVs	String	The list of matched materialized views. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.
AffectedBytes	String	The result data in bytes. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.
AffectedRows	Integer	The number of rows in the result. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.
ProcessedBytes	Integer	The volume of the data scanned, in bytes. Note: u200dThis field may returnu200d·nullu200d, indicating that no valid values can be obtained.

ProcessedRows	Integer	<p>The number of scanned rows.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
---------------	---------	--

CosPermission

COS permissions

Used by actions: DescribeUserRoles.

Name	Type	Required	Description
CosPath	String	No	<p>The COS path.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
Permissions	Array of String	No	<p>The permissions. Valid values: <code>read</code> and <code>write</code>.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>

CrontabResumeSuspendStrategy

Scheduled start and suspension information

Used by actions: CreateDataEngine.

Name	Type	Required	Description
ResumeTime	String	No	<p>The scheduled start time, such as 8:00 AM every Monday.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
SuspendTime	String	No	<p>The scheduled suspension time, such as 8:00 PM every Monday.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
SuspendStrategy	Integer	No	<p>The suspension setting. Valid values: <code>0</code> (suspension after task end, default) and <code>1</code> (force suspension).</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>

DataEngineConfigPair

Engine configurations

Used by actions: CreateDataEngine.

Name	Type	Required	Description
------	------	----------	-------------

DataGovernPolicy

The data governance rules.

Used by actions: CreateInternalTable, GenerateCreateMangedTableSql.

Name	Type	Required	Description
RuleType	String	No	Governance rule type. Valid values: <code>Customize</code> (custom) and <code>Intelligence</code> (intelligent). Note: This field may return null, indicating that no valid values can be obtained.
GovernEngine	String	No	The governance engine. Note: This field may return null, indicating that no valid values can be obtained.

Execution

SQL statement objects

Used by actions: GenerateCreateMangedTableSql.

Name	Type	Description
SQL	String	The automatically generated SQL statements.

Filter

Query list filter parameter

Used by actions: DescribeSparkAppJobs, DescribeSparkAppTasks, DescribeTasks.

Name	Type	Required	Description
Name	String	Yes	Attribute name. If more than one filter exists, the logical relationship between these filters is <code>OR</code> .
Values	Array of String	Yes	Attribute value. If multiple values exist in one filter, the logical relationship between these values is <code>OR</code> .

KVPair

Configuration format

Used by actions: CreateSparkSessionBatchSQL, CreateTask, CreateTasks, DescribeSparkSessionBatchSqlLog.

Name	Type	Required	Description
Key	String	Yes	Configured key Note: This field may return null, indicating that no valid values can be obtained.
Value	String	Yes	Configured value Note: This field may return null, indicating that no valid values can be obtained.

Policy

Permission objects

Used by actions: UpdateRowFilter.

Name	Type	Required	Description
Database	String	Yes	The name of the target database. <code>*</code> represents all databases in the current catalog. To grant admin permissions, it must be <code>*</code> ; to grant data connection permissions, it must be null; to grant other permissions, it can be any database.
Catalog	String	Yes	The name of the target data source. To grant admin permission, it must be <code>*</code> (all resources at this level); to grant data source and database permissions, it must be <code>COSDataCatalog</code> or <code>*</code> ; to grant table permissions, it can be a custom data source; if it is left empty, <code>DataLakeCatalog</code> is used. Note: To grant permissions on a custom data source, the permissions that can be managed in the Data Lake Compute console are subsets of the account

			permissions granted when you connect the data source to the console.
Table	String	Yes	The name of the target table. <code>*</code> represents all tables in the current database. To grant admin permissions, it must be <code>*</code> ; to grant data connection and database permissions, it must be null; to grant other permissions, it can be any table.
Operation	String	Yes	The target permissions, which vary by permission level. Admin: <code>ALL</code> (default); data connection: <code>CREATE</code> ; database: <code>ALL</code> , <code>CREATE</code> , <code>ALTER</code> , and <code>DROP</code> ; table: <code>ALL</code> , <code>SELECT</code> , <code>INSERT</code> , <code>ALTER</code> , <code>DELETE</code> , <code>DROP</code> , and <code>UPDATE</code> . Note: For table permissions, if a data source other than <code>COSDataCatalog</code> is specified, only the <code>SELECT</code> permission can be granted here.
PolicyType	String	No	The permission type. Valid values: <code>ADMIN</code> , <code>DATASOURCE</code> , <code>DATABASE</code> , <code>TABLE</code> , <code>VIEW</code> , <code>FUNCTION</code> , <code>COLUMN</code> , and <code>ENGINE</code> . Note: If it is left empty, <code>ADMIN</code> is used.
Function	String	No	The name of the target function. <code>*</code> represents all functions in the current catalog. To grant admin permissions, it must be <code>*</code> ; to grant data connection permissions, it must be null; to grant other permissions, it can be any function. Note: This field may return null, indicating that no valid values can be obtained.
View	String	No	The name of the target view. <code>*</code> represents all views in the current database. To grant admin permissions, it must be <code>*</code> ; to grant data connection and database permissions, it must be null; to grant other permissions, it can be any view. Note: This field may return null, indicating that no valid values can be obtained.
Column	String	No	The name of the target column. <code>*</code> represents all columns. To grant admin permissions, it must be <code>*</code> . Note: This field may return null, indicating that no valid values can be obtained.
DataEngine	String	No	The name of the target data engine. <code>*</code> represents all engines. To grant admin permissions, it must be <code>*</code> . Note: This field may return null, indicating that no valid values can be obtained.
ReAuth	Boolean	No	Whether the grantee is allowed to further grant the permissions. Valid values: <code>false</code> (default) and <code>true</code> (the grantee can grant

			permissions gained here to other sub-users). Note: This field may return null, indicating that no valid values can be obtained.
Source	String	No	The permission source, which is not required when input parameters are passed in. Valid values: <code>USER</code> (from the user) and <code>WORKGROUP</code> (from one or more associated work groups). Note: This field may return null, indicating that no valid values can be obtained.
Mode	String	No	The grant mode, which is not required as an input parameter. Valid values: <code>COMMON</code> and <code>SENIOR</code> . Note: This field may return null, indicating that no valid values can be obtained.
Operator	String	No	The operator, which is not required as an input parameter. Note: This field may return null, indicating that no valid values can be obtained.
CreateTime	String	No	The permission policy creation time, which is not required as an input parameter. Note: This field may return null, indicating that no valid values can be obtained.
SourceId	Integer	No	The ID of the work group, which applies only when the value of the <code>Source</code> field is <code>WORKGROUP</code> . Note: This field may return null, indicating that no valid values can be obtained.
SourceName	String	No	The name of the work group, which applies only when the value of the <code>Source</code> field is <code>WORKGROUP</code> . Note: This field may return null, indicating that no valid values can be obtained.
Id	Integer	No	The policy ID. Note: This field may return null, indicating that no valid values can be obtained.

PrestoMonitorMetrics

Presto monitoring metrics

Used by actions: DescribeSparkAppTasks, DescribeTasks.

Name	Type	Description
------	------	-------------

LocalCacheHitRate	Float	The Alluxio cache hit rate. Note: This field may return null, indicating that no valid values can be obtained.
FragmentCacheHitRate	Float	The Fragment cache hit rate. Note: This field may return null, indicating that no valid values can be obtained.

Property

Properties of database and table

Used by actions: CreateInternalTable, GenerateCreateMangedTableSql.

Name	Type	Required	Description
Key	String	Yes	The property key name.
Value	String	Yes	The property value.

SQLTask

SQL query task

Used by actions: CreateTask.

Name	Type	Required	Description
SQL	String	Yes	Base64-encoded SQL statement
Config	Array of KVPair	No	Task configuration information

SessionResourceTemplate

The session resource configuration template for a Spark cluster.

Used by actions: CreateDataEngine.

Name	Type	Required	Description
DriverSize	String	No	The driver size.

			<p>Valid values for the standard resource type: <code>small</code> , <code>medium</code> , <code>large</code> , and <code>xlarge</code> .</p> <p>Valid values for the memory resource type: <code>m.small</code> , <code>m.medium</code> , <code>m.large</code> , and <code>m.xlarge</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
ExecutorSize	String	No	<p>The executor size.</p> <p>Valid values for the standard resource type: <code>small</code> , <code>medium</code> , <code>large</code> , and <code>xlarge</code> .</p> <p>Valid values for the memory resource type: <code>m.small</code> , <code>m.medium</code> , <code>m.large</code> , and <code>m.xlarge</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
ExecutorNums	Integer	No	<p>The executor count. The minimum value is 1 and the maximum value is less than the cluster specification.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
ExecutorMaxNumbers	Integer	No	<p>The maximum executor count (in dynamic mode). The minimum value is 1 and the maximum value is less than the cluster specification. If you set <code>ExecutorMaxNumbers</code> to a value smaller than that of <code>ExecutorNums</code> , the value of <code>ExecutorMaxNumbers</code> is automatically changed to that of <code>ExecutorNums</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>

SparkJobInfo

Spark job details

Used by actions: DescribeSparkAppJob, DescribeSparkAppJobs.

Name	Type	Description
JobId	String	Spark job ID
JobName	String	Spark job name
JobType	Integer	Spark job type. Valid values: <code>1</code> (batch job), <code>2</code> (streaming job).

DataEngine	String	Engine name
Eni	String	This field has been disused. Use the <code>Datasource</code> field instead.
IsLocal	String	Whether the program package is uploaded locally. Valid values: <code>cos</code> , <code>lakefs</code> .
JobFile	String	Program package path
RoleArn	Integer	Role ID
MainClass	String	Main class of Spark job execution
CmdArgs	String	Command line parameters of the Spark job separated by space
JobConf	String	Native Spark configurations separated by line break
IsLocalJars	String	Whether the dependency JAR packages are uploaded locally. Valid values: <code>cos</code> , <code>lakefs</code> .
JobJars	String	Dependency JAR packages of the Spark job separated by comma
IsLocalFiles	String	Whether the dependency file is uploaded locally. Valid values: <code>cos</code> , <code>lakefs</code> .
JobFiles	String	Dependency files of the Spark job separated by comma
JobDriverSize	String	Driver resource size of the Spark job
JobExecutorSize	String	Executor resource size of the Spark job
JobExecutorNums	Integer	Number of Spark job executors
JobMaxAttempts	Integer	Maximum number of retries of the Spark flow task
JobCreator	String	Spark job creator
JobCreateTime	Integer	Spark job creation time
JobUpdateTime	Integer	Spark job update time
CurrentTaskId	String	Last task ID of the Spark job
JobStatus	Integer	Last status of the Spark job
StreamingStat	StreamingStatistics	Spark streaming job statistics

		Note: This field may return null, indicating that no valid values can be obtained.
DataSource	String	Data source name Note: This field may return null, indicating that no valid values can be obtained.
IsLocalPythonFiles	String	PySpark: Dependency upload method. 1: cos; 2: lakefs (this method needs to be used in the console but cannot be called through APIs). Note: This field may return null, indicating that no valid values can be obtained.
AppPythonFiles	String	Note: This returned value has been disused. Note: This field may return null, indicating that no valid values can be obtained.
IsLocalArchives	String	Archives: Dependency upload method. 1: cos; 2: lakefs (this method needs to be used in the console but cannot be called through APIs). Note: This field may return null, indicating that no valid values can be obtained.
JobArchives	String	Archives: Dependency resources Note: This field may return null, indicating that no valid values can be obtained.
SparkImage	String	The Spark image version. Note: This field may return null, indicating that no valid values can be obtained.
JobPythonFiles	String	PySpark: Python dependency, which can be in .py, .zip, or .egg format. Multiple files should be separated by comma. Note: This field may return null, indicating that no valid values can be obtained.
TaskNum	Integer	Number of tasks running or ready to run under the current job Note: This field may return null, indicating that no valid values can be obtained.
DataEngineStatus	Integer	Engine status. -100 (default value): unknown; -2-11: normal. Note: This field may return null, indicating that no valid values can be obtained.
JobExecutorMaxNumbers	Integer	The specified executor count (max), which defaults to 1.

		<p>This parameter applies if the "Dynamic" mode is selected. If the "Dynamic" mode is not selected, the executor count is equal to <code>JobExecutorNums</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
SparkImageVersion	String	<p>The image version.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
SessionId	String	<p>The ID of the associated Data Lake Compute query script.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
DataEngineClusterType	String	<p><code>spark_emr_livy</code> indicates to create an EMR cluster.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
DataEngineImageVersion	String	<p><code>Spark 3.2-EMR</code> indicates to use the Spark 3.2 image.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
IsInherit	Integer	<p>Whether the task resource configuration is inherited from the cluster template. Valid values: <code>0</code> (default): No; <code>1</code> : Yes.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
IsSessionStarted	Boolean	<p>Whether the task runs with the session SQLs. Valid values: <code>false</code> for no and <code>true</code> for yes.</p> <p>Note: <code>u200dThis field may returnu200d-nullu200d,</code> indicating that no valid values can be obtained.</p>

SparkMonitorMetrics

Spark monitoring metrics

Used by actions: DescribeSparkAppTasks, DescribeTasks.

Name	Type	Description
ShuffleWriteBytesCos	Integer	<p>The shuffle data (in bytes) that overflows to COS.</p> <p>Note: <code>u200dThis field may returnu200d-nullu200d,</code> indicating that no valid values can be obtained.</p>

ShuffleWriteBytesTotal	Integer	The total shuffle data (in bytes). Note: This field may return null, indicating that no valid values can be obtained.
------------------------	---------	--

SparkSessionBatchLog

Running logs of a Spark SQL batch job

Used by actions: DescribeSparkSessionBatchSqlLog.

Name	Type	Description
Step	String	The log step. Valid values: <code>BEG</code> , <code>CS</code> , <code>DS</code> , <code>DSS</code> , <code>DSF</code> , <code>FINF</code> , <code>RTO</code> , <code>CANCEL</code> , <code>CT</code> , <code>DT</code> , <code>DTS</code> , <code>DTF</code> , <code>FINT</code> , and <code>EXCE</code> . Note: This field may return null, indicating that no valid values can be obtained.
Time	String	Time. Note: This field may return null, indicating that no valid values can be obtained.
Message	String	The log message. Note: This field may return null, indicating that no valid values can be obtained.
Operate	Array of SparkSessionBatchLogOperate	The operation. Note: This field may return null, indicating that no valid values can be obtained.

SparkSessionBatchLogOperate

Operation information in the logs of a Spark SQL batch job

Used by actions: DescribeSparkSessionBatchSqlLog.

Name	Type	Description
Text	String	The operation message. Note: This field may return null, indicating that no valid values can be obtained.
Operate	String	The operation type. Valid values: <code>COPY</code> , <code>LOG</code> , <code>UI</code> , <code>RESULT</code> ,

		List , and TAB . Note: This field may return null, indicating that no valid values can be obtained.
Supplement	Array of KVPair	Additional information, such as taskid, sessionid, and sparkui. Note: This field may return null, indicating that no valid values can be obtained.

StreamingStatistics

Statistics of the Spark flow task

Used by actions: DescribeSparkAppJob, DescribeSparkAppJobs.

Name	Type	Description
StartTime	String	Task start time
Receivers	Integer	Number of data receivers
NumActiveReceivers	Integer	Number of receivers in service
NumInactiveReceivers	Integer	Number of inactive receivers
NumActiveBatches	Integer	Number of running batches
NumRetainedCompletedBatches	Integer	Number of batches to be processed
NumTotalCompletedBatches	Integer	Number of completed batches
AverageInputRate	Float	Average input speed
AverageSchedulingDelay	Float	Average queue time
AverageProcessingTime	Float	Average processing time
AverageTotalDelay	Float	Average latency

TColumn

Table field information

Used by actions: CreateInternalTable, GenerateCreateMangedTableSql.

Name	Type	Required	Description

Name	String	Yes	The field name.
Type	String	Yes	The field type.
Comment	String	No	The field description.
Default	String	No	The default field value.
NotNull	Boolean	No	Whether the field is not null.

TPartition

Table partition information

Used by actions: CreateInternalTable, GenerateCreateMangedTableSql.

Name	Type	Required	Description
Name	String	Yes	The field name.
Type	String	No	The field type.
Comment	String	No	The field description.
PartitionType	String	No	The partition type.
PartitionFormat	String	No	The partition format.
PartitionDot	Integer	No	The separator count of the partition conversion policy.
Transform	String	No	The partition conversion policy.
TransformArgs	Array of String	No	The policy parameters.

TableBaseInfo

Table configurations

Used by actions: CreateInternalTable, GenerateCreateMangedTableSql.

Name	Type	Required	Description
DatabaseName	String	Yes	The database name.
TableName	String	Yes	The table name.

DatasourceConnectionName	String	No	The data source name. Note: This field may return null, indicating that no valid values can be obtained.
TableComment	String	No	The table remarks. Note: This field may return null, indicating that no valid values can be obtained.
Type	String	No	The specific type: <code>table</code> or <code>view</code> . Note: This field may return null, indicating that no valid values can be obtained.
TableFormat	String	No	The data format type, such as <code>hive</code> and <code>iceberg</code> . Note: This field may return null, indicating that no valid values can be obtained.
UserAlias	String	No	The table creator name. Note: This field may return null, indicating that no valid values can be obtained.
UserSubUin	String	No	The table creator ID. Note: This field may return null, indicating that no valid values can be obtained.
GovernPolicy	DataGovernPolicy	No	The data governance configuration. Note: This field may return null, indicating that no valid values can be obtained.
DbGovernPolicyIsDisable	String	No	Whether database data governance is disabled. Valid values: <code>true</code> (disabled) and <code>false</code> (not disabled). Note: This field may return null, indicating that no valid values can be obtained.

TagInfo

Tag pair info

Used by actions: CreateDataEngine.

Name	Type	Required	Description
TagKey	String	No	The tag key.

			Note: This field may return null, indicating that no valid values can be obtained.
TagValue	String	No	The tag value. Note: This field may return null, indicating that no valid values can be obtained.

Task

Task type, such as SQL query.

Used by actions: CreateTask.

Name	Type	Required	Description
SQLTask	SQLTask	No	SQL query task
SparkSQLTask	SQLTask	No	Spark SQL query task

TaskResponseInfo

The task instance.

Used by actions: DescribeSparkAppTasks, DescribeTasks.

Name	Type	Description
DatabaseName	String	Database name of the task
DataAmount	Integer	Data volume of the task
Id	String	Task ID
UsedTime	Integer	The compute time in ms.
OutputPath	String	Task output path
CreateTime	String	Task creation time
State	Integer	The task status. Valid values: <code>0</code> (initializing), <code>1</code> (executing), <code>2</code> (executed), <code>3</code> (writing data), <code>4</code> (queuing), <code>-1</code> (failed), and <code>-3</code> (canceled).
SQLType	String	SQL statement type of the task, such as DDL and DML.

SQL	String	SQL statement of the task
ResultExpired	Boolean	Whether the result has expired
RowAffectInfo	String	Number of affected data rows
DataSet	String	Dataset of task results Note: This field may return null, indicating that no valid values can be obtained.
Error	String	Failure information, such as <code>errorMessage</code> . This field has been disused.
Percentage	Integer	Task progress (%)
OutputMessage	String	Output information of task execution
TaskType	String	Type of the engine executing the SQL statement
ProgressDetail	String	Task progress details Note: This field may return null, indicating that no valid values can be obtained.
UpdateTime	String	Task end time Note: This field may return null, indicating that no valid values can be obtained.
DataEngineId	String	Compute resource ID Note: This field may return null, indicating that no valid values can be obtained.
OperateUin	String	Sub-UIN that executes the SQL statement Note: This field may return null, indicating that no valid values can be obtained.
DataEngineName	String	Compute resource name Note: This field may return null, indicating that no valid values can be obtained.
InputType	String	Whether the import type is local import or COS Note: This field may return null, indicating that no valid values can be obtained.
InputConf	String	Import configuration Note: This field may return null, indicating that no valid values can be obtained.
DataNumber	Integer	Number of data entries

		Note: This field may return null, indicating that no valid values can be obtained.
CanDownload	Boolean	Whether the data can be downloaded Note: This field may return null, indicating that no valid values can be obtained.
UserAlias	String	User alias Note: This field may return null, indicating that no valid values can be obtained.
SparkJobName	String	Spark application job name Note: This field may return null, indicating that no valid values can be obtained.
SparkJobId	String	Spark application job ID Note: This field may return null, indicating that no valid values can be obtained.
SparkJobFile	String	JAR file of the Spark application entry Note: This field may return null, indicating that no valid values can be obtained.
UiUrl	String	Spark UI URL Note: This field may return null, indicating that no valid values can be obtained.
TotalTime	Integer	The task time in ms. Note: This field may return null, indicating that no valid values can be obtained.
CmdArgs	String	The program entry parameter for running a task under a Spark job. Note: This field may return null, indicating that no valid values can be obtained.
ImageVersion	String	The image version of the cluster. Note: This field may return null, indicating that no valid values can be obtained.
DriverSize	String	The driver size. Valid values for the standard resource type: <code>small</code> , <code>medium</code> , <code>large</code> , and <code>xlarge</code> . Valid values for the memory resource type: <code>m.small</code> , <code>m.medium</code> , <code>m.large</code> , and <code>m.xlarge</code> . Note: This field may return null, indicating that no valid values can be obtained.

ExecutorSize	String	<p>The executor size.</p> <p>Valid values for the standard resource type: <code>small</code> , <code>medium</code> , <code>large</code> , and <code>xlarge</code> .</p> <p>Valid values for the memory resource type: <code>m.small</code> , <code>m.medium</code> , <code>m.large</code> , and <code>m.xlarge</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
ExecutorNums	Integer	<p>The executor count. The minimum value is 1 and the maximum value is less than the cluster specification.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
ExecutorMaxNumbers	Integer	<p>The maximum executor count (in dynamic mode). The minimum value is 1 and the maximum value is less than the cluster specification. If you set <code>ExecutorMaxNumbers</code> to a value smaller than that of <code>ExecutorNums</code> , the value of <code>ExecutorMaxNumbers</code> is automatically changed to that of <code>ExecutorNums</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
CommonMetrics	CommonMetrics	<p>Common task metrics</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
SparkMonitorMetrics	SparkMonitorMetrics	<p>The Spark task metrics.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
PrestoMonitorMetrics	PrestoMonitorMetrics	<p>The Presto task metrics.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>

TaskResultInfo

The task result information.

Used by actions: DescribeTaskResult.

Name	Type	Description
TaskId	String	Unique task ID

DatasourceConnectionName	String	Name of the default selected data source when the current job is executed Note: This field may return null, indicating that no valid values can be obtained.
DatabaseName	String	Name of the default selected database when the current job is executed Note: This field may return null, indicating that no valid values can be obtained.
SQL	String	The currently executed SQL statement. Each task contains one SQL statement.
SQLType	String	Type of the executed task. Valid values: <code>DDL</code> , <code>DML</code> , <code>DQL</code> .
State	Integer	The current task status. Valid values: <code>0</code> (initializing), <code>1</code> (executing), <code>2</code> (executed), <code>3</code> (writing data), <code>4</code> (queuing), <code>-1</code> (failed), and <code>-3</code> (canceled). Only when the task is successfully executed, a task execution result will be returned.
DataAmount	Integer	Amount of the data scanned in bytes
UsedTime	Integer	The compute time in ms.
OutputPath	String	Address of the COS bucket for storing the task result
CreateTime	String	Task creation timestamp
OutputMessage	String	Task execution information. <code>success</code> will be returned if the task succeeds; otherwise, the failure cause will be returned.
RowAffectInfo	String	Number of affected rows
ResultSchema	Array of Column	Schema information of the result Note: This field may return null, indicating that no valid values can be obtained.
ResultSet	String	Result information. After it is unescaped, each element of the outer array is a data row. Note: This field may return null, indicating that no valid values can be obtained.
NextToken	String	Pagination information. If there is no more result data, <code>nextToken</code> will be empty.
Percentage	Integer	Task progress (%)
ProgressDetail	String	Task progress details

DisplayFormat	String	Console display format. Valid values: <code>table</code> , <code>text</code> .
TotalTime	Integer	The task time in ms.

TasksInfo

Collection of tasks executed sequentially in batches

Used by actions: CreateTasks.

Name	Type	Required	Description
TaskType	String	Yes	Task type. Valid values: <code>SQLTask</code> (SQL query task), <code>SparkSQLTask</code> (Spark SQL query task).
FailureTolerance	String	Yes	Fault tolerance policy. <code>Proceed</code> : continues to execute subsequent tasks after the current task fails or is canceled. <code>Terminate</code> : terminates the execution of subsequent tasks after the current task fails or is canceled, and marks all subsequent tasks as canceled.
SQL	String	Yes	Base64-encoded SQL statements separated by ";". Up to 50 tasks can be submitted at a time, and they will be executed strictly in sequence.
Config	Array of KVPair	No	Configuration information of the task. Currently, only <code>SparkSQLTask</code> tasks are supported.
Params	Array of KVPair	No	User-defined parameters of the task

TasksOverview

The task overview.

Used by actions: DescribeTasks.

Name	Type	Description
TaskQueuedCount	Integer	The number of tasks in queue.

TaskInitCount	Integer	The number of initialized tasks.
TaskRunningCount	Integer	The number of tasks in progress.
TotalTaskCount	Integer	The total number of tasks in this time range.

UserRole

User role

Used by actions: DescribeUserRoles.

Name	Type	Description
RoleId	Integer	The role ID.
AppId	String	The user's app ID.
Uin	String	The user ID.
Arn	String	The role permission.
ModifyTime	Integer	The last modified timestamp.
Desc	String	The role description.
RoleName	String	The role name. Note: u200dThis field may returnu200d-nullu200d, indicating that no valid values can be obtained.
Creator	String	The creator UIN. Note: u200dThis field may returnu200d-nullu200d, indicating that no valid values can be obtained.
CosPermissionList	Array of CosPermission	The COS permission list. Note: u200dThis field may returnu200d-nullu200d, indicating that no valid values can be obtained.
PermissionJson	String	The CAM policy in JSON. Note: u200dThis field may returnu200d-nullu200d, indicating that no valid values can be obtained.

Error Codes

最近更新时间：2023-06-26 17:45:54

Feature Description

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

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

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

Error Code List

Common Error Codes

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

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

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

Service Error Codes

Error Code	Description
AuthFailure	CAM signature/authentication error.
FailedOperation.AbnormalOrderStatus	Order status exception.
FailedOperation.AnotherCreateProcessRunning	Another data source is being created.
FailedOperation.AnotherProcessRunning	Another operation is in progress. Please try again later.
FailedOperation.AnotherRequestProcessing	Another request is being processed. Try again later.
FailedOperation.BalanceNotEnough	Insufficient account balance.
FailedOperation.BillingSystemError	Billing system exception.

FailedOperation.BindTooManyTags	The number of tags set reached the limit.
FailedOperation.CreateDataEngineFailed	Failed to create the engine.
FailedOperation.DeliverGoodsFailed	Failed to deliver the goods.
FailedOperation.DuplicateTagKey	Duplicate tag keys.
FailedOperation.FeeDeductionFailed	Deduction failed.
FailedOperation.GetProductInformationFailed	Failed to get product information.
FailedOperation.HttpClientDoRequestFailed	The HTTP client request failed.
FailedOperation.IllegalResource	Invalid resources.
FailedOperation.IllegalTagKey	Invalid characters in the tag key.
FailedOperation.IllegalTagValue	Invalid characters in the tag value.
FailedOperation.InquirePriceFailed	Price query failed.
FailedOperation.ModifyInstanceFailed	Failed to scale up/down the instance.
FailedOperation.NoPermission	No permission.
FailedOperation.NoRealNameAuthentication	Unverified account.
FailedOperation.NumberExceedLimit	Reached the allowed limit of engines.
FailedOperation.ParameterValidationFailed	Failed to verify parameters.
FailedOperation.RefundDepositFailed	Refunding failed.
FailedOperation.TagAlreadyAttached	A tag key of the same name has been set for the resource.
FailedOperation.TagKeyTooLong	The tag key exceeded the length limit.
FailedOperation.TagNotExist	The tag does not exist.
FailedOperation.TagValueTooLong	The tag value exceeded the length limit.

FailedOperation.TooManyResources	The number of resources reached the limit.
FailedOperation.TooManyTags	The number of tags reached the limit.
InternalError.DBError	A database error occurred.
InvalidParameter.DuplicateDataEngineName	Duplicate engine name.
InvalidParameter.InvalidDataEngineMode	Invalid data engine mode.
InvalidParameter.InvalidDataEngineName	The data engine name is invalid.
InvalidParameter.InvalidDataEngineSpecs	Invalid data engine spec.
InvalidParameter.InvalidEngineType	Invalid engine type.
InvalidParameter.InvalidFailureTolerance	The fault tolerance policy is invalid.
InvalidParameter.InvalidMaxResults	Invalid maximum number of results.
InvalidParameter.InvalidPayMode	Invalid billing mode.
InvalidParameter.InvalidRoleArn	The CAM role arn is invalid.
InvalidParameter.InvalidSQL	SQL parsing failed.
InvalidParameter.InvalidSQLNum	The number of SQL statements does not meet the specification.
InvalidParameter.InvalidSparkAppParam	The <code>SparkAppParam</code> is invalid.
InvalidParameter.InvalidStoreLocation	The storage location is incorrect.
InvalidParameter.InvalidTaskId	The <code>taskid</code> is invalid.
InvalidParameter.InvalidTaskType	The task type is invalid.
InvalidParameter.InvalidTimeSpan	Invalid billing period.
InvalidParameter.InvalidTimeUnit	Invalid unit of billing period.
InvalidParameter.TaskAlreadyFinished	The task has ended and cannot be canceled.

InvalidParameter.VpcCidrFormatError	Invalid VPC CIDR format.
OperationDenied	Operation denied.
ResourceNotFound.ResourceNotFoundCode_SessionInsufficientResources	No resources are available to create a session currently. Please try again later or use a monthly subscription cluster.
ResourceNotFound.ResultOutputPathNotFound	The result path was not found.
ResourceNotFound.SessionNotFound	The session does not exist.
ResourceNotFound.SessionStateDead	The session has expired.
ResourceUnavailable.BalanceInsufficient	The account balance is insufficient to run the SQL task.
UnauthorizedOperation.NoPaymentAuthority	No permission to pay.
UnauthorizedOperation.OperateComputingEngine	Unauthorized engine operation by a sub-user.
UnauthorizedOperation.UseComputingEngine	The sub-user does not have permission to use the compute engine.