

Data Transfer Service

API Documentation

Product Documentation



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History

Last updated : 2024-07-24 10:31:16

Release 11

Release time: 2024-07-24 10:31:07

Release updates:

Improvement to existing documentation.

Modified data structures:

- [JobItem](#)
 - **Modified members:** DumperResumeCtrl

Release 10

Release time: 2024-07-24 10:29:30

Release updates:

Improvement to existing documentation.

Modified data structures:

- [DBEndpointInfo](#)
 - New members:ConnectType
- [MigrateOption](#)
 - New members:MigrateWay

Release 9

Release time: 2024-07-24 10:25:55

Release updates:

Improvement to existing documentation.

New data structures:

- [Column](#)

Modified data structures:

- [Endpoint](#)
 - New members:ChildInstanceId, ChildInstanceType, SetId
- [ErrInfo](#)
 - **Modified members:** Reason, Message, Solution
- [Options](#)
 - New members:FilterBeginCommit, FilterCheckpoint
- [Table](#)
 - New members:ColumnMode, Columns

Release 8

Release time: 2023-10-17 11:01:14

Release updates:

Improvement to existing documentation.

Modified APIs:

- [DescribeMigrationDetail](#)
 - New output parameters:DumperResumeCtrl, RateLimitOption

New data structures:

- [ErrInfo](#)
- [RateLimitOption](#)

Modified data structures:

- [Endpoint](#)
 - New members:CcnOwnerUin
- [JobItem](#)
 - New members:DumperResumeCtrl
- [Options](#)
 - New members:RateLimitOption, AutoRetryTimeRangeMinutes
- [SyncDetailInfo](#)

- New members:ErrInfo
- **Modified members:** CauseOfCompareDisable
- [SyncJobInfo](#)
 - New members:SrcNodeType, SrcInfos, DstNodeType, DstInfos, DumperResumeCtrl

Release 7

Release time: 2023-06-21 15:43:11

Release updates:

Improvement to existing documentation.

New APIs:

- [CreateModifyCheckSyncJob](#)
- [DescribeModifyCheckSyncJobResult](#)
- [ModifySyncJobConfig](#)
- [StartModifySyncJob](#)

New data structures:

- [DynamicOptions](#)

Release 6

Release time: 2023-03-27 15:56:12

Release updates:

Improvement to existing documentation.

Modified APIs:

- [ConfigureSyncJob](#)
 - New input parameters:SrcInfos, SrcNodeType, DstInfos, DstNodeType

New data structures:

- [KafkaOption](#)
- [SyncDBEndpointInfos](#)
- [TopicRule](#)

Modified data structures:

- [Options](#)
 - New members:KafkaOption

Release 5

Release time: 2023-03-16 10:02:56

Release updates:

Improvement to existing documentation.

Modified data structures:

- [DBEndpointInfo](#)
 - New members:DatabaseNetEnv

Release 4

Release time: 2023-03-09 11:15:19

Release updates:

Improvement to existing documentation.

New APIs:

- [ContinueMigrateJob](#)
- [ContinueSyncJob](#)
- [PauseMigrateJob](#)
- [PauseSyncJob](#)

Modified APIs:

- [ConfigureSyncJob](#)
 - **Modified input parameters:** Options
- [CreateCompareTask](#)
 - New input parameters:Options
- [DescribeCompareTasks](#)
 - New input parameters:CompareTaskId, Status
- [ModifyCompareTask](#)

- New input parameters:Options

New data structures:

- [CompareOptions](#)

Modified data structures:

- [CompareAbstractInfo](#)
 - New members:Options, Objects, NearlyTableCount, SrcSampleRows, DstSampleRows, StartedAt, FinishedAt
- [CompareObject](#)
 - New members:AdvancedObjects
- [CompareTaskItem](#)
 - New members:Method, Options, Message
- [Endpoint](#)
 - New members:DatabaseNetEnv
- [OnlineDDL](#)
 - New members:Status
- [SyncDetailInfo](#)
 - New members:CauseOfCompareDisable
- [Table](#)
 - New members:TmpTables, TableEditMode

Release 3

Release time: 2023-01-30 18:02:25

Release updates:

Improvement to existing documentation.

New APIs:

- [SkipCheckItem](#)
- [SkipSyncCheckItem](#)

Modified APIs:

- [ConfigureSyncJob](#)
 - New input parameters:JobMode, AutoRetryTimeRangeMinutes
 - **Modified input parameters:** SrcInfo, DstInfo

- [ModifyMigrationJob](#)
 - New input parameters:AutoRetryTimeRangeMinutes

New data structures:

- [OnlineDDL](#)

Modified data structures:

- [Database](#)
 - New members:TriggerMode, Triggers, EventMode, Events
- [Endpoint](#)
 - New members:Role, EncryptConn
- [JobItem](#)
 - New members:AutoRetryTimeRangeMinutes
- [Objects](#)
 - New members:OnlineDDL
- [SyncJobInfo](#)
 - New members:AutoRetryTimeRangeMinutes

Release 2

Release time: 2022-12-16 16:23:33

Release updates:

Improvement to existing documentation.

Modified data structures:

- [Endpoint](#)
 - New members:RoleExternalId
- [StepTip](#)
 - New members:SkipInfo
- [SyncJobInfo](#)
 - New members:TradeStatus, InstanceClass, AutoRenew, OfflineTime

Existing Release

Release time: 2022-12-01 15:11:15

Existing APIs/data structures are as follows:

Improvement to existing documentation.

Existing APIs:

- [CompleteMigrateJob](#)
- [ConfigureSyncJob](#)
- [CreateCheckSyncJob](#)
- [CreateCompareTask](#)
- [CreateMigrateCheckJob](#)
- [CreateMigrationService](#)
- [CreateSyncJob](#)
- [DeleteCompareTask](#)
- [DescribeCheckSyncJobResult](#)
- [DescribeCompareReport](#)
- [DescribeCompareTasks](#)
- [DescribeMigrateDBInstances](#)
- [DescribeMigrationCheckJob](#)
- [DescribeMigrationDetail](#)
- [DescribeMigrationJobs](#)
- [DescribeSyncJobs](#)
- [DestroyMigrateJob](#)
- [DestroySyncJob](#)
- [IsolateMigrateJob](#)
- [IsolateSyncJob](#)
- [ModifyCompareTask](#)
- [ModifyCompareTaskName](#)
- [ModifyMigrateJobSpec](#)
- [ModifyMigrateName](#)
- [ModifyMigrationJob](#)
- [RecoverMigrateJob](#)
- [RecoverSyncJob](#)
- [ResizeSyncJob](#)
- [ResumeMigrateJob](#)
- [ResumeSyncJob](#)
- [StartCompare](#)
- [StartMigrateJob](#)
- [StartSyncJob](#)
- [StopCompare](#)

- [StopMigrateJob](#)
- [StopSyncJob](#)

Existing data structures:

- [CheckStep](#)
- [CheckStepInfo](#)
- [CompareAbstractInfo](#)
- [CompareDetailInfo](#)
- [CompareObject](#)
- [CompareObjectItem](#)
- [CompareTableItem](#)
- [CompareTaskInfo](#)
- [CompareTaskItem](#)
- [CompareViewItem](#)
- [ConflictHandleOption](#)
- [ConsistencyOption](#)
- [DBEndpointInfo](#)
- [DBInfo](#)
- [DBItem](#)
- [Database](#)
- [DatabaseTableObject](#)
- [DdlOption](#)
- [DetailCheckItem](#)
- [DifferenceDetail](#)
- [DifferenceItem](#)
- [Endpoint](#)
- [ErrorInfoItem](#)
- [JobItem](#)
- [KeyValuePairOption](#)
- [MigrateAction](#)
- [MigrateDBItem](#)
- [MigrateDetailInfo](#)
- [MigrateOption](#)
- [Objects](#)
- [Options](#)
- [ProcessProgress](#)
- [ProcessStepTip](#)

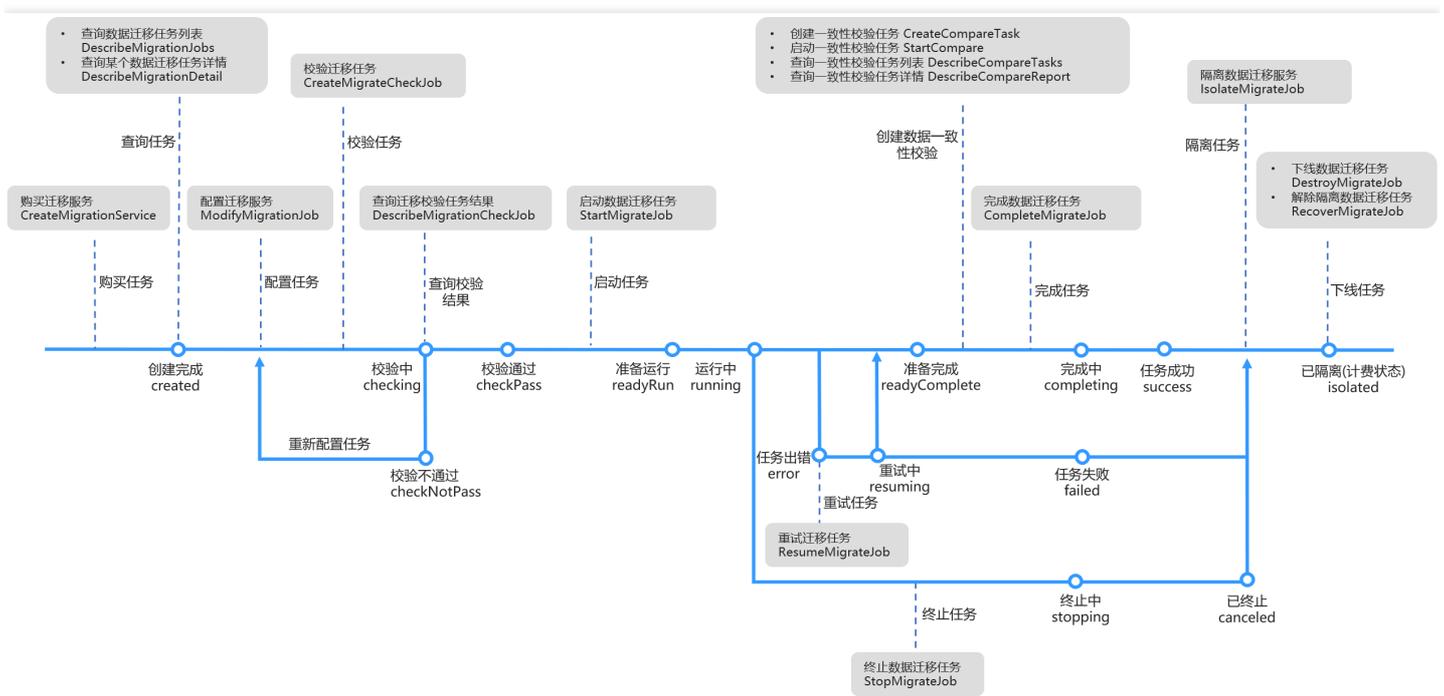
- [RoleItem](#)
- [SkippedDetail](#)
- [SkippedItem](#)
- [StepDetailInfo](#)
- [StepInfo](#)
- [StepTip](#)
- [SyncDetailInfo](#)
- [SyncJobInfo](#)
- [Table](#)
- [TableItem](#)
- [TagFilter](#)
- [TagItem](#)
- [TradeInfo](#)
- [View](#)
- [ViewItem](#)

Introduction

Last updated : 2024-07-24 10:17:22

Data Transfer Service (DTS) provides data migration, sync, and subscription services. With DTS, you can migrate your databases without interrupting your business and build a high-availability database architecture for remote disaster recovery through real-time sync channels.

Procedures for Calling Data Migration APIs



The supported operations and related APIs under each migration task status are listed below:

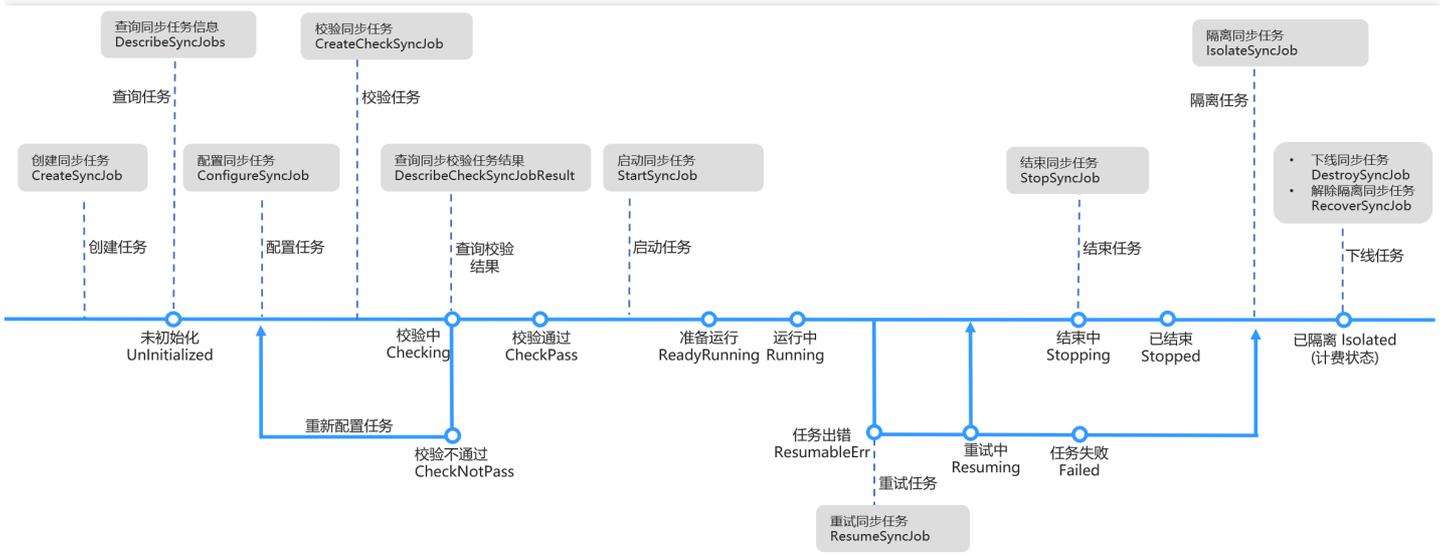
Task Status	Supported Operation	Key API	Description
-	-	CreateMigrationService	Purchase migration task resources. After making the purchase, you will return to the list of randomly generated migration task IDs.
Created (<code>created</code>)	Configure	<ul style="list-style-type: none"> ModifyMigrationJob CreateMigrateCheckJob DescribeMigrationJobs 	<ul style="list-style-type: none"> Configure the migration task. Check the configured task. You need to check all the

			<p>parameters of the source and target databases and make sure the check is passed before the migration task can be started.</p> <ul style="list-style-type: none"> You can call the <code>DescribeMigrationJobs</code> API to query the list of all migration tasks and obtain the task IDs.
Checking (<code>checking</code>)	-	DescribeMigrationCheckJob	The migration task is being checked.
Check passed (<code>checkPass</code>)	Immediate start, configure, verify	StartMigrateJob	The check is passed, and you can start the data migration task.
Check failed (<code>checkNotPass</code>)	Configure, verify	ModifyMigrationJob	The verification failed, and you need to configure the migration task and start verification again.
Preparing (<code>readyRun</code>)	Stop	-	The data migration task is being prepared after you click Start .
Running (<code>running</code>)	Stop, create data consistency check task (only supported for eligible links)	StopMigrateJob	The task is running. If you need to cancel the migration task, click Stop . The stopped task cannot be resumed.
Stopping (<code>stopping</code>)	-	-	The task is being stopped after you click Stop .
Stopped (<code>canceled</code>)	-	IsolateMigrateJob	The stopped task needs to be isolated in order to promptly unfreeze the frozen amount of one hour's pay-as-you-go fees.
Prepared (<code>readyComplete</code>)	Complete, stop, create data consistency check task (only supported for eligible links)	<ul style="list-style-type: none"> CompleteMigrateJob CreateCompareTask StartCompare DescribeCompareTasks DescribeCompareReport 	<ul style="list-style-type: none"> If you select the "Full + incremental migration" scenario, when the task status becomes "Prepared", full and incremental data migration is completed. You should click Complete at an appropriate time to end the task.

			<ul style="list-style-type: none"> We recommend that you perform a data consistency check before clicking Complete. The data consistency check compares the data to be migrated from the source database and the data migrated to the target database to check data consistency. You can view the inconsistency details. After the data consistency check task is created successfully, its task ID will be returned.
Completing (<code>completing</code>)	-	-	The task is being completed after you click Complete .
Task successful (<code>success</code>)	-	IsolateMigrateJob	The migration task is successfully completed. The completed task needs to be isolated in order to promptly unfreeze the frozen amount of one hour's pay-as-you-go fees.
Task error (<code>error</code>)	Stop, retry	ResumeMigrateJob	The migration task is interrupted as an exception occurred during the migration. You can retry the task.
Retrying (<code>resuming</code>)	-	-	The task is being retried after you click Retry . If the retry succeeds, the task will be executed normally; otherwise, it will enter the "Task failed" status.
Task failed (<code>failed</code>)	Retry (only supported for Redis migration tasks)	IsolateMigrateJob	The migration task failed. The failed task needs to be isolated in order to promptly unfreeze the frozen amount of one hour's pay-as-you-go fees.
All above status	View, adjust specification,	<ul style="list-style-type: none"> DescribeMigrationDetail ModifyMigrateJobSpec 	<ul style="list-style-type: none"> You can click View to view the details of the specified

	isolate	<ul style="list-style-type: none"> • IsolateMigrateJob 	<p>migration task. u200c</p> <ul style="list-style-type: none"> • You can click Adjust Specification to adjust the specification of the migration link. Different specifications have different transfer rates. u200c • You can click Isolate to isolate a stopped, failed, or unwanted task.
<p>Isolated (<code>isolated</code> , which is the billing status)</p>	Deisolate/resume, delete	<ul style="list-style-type: none"> • RecoverMigrateJob • DestroyMigrateJob 	<ul style="list-style-type: none"> • After you initiate an isolation operation or one day after your account has overdue payments, the task will enter the "Isolated" status. Resources in isolation will be retained for seven days and then deleted, and the service will be suspended. • You can actively delete the isolated task or wait for seven days before the system automatically deletes it. • You can click Deisolate/Resume to resume the isolated task.

Procedures for Calling Data Sync APIs



The supported operations and related APIs under each sync task status are listed below:

Task Status	Supported Operation	Key API	Description
-	-	CreateSyncJob	Purchase sync task resources. After making the purchase, you will return to the list of randomly generated sync task IDs.
Uninitialized (UnInitialized)	Configure	<ul style="list-style-type: none"> ConfigureSyncJob CreateCheckSyncJob DescribeSyncJobs 	<ul style="list-style-type: none"> Configure the sync task. Check the configured task. You need to check all the parameters of the source and target databases and make sure the check is passed before the sync task can be started. You can call the <code>DescribeSyncJobs</code> API to query the list of all sync tasks and obtain the task IDs.
Checking (Checking)	-	DescribeCheckSyncJobResult	The sync task is being checked.
Verification passed	Start, configure,	StartSyncJob	The verification is passed,

(<code>CheckPass</code>)	verify		and you can start the data sync task.
Verification failed (<code>CheckNotPass</code>)	Configure, verify	ConfigureSyncJob	The verification failed, and you need to configure the sync task and start verification again.
Preparing (<code>ReadyRunning</code>)	Stop	-	The sync task is being prepared after you click Start .
Running (<code>Running</code>)	Stop	StopSyncJob	The task is running. If you need to cancel the sync task, click Stop .
Stopping (<code>Stopping</code>)	-	-	The task is being stopped after you click Stop .
Stopped (<code>Stopped</code>)	-	IsolateSyncJob	The sync task is successfully completed. The completed task needs to be isolated in order to promptly unfreeze the frozen amount of one hour's pay-as-you-go fees.
Task error (<code>ResumableErr</code>)	Stop, retry	ResumeSyncJob	The sync task is interrupted as an exception occurred during the sync. You can retry the task.
Retrying (<code>Resuming</code>)	-	-	The task is being retried after you click Retry . If the retry succeeds, the task will be executed normally; otherwise, it will enter the "Task failed" status.
Task failed (<code>Failed</code>)	-	IsolateSyncJob	The sync task failed u200c The failed task needs to be isolated in order to promptly unfreeze the frozen amount of one hour's pay-as-you-go fees.
All above status	View, adjust	<ul style="list-style-type: none"> DescribeSyncJobs 	<ul style="list-style-type: none"> You can click View to

	<p>specification, isolate</p>	<ul style="list-style-type: none"> • ResizeSyncJob • IsolateSyncJob 	<p>view the details of the specified sync task. u200c</p> <ul style="list-style-type: none"> • You can click Adjust Specification to adjust the specification of the sync link. Different specifications have different transfer rates. u200c • You can click Isolate to isolate a stopped, failed, or unwanted task.
<p>Isolated (<code>Isolated</code> , which is the billing status)</p>	<p>Deisolate/resume, delete</p>	<ul style="list-style-type: none"> • RecoverSyncJob • DestroySyncJob 	<ul style="list-style-type: none"> • After you initiate an isolation operation or one day after your account has overdue payments, the task will enter the "Isolated" status. Resources in isolation will be retained for seven days and then deleted, and the service will be suspended. • You can actively delete the isolated task or wait for seven days before the system automatically deletes it. • You can click Deisolate/Resume to resume the isolated task.

API Category

Last updated : 2024-07-24 10:26:03

(NewDTS) Data Migration APIs

API Name	Feature	Frequency Limit (maximum requests per second)
DescribeMigrationJobs	Queries the list of data migration tasks	20
CreateMigrationService	Purchases a migration task	20
ModifyMigrationJob	Configures a migration task	20
CreateMigrateCheckJob	Verifies a migration task	20
DescribeMigrationCheckJob	Queries the result of a migration check task	20
SkipCheckItem	Skips migration check items	20
StartMigrateJob	Starts a data migration task	20
CompleteMigrateJob	Completes a data migration task	20
ContinueMigrateJob	Resumes a paused migration task	20
DescribeMigrateDBInstances	Queries the list of migratable database instances	20
DescribeMigrationDetail	Queries the details of a migration task	20
DestroyMigrateJob	Deletes a data migration task	20
IsolateMigrateJob	Isolates a data migration task	20
ModifyMigrateJobSpec	Adjusts the task specification	20
ModifyMigrateName	Renames a migration task	20
PauseMigrateJob	Pauses a migration task	20
RecoverMigrateJob	Recovers a data migration task	20

ResumeMigrateJob	Retries a migration task	20
StopMigrateJob	Stops a data migration task	20

Data Sync APIs

API Name	Feature	Frequency Limit (maximum requests per second)
DescribeSyncJobs	Queries the information of a sync task	100
CreateSyncJob	Creates a sync task	20
ConfigureSyncJob	Configures a sync task	20
CreateCheckSyncJob	Verifies a sync task	20
DescribeCheckSyncJobResult	Queries the result of a sync check task	20
SkipSyncCheckItem	Skips sync check items	20
StartSyncJob	Starts a sync task	20
IsolateSyncJob	Isolates a sync task	20
RecoverSyncJob	Recovers a sync task	20
PauseSyncJob	Pauses a data sync task	20
ContinueSyncJob	Resumes a paused sync task	20
ResumeSyncJob	Retries a sync task	20
StopSyncJob	Stops a sync task	20
DestroySyncJob	Deletes a sync task	20
ResizeSyncJob	Adjusts the specification of a sync task	20
ModifySyncJobConfig	Modifies sync task configuration	20
CreateModifyCheckSyncJob	Creates a check task for sync configuration modification	20

DescribeModifyCheckSyncJobResult	Queries the result of the object modification check task	20
StartModifySyncJob	Starts the configuration modification process	20

Data Consistency Check APIs

API Name	Feature	Frequency Limit (maximum requests per second)
CreateCompareTask	Creates a data consistency check task	20
StartCompare	Starts a data consistency check task	20
DescribeCompareTasks	Queries the list of data consistency check tasks	20
DescribeCompareReport	Queries the details of a data consistency check task	20
StopCompare	Stops a data consistency check task	20
DeleteCompareTask	Deletes a data consistency check task	20
ModifyCompareTask	Modifies a data consistency check task	20
ModifyCompareTaskName	Renames a data consistency check task	20

Making API Requests

Request Structure

Last updated : 2024-07-24 10:17:24

1. Service Address

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

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

Last updated : 2024-07-24 10:17:25

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 related API 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 you 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. This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even it is passed.
X-TC-Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request is sent. For example, 1529223702. Note: If the difference between the UNIX timestamp and server time is greater than 5 minutes, a signature expiration error may occur.
X-TC-Version	String	Yes	API version of the action. For the valid values, see the description of the common parameter <code>Version</code> in the API documentation. For example, the valid version is 2017-03-12.
Authorization	String	Yes	The HTTP authentication request header, for example: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/Date/service/tc3_request;SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc96317 Here: - TC3-HMAC-SHA256: Signature method, currently fixed as this value; - Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date is UNIX 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
```

Signature v3

Last updated : 2024-07-24 10:17:28

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., <code>Gu5t9xGARNpq86cd98joQYCN3*****</code> .
Date	The Date field information in <code>Credential</code> , such as <code>2019-02-25</code> 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().fromtimestamp(timestamp).strftime("%Y-%m-%d")
params = {"Limit": 1, "Filters": [{"Name": "instance-name", "Values": ["unnamed"]}]}

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

```

```

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

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

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

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

print('curl -X POST ' + endpoint
+ ' -H "Authorization: ' + authorization + '" '
+ ' -H "Content-Type: application/json; charset=utf-8" '
+ ' -H "Host: ' + host + '" '
+ ' -H "X-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* const lut = "0123456789abcdef";
    size_t len = input.length();

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

```
return output;
}

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

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

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

Last updated : 2024-07-24 10:17:30

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();
```

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

ksort($param);

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

$signature = base64_encode(hash_hmac("sha1", $signStr, $secretKey, true));
echo $signature.PHP_EOL;
// need to install and enable curl extension in php.ini
// $param["Signature"] = $signature;
// $url = "https://cvm.tencentcloudapi.com/?".http_build_query($param);
// echo $url.PHP_EOL;
// $ch = curl_init();
// curl_setopt($ch, CURLOPT_URL, $url);
// $output = curl_exec($ch);
// curl_close($ch);
// echo json_decode($output);
```

Ruby

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

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

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

```

'Nonce' => 11886,
'Offset' => 0,
'Region' => 'ap-guangzhou',
'SecretId' => secret_id,
'Timestamp' => 1465185768, # Time.now.to_i
'Version' => '2017-03-12',
}
sign = method + endpoint + '/?'
params = []
data.sort.each do |item|
  params << "#{item[0]}=#{item[1]}"
end
sign += params.join('&')
digest = OpenSSL::Digest.new('sha1')
data['Signature'] = Base64.encode64(OpenSSL::HMAC.digest(digest, secret_key, 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
aram, StringComparer.Ordinal);
string sigInParam = MakeSignPlainText(headers, "GET", endpoint, "/");
Console.WriteLine(sigInParam);
string sigOutParam = Sign(SECRET_KEY, sigInParam);
```

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

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

NodeJS

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

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

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

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

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

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

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

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

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

strParam = sort_params(params)

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

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

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


Responses

Last updated : 2024-07-24 10:17:31

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.

(NewDTS) Data Migration APIs

DescribeMigrationJobs

Last updated : 2024-07-24 10:31:28

1. API Description

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

This API is used to query the list of data migration tasks.

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: DescribeMigrationJobs.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	No	String	Data migration task ID such as <code>dts-amm1jw5q</code>
JobName	No	String	Data migration task name
Status.N	No	Array of String	Data migration task status. Valid values: <code>created</code> , <code>checking</code> , <code>checkPass</code> , <code>checkNotPass</code> , <code>readyRun</code> , <code>running</code> , <code>readyComplete</code> , <code>success</code> , <code>failed</code> , <code>stopping</code> , <code>completing</code> .

SrcInstanceId	No	String	Source instance ID in the format of <code>cdb-c1n19rpv</code>
SrcRegion	No	String	Source instance region, such as <code>ap-guangzhou</code> .
SrcDatabaseType.N	No	Array of String	Source database type, such as <code>sqlserver</code> , <code>mysql</code> , <code>mongodb</code> , <code>redis</code> , <code>tendis</code> , <code>keewidb</code> , <code>clickhouse</code> , <code>cynosdbmysql</code> , <code>percona</code> , <code>tdsqlpercona</code> , <code>mariadb</code> , <code>tdsqlmysql</code> , <code>postgresql</code> .
SrcAccessType.N	No	Array of String	Source instance access type. Valid values: <code>extranet</code> (public network); <code>vpncloud</code> (VPN access); <code>dccg</code> (Direct Connect); <code>ccn</code> (CCN); <code>cdb</code> (Database); <code>cvm</code> (self-build on CVM).
DstInstanceId	No	String	Target instance ID in the format of <code>cdb-c1n19rpv</code>
DstRegion	No	String	Target instance region, such as <code>ap-guangzhou</code> .
DstDatabaseType.N	No	Array of String	Target database type, such as <code>sqlserver</code> , <code>mysql</code> , <code>mongodb</code> , <code>redis</code> , <code>tendis</code> , <code>keewidb</code> , <code>clickhouse</code> , <code>cynosdbmysql</code> , <code>percona</code> , <code>tdsqlpercona</code> , <code>mariadb</code> , <code>tdsqlmysql</code> , <code>postgresql</code> .
DstAccessType.N	No	Array of String	Target instance access type. Valid values: <code>extranet</code> (public network); <code>vpncloud</code> (VPN access); <code>dccg</code> (Direct Connect); <code>ccn</code> (CCN); <code>cdb</code> (Database); <code>cvm</code> (self-build on CVM).
RunMode	No	String	Task running mode. Valid values: <code>immediate</code> , <code>timed</code> .
OrderSeq	No	String	Sorting order. Valid values: <code>asc</code> , <code>desc</code> . Default value: <code>desc</code> by creation time.
Limit	No	Integer	Number of instances to be returned. Value range: [1,100]. Default value: <code>20</code> .
Offset	No	Integer	Offset. Default value: <code>0</code> .
TagFilters.N	No	Array of TagFilter	Tag filter

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Number of migration tasks Note: This field may return null, indicating that no valid values can be obtained.
JobList	Array of JobItem	Migration task list Note: This field may return null, indicating that no valid values can be obtained.
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Querying the list of data migration tasks

Input Example

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

{
  "JobId": "dts-amm1jw5q"
}
```

Output Example

```
{
  "Response": {
    "JobList": [
      {
        "Action": {
          "AllAction": [
            "view",
            "modify",
            "check",
            "start",
            "configure",
            "stop",
            "complete",
```

```
"resume",
"createCmpTask",
"isolate",
"offline",
"resize",
"recover"
],
"AllowedAction": [
"view",
"stop",
"complete",
"createCmpTask",
"view",
"isolate",
"resize"
],
},
"CompareTask": {
"CompareTaskId": "dts-amm1jw5q-cmp-bmuum7jk",
"Status": "consistent"
},
"CreateTime": "2022-07-11 16:20:49",
"DstInfo": {
"AccessType": "cdb",
"DatabaseType": "mysql",
"ExtraAttr": [],
"Info": [
{
"Account": "",
"AccountMode": "",
"AccountRole": "",
"CcnGwId": "",
"CvmInstanceId": "",
"DbKernel": "",
"EngineVersion": "",
"Host": "",
"InstanceId": "cdb-o7uph0cj",
>Password": "Rogerp@ssw0rd",
"Port": 0,
"Role": "",
"SubnetId": "",
"TmpSecretId": "",
"TmpSecretKey": "",
"TmpToken": "",
"UniqDcgId": "",
"UniqVpnGwId": "",
>User: "root",
```

```
"VpcId": ""
},
],
"NodeType": "simple",
"Region": "ap-guangzhou",
"Supplier": ""
},
"EndTime": "0000-00-00 00:00:00",
"ExpectRunTime": "",
"JobId": "dts-amm1jw5q",
"JobName": "test_config_api",
"RunMode": "immediate",
"SrcInfo": {
  "AccessType": "intranet",
  "DatabaseType": "mysql",
  "ExtraAttr": [],
  "Info": [
    {
      "Account": "",
      "AccountMode": "",
      "AccountRole": "",
      "CcnGwId": "",
      "CvmInstanceId": "",
      "DbKernel": "",
      "EngineVersion": "5.7",
      "Host": "9.123.210.37",
      "InstanceId": "",
      "Password": "Rogerp@ssw0rd",
      "Port": 31035,
      "Role": "",
      "SubnetId": "",
      "TmpSecretId": "",
      "TmpSecretKey": "",
      "TmpToken": "",
      "UniqDcgId": "",
      "UniqVpnGwId": "",
      "User": "root",
      "VpcId": ""
    }
  ],
  "NodeType": "simple",
  "Region": "ap-guangzhou",
  "Supplier": ""
},
"StartTime": "2022-07-11 17:20:56",
"Status": "readyComplete",
"Tags": [],
```

```
"TradeInfo": {
  "BillingType": "billing",
  "DealName": "202207111715001047929481",
  "ExpireTime": "0000-00-00 00:00:00",
  "InstanceClass": "xlarge",
  "IsolateReason": "",
  "LastDealName": "",
  "OfflineReason": "",
  "PayType": "postpay",
  "TradeStatus": "normal"
},
"UpdateTime": "2022-07-11 17:26:40"
},
],
"RequestId": "asdfadfasdfasdf",
"TotalCount": 1
}
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.ControllerNotFoundError	The current API is not registered due to an exception.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.BizResourceNotFoundError	The resource was not found.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation	The operation is not supported.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

ModifyMigrationJob

Last updated : 2024-07-24 10:29:51

1. API Description

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

This API is used to configure a migration task. After it is configured successfully, you can call the `CreateMigrationCheckJob` API to create a check task, and only after it passes the check can it be started.

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: ModifyMigrationJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Task ID
RunMode	Yes	String	Running mode. Valid values: <code>immediate</code> , <code>timed</code> .
MigrateOption	Yes	MigrateOption	Migration task configuration options, which describe how the task performs migration. The <code>RateLimitOption</code> option cannot

			be configured. To modify the speed limit settings of the task, use the <code>ModifyMigrateRateLimit</code> API after the task starts running.
SrcInfo	Yes	DBEndpointInfo	Source instance information
DstInfo	Yes	DBEndpointInfo	Target instance information
JobName	No	String	Migration task name, which can contain up to 128 characters.
ExpectRunTime	No	String	Expected start time in the format of "2006-01-02 15:04:05", which is required if <code>RunMode</code> is <code>timed</code> .
Tags.N	No	Array of TagItem	Tag information
AutoRetryTimeRangeMinutes	No	Integer	Automatic retry time, which can be set to 5-720 minutes. 0 indicates that retry is disabled.

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Configuring a migration task

Input Example

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

<Common request parameters>

```
{
  "JobId": "abc",
  "JobName": "abc",
  "RunMode": "abc",
  "ExpectRunTime": "abc",
  "MigrateOption": {
    "MigrateType": "abc",
    "Consistency": {
      "Mode": "abc"
    }
  },
  "DatabaseTable": {
    "ObjectMode": "abc",
    "Databases": [
      {
        "DbName": "abc",
        "NewDbName": "abc",
        "SchemaName": "abc",
        "NewSchemaName": "abc",
        "DBMode": "abc",
        "SchemaMode": "abc",
        "TableMode": "abc",
        "Tables": [
          {
            "TableName": "abc",
            "NewTableName": "abc",
            "TmpTables": [
              "abc"
            ],
            "TableEditMode": "abc"
          }
        ],
        "ViewMode": "abc",
        "Views": [
          {
            "ViewName": "abc",
            "NewViewName": "abc"
          }
        ],
        "RoleMode": "abc",
        "Roles": [
          {
            "RoleName": "abc",
            "NewRoleName": "abc"
          }
        ],
      }
    ],
  }
}
```

```
"FunctionMode": "abc",
"TriggerMode": "abc",
"EventMode": "abc",
"ProcedureMode": "abc",
"Functions": [
  "abc"
],
"Procedures": [
  "abc"
],
"Events": [
  "abc"
],
"Triggers": [
  "abc"
]
},
"AdvancedObjects": [
  "abc"
]
},
"IsMigrateAccount": true,
"IsOverrideRoot": true,
"IsDstReadOnly": true,
"ExtraAttr": [
  {
    "Key": "abc",
    "Value": "abc"
  }
],
"SrcInfo": {
  "Supplier": "abc",
  "Region": "abc",
  "AccessType": "abc",
  "DatabaseType": "abc",
  "NodeType": "abc",
  "Info": [
    {
      "Role": "abc",
      "DbKernel": "abc",
      "Host": "abc",
      "Port": 1,
      "User": "abc",
      "Password": "abc",
      "CvmInstanceId": "abc",
```

```
"UniqVpnGwId": "abc",
"UniqDcgId": "abc",
"InstanceId": "abc",
"CcnGwId": "abc",
"VpcId": "abc",
"SubnetId": "abc",
"EngineVersion": "abc",
"Account": "abc",
"AccountRole": "abc",
"AccountMode": "abc",
"TmpSecretId": "abc",
"TmpSecretKey": "abc",
"TmpToken": "abc"
},
"ExtraAttr": [
{
"Key": "abc",
"Value": "abc"
}
],
"DatabaseNetEnv": "abc"
},
"DstInfo": {
"Supplier": "abc",
"Region": "abc",
"AccessType": "abc",
"DatabaseType": "abc",
"NodeType": "abc",
"Info": [
{
"Role": "abc",
"DbKernel": "abc",
"Host": "abc",
"Port": 1,
>User": "abc",
>Password": "abc",
"CvmInstanceId": "abc",
"UniqVpnGwId": "abc",
"UniqDcgId": "abc",
"InstanceId": "abc",
"CcnGwId": "abc",
"VpcId": "abc",
"SubnetId": "abc",
"EngineVersion": "abc",
"Account": "abc",
"AccountRole": "abc",
```

```
"AccountMode": "abc",
"TmpSecretId": "abc",
"TmpSecretKey": "abc",
"TmpToken": "abc"
},
"ExtraAttr": [
{
"Key": "abc",
"Value": "abc"
}
],
"DatabaseNetEnv": "abc"
},
"Tags": [
{
"TagKey": "abc",
"TagValue": "abc"
}
],
"AutoRetryTimeRangeMinutes": 0
}
```

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
AuthFailure.AuthFailureError	Authentication failed.
AuthFailure.AuthorizedOperationDenyError	Authentication was denied.
AuthFailure.UnauthorizedOperationError	The current user is not allowed to perform this operation as the authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError	An internal error occurred.
InternalError.InternalErrorError	An internal error occurred.
InternalError.InternalHttpServerError	An HTTP access request error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.DataConvertError	A data conversion error occurred.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.

RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

CompleteMigrateJob

Last updated : 2024-07-24 10:17:34

1. API Description

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

This API is used to complete a data migration task.

For tasks in incremental migration mode, you need to call this API before migration gets ready for completion to stop migrating incremental data.

If the task status queried through the `DescribeMigrationJobs` API is ready (`Status` = `readyComplete`), you can call this API to complete the migration 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: CompleteMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Data migration task ID
CompleteMode	No	String	The way to complete the task, which is supported only for legacy MySQL migration tasks. Valid values: <code>waitForSync</code> (wait for the source-replica lag to become 0 before stopping); <code>immediately</code> (complete immediately without waiting for source-replica sync). Default value: <code>waitForSync</code> .

3. Output Parameters

Parameter Name	Type	Description
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Completing a data migration task

Input Example

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

{
  "JobId": "dts-1k10iy0v"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "5268ea15-6636-44d1-89f9-e989d1c82e7d"
  }
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
FailedOperation.NotAllowOperation	This operation is prohibited.
FailedOperation.StatusInConflict	This operation cannot be performed due to a status conflict.
InternalError.CeleryError	An internal scheduling system error occurred.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.InternalErrorError	An internal error occurred.
InternalError.ProtocolError	A communication protocol error occurred.

InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.JobOperationDeniedError	The task operation failed.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.BizResourceNotFoundError	The resource was not found.
ResourceNotFound.JobNotExist	The migration task does not exist.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.NotEnoughPrivileges	Authentication failed as there were no required permissions.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

DescribeMigrationDetail

Last updated : 2024-07-24 10:34:15

1. API Description

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

This API is used to query the details of a migration 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: DescribeMigrationDetail.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Data migration task ID

3. Output Parameters

Parameter Name	Type	Description
JobId	String	Data migration task ID Note: This field may return null, indicating that no valid values can

		be obtained.
JobName	String	Data migration task name Note: This field may return null, indicating that no valid values can be obtained.
CreateTime	String	Task creation (submission) time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
UpdateTime	String	Task update time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
StartTime	String	Task start time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
EndTime	String	Task end time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
BriefMsg	String	Migration task error message Note: This field may return null, indicating that no valid values can be obtained.
Status	String	Task status. Valid values: <code>created</code> (Created), <code>checking</code> (Checking), <code>checkPass</code> (Check passed), <code>checkNotPass</code> (Check not passed), <code>readyRun</code> (Ready for running), <code>running</code> (Running), <code>readyComplete</code> (Preparation completed), <code>success</code> (Successful), <code>failed</code> (Failed), <code>stopping</code> (Stopping), <code>completing</code> (Completing), <code>pausing</code> (Pausing), <code>manualPaused</code> (Paused). Note: This field may return null, indicating that no valid values can be obtained.
Action	MigrateAction	Task operation information Note: This field may return null, indicating that no valid values can be obtained.
StepInfo	MigrateDetailInfo	Information of the migration task execution process. The check and migration step information will be displayed in the check and migration stages respectively. Note: This field may return null, indicating that no valid values can be obtained.

SrcInfo	DBEndpointInfo	Source instance information Note: This field may return null, indicating that no valid values can be obtained.
DstInfo	DBEndpointInfo	Target database information Note: This field may return null, indicating that no valid values can be obtained.
CompareTask	CompareTaskInfo	Data consistency check result Note: This field may return null, indicating that no valid values can be obtained.
Tags	Array of TagItem	Tag information Note: This field may return null, indicating that no valid values can be obtained.
RunMode	String	Running mode. Valid values: <code>immediate</code> , <code>timed</code> . Note: This field may return null, indicating that no valid values can be obtained.
ExpectRunTime	String	Expected start time in the format of "2006-01-02 15:04:05", which is required if <code>RunMode</code> is <code>timed</code> . Note: This field may return null, indicating that no valid values can be obtained.
MigrateOption	MigrateOption	Migration options, which describe how the task performs migration. Note: This field may return null, indicating that no valid values can be obtained.
CheckStepInfo	CheckStepInfo	Check task running details Note: This field may return null, indicating that no valid values can be obtained.
TradeInfo	TradeInfo	Billing information Note: This field may return null, indicating that no valid values can be obtained.
ErrorInfo	Array of ErrorInfoItem	Task error information Note: This field may return null, indicating that no valid values can be obtained.
DumperResumeCtrl	String	Whether the task can be reentered in the full export stage. Valid values: <code>yes</code> , <code>no</code> . <code>yes</code> : The current task can be reentered. <code>no</code> : The current task is in the full export stage which cannot be reentered. If the value of this parameter is <code>no</code> , the checkpoint

		restart is not supported when the task is restarted in the export stage.
RateLimitOption	RateLimitOption	Task throttling information Note: This field may return null, indicating that no valid values can be obtained.
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Querying the details of a migration task

This example shows you how to query the details of a migration task.

Input Example

```
POST / HTTP/1.1
Host: dts.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: DescribeMigrationDetail
<Common Request Parameters>

{
  "JobId": "dts-amm1jw5q"
}
```

Output Example

```
{
  "Response": {
    "Action": {
      "AllAction": [
        "view",
        "modify",
        "check",
        "start",
        "configure",
        "stop",
        "complete",
        "resume",
```

```
"createCmpTask",
"isolate",
"offline",
"resize",
"recover"
],
"AllowedAction": [
"view",
"stop",
"complete",
"createCmpTask",
"view",
"isolate",
"resize"
]
},
"CheckStepInfo": {
"EndAt": "2022-07-11 17:19:25",
"Progress": {
"Message": "success",
"Percent": 100,
"Status": "success",
"StepAll": 12,
"Steps": [
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "ConnectDBCheck",
"StepMessage": "",
"StepName": "Database Connection Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "VersionCheck",
"StepMessage": "",
"StepName": "Version Check",
"StepNo": 0,
"Warnings": []
},
{
```

```
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "SrcPrivilegeCheck",
"StepMessage": "",
"StepName": "Source Instance Permission Check",
"StepNo": 0,
"Warnings": [
{
"HelpDoc": "",
"Message": "Your authorization: GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DRO
P, RELOAD, PROCESS, REFERENCES, INDEX, ALTER, SHOW DATABASES, CREATE TEMPORARY TA
BLES, LOCK TABLES, EXECUTE, REPLICATION SLAVE, REPLICATION CLIENT, CREATE VIEW, S
HOW VIEW, CREATE ROUTINE, ALTER ROUTINE, CREATE USER, EVENT, TRIGGER, CREATE TABL
ESPACE ON *.* TO 'root'@'%' WITH GRANT OPTION. The range of source account permis
sions exceeds the required account permissions. Tencent Cloud DTS will not use mo
re permissions than necessary, please authorize based on the principle of minimiz
ation: https://cloud.tencent.com/document/product/571/58700",
"Solution": ""
}
],
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "SimpleParamCheck",
"StepMessage": "",
"StepName": "Partial Instance Parameter Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "DstPrivilegeCheck",
"StepMessage": "",
"StepName": "Target Instance Permission Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
```

```
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "DstEmptyCheck",
"StepMessage": "",
"StepName": "Target Database Content Conflict Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "DstSpaceCheck",
"StepMessage": "",
"StepName": "Target Instance Space Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "BinlogParamCheck",
"StepMessage": "",
"StepName": "Binlog Parameter Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "ConstraintCheck",
"StepMessage": "",
"StepName": "Foreign Key Dependency Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
```

```
"StepId": "ConstraintRefCheck",
"StepMessage": "",
"StepName": "Partial Foreign Key Table Dependency Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "ViewCheck",
"StepMessage": "",
"StepName": "View Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
"Percent": 100,
"StartTime": "",
"Status": "finished",
"StepId": "WarningParamCheck",
"StepMessage": "",
"StepName": "Warning Items Check",
"StepNo": 0,
"Warnings": []
},
{
"Errors": [],
"Percent": 0,
"StartTime": "",
"Status": "skipped",
"StepId": "OptimizeCheck",
"StepMessage": "",
"StepName": "Peripheral Check",
"StepNo": 0,
"Warnings": [
{
"HelpDoc": "",
"Message": "skipped",
"Solution": ""
}
]
},
"StepNow": 12
```

```
},
"StartAt": "2022-07-11 17:18:57"
},
"CompareTask": {
"CompareTaskId": "dts-amm1jw5q-cmp-bmuum7jk",
"Status": "consistent"
},
"CreateTime": "2022-07-11 16:20:49",
"DstInfo": {
"AccessType": "cdb",
"DatabaseType": "mysql",
"ExtraAttr": [],
"Info": [
{
"Account": "",
"AccountMode": "",
"AccountRole": "",
"CcnGwId": "",
"CvmInstanceId": "",
"DbKernel": "",
"EngineVersion": "",
"Host": "",
"InstanceId": "cdb-o7uph0cj",
>Password": "xxx",
"Port": 0,
"Role": "",
"SubnetId": "",
"TmpSecretId": "",
"TmpSecretKey": "",
"TmpToken": "",
"UniqDcgId": "",
"UniqVpnGwId": "",
>User": "root",
"VpcId": ""
}
],
"NodeType": "simple",
"Region": "ap-guangzhou",
"Supplier": ""
},
"EndTime": "0000-00-00 00:00:00",
"ErrorInfo": [],
"ExpectRunTime": "2022-07-11 17:16:50",
"JobId": "dts-amm1jw5q",
"JobName": "test_config_api",
"BriefMsg": "",
"MigrateOption": {
```

```
"Consistency": {
  "Mode": "full"
},
"DatabaseTable": {
  "Databases": [
    {
      "DBMode": "partial",
      "DbName": "big100",
      "EventMode": "",
      "FunctionMode": "",
      "NewDbName": "",
      "NewSchemaName": "",
      "ProcedureMode": "",
      "RoleMode": "",
      "Roles": [],
      "SchemaMode": "",
      "SchemaName": "",
      "TableMode": "partial",
      "Tables": [
        {
          "NewTableName": "",
          "TableEditMode": "",
          "TableName": "sbtest1",
          "TmpTables": []
        },
        {
          "NewTableName": "new_sbtest10",
          "TableEditMode": "rename",
          "TableName": "sbtest10",
          "TmpTables": []
        },
        {
          "NewTableName": "",
          "TableEditMode": "",
          "TableName": "sbtest100",
          "TmpTables": []
        }
      ],
      "TriggerMode": "",
      "ViewMode": "none",
      "Views": []
    },
    {
      "DBMode": "all",
      "DbName": "db1",
      "EventMode": "",
      "FunctionMode": "",

```

```
"NewDbName": "",
"NewSchemaName": "",
"ProcedureMode": "",
"RoleMode": "",
"Roles": [],
"SchemaMode": "",
"SchemaName": "",
"TableMode": "",
"Tables": [],
"TriggerMode": "",
"ViewMode": "",
"Views": []
}
],
"AdvancedObjects": [
  "function"
],
"ObjectMode": "partial"
},
"ExtraAttr": [],
"IsMigrateAccount": false,
"IsDstReadOnly": false,
"IsOverrideRoot": false,
"MigrateType": "fullAndIncrement"
},
"RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2",
"RunMode": "immediate",
"SrcInfo": {
  "AccessType": "intranet",
  "DatabaseType": "mysql",
  "ExtraAttr": [],
  "Info": [
    {
      "Account": "",
      "AccountMode": "",
      "AccountRole": "",
      "CcnGwId": "",
      "CvmInstanceId": "",
      "DbKernel": "",
      "EngineVersion": "5.7",
      "Host": "9.123.456.789",
      "InstanceId": "",
      "Password": "xxx",
      "Port": 31035,
      "Role": "",
      "SubnetId": "",
      "TmpSecretId": "",
```

```
"TmpSecretKey": "",
"TmpToken": "",
"UniqDcgId": "",
"UniqVpnGwId": "",
"User": "root",
"VpcId": ""
},
],
"NodeType": "simple",
"Region": "ap-guangzhou",
"Supplier": ""
},
"StartTime": "2022-07-11 17:20:56",
"Status": "readyComplete",
"StepInfo": {
  "MasterSlaveDistance": 0,
  "SecondsBehindMaster": 0,
  "StepAll": 3,
  "StepInfo": [
    {
      "StepMessage": "",
      "Percent": 100,
      "Errors": [],
      "StartTime": "2022-07-11 17:21:59",
      "Status": "finished",
      "StepId": "dumper",
      "StepName": "Export from Source Database",
      "StepNo": 1,
      "Warnings": []
    },
    {
      "StepMessage": "",
      "Percent": 100,
      "Errors": [],
      "StartTime": "2022-07-11 17:22:43",
      "Status": "finished",
      "StepId": "loader",
      "StepName": "Data Import",
      "StepNo": 2,
      "Warnings": []
    },
    {
      "StepMessage": "",
      "Percent": 100,
      "Errors": [],
      "StartTime": "2022-07-11 17:23:26",
      "Status": "running",
```

```
"StepId": "sinker",
"StepName": "Incremental Sync",
"StepNo": 3,
"Warnings": []
}
],
"StepNow": 3
},
"Tags": [],
"TradeInfo": {
"BillingType": "billing",
"DealName": "202207111715001047929481",
"ExpireTime": "0000-00-00 00:00:00",
"InstanceClass": "xlarge",
"IsolateReason": "",
"LastDealName": "",
"OfflineReason": "",
"PayType": "postpay",
"TradeStatus": "normal",
"OfflineTime": "",
"IsolateTime": ""
},
"UpdateTime": "2022-07-11 19:53:03",
"DumperResumeCtrl": "no"
}
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalServerError.InternalServerError	An internal error occurred.
InvalidParameter.ControllerNotFoundError	The current API is not registered due to an exception.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.

UnsupportedOperation.UnsupportedOperationError

The operation is not supported.

CreateMigrationService

Last updated : 2023-10-17 11:03:15

1. API Description

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

This API is used to purchase migration tasks. After the tasks are purchased successfully, a randomly generated list of task IDs will be returned. You can also call the `DescribeMigrationJobs` API to query the IDs of the successfully purchased tasks. Note that once a task is purchased successfully, the types and regions of the source and target databases cannot be changed.

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: CreateMigrationService.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
SrcDatabaseType	Yes	String	Source database type. Valid values: <code>mysql</code> , <code>redis</code> , <code>percona</code> , <code>mongodb</code> , <code>postgresql</code> , <code>sqlserver</code> , <code>mariadb</code> , and <code>cynosdbmysql</code> .
DstDatabaseType	Yes	String	Target database type. Valid values: <code>mysql</code> , <code>redis</code> , <code>percona</code> , <code>mongodb</code> , <code>postgresql</code> , <code>sqlserver</code> , <code>mariadb</code> , and <code>cynosdbmysql</code> .

SrcRegion	Yes	String	Source instance region, such as <code>ap-guangzhou</code> .
DstRegion	Yes	String	Target instance region, such as <code>ap-guangzhou</code> . Note that it must be the same as the API request region.
InstanceClass	Yes	String	Instance specification. Valid values: <code>small</code> , <code>medium</code> , <code>large</code> , <code>xlarge</code> , <code>2xlarge</code> .
Count	No	Integer	Quantity. Value range: [1,15]. Default value: <code>1</code> .
JobName	No	String	Migration task name, which can contain up to 128 characters.
Tags.N	No	Array of TagItem	Tag information

3. Output Parameters

Parameter Name	Type	Description
JobIds	Array of String	The list of migration task IDs randomly generated in the format of <code>dts-c1f6rs21</code> after a successful order placement Note: This field may return null, indicating that no valid values can be obtained.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Purchasing a migration task

This example shows you how to purchase a migration task.

Input Example

```
POST / HTTP/1.1Host: dts.tencentcloudapi.comContent-Type: application/jsonX-TC-Action: CreateMigrationService<Common request parameters>{ "SrcDatabaseType": "mysql", "DstDatabaseType": "mysql", "InstanceClass": "xlarge", "SrcRegion": "ap-guangzhou", "DstRegion": "ap-guangzhou", "Tags": [ { "TagKey": "testkey", "TagValue": "testvalue" } ] }
```

Output Example

```
{
  "Response": {
    "JobIds": [
      "dts-1ewjspuw"
    ],
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.

FailedOperation.FailedOperationError	The operation failed.
InternalError	An internal error occurred.
InternalError.InternalErrorError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

CreateMigrateCheckJob

Last updated : 2023-10-17 11:03:15

1. API Description

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

This API is used to verify a migration task.

Before migration, you should call this API to create a check task. Migration will start only if the check succeeds. You can view the check result through the [DescribeMigrationCheckJob](#) API.

After successful check, if the migration task needs to be modified, a new check task should be created, and migration will start only after the new check succeeds.

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: CreateMigrateCheckJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Data migration task ID

3. Output Parameters

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

4. Example

Example1 Creating a migration check task

Input Example

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

{
  "JobId": "dts-1k10iy0v"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "46b45da1-3e8e-4ef2-8de8-b1bffa027385"
  }
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
FailedOperation.NotAllowOperation	This operation is prohibited.
InternalError	An internal error occurred.
InternalError.AddTaskError	Failed to create the async task.
InternalError.CeleryError	An internal scheduling system error occurred.
InternalError.CgwSystemError	A CGW system error occurred.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.InternalErrorError	An internal error occurred.
InternalError.LockError	Locks are in conflict.
InternalError.ProtocolError	A communication protocol error occurred.
InternalError.UndefinedError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.

InvalidParameter	The parameter is incorrect.
InvalidParameter.InstanceNotFound	The instance does not exist.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
LimitExceeded.MaxUnusedJobs	The number of idle migration tasks exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied	The operation was denied.
OperationDenied.JobOperationDeniedError	The task operation failed.
OperationDenied.OperationDeniedError	The operation was denied.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.JobNotExist	The migration task does not exist.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.NotEnoughPrivileges	Authentication failed as there were no required permissions.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.IntraNetUserNotTaggedError	The intranet user did not specify the required tags when creating the migration task. The department , product , and owner tags must be specified.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

DescribeMigrationCheckJob

Last updated : 2023-10-17 11:03:14

1. API Description

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

This API is used to get the check result and query the check status and progress after a check is created.

If the check succeeds, you can call the `StartMigrateJob` API to start migration.

If the check fails, the cause can be queried. Modify the migration configuration or adjust relevant parameters of the source/target instances through the `ModifyMigrationJob` API based on the error message.

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: DescribeMigrationCheckJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Task ID

3. Output Parameters

--	--	--

Parameter Name	Type	Description
Status	String	Check task execution status. Valid values: <code>notStarted</code> , <code>running</code> , <code>failed</code> , <code>success</code> . Note: This field may return null, indicating that no valid values can be obtained.
BriefMsg	String	Check task result message Note: This field may return null, indicating that no valid values can be obtained.
StepInfo	Array of CheckStep	Check step Note: This field may return null, indicating that no valid values can be obtained.
CheckFlag	String	Check result. Valid values: <code>checkPass</code> , <code>checkNotPass</code> .
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 migration check task

Input Example

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

{
  "JobId": "dts-1ewjspuw"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "11d35c90-01bb-11ed-bad9-7b3bbe11abda",
    "CheckFlag": "checkPass",
    "BriefMsg": "success",
```

```
"Status": "success",
"StepInfo": [
  {
    "DetailCheckItems": [],
    "HasSkipped": false,
    "StepId": "ConnectDBCheck",
    "StepMessage": "",
    "StepName": "Database connection check",
    "StepNo": 0,
    "StepStatus": "pass"
  },
  {
    "DetailCheckItems": [],
    "HasSkipped": false,
    "StepId": "VersionCheck",
    "StepMessage": "",
    "StepName": "Version check",
    "StepNo": 1,
    "StepStatus": "pass"
  },
  {
    "DetailCheckItems": [
      {
        "CheckItemName": "Source instance permission check",
        "CheckResult": "warning",
        "Description": "",
        "ErrorLog": [
          "Your permission is as follows: GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DRO
          P, RELOAD, PROCESS, REFERENCES, INDEX, ALTER, SHOW DATABASES, CREATE TEMPORARY TA
          BLES, LOCK TABLES, EXECUTE, REPLICATION SLAVE, REPLICATION CLIENT, CREATE VIEW, S
          HOW VIEW, CREATE ROUTINE, ALTER ROUTINE, CREATE USER, EVENT, TRIGGER, CREATE TABL
          ESPACE ON *.* TO 'root'@'%' WITH GRANT OPTION. The source database account's perm
          issions must include the required account permissions. DTS won't use unnecessary
          permissions. Therefore, grant permissions according to the principle of least pri
          vilege as described at [Source Instance Permission Check](https://intl.cloud.tenc
          ent.com/document/product/571/55424).",
        ],
        "FailureReason": "",
        "HelpDoc": [
          ""
        ],
        "SkipInfo": "",
        "Solution": ""
      }
    ],
    "HasSkipped": false,
    "StepId": "SrcPrivilegeCheck",
```

```
"StepMessage": "",
"StepName": "Source instance permission check",
"StepNo": 2,
"StepStatus": "warning"
},
{
"DetailCheckItems": [],
"HasSkipped": false,
"StepId": "SimpleParamCheck",
"StepMessage": "",
"StepName": "Partial instance parameter check",
"StepNo": 3,
"StepStatus": "pass"
},
{
"DetailCheckItems": [],
"HasSkipped": false,
"StepId": "DstPrivilegeCheck",
"StepMessage": "",
"StepName": "Target instance permission check",
"StepNo": 4,
"StepStatus": "pass"
},
{
"DetailCheckItems": [],
"HasSkipped": false,
"StepId": "DstEmptyCheck",
"StepMessage": "",
"StepName": "Target instance content conflict check",
"StepNo": 5,
"StepStatus": "pass"
},
{
"DetailCheckItems": [],
"HasSkipped": false,
"StepId": "DstSpaceCheck",
"StepMessage": "",
"StepName": "Target instance space check",
"StepNo": 6,
"StepStatus": "pass"
},
{
"DetailCheckItems": [],
"HasSkipped": false,
"StepId": "BinlogParamCheck",
"StepMessage": "",
"StepName": "Binlog parameter check",
```

```
"StepNo": 7,
"StepStatus": "pass"
},
{
"DetailCheckItems": [],
"HasSkipped": false,
"StepId": "ConstraintCheck",
"StepMessage": "",
"StepName": "Foreign key dependency check",
"StepNo": 8,
"StepStatus": "pass"
},
{
"DetailCheckItems": [],
"HasSkipped": false,
"StepId": "ConstraintRefCheck",
"StepMessage": "",
"StepName": "Partial database/table foreign key dependency check",
"StepNo": 9,
"StepStatus": "pass"
},
{
"DetailCheckItems": [],
"HasSkipped": false,
"StepId": "ViewCheck",
"StepMessage": "",
"StepName": "View check",
"StepNo": 10,
"StepStatus": "pass"
},
{
"DetailCheckItems": [],
"HasSkipped": false,
"StepId": "WarningParamCheck",
"StepMessage": "",
"StepName": "Warning item check",
"StepNo": 11,
"StepStatus": "pass"
},
{
"DetailCheckItems": [
{
"CheckItemName": "Peripheral check",
"CheckResult": "warning",
"Description": "",
"ErrorLog": [
"skipped"
```

```
],
"FailureReason": "",
"HelpDoc": [
""
],
"SkipInfo": "",
"Solution": ""
}
],
"HasSkipped": true,
"StepId": "OptimizeCheck",
"StepMessage": "",
"StepName": "Peripheral check",
"StepNo": 12,
"StepStatus": "failed"
}
}
}
```

5. Developer Resources

SDK

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

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- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for 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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

SkipCheckItem

Last updated : 2023-10-17 11:03:12

1. API Description

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

This API is used for the backend to skip a failed check item. Theoretically, to execute a migration task normally, any check step cannot be skipped, and the check must be passed. For products or links that support check item skipping, see [Check Item Overview](#).

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: SkipCheckItem.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Data migration task ID
StepIds.N	Yes	Array of String	ID of the check step to be skipped, which is obtained in the <code>StepInfo[i].StepId</code> field returned by the <code>DescribeMigrationCheckJob</code> API, such as "OptimizeCheck".
ForeignKeyFlag	No	String	When the check fails due to foreign key dependency, you can use this field to specify whether to migrate the foreign key dependency.

The foreign key dependency won't be migrated when `StepIds` contains `ConstraintCheck` and the value of this field is `shield` , and will be migrated when `StepIds` contains `ConstraintCheck` and the value of this field is `migrate` .

3. Output Parameters

Parameter Name	Type	Description
Message	String	Message prompted for skipping the check item 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 Skipping a migration check item

This example shows you how to call this API to skip a failed check item when the check fails or to specify whether to migrate the foreign key dependency.

Input Example

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

{
  "JobId": "dts-1ewjspuw",
  "StepIds": [
    "OptimizeCheck"
  ]
}
```

Output Example

```
{
  "Response": {
    "RequestId": "46b45da1-3e8e-4ef2-8de8-b1bffa027385",
    "Message": "skip item successfully"
  }
}
```

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
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
OperationDenied.OperationDeniedError	The operation was denied.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

StartMigrateJob

Last updated : 2023-10-17 11:03:12

1. API Description

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

This API (`StartMigrationJob`) is used to start a migration task. After calling this API, you can call the `DescribeMigrationJobs` API to query the latest task status.

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: StartMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Data migration task ID

3. Output Parameters

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

4. Example

Example1 Starting a data migration task

Input Example

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

{
  "JobId": "dts-j7bt5sid"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "bab78b9b-ce8a-4645-bfb2-5b03397d6ea0"
  }
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
FailedOperation.NotAllowOperation	This operation is prohibited.
FailedOperation.StartJobFailed	Failed to start the task.
FailedOperation.StatusInConflict	This operation cannot be performed due to a status conflict.
InternalError.AddTaskError	Failed to create the async task.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.InternalErrorError	An internal error occurred.
InternalError.InternalInnerCommonError	An error occurred while accessing the internal component.
InternalError.LockError	Locks are in conflict.
InternalError.ProtocolError	A communication protocol error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.

LimitExceeded.LimitExceededError	The quantity exceeds the limit.
LimitExceeded.MaxUnusedJobs	The number of idle migration tasks exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.JobOperationDeniedError	The task operation failed.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.JobNotExist	The migration task does not exist.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.NotEnoughPrivileges	Authentication failed as there were no required permissions.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

StopMigrateJob

Last updated : 2023-10-17 11:03:12

1. API Description

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

This API is used to stop a data migration task.

After calling this API, you can call the `DescribeMigrationJobs` API to query the latest task status.

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: StopMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Data migration task ID

3. Output Parameters

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

4. Example

Example1 Stopping a data migration task

Input Example

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

{
  "JobId": "dts-j7bt5sid"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "22f6b9ca-e94d-4a4d-b48f-a5133e791374"
  }
}
```

5. Developer Resources

SDK

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

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- [Tencent Cloud SDK 3.0 for Java](#)
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- [Tencent Cloud SDK 3.0 for 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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
FailedOperation.NotAllowOperation	This operation is prohibited.
FailedOperation.StatusInConflict	This operation cannot be performed due to a status conflict.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.InternalErrorError	An internal error occurred.
InternalError.ProtocolError	A communication protocol error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
OperationDenied.JobOperationDeniedError	The task operation failed.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.

ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.JobNotExist	The migration task does not exist.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.NotEnoughPrivileges	Authentication failed as there were no required permissions.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

ResumeMigrateJob

Last updated : 2023-10-17 11:03:13

1. API Description

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

This API is used to retry an abnormal or failed Redis data migration task. Note that this operation will skip the check stage and directly start the task, just like by calling `StartMigrationJob`. After calling this API, you can call the `DescribeMigrationJobs` API to query the latest task status.

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: ResumeMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Data migration task ID
ResumeOption	Yes	String	Task resumption mode. Valid values: <code>clearData</code> (Clearing the target instance data); <code>overwrite</code> (Executing the task in overwrite mode); <code>normal</code> (Following the normal process without additional operations). <code>clearData</code> and <code>overwrite</code> are only valid for Redis links and <code>normal</code> for non-Redis links.

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 Retrying a failed data migration task

This example shows you how to retry a failed data migration task in overwrite mode.

Input Example

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

{
  "JobId": "dts-j7bt5sid",
  "ResumeOption": "normal"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "22f6b9ca-e94d-4a4d-b48f-a5133e791374"
  }
}
```

5. Developer Resources

SDK

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- [Tencent Cloud SDK 3.0 for Java](#)
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- [Tencent Cloud SDK 3.0 for .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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
FailedOperation.NotAllowOperation	This operation is prohibited.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.InternalErrorError	An internal error occurred.
InternalError.ProtocolError	A communication protocol error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter	The parameter is incorrect.

InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValue	The parameter value is incorrect.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.JobNotExist	The migration task does not exist.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.NotEnoughPrivileges	Authentication failed as there were no required permissions.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation	The operation is not supported.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

RecoverMigrateJob

Last updated : 2023-10-17 11:03:13

1. API Description

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

This API is used to recover a data migration task in **Isolated** status. After calling this API, you can call the `DescribeMigrationJobs` API to query the latest task status.

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: RecoverMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	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 Recovering a data migration task

Input Example

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

{
  "JobId": "dts-j7bt5sid"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

5. Developer Resources

SDK

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

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- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
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- [Tencent Cloud SDK 3.0 for 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.InternalHttpServerError	An HTTP access request error occurred.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

ModifyMigrateName

Last updated : 2023-10-17 11:03:13

1. API Description

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

This API is used to rename a migration 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: ModifyMigrateName.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Migration task ID
JobName	Yes	String	New migration task 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 Renaming a migration task

Input Example

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

{
  "JobName": "userDefine",
  "JobId": "dts-7ittt1j4w"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb"
  }
}
```

5. Developer Resources

SDK

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

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- [Tencent Cloud SDK 3.0 for Java](#)
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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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.JobNotExist	The migration task does not exist.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.

ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

ModifyMigrateJobSpec

Last updated : 2023-10-17 11:03:13

1. API Description

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

This API is used to adjust the specification of a pay-as-you-go task. After calling this API, you can call the `DescribeMigrationJobs` API to query the latest task status.

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: <code>ModifyMigrateJobSpec</code> .
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Task ID
NewInstanceClass	Yes	String	New instance specification. Valid values: <code>micro</code> , <code>small</code> , <code>medium</code> , <code>large</code> , <code>xlarge</code> , <code>2xlarge</code> .

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 Adjusting the task specification

Input Example

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

{
  "JobId": "dts-j7bt5sid",
  "NewInstanceClass": "xlarge"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.

UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

IsolateMigrateJob

Last updated : 2023-10-17 11:03:14

1. API Description

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

This API is used to isolate and return a data migration task. After calling this API, you can call the

`DescribeMigrationJobs` API to query the latest task status. For a billed task, after isolating it, you can call `RecoverMigrationJob` to recover it or call `DestroyMigrateJob` to delete it. For a free task, calling this API will directly delete it permanently.

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: IsolateMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	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 Isolating a data migration task

Input Example

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

{
  "JobId": "dts-j7bt5sid"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.

UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

DestroyMigrateJob

Last updated : 2023-10-17 11:03:14

1. API Description

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

This API is used to delete a data migration task. For a billed task, you must first call the `IsolateMigrateJob` API to isolate it and make sure that it is in **Isolated** status before calling this API to delete it. For a free task, you can directly call the `IsolateMigrateJob` API to delete it.

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: DestroyMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	No	String	Task ID

3. Output Parameters

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

locating a problem.

4. Example

Example1 Deleting a data migration task

Input Example

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

{
  "JobId": "dts-j7bt5sid"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.

UnsupportedOperation.UnsupportedOperationError

The operation is not supported.

DescribeMigrateDBInstances

Last updated : 2023-10-17 11:03:14

1. API Description

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

This API is used to query migratable database instances.

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: DescribeMigrateDBInstances.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
DatabaseType	Yes	String	Database type, such as <code>mysql</code> .
MigrateRole	No	String	Specifies whether the instance is the migration source or target. Valid values: <code>src</code> (source); <code>dts</code> (target).
InstanceId	No	String	Database instance ID
InstanceName	No	String	Database instance name
Limit	No	Integer	Number of results to be returned

Offset	No	Integer	Offset
AccountMode	No	String	The account to which the resource belongs. Valid values: empty or <code>self</code> (the current account); <code>other</code> (another account).
TmpSecretId	No	String	ID of the temporary key, which is required if the operation is performed across accounts.
TmpSecretKey	No	String	Key of the temporary key, which is required if the operation is performed across accounts.
TmpToken	No	String	Temporary token, which is required if the operation is performed across accounts.

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Number of eligible items Note: This field may return null, indicating that no valid values can be obtained.
Instances	Array of MigrateDBItem	Instance 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 Querying the list of migrated instances

This example shows you how to query the list of migrated instances.

Input Example

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

```
{
  "InstanceId": "cdb-eur39922",
  "DatabaseType": "mysql",
  "MigrateRole": "src"
}
```

Output Example

```
{
  "Response": {
    "TotalCount": 1,
    "RequestId": "cafebabe-848392-di98382-dfu9832",
    "Instances": []
  }
}
```

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	The CAM signature/authentication information is incorrect.
AuthFailure.AuthFailureError	Authentication failed.
AuthFailure.UnauthorizedOperationError	The current user is not allowed to perform this operation as the authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError	An internal error occurred.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter	The parameter is missing.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound	The resource does not exist.
ResourceNotFound.BizResourceNotFoundError	The resource was not found.
ResourceNotFound.ResourceNotFound	The instance was not found.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.

ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation	The operation is unauthorized.
UnauthorizedOperation.PermissionDenied	The operation is unauthorized.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter	The parameter is unknown.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation	The operation is not supported.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

PauseMigrateJob

Last updated : 2023-10-17 11:03:13

1. API Description

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

This API is used to pause a migration 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: PauseMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Data migration task ID

3. Output Parameters

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

4. Example

Example1 Pausing a migration task

Input Example

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

{
  "JobId": "dts-j7bt5sid"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "bab78b9b-ce8a-4645-bfb2-5b03397d6ea0"
  }
}
```

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.InternalErrorError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
OperationDenied.OperationDeniedError	The operation was denied.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

ContinueMigrateJob

Last updated : 2023-10-17 11:03:15

1. API Description

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

This API is used to resume a paused migration 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: ContinueMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Data migration task ID

3. Output Parameters

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

locating a problem.

4. Example

Example1 Resuming a paused migration task

This example shows you how to resume a paused task.

Input Example

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

{
  "JobId": "dts-j7bt5sid"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "bab78b9b-ce8a-4645-bfb2-5b03397d6ea0"
  }
}
```

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.InternalErrorError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
OperationDenied.OperationDeniedError	The operation was denied.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

Data Sync APIs

DescribeSyncJobs

Last updated : 2024-07-24 10:26:16

1. API Description

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

This API is used to query the information of a sync task.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DescribeSyncJobs.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	No	String	Sync task ID, such as <code>sync-werwfs23</code> .
JobName	No	String	Sync task name
Order	No	String	Sort by field, such as <code>CreateTime</code> .
OrderSeq	No	String	Sorting order. Valid values: <code>ASC</code> , <code>DESC</code> . Default value: <code>DESC</code> by <code>CreateTime</code> .
Offset	No	Integer	Offset. Default value: <code>0</code> .

Limit	No	Integer	Number of sync task instances to be returned. Value range: [1,100]. Default value: <code>20</code> .
Status.N	No	Array of String	The set of status values, such as <code>Initialized, CheckPass, Running, ResumableErr, Stopped</code>
RunMode	No	String	Running mode. Valid values: <code>Immediate</code> , <code>Timed</code> .
JobType	No	String	Task type, such as <code>mysql2mysql</code> (sync from MySQL to MySQL).
PayMode	No	String	Billing mode. Valid values: <code>PrePay</code> (prepaid); <code>PostPay</code> (postpaid)
TagFilters.N	No	Array of TagFilter	tag

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Number of tasks Note: This field may return null, indicating that no valid values can be obtained.
JobList	Array of SyncJobInfo	Array of task details Note: This field may return null, indicating that no valid values can be obtained.
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Querying the list of sync tasks

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

Input Example

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

<Common Request Parameters>

```
{  
  "JobId": "sync-bkm3mppi"  
}
```

Output Example

```
{  
  "Response": {  
    "JobList": [  
      {  
        "Actions": [  
          "pause",  
          "stop",  
          "limitRate",  
          "view",  
          "resize",  
          "isolate",  
          "postPay2prePay",  
          "configureOptObj"  
        ],  
        "AllActions": [  
          "view",  
          "configure",  
          "check",  
          "start",  
          "stop",  
          "resume",  
          "pause",  
          "continue",  
          "limitRate",  
          "resize",  
          "isolate",  
          "offline",  
          "recover",  
          "postPay2prePay",  
          "configureOptObj",  
          "checkOptObj",  
          "startOptObj",  
          "createCmpTask"  
        ],  
        "AutoRenew": 0,  
        "AutoRetryTimeRangeMinutes": 0,  
        "CreateTime": "2023-12-18 20:55:27",  
        "Detail": {
```

```
"CauseOfCompareDisable": "The current task has opened DML filtering().",
"CurrentStepProgress": 0,
"ErrInfo": {
  "Message": "",
  "Reason": "",
  "Solution": ""
},
"MasterSlaveDistance": 0,
"Message": "",
"Progress": -1,
"SecondsBehindMaster": 0,
"StepAll": 4,
"StepInfos": [
  {
    "Errors": null,
    "Progress": -1,
    "StartTime": "2023-12-20 17:03:39",
    "Status": "finished",
    "StepId": "schema-init",
    "StepName": "Incremental database table initialization",
    "StepNo": 1,
    "Warnings": []
  },
  {
    "Errors": null,
    "Progress": -1,
    "StartTime": "2023-12-20 17:03:49",
    "Status": "finished",
    "StepId": "dumper",
    "StepName": "Full export",
    "StepNo": 2,
    "Warnings": []
  },
  {
    "Errors": null,
    "Progress": -1,
    "StartTime": "2023-12-20 17:07:50",
    "Status": "finished",
    "StepId": "loader",
    "StepName": "Full import",
    "StepNo": 3,
    "Warnings": []
  },
  {
    "Errors": null,
    "Progress": -1,
    "StartTime": "2023-12-20 17:16:49",
```

```
"Status": "running",
"StepId": "sinker",
"StepName": "Sync incrementally",
"StepNo": 4,
"Warnings": []
},
],
"StepNow": 4
},
"DstAccessType": "noProxy",
"DstDatabaseType": "mysql",
"DstInfo": {
"Account": "",
"AccountMode": "",
"AccountRole": "",
"CcnId": "",
"CcnOwnerUin": "",
"CvmInstanceId": "",
"DatabaseNetEnv": "",
"DbKernel": "",
"DbName": "",
"EncryptConn": "",
"EngineVersion": "",
"InstanceId": "",
"Ip": "11.141.232.156",
>Password": "",
"Port": 3306,
"Region": "ap-guangzhou",
"Role": "",
"RoleExternalId": "",
"SubnetId": "",
"Supplier": "",
"TmpSecretId": "",
"TmpSecretKey": "",
"TmpToken": "",
"UniqDcgId": "",
"UniqVpnGwId": "",
>User": "root",
>VpcId": ""
},
"DstInfos": {
"AccessType": "",
"DatabaseType": "",
"Info": null,
"Region": ""
},
"DstNodeType": "single",
```

```
"DstRegion": "ap-qingyuan",
"DumperResumeCtrl": "yes",
"EndTime": "0000-00-00 00:00:00",
"ExpectRunTime": "0000-00-00 00:00:00",
"ExpireTime": "0000-00-00 00:00:00",
"InstanceClass": "medium",
"JobId": "sync-09vy1os1",
"JobName": "roger_test",
"Objects": {
  "Databases": [
    {
      "DbMode": "All",
      "DbName": "db_big",
      "EventMode": "",
      "FunctionMode": "",
      "NewDbName": "",
      "NewSchemaName": "",
      "ProcedureMode": "",
      "SchemaName": "",
      "TableMode": "All",
      "TriggerMode": "",
      "ViewMode": "All"
    }
  ],
  "Mode": "Partial",
  "OnlineDDL": {
    "Status": ""
  },
  "OfflineTime": "0000-00-00 00:00:00",
  "Options": {
    "AddAdditionalColumn": false,
    "AutoRetryTimeRangeMinutes": 0,
    "ConflictHandleOption": {
      "ConditionColumn": "",
      "ConditionOperator": "",
      "ConditionOrderInSrcAndDst": ""
    },
    "ConflictHandleType": "Cover",
    "DdlOptions": null,
    "DealOfExistSameTable": "ExecuteAfterIgnore",
    "InitType": "Full",
    "KafkaOption": {
      "DDLTopicName": "",
      "DataType": "",
      "TopicRules": [],
      "TopicType": ""
    }
  }
}
```

```
},
"OpTypes": null,
"RateLimitOption": {
  "CurrentDumpRps": 0,
  "CurrentDumpThread": 8,
  "CurrentLoadRps": 0,
  "CurrentLoadThread": 8,
  "CurrentSinkerThread": 32,
  "DefaultDumpRps": 0,
  "DefaultDumpThread": 8,
  "DefaultLoadRps": 0,
  "DefaultLoadThread": 8,
  "DefaultSinkerThread": 32,
  "HasUserSetRateLimit": "no"
}
},
"PayMode": "PostPay",
"RunMode": "Immediate",
"Specification": "",
"SrcAccessType": "noProxy",
"SrcDatabaseType": "mysql",
"SrcInfo": {
  "Account": "",
  "AccountMode": "",
  "AccountRole": "",
  "CcnId": "",
  "CcnOwnerUin": "",
  "CvmInstanceId": "",
  "DatabaseNetEnv": "",
  "DbKernel": "",
  "DbName": "",
  "EncryptConn": "",
  "EngineVersion": "",
  "InstanceId": "",
  "Ip": "11.141.232.195",
  "Password": "",
  "Port": 3306,
  "Region": "ap-guangzhou",
  "Role": "",
  "RoleExternalId": "",
  "SubnetId": "",
  "Supplier": "",
  "TmpSecretId": "",
  "TmpSecretKey": "",
  "TmpToken": "",
  "UniqDcgId": "",
  "UniqVpnGwId": "",
}
```

```
"User": "root",
"VpcId": "",
},
"SrcInfos": {
"AccessType": "",
"DatabaseType": "",
"Info": null,
"Region": ""
},
"SrcNodeType": "single",
"SrcRegion": "ap-qingyuan",
"StartTime": "2023-12-19 15:54:18",
"Status": "Running",
"Tags": [],
"TradeStatus": "Normal"
}
],
"RequestId": "268b0711-a3b2-4692-8c91-88d743bc8b9f",
"TotalCount": 1
}
}
```

5. Developer Resources

SDK

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

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- [Tencent Cloud SDK 3.0 for .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.AuthFailureError	Authentication failed.
AuthFailure.UnauthorizedOperationError	The current user is not allowed to perform this operation as the authentication failed.
FailedOperation.NotAllowOperation	This operation is prohibited.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.InternalErrorError	An internal error occurred.
InternalError.ProtocolError	A communication protocol error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.

ModifySyncJobConfig

Last updated : 2023-10-17 11:03:09

1. API Description

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

This API is used to modify the configuration of a data sync task after the task is started.\n Configuration modification steps: Modify sync task configuration -> Create a modification check task -> Query the check task result -> Start the configuration modification check 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: ModifySyncJobConfig.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync task ID
DynamicObjects	No	Objects	The modified sync objects
DynamicOptions	No	DynamicOptions	The modified sync task options

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 Configuring an object modification task

This example shows you how to start an object modification task as needed.

Input Example

```
POST / HTTP/1.1Host: dts.tencentcloudapi.comContent-Type: application/jsonX-TC-Action: ModifySyncJobConfig<Common request parameters>{ "JobId": "sync-4t8k7e8t", "DynamicObjects": { "Mode": "Partial", "Databases": [ { "DbName": "db1", "DbMode": "All", "TableMode": "All", "ViewMode": "All" } ] }, "DynamicOptions": { "ConflictHandleOption": {}, "ConflictHandleType": "ReportError", "DdlOptions": [ { "DdlObject": "Database", "DdlValue": [] }, { "DdlObject": "Table", "DdlValue": [] }, { "DdlObject": "View", "DdlValue": [] }, { "DdlObject": "Index", "DdlValue": [] } ], "OpTypes": [ "Insert", "Update", "Delete", "DDL" ] }}
```

Output Example

```
{
  "Response": {
    "RequestId": "xxxaasassas"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
OperationDenied.OperationDeniedError	The operation was denied.

CreateModifyCheckSyncJob

Last updated : 2023-10-17 11:03:10

1. API Description

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

This API is used to check whether the current data sync task supports object modification after the task configuration is modified.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: CreateModifyCheckSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync 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 Creating an object modification check task

This example shows you how to create an object modification check task after the object configuration is modified.

Input Example

```
POST / HTTP/1.1Host: dts.tencentcloudapi.comContent-Type: application/jsonX-TC-Action: CreateModifyCheckSyncJob<Common request parameters>{ "JobId": "sync-xxasaa  
s"  
}
```

Output Example

```
{  
  "Response": {  
    "RequestId": "abcasasdasdasdas"  
  }  
}
```

5. Developer Resources

SDK

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

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

DescribeModifyCheckSyncJobResult

Last updated : 2023-10-17 11:03:09

1. API Description

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

This API is used to query the result of the created check task for object modification.

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: DescribeModifyCheckSyncJobResult.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync task ID

3. Output Parameters

Parameter Name	Type	Description
Status	String	Execution status of the check task Valid values: <code>notStarted</code> (Not started),

		<code>running</code> (Running), <code>failed</code> (Failed), <code>success</code> (Successful).
StepCount	Integer	Number of check steps Note: This field may return null, indicating that no valid values can be obtained.
StepCur	Integer	Current step Note: This field may return null, indicating that no valid values can be obtained.
Progress	Integer	Overall progress. Value range: 0-100. Note: This field may return null, indicating that no valid values can be obtained.
StepInfos	Array of StepInfo	Step details 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 the object modification check task

This example shows you how to query the result of the object modification check task after the task is created.

Input Example

```
POST / HTTP/1.1Host: dts.tencentcloudapi.comContent-Type: application/jsonX-TC-Action: DescribeModifyCheckSyncJobResult<Common request parameters>{ "JobId": "sync-xxsasa"
}
```

Output Example

```
{
  "Response": {
    "Progress": 100,
    "RequestId": "00ba3080-f61d-11ed-926c-37ede6ab7ad5",
    "Status": "success",
    "StepCount": 15,
    "StepCur": 15,
    "StepInfos": [
      {
        "Errors": [],
        "Progress": 100,
        "StartTime": "",
        "Status": "finished",
```

```
"StepId": "ConnectDBCheck",
"StepName": "Database connection check",
"StepNo": 1,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "OptimizeCheck",
"StepName": "Peripheral check",
"StepNo": 2,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "VersionCheck",
"StepName": "Version check",
"StepNo": 3,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "SrcPrivilegeCheck",
"StepName": "Source instance permission check",
"StepNo": 4,
"Warnings": [
{
"Code": "Warning: SrcPrivilegeCheck",
"HelpDoc": "",
"Message": "The permissions you grant are as follows: GRANT SELECT, INSERT, UPDAT
E, DELETE, CREATE, DROP, RELOAD, PROCESS, REFERENCES, INDEX, ALTER, SHOW DATABASE
S, CREATE TEMPORARY TABLES, LOCK TABLES, EXECUTE, REPLICATION SLAVE, REPLICATION
CLIENT, CREATE VIEW, SHOW VIEW, CREATE ROUTINE, ALTER ROUTINE, CREATE USER, EVEN
T, TRIGGER, CREATE TABLESPACE, CREATE ROLE, DROP ROLE ON *.* TO `root`@`%` WITH G
RANT OPTION,GRANT APPLICATION_PASSWORD_ADMIN,ROLE_ADMIN,SHOW_ROUTINE,XA_RECOVER_A
DMIN ON *.* TO `root`@`%` WITH GRANT OPTION. The permission scope of the source i
nstance account is larger than required. DTS won't use permissions that are not r
equired. You need to grant as few permissions as possible. For more information,
visit https://cloud.tencent.com/document/product/571/58700",
```

```
"SkipInfo": "",
"Solution": ""
}
],
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "SimpleParamCheck",
"StepName": "Partial instance parameter check",
"StepNo": 5,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "DstPrivilegeCheck",
"StepName": "Target instance permission check",
"StepNo": 6,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "DstEmptyCheck",
"StepName": "Target instance content conflict check",
"StepNo": 7,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "DstSpaceCheck",
"StepName": "Target instance space check",
"StepNo": 8,
"Warnings": []
},
{
"Errors": [],
```

```
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "BinlogParamCheck",
"StepName": "Binlog parameter check",
"StepNo": 9,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "ConstraintCheck",
"StepName": "Foreign key dependency check",
"StepNo": 10,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "ConstraintRefCheck",
"StepName": "Partial database/table foreign key dependency check",
"StepNo": 11,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "ViewCheck",
"StepName": "View check",
"StepNo": 12,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "WarningParamCheck",
"StepName": "Warning item check",
"StepNo": 13,
"Warnings": [
```

```
{
  "Code": "Warn: WarningParamCheck",
  "HelpDoc": "",
  "Message": "For tables without a primary key nor non-null unique key, there may be a risk of duplicate data. For more information, visit https://cloud.tencent.com/document/product/571/58739",
  "SkipInfo": "",
  "Solution": ""
}
],
{
  "Errors": [],
  "Progress": 100,
  "StartTime": "",
  "Status": "finished",
  "StepId": "AdvancedStoreObjectCheck",
  "StepName": "Advanced object check",
  "StepNo": 14,
  "Warnings": [
    {
      "Code": "Error: AdvancedStoreObjectCheck",
      "HelpDoc": "",
      "Message": "Duplicate table name detected. This may cause views, functions, stored procedures, triggers, and events to work abnormally.",
      "SkipInfo": "",
      "Solution": ""
    }
  ]
},
{
  "Errors": [],
  "Progress": 100,
  "StartTime": "",
  "Status": "finished",
  "StepId": "ModifyConfigCheck",
  "StepName": "Configuration modification check",
  "StepNo": 15,
  "Warnings": []
}
]
}
}
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InvalidParameter.InvalidParameterError	The parameter is invalid.

StartModifySyncJob

Last updated : 2023-10-17 11:03:08

1. API Description

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

This API is used to start the configuration modification process when the modification check task status becomes “success”.

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: StartModifySyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync 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 Starting modifying objects

This example shows you how to start modifying objects after the modification check is passed.

Input Example

```
POST / HTTP/1.1Host: dts.tencentcloudapi.comContent-Type: application/jsonX-TC-Action: StartModifySyncJob<Common request parameters>{ "JobId": "sync-sxxxxsss"}
```

Output Example

```
{
  "Response": {
    "RequestId": "abcsasxasxasxasxa"
  }
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InvalidParameter.InvalidParameterError	The parameter is invalid.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

CreateSyncJob

Last updated : 2023-10-17 11:03:10

1. API Description

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

This API is used to create a sync 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: CreateSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
PayMode	Yes	String	Billing mode. Valid values: <code>PrePay</code> (monthly subscription); <code>PostPay</code> (pay-as-you-go). Currently, DTS at Tencent Cloud International is free of charge.
SrcDatabaseType	Yes	String	Source database type, such as <code>mysql</code> , <code>cynosdbmysql</code> , <code>tdapg</code> , <code>tdpg</code> , and <code>tdsqlmysql</code> .
SrcRegion	Yes	String	Source database region, such as <code>ap-guangzhou</code> .
DstDatabaseType	Yes	String	Target database type, such as <code>mysql</code> , <code>cynosdbmysql</code> , <code>tdapg</code> , <code>tdpg</code> , <code>tdsqlmysql</code> , and <code>kafka</code> .
DstRegion	Yes	String	Target database region, such as <code>ap-guangzhou</code> .

Specification	No	String	Sync task specification, such as <code>Standard</code> .
Tags.N	No	Array of TagItem	Tag information
Count	No	Integer	The number of sync tasks purchased at a time. Value range: [1, 10]. Default value: <code>1</code> .
AutoRenew	No	Integer	Auto-renewal flag, which takes effect if <code>PayMode</code> is <code>PrePay</code> . Valid values: <code>1</code> (auto-renewal enabled); <code>0</code> (auto-renewal disabled). Default value: <code>0</code> .
InstanceClass	No	String	Sync link specification, such as <code>micro</code> , <code>small</code> , <code>medium</code> , and <code>large</code> . Default value: <code>medium</code> .
JobName	No	String	Sync task name
ExistedJobId	No	String	ID of the existing task used to create a similar task

3. Output Parameters

Parameter Name	Type	Description
JobIds	Array of String	Sync task IDs
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a sync task

This example shows you how to create a sync task.

Input Example

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

```
<Common request parameters>
```

```
{
  "Count": 1,
  "Specification": "Standard",
  "PayMode": "PrePay",
  "DstDatabaseType": "mysql",
  "DstRegion": "ap-guangzhou",
  "SrcDatabaseType": "mysql",
  "SrcRegion": "ap-guangzhou",
  "ExistedJobId": "sync-xascasas"
}
```

Output Example

```
{
  "Response": {
    "JobIds": [
      "sync-eivc87yk"
    ],
    "RequestId": "03a378be-372a-478b-beb7-19e4dd5027e2"
  }
}
```

5. Developer Resources

SDK

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- [Tencent Cloud SDK 3.0 for .NET](#)
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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.AuthFailureError	Authentication failed.
AuthFailure.UnauthorizedOperationError	The current user is not allowed to perform this operation as the authentication failed.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InternalError.InternalInnerCommonError	An error occurred while accessing the internal component.
InternalError.InternalTradeError	Failed to call the billing service.
InternalError.NotEnoughMoneyError	The account balance is insufficient.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.NotEnoughMoneyError	The account balance is insufficient.
OperationDenied.OperationDeniedError	The operation was denied.

ConfigureSyncJob

Last updated : 2023-10-17 11:03:11

1. API Description

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

This API is used to configure a sync 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: ConfigureSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync task instance ID in the format of <code>sync-werwfs23</code> , which is used to identify a sync task.
SrcAccessType	Yes	String	Source database access type. Valid values: <code>cdb</code> (database); <code>cvm</code> (self-build on CVM); <code>vpc</code> (VPC); <code>extranet</code> (public network); <code>vpncloud</code> (VPN access); <code>dcg</code>

			(Direct Connect); <code>ccn</code> (CCN); <code>intranet</code> (intranet). Note that the valid values are subject to the current link.
DstAccessType	Yes	String	Target database access type. Valid values: <code>cdb</code> (database); <code>cvm</code> (self-build on CVM); <code>vpc</code> (VPC); <code>extranet</code> (public network); <code>vpncloud</code> (VPN access); <code>dca</code> (Direct Connect); <code>ccn</code> (CCN); <code>intranet</code> (intranet); <code>ckafka</code> (CKafka instance). Note that the valid values are subject to the current link.
Objects	Yes	Objects	Information of synced database/table objects
JobName	No	String	Sync task name
JobMode	No	String	Enumerated values: <code>liteMode</code> : Lite mode; <code>fullMode</code> : Standard mode
RunMode	No	String	Running mode. Valid values: <code>Immediate</code> , <code>Timed</code> . Default value: <code>Immediate</code> .
ExpectRunTime	No	String	Expected start time in the format of "2006-01-02 15:04:05", which is required if <code>RunMode</code> is <code>Timed</code> .
SrcInfo	No	Endpoint	Source database information. This parameter only applies to single-node databases, and <code>SrcNodeType</code> must be <code>single</code> .
SrcInfos	No	SyncDBEndpointInfos	Source database information. This parameter is valid for multi-node databases, and the value of <code>SrcNodeType</code> must be <code>cluster</code> .
SrcNodeType	No	String	Enumerated values: <code>single</code> (for single-node source database),

			<code>cluster</code> (for multi-node source database).
DstInfo	No	Endpoint	Target database information. This parameter is used by single-node databases.
DstInfos	No	SyncDBEndpointInfos	Target database information. This parameter is valid for multi-node databases, and the value of <code>DstNodeType</code> must be <code>cluster</code> .
DstNodeType	No	String	Enumerated values: <code>single</code> (for single-node target database), <code>cluster</code> (for multi-node target database).
Options	No	Options	Sync task options. The <code>RateLimitOption</code> option cannot take effect currently. To modify the speed limit settings, use the <code>ModifySyncRateLimit</code> API.
AutoRetryTimeRangeMinutes	No	Integer	Automatic retry time, which can be set to 5-720 minutes. 0 indicates that retry is disabled.

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 Configuring a sync task

This example shows you how to configure a task of syncing an entire database.

Input Example

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

{
  "DstInfo": {
    "Ip": "9.123.210.46",
    "Password": "Test1234",
    "User": "root",
    "Port": 30654
  },
  "SrcInfo": {
    "Ip": "9.123.211.23",
    "Password": "Test1234",
    "User": "root",
    "Port": "30645"
  },
  "ExpectRunTime": "0000-00-00 00:00:01",
  "DstAccessType": "noProxy",
  "JobName": "truexu-api",
  "RunMode": "Immediate",
  "Objects": {
    "Mode": "Partial",
    "Databases": [
      {
        "DbName": "db1",
        "DbMode": "All",
        "TableMode": "All",
        "Tables": null,
        "ViewMode": "All",
        "Views": null,
        "FunctionMode": "All",
        "TriggerMode": "",
        "EventMode": "",
        "ProcedureMode": "All",
        "Functions": null,
        "Procedures": null,
        "Events": null,
        "Triggers": null
      }
    ]
  },
  "JobId": "sync-7r1cz016",
```

```
"Options": {
  "DealOfExistSameTable": "ExecuteAfterIgnore",
  "OpTypes": [
    "Update"
  ],
  "DdlOptions": [
    {
      "DdlObject": "Database",
      "DdlValue": [
        "Create",
        "Alter"
      ]
    }
  ],
  "InitType": "Full",
  "ConflictHandleOption": {
    "ConditionColumn": "ts",
    "ConditionOperator": ">",
    "ConditionOrderInSrcAndDst": "<"
  }
},
"SrcAccessType": "noProxy"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "8d495a08-5f8f-411b-ae4d-cc6da2475b9c"
  }
}
```

Example2 Configuring a sync task 2

This example shows you how to configure a sync task that supports conditional overwriting.

Input Example

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

{
  "DstInfo": {
```

```
"Ip": "100.88.178.199",
"Password": "Test1234",
"User": "root",
"Port": 20152
},
"SrcInfo": {
"Ip": "100.88.166.23",
"Password": "Test1234",
"User": "root",
"Port": "20126"
},
"ExpectRunTime": "2021-12-08 11:59:05",
"DstAccessType": "noProxy",
"JobName": "truex",
"RunMode": "Immediate",
"Objects": {
"Mode": "Partial",
"Databases": [
{
"Tables": [
{
"FilterCondition": "id>1",
"TableName": "tb1",
"NewTableName": "tb2"
}
],
"Views": [
{
"ViewName": "vw1",
"NewViewName": "vw2"
}
],
"DbName": "db1",
"ViewMode": "Partial",
"TableMode": "Partial",
"DbMode": "Partial"
}
],
},
"JobId": "sync-31t047r6",
"Options": {
"DdlOptions": [
{
"DdlObject": "Database",
"DdlValue": [
"Drop"
]
}
]
}
```

```
}
],
"ConflictHandleType": "ReportError",
"DealOfExistSameTable": "ReportErrorAfterCheck",
"ConflictHandleOption": {
"ConditionColumn": "ts",
"ConditionOperator": ">",
"ConditionOrderInSrcAndDst": ">"
},
"InitType": "Full",
"OpTypes": [
"Insert",
"Update"
],
"AddAdditionalColumn": "false"
},
"SrcAccessType": "noProxy"
}
```

Output Example

```
{
"Response": {
"RequestId": "59dd9972-00e7-4ce3-8f33-72d13bc64400"
}
}
```

5. Developer Resources

SDK

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- [Tencent Cloud SDK 3.0 for .NET](#)
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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError.InternalHttpServerError	An HTTP access request error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
OperationDenied.OperationDeniedError	The operation was denied.

CreateCheckSyncJob

Last updated : 2023-10-17 11:03:10

1. API Description

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

This API is used to verify a sync task by checking required parameters and peripheral configuration.

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: CreateCheckSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync 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 Verifying a sync task

Input Example

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

{
  "JobId": "sync-7r1cz016"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "d2b90690-3f7f-4650-93ab-62f5c4ddfe31"
  }
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError.UnknownError	An unknown internal error occurred.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
UnsupportedOperation	The operation is not supported.
UnsupportedOperation.IntraNetUserNotTaggedError	The intranet user did not specify the required tags when creating the migration task. The department , product , and owner tags must be specified.
UnsupportedOperation.IntraNetUserNotTaggedForSyncJobError	The intranet user did not specify the required tags when creating the sync task. The department , product , and owner tags must be specified.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

SkipSyncCheckItem

Last updated : 2023-10-17 11:03:08

1. API Description

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

This API is used for the backend to skip a failed check item. Theoretically, to execute a sync task normally, any check step cannot be skipped, and the check must be passed. For products or links that support check item skipping, see [Check Item Overview](#).

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: SkipSyncCheckItem.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Task ID, such as "sync-4ddgid2".
StepIds.N	Yes	Array of String	ID of the check step to be skipped, which is obtained in the <code>StepInfos[i].StepId</code> field returned by the <code>DescribeCheckSyncJobResult</code> API, such as "OptimizeCheck".

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 Skipping sync check items

Input Example

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

{
  "JobId": "sync-4ddgid2",
  "StepIds": [
    "OptimizeCheck"
  ]
}
```

Output Example

```
{
  "Response": {
    "RequestId": "46b45da1-3e8e-4ef2-8de8-b1bffa027385"
  }
}
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.AuthFailureError	Authentication failed.
FailedOperation	Operation failed.
InternalError	An internal error occurred.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter	The parameter is incorrect.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
OperationDenied	The operation was denied.
OperationDenied.OperationDeniedError	The operation was denied.
ResourceNotFound	The resource does not exist.

DescribeCheckSyncJobResult

Last updated : 2023-10-17 11:03:10

1. API Description

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

This API is used to query the result of the sync check task and check the required parameters and peripheral configurations.

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: DescribeCheckSyncJobResult.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	No	String	Sync task instance ID in the format of <code>sync-werwfs23</code> , which is used to identify a sync task. This parameter is required.

3. Output Parameters

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

Status	String	Execution status of the check task. Valid values: <code>notStarted</code> , <code>running</code> , <code>failed</code> , <code>success</code> . Note: This field may return null, indicating that no valid values can be obtained.
StepCount	Integer	Total number of steps Note: This field may return null, indicating that no valid values can be obtained.
StepCur	Integer	The current step Note: This field may return null, indicating that no valid values can be obtained.
Progress	Integer	Overall progress. Value range: 0-100. Note: This field may return null, indicating that no valid values can be obtained.
StepInfos	Array of StepInfo	Step information 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 sync task check result

This example shows you how to query the sync task check result since the sync check is initiated asynchronously.

Input Example

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

{
  "JobId": "sync-b11mn8x9"
}
```

Output Example

```
{
  "Response": {
    "Progress": 100,
    "RequestId": "948377d0-b8a2-11ed-b8ff-e9277ed2f336",
    "Status": "success",
```

```
"StepCount": 14,
"StepCur": 14,
"StepInfos": [
  {
    "Errors": [],
    "Progress": 100,
    "StartTime": "",
    "Status": "finished",
    "StepId": "ConnectDBCheck",
    "StepName": "Database connection check",
    "StepNo": 1,
    "Warnings": []
  },
  {
    "Errors": [],
    "Progress": 100,
    "StartTime": "",
    "Status": "finished",
    "StepId": "OptimizeCheck",
    "StepName": "Peripheral check",
    "StepNo": 2,
    "Warnings": []
  },
  {
    "Errors": [],
    "Progress": 100,
    "StartTime": "",
    "Status": "finished",
    "StepId": "VersionCheck",
    "StepName": "Version check",
    "StepNo": 3,
    "Warnings": []
  },
  {
    "Errors": [],
    "Progress": 100,
    "StartTime": "",
    "Status": "finished",
    "StepId": "SrcPrivilegeCheck",
    "StepName": "Source instance permission check",
    "StepNo": 4,
    "Warnings": [
      {
        "Code": "Warning: SrcPrivilegeCheck",
        "HelpDoc": "",
        "Message": "The permissions you grant are as follows: GRANT SELECT, INSERT, UPDAT
E, DELETE, CREATE, DROP, RELOAD, PROCESS, REFERENCES, INDEX, ALTER, SHOW DATABASE
```

```
S, CREATE TEMPORARY TABLES, LOCK TABLES, EXECUTE, REPLICATION SLAVE, REPLICATION
CLIENT, CREATE VIEW, SHOW VIEW, CREATE ROUTINE, ALTER ROUTINE, CREATE USER, EVEN
T, TRIGGER, CREATE TABLESPACE ON *.* TO 'root'@'%' WITH GRANT OPTION. The permis
sion scope of the source instance account is larger than required. DTS won't use p
ermissions that are not required. You need to grant as few permissions as possibl
e. For more information, visit https://intl.cloud.tencent.com/zh/document/product/571/42555",
"SkipInfo": "",
"Solution": ""
}
]
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "SimpleParamCheck",
"StepName": "Partial instance parameter check",
"StepNo": 5,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "DstPrivilegeCheck",
"StepName": "Target instance permission check",
"StepNo": 6,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "DstEmptyCheck",
"StepName": "Target instance content conflict check",
"StepNo": 7,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
```

```
"StepId": "DstSpaceCheck",
"StepName": "Target instance space check",
"StepNo": 8,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "BinlogParamCheck",
"StepName": "Binlog parameter check",
"StepNo": 9,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "ConstraintCheck",
"StepName": "Foreign key dependency check",
"StepNo": 10,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "ConstraintRefCheck",
"StepName": "Partial database/table foreign key dependency check",
"StepNo": 11,
"Warnings": []
},
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "ViewCheck",
"StepName": "View check",
"StepNo": 12,
"Warnings": []
},
{
"Errors": [],
```

```
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "WarningParamCheck",
"StepName": "Warning item check",
"StepNo": 13,
"Warnings": [
{
"Code": "Warn: WarningParamCheck",
"HelpDoc": "",
"Message": "For tables without a primary key or non-null unique key, there may be a risk of duplicate data. For more information, visit https://intl.cloud.tencent.com/document/product/571/42562",
"SkipInfo": "",
"Solution": ""
},
{
"Code": "Warn: WarningParamCheck",
"HelpDoc": "",
"Message": "On the source instance, the value of `sql_mode` is 'ONLY_FULL_GROUP_BY,STRICT_TRANS_TABLES,NO_ZERO_IN_DATE,NO_ZERO_DATE,ERROR_FOR_DIVISION_BY_ZERO,NO_AUTO_CREATE_USER,NO_ENGINE_SUBSTITUTION'; on the target instance, the value of `sql_mode` is 'ONLY_FULL_GROUP_BY,STRICT_TRANS_TABLES,NO_ZERO_IN_DATE,NO_ZERO_DATE,ERROR_FOR_DIVISION_BY_ZERO,NO_ENGINE_SUBSTITUTION'. It is recommended that the values are set to the same.",
"SkipInfo": "",
"Solution": ""
}
],
{
"Errors": [],
"Progress": 100,
"StartTime": "",
"Status": "finished",
"StepId": "AdvancedStoreObjectCheck",
"StepName": "Advanced object check",
"StepNo": 14,
"Warnings": []
}
]
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
ResourceNotFound.BizResourceNotFoundError	The resource was not found.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

StartSyncJob

Last updated : 2023-10-17 11:03:07

1. API Description

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

This API is used to start a sync 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: StartSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	No	String	Sync 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 Starting a sync task

Input Example

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

{
  "JobId": "sync-7r1cz016"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "31197c38-7764-49f6-845c-edbc5aa9294e"
  }
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError.UnknownError	An unknown internal error occurred.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.OperationDeniedError	The operation was denied.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

StopSyncJob

Last updated : 2023-10-17 11:03:07

1. API Description

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

This API is used to stop a sync task. After calling this API, you can call the `DescribeSyncJobs` API to query the latest task status.

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: StopSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync 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 Stopping a sync task

Input Example

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

{
  "JobId": "sync-7r1cz016"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ead9fdc1-baa8-4a09-aaa1-c2012690c976"
  }
}
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError.UnknownError	An unknown internal error occurred.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

ResumeSyncJob

Last updated : 2023-10-17 11:03:08

1. API Description

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

This API is used to retry a sync task after certain resolvable errors are reported. After calling this API, you can call the `DescribeSyncJobs` API to query the latest task status.

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: ResumeSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync 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 Retrying a sync task

Input Example

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

{
  "JobId": "sync-7r1cz016"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "91f8a1b0-8e41-4696-a24a-95e853da7071"
  }
}
```

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.UnknownError	An unknown internal error occurred.

ResizeSyncJob

Last updated : 2023-10-17 11:03:08

1. API Description

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

This API is used to adjust the specification of a pay-as-you-go sync task. After this API is called, the backend needs to take about 3-5 minutes to implement the adjustment. You can call the `DescribeSyncJobs` API to query the latest task status.

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: ResizeSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync task ID
NewInstanceClass	Yes	String	Task specification

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 Adjusting the specification of a sync task

Input Example

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

{
  "NewInstanceClass": "small",
  "JobId": "sync-gb3121wq"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ee736d91-eb62-4bd9-8dba-7e3c81350740"
  }
}
```

5. Developer Resources

SDK

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

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- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for 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.InternalErrorError	An internal error occurred.
InternalServerError.InternalTradeError	Failed to call the billing service.
InternalServerError.NotEnoughMoneyError	The account balance is insufficient.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

RecoverSyncJob

Last updated : 2023-10-17 11:03:08

1. API Description

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

This API is used to recover a sync task in **Isolated** status. After calling this API, you can call the `DescribeSyncJobs` API to query the latest task status.

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: RecoverSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync task instance ID in the format of <code>sync-werwfs23</code> , which is used to identify a sync 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 Recovering a sync task

Input Example

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

{
  "JobId": "sync-kl5qyyf4"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "710040d7-3a04-44cb-a56e-0023cf0692ef"
  }
}
```

5. Developer Resources

SDK

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- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for 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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValue	The parameter value is incorrect.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.

UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

IsolateSyncJob

Last updated : 2023-10-17 11:03:09

1. API Description

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

This API is used to isolate a sync task. After the task is isolated, you can call the `DescribeSyncJobs` API to query its status, call `RecoverSyncJob` to recover it, or directly delete it. For a free task, calling this API will directly delete it permanently.

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: IsolateSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync 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 Isolating a sync task

This example shows you how to isolate a billed sync task.

Input Example

```
POST / HTTP/1.1Host: dts.tencentcloudapi.comContent-Type: application/jsonX-TC-Action: IsolateSyncJob<Common request parameters>{ "JobId": "sync-kl5qyyf4"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "df239e4f-7359-473b-a073-144ab9964350"
  }
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError.InternalTradeError	Failed to call the billing service.
InternalError.UnknownError	An unknown internal error occurred.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

DestroySyncJob

Last updated : 2023-10-17 11:03:09

1. API Description

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

This API is used to delete a sync task. Only tasks in **Isolated** status can be completely deleted. After deletion, you can call the `DescribeSyncJobs` API to get the task list. If the deleted task is not in the list, it is deleted successfully.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: DestroySyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync task ID

3. Output Parameters

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

locating a problem.

4. Example

Example1 Deleting a sync task

Input Example

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

{
  "JobId": "sync-kl5qyyf4"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "710040d7-3a04-44cb-a56e-0023cf0692ef"
  }
}
```

5. Developer Resources

SDK

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- [Tencent Cloud SDK 3.0 for Java](#)
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- [Tencent Cloud SDK 3.0 for .NET](#)
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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError.InternalTradeError	Failed to call the billing service.
InternalError.UnknownError	An unknown internal error occurred.

PauseSyncJob

Last updated : 2023-10-17 11:03:09

1. API Description

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

This API is used to pause a data sync 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: PauseSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync 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 Pausing a sync task

Input Example

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

{
  "JobId": "sync-7r1cz016"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "31197c38-7764-49f6-845c-edbc5aa9294e"
  }
}
```

5. Developer Resources

SDK

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

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- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for 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.InternalErrorError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.OperationDeniedError	The operation was denied.
ResourceNotFound	The resource does not exist.
ResourceNotFound.BizResourceNotFoundError	The resource was not found.
ResourceNotFound.ResourceNotFound	The instance was not found.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

ContinueSyncJob

Last updated : 2023-10-17 11:03:10

1. API Description

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

This API is used to resume a paused data sync 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: ContinueSyncJob.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Sync 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 Resuming a sync task

This example shows you how to resume a paused sync task.

Input Example

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

{
  "JobId": "sync-7r1cz016"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "31197c38-7764-49f6-845c-edbc5aa9294e"
  }
}
```

5. Developer Resources

SDK

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- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for 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.InternalErrorError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.OperationDeniedError	The operation was denied.
ResourceNotFound	The resource does not exist.
ResourceNotFound.BizResourceNotFoundError	The resource was not found.
ResourceNotFound.ResourceNotFound	The instance was not found.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

Data Consistency Check APIs

CreateCompareTask

Last updated : 2023-10-17 11:03:12

1. API Description

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

This API is used to create a data consistency check task. After the task is successfully created, its ID will be returned in the format of `dts-8yv4w2i1-cmp-37skmii9`, and you can call `StartCompare` to start it.

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: CreateCompareTask.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Task ID
TaskName	No	String	Data consistency check task name. If this parameter is left empty, the value of <code>CompareTaskId</code> will be assigned to it.

ObjectMode	No	String	Data comparison object mode. Valid values: <code>sameAsMigrate</code> (all migration objects); <code>custom</code> (custom mode). Default value: <code>sameAsMigrate</code> .
Objects	No	CompareObject	Configuration of the data consistency check object
Options	No	CompareOptions	Consistency check options

3. Output Parameters

Parameter Name	Type	Description
CompareTaskId	String	Data consistency check task ID in the format of <code>dts-8yv4w2i1-cmp-37skmii9</code> . 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 data consistency check task

Input Example

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

{
  "JobId": "dts-plsposne",
  "TaskName": "test_cmp",
  "ObjectMode": "custom",
  "Objects": {
    "ObjectMode": "partial",
    "ObjectItems": [
      {
        "DbName": "big100",
        "DbMode": "partial",
```

```
"TableMode": "partial",
"Tables": [
  {
    "TableName": "sbttest1"
  }
],
{
  "DbName": "db1",
  "DbMode": "all",
  "TableMode": "all",
  "ViewMode": "all"
}
}
```

Output Example

```
{
  "Response": {
    "CompareTaskId": "dts-8yv4w2i1-cmp-37skmi9",
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalServerError.InternalServerError	An internal error occurred.
InternalServerError.InternalHttpServerError	An HTTP access request error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.

UnsupportedOperation.UnsupportedOperationError

The operation is not supported.

StartCompare

Last updated : 2023-10-17 11:03:11

1. API Description

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

This API is used to start a data consistency check task after creating it by calling the `CreateCompareTask` API. After calling this API, you can call the `DescribeCompareTasks` API to query the latest task status.

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: StartCompare.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Migration task ID
CompareTaskId	Yes	String	Data consistency check task ID in the format of <code>dts-8yv4w2i1-cmp-37skmii9</code>

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 Starting a data consistency check task

Input Example

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

{
  "JobId": "dts-1i9hna5e",
  "CompareTaskId": "dts-1i9hna5e-cmp-kjqrl13s"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

5. Developer Resources

SDK

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

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- [Tencent Cloud SDK 3.0 for Java](#)
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- [Tencent Cloud SDK 3.0 for .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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.

UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

DescribeCompareTasks

Last updated : 2023-10-17 11:03:11

1. API Description

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

This API is used to query the list of data consistency check tasks under the current 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: DescribeCompareTasks.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Migration task ID
Limit	No	Integer	Number of tasks to be displayed per page. Default value: 20 .
Offset	No	Integer	Pagination offset
CompareTaskId	No	String	Check task ID
Status.N	No	Array of String	Data consistency check task status. Valid values: <code>created</code> , <code>readyRun</code> , <code>running</code> , <code>success</code> , <code>stopping</code> , <code>failed</code> , <code>canceled</code> .

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Quantity Note: This field may return null, indicating that no valid values can be obtained.
Items	Array of CompareTaskItem	List of data consistency check tasks 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 data consistency check tasks

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

Input Example

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

{
  "JobId": "dts-e7ukka6g"
}
```

Output Example

```
{
  "Response": {
    "Items": [
      {
        "CheckProcess": {
          "Message": "",
          "Status": ""
        }
      }
    ]
  }
}
```

```
"StepAll": 0,
"StepNow": 0,
"Percent": 0,
"Steps": []
},
"CompareProcess": {
  "Message": "done",
  "Status": "",
  "StepAll": 0,
  "StepNow": 0,
  "Steps": []
},
"CompareTaskId": "dts-amm1jw5q-cmp-bmuum7jk",
"Conclusion": "same",
"Config": {
  "ObjectItems": [
    {
      "DbMode": "partial",
      "DbName": "big100",
      "SchemaName": "",
      "TableMode": "partial",
      "Tables": null,
      "ViewMode": "none",
      "Views": null
    },
    {
      "DbMode": "all",
      "DbName": "db1",
      "SchemaName": "",
      "TableMode": "all",
      "Tables": null,
      "ViewMode": "all",
      "Views": null
    }
  ],
  "ObjectMode": "partial"
},
"CreatedAt": "2022-07-11 17:21:02",
"FinishedAt": "2022-07-11 17:24:54",
"Method": "dataCheck",
"Options": {
  "Method": "dataCheck",
  "SampleRate": 100,
  "ThreadCount": 1
},
"JobId": "dts-amm1jw5q",
"Message": "done",
```

```
"StartedAt": "2022-07-11 17:24:09",
"Status": "success",
"TaskName": "defaultCmpTask"
},
"RequestId": "11d35c90-01bb-11ed-bad9-7b3bbe11abda",
"TotalCount": 1
}
```

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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.

FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.BizResourceNotFound	The resource was not found.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

DescribeCompareReport

Last updated : 2023-10-17 11:03:12

1. API Description

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

This API is used to query the details of a data consistency check 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: DescribeCompareReport.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Migration task ID
CompareTaskId	Yes	String	Check task ID
DifferenceLimit	No	Integer	Number of inconsistent objects to be returned
DifferenceOffset	No	Integer	Offset of inconsistent objects
DifferenceDB	No	String	Search criterion: Inconsistent database name
DifferenceTable	No	String	Search criterion: Inconsistent table name

SkippedLimit	No	Integer	Number of unchecked objects to be returned
SkippedOffset	No	Integer	Offset of unchecked objects
SkippedDB	No	String	Search criterion: Unchecked database name
SkippedTable	No	String	Search criterion: Unchecked table name

3. Output Parameters

Parameter Name	Type	Description
Abstract	CompareAbstractInfo	Summary information of data consistency check Note: This field may return null, indicating that no valid values can be obtained.
Detail	CompareDetailInfo	Data consistency check details 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 details of a data consistency check task

Input Example

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

{
  "JobId": "dts-amm1jw5q",
  "CompareTaskId": "dts-amm1jw5q-cmp-bmuum7jk"
}
```

Output Example

```
{
  "Response": {
    "Abstract": {
      "CheckedTables": 4,
      "Conclusion": "same",
      "DifferentRows": 0,
      "DifferentTables": 0,
      "SkippedTables": 0,
      "Status": "success",
      "TotalTables": 4
    },
    "Detail": {
      "Difference": {
        "Items": [],
        "TotalCount": 0
      },
      "Skipped": {
        "Items": [],
        "TotalCount": 0
      }
    },
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

5. Developer Resources

SDK

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- [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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

StopCompare

Last updated : 2023-10-17 11:03:11

1. API Description

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

This API is used to stop a data consistency check 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: StopCompare.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Migration task ID
CompareTaskId	Yes	String	Data consistency check task ID in the format of <code>dts-8yv4w2i1-cmp-37skmii9</code>

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 Stopping a data consistency check task

Input Example

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

{
  "JobId": "dts-amm1jw5q",
  "CompareTaskId": "dts-amm1jw5q-cmp-bmuum7jk"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalServerError.InternalServerError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.

UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

DeleteCompareTask

Last updated : 2023-10-17 11:03:12

1. API Description

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

This API is used to delete a data consistency check task, which can be called when the task status is `success` , `failed` , or `canceled` .

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: DeleteCompareTask.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Migration task ID
CompareTaskId	Yes	String	Data consistency check task ID in the format of <code>dts-8yv4w2i1-cmp-37skmii9</code>

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 data consistency check task

Input Example

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

{
  "JobId": "dts-amm1jw5q",
  "CompareTaskId": "dts-amm1jw5q-cmp-bmuum7jk"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

5. Developer Resources

SDK

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

- [Tencent Cloud SDK 3.0 for Go](#)
- [Tencent Cloud SDK 3.0 for 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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValue	The parameter value is incorrect.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

ModifyCompareTask

Last updated : 2023-10-17 11:03:11

1. API Description

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

This API is used to modify the parameters of a data consistency check task after it is created and before it starts.

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: ModifyCompareTask.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Task ID
CompareTaskId	Yes	String	Data consistency check task ID in the format of <code>dts-8yv4w2i1-cmp-37skmi9</code>
TaskName	No	String	Task name
ObjectMode	No	String	Data comparison object mode. Valid values: <code>sameAsMigrate</code> (All migration objects), <code>custom</code>

			(Custom mode. The custom comparison objects must be a subset of the migration objects). Default value: <code>sameAsMigrate</code> .
Objects	No	CompareObject	Compared object, which is required if <code>CompareObjectMode</code> is <code>custom</code> .
Options	No	CompareOptions	Consistency check options

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 a data consistency check task

Input Example

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

{
  "JobId": "dts-p1sposne",
  "CompareTaskId": "dts-8yv4w2i1-cmp-37skmii9",
  "TaskName": "test_cmp",
  "ObjectMode": "custom",
  "Objects": {
    "ObjectMode": "partial",
    "ObjectItems": [
      {
        "DbName": "big100",
        "DbMode": "partial",
        "TableMode": "partial",
        "Tables": [
```

```
{
  "TableName": "sctest1"
}
],
{
  "DbName": "db1",
  "DbMode": "all",
  "TableMode": "all",
  "ViewMode": "all"
}
]
}
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

5. Developer Resources

SDK

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- [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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

ModifyCompareTaskName

Last updated : 2023-10-17 11:03:11

1. API Description

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

This API is used to rename a data consistency check 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: ModifyCompareTaskName.
Version	Yes	String	Common Params . The value used for this API: 2021-12-06.
Region	No	String	Common Params . This parameter is not required for this API.
JobId	Yes	String	Migration task ID
CompareTaskId	Yes	String	Data consistency check task ID in the format of <code>dts-8yv4w2i1-cmp-37skmii9</code>
TaskName	Yes	String	Data consistency check task 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 Renaming a data consistency check task

Input Example

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

{
  "JobId": "dts-p1sposne",
  "TaskName": "test_cmp",
  "CompareTaskId": "dts-p1sposne-cmp-37skmii9"
}
```

Output Example

```
{
  "Response": {
    "RequestId": "ac300ff0-00f2-11ed-b005-4930e69d89c2"
  }
}
```

5. Developer Resources

SDK

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- [Tencent Cloud SDK 3.0 for PHP](#)
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- [Tencent Cloud SDK 3.0 for 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.AuthFailureError	Authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
InternalError.InternalErrorError	An internal error occurred.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.
LimitExceeded.LimitExceededError	The quantity exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.ResourceNotFoundError	The resource was not found.

ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

Data Types

Last updated : 2024-07-24 10:31:18

CheckStep

Check step

Used by actions: DescribeMigrationCheckJob.

Name	Type	Description
StepNo	Integer	Step number Note: This field may return null, indicating that no valid values can be obtained.
StepId	String	Step ID such as <code>ConnectDBCheck</code> , <code>VersionCheck</code> , and <code>SrcPrivilegeCheck</code> . The specific check items are subject to source and target instances. Note: This field may return null, indicating that no valid values can be obtained.
StepName	String	Step name Note: This field may return null, indicating that no valid values can be obtained.
StepStatus	String	Result of this check step. Valid values: <code>pass</code> , <code>failed</code> , <code>notStarted</code> , <code>blocked</code> , <code>warning</code> . Note: This field may return null, indicating that no valid values can be obtained.
StepMessage	String	Error message in this check step Note: This field may return null, indicating that no valid values can be obtained.
DetailCheckItems	Array of DetailCheckItem	Specific check item in this check step Note: This field may return null, indicating that no valid values can be obtained.
HasSkipped	Boolean	Whether this step was skipped Note: This field may return null, indicating that no valid values can be obtained.

CheckStepInfo

Check task running details

Used by actions: DescribeMigrationDetail.

Name	Type	Description
StartAt	String	Task start time Note: This field may return null, indicating that no valid values can be obtained.
EndAt	String	Task end time Note: This field may return null, indicating that no valid values can be obtained.
Progress	ProcessProgress	Task step information Note: This field may return null, indicating that no valid values can be obtained.

Column

Column information in data sync

Used by actions: ConfigureSyncJob, DescribeSyncJobs, ModifySyncJobConfig.

Name	Type	Required	Description
ColumnName	String	No	Column name Note: This field may return null, indicating that no valid values can be obtained.
NewColumnName	String	No	New column name Note: This field may return null, indicating that no valid values can be obtained.

CompareAbstractInfo

Summary information of data consistency check

Used by actions: DescribeCompareReport.

Name	Type	Description

Options	CompareOptions	Configuration parameters of the check task Note: This field may return null, indicating that no valid values can be obtained.
Objects	CompareObject	Consistency check objects Note: This field may return null, indicating that no valid values can be obtained.
Conclusion	String	Comparison conclusion. Valid values: <code>same</code> , <code>different</code> . Note: This field may return null, indicating that no valid values can be obtained.
Status	String	Task status. Valid values: <code>success</code> , <code>failed</code> . Note: This field may return null, indicating that no valid values can be obtained.
TotalTables	Integer	Total number of tables Note: This field may return null, indicating that no valid values can be obtained.
CheckedTables	Integer	Number of checked tables Note: This field may return null, indicating that no valid values can be obtained.
DifferentTables	Integer	Number of inconsistent tables Note: This field may return null, indicating that no valid values can be obtained.
SkippedTables	Integer	Number of skipped tables Note: This field may return null, indicating that no valid values can be obtained.
NearlyTableCount	Integer	The estimated number of tables Note: This field may return null, indicating that no valid values can be obtained.
DifferentRows	Integer	Number of inconsistent data rows Note: This field may return null, indicating that no valid values can be obtained.
SrcSampleRows	Integer	Source database row count, which takes effect only when the comparison type is Row count comparison . Note: This field may return null, indicating that no valid values can be obtained.
DstSampleRows	Integer	Target database row count, which takes effect only when the comparison type is Row count comparison .

		Note: This field may return null, indicating that no valid values can be obtained.
StartedAt	String	Start time Note: This field may return null, indicating that no valid values can be obtained.
FinishedAt	String	End time Note: This field may return null, indicating that no valid values can be obtained.

CompareDetailInfo

Data consistency check details

Used by actions: DescribeCompareReport.

Name	Type	Description
Difference	DifferenceDetail	Details of inconsistent tables Note: This field may return null, indicating that no valid values can be obtained.
Skipped	SkippedDetail	Details of skipped tables Note: This field may return null, indicating that no valid values can be obtained.

CompareObject

Configuration of the data consistency check object

Used by actions: CreateCompareTask, DescribeCompareReport, DescribeCompareTasks, ModifyCompareTask.

Name	Type	Required	Description
ObjectMode	String	Yes	Data comparison object mode (<code>all</code> : Entire instance; <code>partial</code> : Some objects) Note: This field may return null, indicating that no valid values can be obtained.
ObjectItems	Array of CompareObjectItem	No	Object list Note: This field may return null, indicating that no valid values can be obtained.

AdvancedObjects	Array of String	No	Advanced object type (<code>account</code> : Account; <code>index</code> : Index; <code>shardkey</code> : Shard key, which may be adjusted later; <code>schema</code> : Database/table structure) Note: This field may return null, indicating that no valid values can be obtained.
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CompareObjectItem

Database/Table objects for data consistency check

Used by actions: CreateCompareTask, DescribeCompareReport, DescribeCompareTasks, ModifyCompareTask.

Name	Type	Required	Description
DbName	String	Yes	Database name Note: This field may return null, indicating that no valid values can be obtained.
DbMode	String	Yes	Database selection mode. Valid values: <code>all</code> , <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
SchemaName	String	No	Schema name Note: This field may return null, indicating that no valid values can be obtained.
TableMode	String	No	Schema selection mode. Valid values: <code>all</code> , <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
Tables	Array of CompareTableItem	No	Table configuration for data consistency check, which is required if <code>TableMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
ViewMode	String	No	View selection mode. Valid values: <code>all</code> , <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
Views	Array of CompareViewItem	No	View configuration for data consistency check, which is required if <code>ViewMode</code> is <code>partial</code> .

Note: This field may return null, indicating that no valid values can be obtained.

CompareOptions

Consistency check options

Used by actions: CreateCompareTask, DescribeCompareReport, DescribeCompareTasks, ModifyCompareTask.

Name	Type	Required	Description
Method	String	No	Comparison type: (<code>dataCheck</code> : Full data comparison; <code>sampleDataCheck</code> : Sampling data comparison; <code>rowCount</code> : Row count comparison) Note: This field may return null, indicating that no valid values can be obtained.
SampleRate	Integer	No	Sampling rate. Value range: 0-100%. Note: This field may return null, indicating that no valid values can be obtained.
ThreadCount	Integer	No	The number of threads, which defaults to 1. Value range: 1-5. Note: This field may return null, indicating that no valid values can be obtained.

CompareTableItem

Table configuration for data consistency check

Used by actions: CreateCompareTask, DescribeCompareReport, DescribeCompareTasks, ModifyCompareTask.

Name	Type	Required	Description
TableName	String	No	Table name Note: This field may return null, indicating that no valid values can be obtained.

CompareTaskInfo

Data consistency check result

Used by actions: DescribeMigrationDetail, DescribeMigrationJobs.

Name	Type	Description
CompareTaskId	String	Data consistency check task ID Note: This field may return null, indicating that no valid values can be obtained.
Status	String	Data consistency check result. Valid values: <code>unstart</code> (the task is not started); <code>running</code> (the task is running); <code>canceled</code> (the task is stopped); <code>failed</code> (the task failed); <code>inconsistent</code> (the data is inconsistent); <code>consistent</code> (the data is consistent); <code>notexist</code> (the task does not exist). Note: This field may return null, indicating that no valid values can be obtained.

CompareTaskItem

Information of the data consistency check object

Used by actions: DescribeCompareTasks.

Name	Type	Description
JobId	String	Task ID Note: This field may return null, indicating that no valid values can be obtained.
CompareTaskId	String	Data consistency check task ID Note: This field may return null, indicating that no valid values can be obtained.
TaskName	String	Data consistency check task name Note: This field may return null, indicating that no valid values can be obtained.
Status	String	Data consistency check task status. Valid values: <code>created</code> , <code>readyRun</code> , <code>running</code> , <code>success</code> , <code>stopping</code> , <code>failed</code> , <code>canceled</code> . Note: This field may return null, indicating that no valid values can be obtained.
Config	CompareObject	Data consistency check task configuration Note: This field may return null, indicating that no valid values can be obtained.
CheckProcess	ProcessProgress	Check details of the data consistency check task Note: This field may return null, indicating that no valid values can be

		obtained.
CompareProcess	ProcessProgress	Running details of the data consistency check task Note: This field may return null, indicating that no valid values can be obtained.
Conclusion	String	Comparison result. Valid values: <code>same</code> , <code>different</code> , <code>skipAll</code> . Note: This field may return null, indicating that no valid values can be obtained.
CreatedAt	String	Task creation time Note: This field may return null, indicating that no valid values can be obtained.
StartedAt	String	Task start time Note: This field may return null, indicating that no valid values can be obtained.
FinishedAt	String	Comparison end time Note: This field may return null, indicating that no valid values can be obtained.
Method	String	Comparison type: (<code>dataCheck</code> : Full data comparison; <code>sampleDataCheck</code> : Sampling data comparison; <code>rowCount</code> : Row count comparison) Note: This field may return null, indicating that no valid values can be obtained.
Options	CompareOptions	Configuration information of the comparison task Note: This field may return null, indicating that no valid values can be obtained.
Message	String	Consistency check prompt message Note: This field may return null, indicating that no valid values can be obtained.

CompareViewItem

View configuration for data consistency check

Used by actions: CreateCompareTask, DescribeCompareReport, DescribeCompareTasks, ModifyCompareTask.

Name	Type	Required	Description

ViewName	String	No	View name Note: This field may return null, indicating that no valid values can be obtained.
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ConflictHandleOption

Detailed description of conflict processing

Used by actions: ConfigureSyncJob, DescribeSyncJobs, ModifySyncJobConfig.

Name	Type	Required	Description
ConditionColumn	String	No	Conditionally overwritten column Note: This field may return null, indicating that no valid values can be obtained.
ConditionOperator	String	No	Conditional overwrite operation Note: This field may return null, indicating that no valid values can be obtained.
ConditionOrderInSrcAndDst	String	No	Conditional overwrite priority configuration Note: This field may return null, indicating that no valid values can be obtained.

ConsistencyOption

Data consistency check option. Data consistency check is disabled by default.

Used by actions: DescribeMigrationDetail, ModifyMigrationJob.

Name	Type	Required	Description
Mode	String	No	Data consistency check type. Valid values: <code>full</code> , <code>noCheck</code> , <code>notConfigured</code> . Note: This field may return null, indicating that no valid values can be obtained.

DBEndpointInfo

Instance information

Used by actions: DescribeMigrationDetail, DescribeMigrationJobs, ModifyMigrationJob.

Name	Type	Required	Description
Region	String	Yes	Instance region Note: This field may return null, indicating that no valid values can be obtained.
AccessType	String	Yes	Instances network access type. Valid values: <code>extranet</code> (public network); <code>ipv6</code> (public IPv6); <code>cvm</code> (self-build on CVM); <code>dccg</code> (Direct Connect); <code>vpncloud</code> (VPN access); <code>cdb</code> (database); <code>ccn</code> (CCN); <code>intranet</code> (intranet); <code>vpc</code> (VPC). Note that the valid values are subject to the current link. Note: This field may return null, indicating that no valid values can be obtained.
DatabaseType	String	Yes	Database type, such as <code>mysql</code> , <code>redis</code> , <code>mongodb</code> , <code>postgresql</code> , <code>mariadb</code> , and <code>percona</code> . Note: This field may return null, indicating that no valid values can be obtained.
NodeType	String	Yes	Node type, empty or simple indicates a general node, cluster indicates a cluster node; for mongo services, valid values: <code>replicaset</code> (mongodb replica set), <code>standalone</code> (mongodb single node), <code>cluster</code> (mongodb cluster); for redis instances, valid values: empty or simple (single node), <code>cluster</code> (cluster), <code>cluster-cache</code> (cache cluster), <code>cluster-proxy</code> (proxy cluster). Note: This field may return null, indicating that no valid values can be obtained.
Info	Array of DBInfo	Yes	Database information Note: This field may return null, indicating that no valid values can be obtained.
Supplier	String	No	Instance service provider, such as "aliyun" and "others". Note: This field may return null, indicating that no valid values can be obtained.
ExtraAttr	Array of KeyValuePairOption	No	For MongoDB, you can define the following parameters: <code>['AuthDatabase':'admin', 'AuthFlag': '1', 'AuthMechanism':"SCRAM-SHA-1"]</code> Note: This field may return null, indicating that no valid values can be obtained.

DatabaseNetEnv	String	No	Network environment of the database. This parameter is required when <code>AccessType</code> is <code>ccn</code> . Valid values: <code>UserIDC</code> (user IDC), <code>TencentVPC</code> (Tencent Cloud VPC). Note: This field may return null, indicating that no valid values can be obtained.
ConnectType	String	No	

DBInfo

Database information

Used by actions: DescribeMigrationDetail, DescribeMigrationJobs, ModifyMigrationJob.

Name	Type	Required	Description
Role	String	No	Node role in a distributed database, such as the mongos node in MongoDB. Note: This field may return null, indicating that no valid values can be obtained.
DbKernel	String	No	Kernel version, such as the different kernel versions of MariaDB. Note: This field may return null, indicating that no valid values can be obtained.
Host	String	No	Instance IP address, which is required for the following access types: public network, Direct Connect, VPN, CCN, intranet, and VPC. Note: This field may return null, indicating that no valid values can be obtained.
Port	Integer	No	Instance port, which is required for the following access types: public network, self-build on CVM, Direct Connect, VPN, CCN, intranet, and VPC. Note: This field may return null, indicating that no valid values can be obtained.
User	String	No	Instance username Note: This field may return null, indicating that no valid values can be obtained.
Password	String	No	Instance password Note: This field may return null, indicating that no valid values can be obtained.

			be obtained.
CvmInstanceId	String	No	Short CVM instance ID in the format of <code>ins-olgl39y8</code> , which is required if the access type is <code>cvm</code> . It is the same as the instance ID displayed in the CVM console. Note: This field may return null, indicating that no valid values can be obtained.
UniqVpnGwId	String	No	VPN gateway ID in the format of <code>vpngw-9ghexg7q</code> , which is required if the access type is <code>vpncloud</code> . Note: This field may return null, indicating that no valid values can be obtained.
UniqDcgId	String	No	Direct Connect gateway ID in the format of <code>dcg-0rxtqqxb</code> , which is required if the access type is <code>dcg</code> . Note: This field may return null, indicating that no valid values can be obtained.
InstanceId	String	No	Database instance ID in the format of <code>cdb-powiqx8q</code> , which is required if the access type is <code>cdb</code> . Note: This field may return null, indicating that no valid values can be obtained.
CcnGwId	String	No	CCN instance ID such as <code>ccn-afp6kltc</code> Note: This field may return null, indicating that no valid values can be obtained.
VpcId	String	No	VPC ID in the format of <code>vpc-92jblxto</code> , which is required if the access type is <code>vpc</code> , <code>vpncloud</code> , <code>ccn</code> , or <code>dcg</code> . Note: This field may return null, indicating that no valid values can be obtained.
SubnetId	String	No	ID of the subnet in the VPC in the format of <code>subnet-3paxmkdz</code> , which is required if the access type is <code>vpc</code> , <code>vpncloud</code> , <code>ccn</code> , or <code>dcg</code> . Note: This field may return null, indicating that no valid values can be obtained.
EngineVersion	String	No	Database version in the format of <code>5.6</code> or <code>5.7</code> , which takes effect only if the instance is an RDS instance. Default value: <code>5.6</code> . Note: This field may return null, indicating that no valid values can be obtained.
Account	String	No	Instance account Note: This field may return null, indicating that no valid values can be obtained.

AccountRole	String	No	The role used for cross-account migration, which can contain [a-zA-Z0-9-_.]+. Note: This field may return null, indicating that no valid values can be obtained.
AccountMode	String	No	The account to which the resource belongs. Valid values: empty or <code>self</code> (the current account); <code>other</code> (another account). Note: This field may return null, indicating that no valid values can be obtained.
TmpSecretId	String	No	Temporary SecretId, you can obtain the temporary key by GetFederationToken . Note: This field may return null, indicating that no valid values can be obtained.
TmpSecretKey	String	No	Temporary SecretKey, you can obtain the temporary key by GetFederationToken . Note: This field may return null, indicating that no valid values can be obtained.
TmpToken	String	No	Temporary token, you can obtain the temporary key by GetFederationToken . Note: This field may return null, indicating that no valid values can be obtained.

DBItem

Migration object information, which is case-sensitive when objects such as databases, tables, and views are configured.

Used by actions: DescribeMigrationDetail, ModifyMigrationJob.

Name	Type	Required	Description
DbName	String	No	Name of the database to be migrated or synced, which is required if <code>ObjectMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
NewDbName	String	No	Name of the database after migration or sync, which is the same as the source database name by default. Note: This field may return null, indicating that no valid values can be obtained.
SchemaName	String	No	The schema to be migrated or synced Note: This field may return null, indicating that no valid values can be obtained.

NewSchemaName	String	No	Name of the schema after migration or sync Note: This field may return null, indicating that no valid values can be obtained.
DBMode	String	No	Database selection mode, which is required if <code>ObjectMode</code> is <code>partial</code> . Valid values: <code>all</code> , <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
SchemaMode	String	No	Schema selection mode. Valid values: <code>all</code> , <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
TableMode	String	No	Table selection mode, which is required if <code>DBMode</code> is <code>partial</code> . Valid values: <code>all</code> , <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
Tables	Array of TableItem	No	The set of table objects, which is required if <code>TableMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
ViewMode	String	No	View selection mode. Valid values: <code>all</code> , <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
Views	Array of ViewItem	No	The set of view objects, which is required if <code>ViewMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
RoleMode	String	No	Role selection mode, which is exclusive to PostgreSQL. Valid values: <code>all</code> , <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
Roles	Array of RoleItem	No	Role, which is exclusive to PostgreSQL and required if <code>RoleMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
FunctionMode	String	No	Sync mode. Valid values: <code>partial</code> , <code>all</code> . Note: This field may return null, indicating that no valid values can be obtained.

TriggerMode	String	No	Sync mode. Valid values: <code>partial</code> , <code>all</code> . Note: This field may return null, indicating that no valid values can be obtained.
EventMode	String	No	Sync mode. Valid values: <code>partial</code> , <code>all</code> . Note: This field may return null, indicating that no valid values can be obtained.
ProcedureMode	String	No	Sync mode. Valid values: <code>partial</code> , <code>all</code> . Note: This field may return null, indicating that no valid values can be obtained.
Functions	Array of String	No	This parameter is required if <code>FunctionMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
Procedures	Array of String	No	This parameter is required if <code>ProcedureMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
Events	Array of String	No	This parameter is required if <code>EventMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
Triggers	Array of String	No	This parameter is required if <code>TriggerMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.

Database

The database/table objects to be synced

Used by actions: `ConfigureSyncJob`, `DescribeSyncJobs`, `ModifySyncJobConfig`.

Name	Type	Required	Description
DbName	String	No	Name of the database to be migrated or synced, which is required if <code>ObjectMode</code> is <code>Partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
NewDbName	String	No	Name of the database after migration or sync, which is the same

			as the source database name by default. Note: This field may return null, indicating that no valid values can be obtained.
DbMode	String	No	Database selection mode, which is required if <code>Mode</code> is <code>Partial</code> . Valid values: <code>All</code> , <code>Partial</code> . Note that the sync of advanced objects does not depend on this parameter. To sync an entire database, set this parameter to <code>All</code> . Note: This field may return null, indicating that no valid values can be obtained.
SchemaName	String	No	The schema to be migrated or synced Note: This field may return null, indicating that no valid values can be obtained.
NewSchemaName	String	No	Name of the schema after migration or sync Note: This field may return null, indicating that no valid values can be obtained.
TableMode	String	No	Table selection mode, which is required if <code>DBMode</code> is <code>Partial</code> . Valid values: <code>All</code> , <code>Partial</code> . To sync an entire database, set this parameter to <code>All</code> . Note: This field may return null, indicating that no valid values can be obtained.
Tables	Array of Table	No	The set of table objects, which is required if <code>TableMode</code> is <code>Partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
ViewMode	String	No	View selection mode. Valid values: <code>All</code> , <code>Partial</code> . To sync an entire database, set this parameter to <code>All</code> . Note: This field may return null, indicating that no valid values can be obtained.
Views	Array of View	No	The set of view objects, which is required if <code>ViewMode</code> is <code>Partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
FunctionMode	String	No	Sync mode. Valid values: <code>All</code> , <code>Partial</code> . To sync an entire database, set this parameter to <code>All</code> . Note: This field may return null, indicating that no valid values can be obtained.
Functions	Array	No	This parameter is required if <code>FunctionMode</code> is <code>Partial</code> .

	of String		Note: This field may return null, indicating that no valid values can be obtained.
ProcedureMode	String	No	Sync mode. Valid values: <code>All</code> , <code>Partial</code> . To sync an entire database, set this parameter to <code>All</code> . Note: This field may return null, indicating that no valid values can be obtained.
Procedures	Array of String	No	This parameter is required if <code>ProcedureMode</code> is <code>Partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
TriggerMode	String	No	Trigger sync mode. Valid values: <code>All</code> , <code>Partial</code> . To sync an entire database, set this parameter to <code>All</code> . Currently, the advanced object “trigger” is not supported for data sync. Note: This field may return null, indicating that no valid values can be obtained.
Triggers	Array of String	No	This parameter is used to specify the names of the triggers to be migrated when the value of <code>TriggerMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
EventMode	String	No	Event sync mode. Valid values: <code>All</code> , <code>Partial</code> . To sync an entire database, set this parameter to <code>All</code> . Currently, the advanced object “event” is not supported for data sync. Note: This field may return null, indicating that no valid values can be obtained.
Events	Array of String	No	This parameter is used to specify the names of the events to be migrated when the value of <code>EventMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.

DatabaseTableObject

Migration object options, which tell DTS which database/table objects should be migrated.

Used by actions: DescribeMigrationDetail, ModifyMigrationJob.

Name	Type	Required	Description
ObjectMode	String	Yes	Migration object type. Valid values: <code>all</code> , <code>partial</code> .

			Note: This field may return null, indicating that no valid values can be obtained.
Databases	Array of DBItem	No	Migration object, which is required if <code>ObjectMode</code> is <code>partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
AdvancedObjects	Array of String	No	Advanced object types, such as trigger, function, procedure, event. Note: If you want to migrate and synchronize advanced objects, the corresponding advanced object type should be included in this configuration. Note: This field may return null, indicating that no valid values can be obtained.

DdlOption

DDL statement sync processing during data sync

Used by actions: `ConfigureSyncJob`, `DescribeSyncJobs`, `ModifySyncJobConfig`.

Name	Type	Required	Description
DdlObject	String	No	DDL type, such as database, table, view, and index. Note: This field may return null, indicating that no valid values can be obtained.
DdlValue	Array of String	No	DDL value. Valid values: [Create,Drop,Alter] for database [Create,Drop,Alter,Truncate,Rename] for table [Create,Drop] for view [Create,Drop] for index Note: This field may return null, indicating that no valid values can be obtained.

DetailCheckItem

Specific check item in this check step

Used by actions: `DescribeMigrationCheckJob`.

Name	Type	Description
CheckItemName	String	Check item name, such as source database permission check. Note: This field may return null, indicating that no valid values can be

		obtained.
Description	String	Check item details Note: This field may return null, indicating that no valid values can be obtained.
CheckResult	String	Check item result. Valid values: <code>pass</code> (pass); <code>failed</code> (failure); <code>warning</code> (pass with warning). Note: This field may return null, indicating that no valid values can be obtained.
FailureReason	String	The cause of the check item failure Note: This field may return null, indicating that no valid values can be obtained.
Solution	String	Solution Note: This field may return null, indicating that no valid values can be obtained.
ErrorLog	Array of String	Execution error log Note: This field may return null, indicating that no valid values can be obtained.
HelpDoc	Array of String	URL of the detailed help document Note: This field may return null, indicating that no valid values can be obtained.
SkipInfo	String	Prompt text for ignoring a risk Note: This field may return null, indicating that no valid values can be obtained.

DifferenceDetail

Details of inconsistent tables

Used by actions: DescribeCompareReport.

Name	Type	Description
TotalCount	Integer	Number of inconsistent tables Note: This field may return null, indicating that no valid values can be obtained.
Items	Array of DifferenceItem	Details of inconsistent tables Note: This field may return null, indicating that no valid values can be

	obtained.
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DifferenceItem

Details of inconsistent tables

Used by actions: DescribeCompareReport.

Name	Type	Description
Db	String	Database name Note: This field may return null, indicating that no valid values can be obtained.
Table	String	Table name Note: This field may return null, indicating that no valid values can be obtained.
Chunk	Integer	Chunk ID Note: This field may return null, indicating that no valid values can be obtained.
SrcItem	String	Source database value Note: This field may return null, indicating that no valid values can be obtained.
DstItem	String	Target database value Note: This field may return null, indicating that no valid values can be obtained.
IndexName	String	Index name Note: This field may return null, indicating that no valid values can be obtained.
LowerBoundary	String	First index key Note: This field may return null, indicating that no valid values can be obtained.
UpperBoundary	String	Last index key Note: This field may return null, indicating that no valid values can be obtained.
CostTime	Float	Comparison time in ms Note: This field may return null, indicating that no valid values can be obtained.
FinishedAt	String	Completion time Note: This field may return null, indicating that no valid values can be obtained.

DynamicOptions

Data sync options

Used by actions: ModifySyncJobConfig.

Name	Type	Required	Description
OpTypes	Array of String	Yes	DML and DDL options to be synced. Valid values: <code>Insert</code> (INSERT), <code>Update</code> (UPDATE), <code>Delete</code> (DELETE), <code>DDL</code> (structure sync), <code>PartialDDL</code> (custom option, which is used together with <code>DdlOptions</code>). This parameter is required, and its value will overwrite the previous value. Note: This field may return null, indicating that no valid values can be obtained.
DdlOptions	Array of DdlOption	Yes	DDL options to be synced. This parameter is required when <code>OpTypes</code> is <code>PartialDDL</code> , and its value will overwrite the previous value. Note: This field may return null, indicating that no valid values can be obtained.
ConflictHandleType	String	No	Conflict resolution method. Valid values: <code>ReportError</code> (Report error), <code>Ignore</code> (Ignore), <code>Cover</code> (Overwrite), <code>ConditionCover</code> (Conditionally overwrite). Currently, this parameter cannot be modified if the target of the link is Kafka. Note: This field may return null, indicating that no valid values can be obtained.
ConflictHandleOption	ConflictHandleOption	No	Detailed options of the conflict resolution method, such as the conditionally overwritten rows and condition operations for the “conditionally overwrite” method. The internal field of this parameter cannot be modified separately. If this parameter needs to be updated, update it fully. Note: This field may return null, indicating that no valid values can be obtained.

Endpoint

Information of the source and target databases in data sync

Used by actions: ConfigureSyncJob, DescribeSyncJobs.

Name	Type	Required	Description
Region	String	No	Region name, such as <code>ap-guangzhou</code> . Note: This field may return null, indicating that no valid values can be obtained.
Role	String	No	Node type of TDSQL for MySQL. Enumerated values: <code>proxy</code> , <code>set</code> . Note: This field may return null, indicating that no valid values can be obtained.
DbKernel	String	No	Database kernel type, which is used to distinguish between different kernels in TDSQL. Valid values: <code>percona</code> , <code>mariadb</code> , <code>mysql</code> . Note: This field may return null, indicating that no valid values can be obtained.
InstanceId	String	No	Database instance ID in the format of <code>cdb-powiqx8q</code> Note: This field may return null, indicating that no valid values can be obtained.
Ip	String	No	Instance IP address, which is required if the access type is not <code>cdb</code> . Note: This field may return null, indicating that no valid values can be obtained.
Port	Integer	No	Instance port, which is required if the access type is not <code>cdb</code> . Note: This field may return null, indicating that no valid values can be obtained.
User	String	No	Username, which is required for an instance authenticated by username and password. Note: This field may return null, indicating that no valid values can be obtained.
Password	String	No	Password, which is required for an instance authenticated by username and password. Note: This field may return null, indicating that no valid values can be obtained.
DbName	String	No	Database name, which is required if the database type is <code>cdwpg</code> . Note: This field may return null, indicating that no valid values can be obtained.

VpcId	String	No	VPC ID in the format of <code>vpc-92jblxto</code> , which is required if the access type is <code>vpc</code> , <code>dcg</code> , or <code>vpncloud</code> . Note: This field may return null, indicating that no valid values can be obtained.
SubnetId	String	No	ID of the subnet in the VPC in the format of <code>subnet-3paxmkdz</code> , which is required if the access type is <code>vpc</code> , <code>dcg</code> , or <code>vpncloud</code> . Note: This field may return null, indicating that no valid values can be obtained.
CvmInstanceId	String	No	Short CVM instance ID in the format of <code>ins-olgl39y8</code> , which is required if the access type is <code>cvm</code> . It is the same as the instance ID displayed in the CVM console. Note: This field may return null, indicating that no valid values can be obtained.
UniqDcgId	String	No	Direct Connect gateway ID in the format of <code>dcg-0rxtqqxb</code> , which is required if the access type is <code>dcg</code> . Note: This field may return null, indicating that no valid values can be obtained.
UniqVpnGwId	String	No	VPN gateway ID in the format of <code>vpngw-9ghexg7q</code> , which is required if the access type is <code>vpncloud</code> . Note: This field may return null, indicating that no valid values can be obtained.
CcnId	String	No	CCN instance ID in the format of <code>ccn-afp6kltc</code> , which is required if the access type is <code>ccn</code> . Note: This field may return null, indicating that no valid values can be obtained.
Supplier	String	No	Cloud vendor type. For Alibaba Cloud ApsaraDB for RDS instances, enter <code>aliyun</code> ; otherwise, enter <code>others</code> . Default value: <code>others</code> . Note: This field may return null, indicating that no valid values can be obtained.
EngineVersion	String	No	Database version in the format of <code>5.6</code> or <code>5.7</code> , which takes effect only if the instance is an RDS instance. Default value: <code>5.6</code> . Note: This field may return null, indicating that no valid values can be obtained.
Account	String	No	Instance account, which is required if the operation is performed across accounts.

			Note: This field may return null, indicating that no valid values can be obtained.
AccountMode	String	No	The account to which the resource belongs. Valid values: empty or <code>self</code> (the current account); <code>other</code> (another account). Note: This field may return null, indicating that no valid values can be obtained.
AccountRole	String	No	The role used for cross-account sync, which can contain <code>[a-zA-Z0-9-_.]+</code> and is required if the operation is performed across accounts. Note: This field may return null, indicating that no valid values can be obtained.
RoleExternalId	String	No	External role ID Note: This field may return null, indicating that no valid values can be obtained.
TmpSecretId	String	No	Temporary SecretId, you can obtain the temporary key by GetFederationToken . This field is required if it is a cross-account instance. Note: This field may return null, indicating that no valid values can be obtained.
TmpSecretKey	String	No	Temporary SecretKey, you can obtain the temporary key by GetFederationToken . This field is required if it is a cross-account instance. Note: This field may return null, indicating that no valid values can be obtained.
TmpToken	String	No	Temporary token, you can obtain the temporary key by GetFederationToken . This field is required if it is a cross-account instance. Note: This field may return null, indicating that no valid values can be obtained.
EncryptConn	String	No	Whether to enable encrypted transfer (<code>UnEncrypted</code> : No; <code>Encrypted</code> : Yes). Default value: <code>UnEncrypted</code> . Note: This field may return null, indicating that no valid values can be obtained.
DatabaseNetEnv	String	No	Network environment of the database. This parameter is required when <code>AccessType</code> is <code>ccn</code> . Valid values: <code>UserIDC</code> (user IDC), <code>TencentVPC</code> (Tencent Cloud VPC). Note: This field may return null, indicating that no valid values can be obtained.
CcnOwnerUin	String	No	The root account of CCN in the scenario where the database is connected to CCN under another Tencent Cloud account

			Note: This field may return <code>null</code> , indicating that no valid values can be obtained.
ChildInstanceCid	String	No	
ChildInstanceType	String	No	
SetId	String	No	

ErrInfo

Error information and the corresponding solution

Used by actions: DescribeSyncJobs.

Name	Type	Description
Reason	String	Cause of the error
Message	String	Error message Note: This field may return null, indicating that no valid values can be obtained.
Solution	String	Solution Note: This field may return null, indicating that no valid values can be obtained.

ErrorInfoItem

Task error information

Used by actions: DescribeMigrationDetail.

Name	Type	Description
Code	String	Error code Note: This field may return null, indicating that no valid values can be obtained.
Solution	String	Solution Note: This field may return null, indicating that no valid values can be obtained.
ErrorLog	String	Error log Note: This field may return null, indicating that no valid values can be obtained.
HelpDoc	String	Help document Note: This field may return null, indicating that no valid values can be obtained.

JobItem

Migration task list

Used by actions: DescribeMigrationJobs.

Name	Type	Description
JobId	String	Data migration task ID Note: This field may return null, indicating that no valid values can be obtained.
JobName	String	Data migration task name Note: This field may return null, indicating that no valid values can be obtained.
CreateTime	String	Task creation (submission) time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
UpdateTime	String	Task update time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
StartTime	String	Task start time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
EndTime	String	Task end time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
BriefMsg	String	Migration task error message Note: This field may return null, indicating that no valid values can be obtained.
Status	String	Task status. Valid values: <code>creating</code> (Creating), <code>created</code> (Created), <code>checking</code> (Checking), <code>checkPass</code> (Check passed), <code>checkNotPass</code> (Check not passed), <code>readyRun</code> (Ready for running),

		<p><code>running</code> (Running), <code>readyComplete</code> (Preparation completed), <code>success</code> (Successful), <code>failed</code> (Failed), <code>stopping</code> (Stopping), <code>completing</code> (Completing), <code>pausing</code> (Pausing), <code>manualPaused</code> (Paused). Note: This field may return null, indicating that no valid values can be obtained.</p>
RunMode	String	<p>Task running mode. Valid values: <code>immediate</code>, <code>timed</code>.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
ExpectRunTime	String	<p>Expected start time in the format of "2022-07-11 16:20:49", which is required if <code>RunMode</code> is <code>timed</code>.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
Action	MigrateAction	<p>Task operation information</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
StepInfo	MigrateDetailInfo	<p>Information of the migration task execution process</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
SrcInfo	DBEndpointInfo	<p>Source instance information</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
DstInfo	DBEndpointInfo	<p>Target database information</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
CompareTask	CompareTaskInfo	<p>Data consistency check result</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
TradeInfo	TradeInfo	<p>Billing status information</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
Tags	Array of TagItem	<p>Tag information</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
AutoRetryTimeRangeMinutes	Integer	Information of automatic retry time

		Note: This field may return null, indicating that no valid values can be obtained.
DumperResumeCtrl	String	Whether the task can be reentered in the full export stage. Valid values: <code>yes</code> , <code>no</code> . <code>yes</code> : The current task can be reentered. <code>no</code> : The current task is in the full export stage which cannot be reentered. If the value of this parameter is <code>no</code> , the checkpoint restart is not supported when the task is restarted in the export stage. Note: This field may return null, indicating that no valid values can be obtained.

KafkaOption

Sync options configured when the target database is Kafka

Used by actions: `ConfigureSyncJob`, `DescribeSyncJobs`.

Name	Type	Required	Description
Data Type	String	No	Data type delivered to Kafka, such as Avro, Json, canal-pb, canal-json
TopicType	String	No	Topic sync policy, such as <code>Single</code> (deliver all data to a single topic), <code>Multi</code> (deliver data to multiple custom topics).
DDLTopicName	String	No	Topic for DDL storage
TopicRules	Array of TopicRule	No	Topic description

KeyValuePairOption

Additional configuration information

Used by actions: `DescribeMigrationDetail`, `DescribeMigrationJobs`, `ModifyMigrationJob`.

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

Note: This field may return null, indicating that no valid values can be obtained.

MigrateAction

Task operation information, which contains the list of all operations in the migration task as well as the list of allowed operations under the current status.

Used by actions: DescribeMigrationDetail, DescribeMigrationJobs.

Name	Type	Description
AllAction	Array of String	List of all operations in the task Note: This field may return null, indicating that no valid values can be obtained.
AllowedAction	Array of String	List of allowed operations in the task under the current status Note: This field may return null, indicating that no valid values can be obtained.

MigrateDBItem

Object in the migration task instance list

Used by actions: DescribeMigrateDBInstances.

Name	Type	Description
Instanceid	String	Instance ID
InstanceName	String	Instance name
Vip	String	Instance VIP
Vport	Integer	Instance Vport
Usable	Integer	Whether the instance can be migrated. Valid values: 1 (yes); 0 (no).
Hint	String	The cause why the instance cannot be migrated

MigrateDetailInfo

Information of the migration task execution process

Used by actions: DescribeMigrationDetail, DescribeMigrationJobs.

Name	Type	Description
StepAll	Integer	Total number of steps Note: This field may return null, indicating that no valid values can be obtained.
StepNow	Integer	Current step Note: This field may return null, indicating that no valid values can be obtained.
MasterSlaveDistance	Integer	Source-replica lag in MB. This parameter takes effect only when the task is normal and is in the last step of migration or sync (binlog sync). If it is invalid, <code>-1</code> will be returned. Note: This field may return null, indicating that no valid values can be obtained.
SecondsBehindMaster	Integer	Source-replica lag in seconds. This parameter takes effect only when the task is normal and is in the last step of migration or sync (binlog sync). If it is invalid, <code>-1</code> will be returned. Note: This field may return null, indicating that no valid values can be obtained.
StepInfo	Array of StepDetailInfo	Step information Note: This field may return null, indicating that no valid values can be obtained.

MigrateOption

Migration options, which describe how the task performs migration.

Used by actions: DescribeMigrationDetail, ModifyMigrationJob.

Name	Type	Required	Description
DatabaseTable	DatabaseTableObject	Yes	Migration object options, which tell DTS which database/table objects should be migrated. Note: This field may return null, indicating that no valid values can be obtained.
MigrateType	String	No	Migration type. Valid values: <code>full</code> , <code>structure</code> , <code>fullAndIncrement</code> . Default

			<p>value: <code>fullAndIncrement</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
Consistency	ConsistencyOption	No	<p>Data consistency check option. Data consistency check is disabled by default.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
IsMigrateAccount	Boolean	No	<p>Whether to migrate accounts. Valid values: <code>yes</code> , <code>no</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
IsOverrideRoot	Boolean	No	<p>Whether to use the <code>Root</code> account in the source database to overwrite that in the target database. Valid values: <code>false</code> , <code>true</code> . For database/table or structural migration, you should specify <code>false</code> . Note that this parameter takes effect only for OldDTS.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
IsDstReadOnly	Boolean	No	<p>Whether to set the target database to read-only during migration, which takes effect only for MySQL databases. Valid values: <code>true</code> , <code>false</code> . Default value: <code>false</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
ExtraAttr	Array of KeyValuePairOption	No	<p>Additional information. You can set additional parameters for certain database types. For Redis, you can define the following parameters:</p> <p><code>["DstWriteMode": <code>normal</code> . Target database write mode. Valid values: <code>clearData</code> (Clear the target instance data), <code>overwrite</code> (Execute the task in overwriting mode), <code>normal</code> (Follow the normal steps) <code>"IsDstReadOnly": true</code> .</code></p> <p>Whether to set the target database to read-only for a migration task. Valid values: <code>true</code> (Yes), <code>false</code> (No)</p> <p><code>"ClientOutputBufferHardLimit": 512</code>. Hard limit of the replica buffer zone capacity in MB.</p> <p><code>"ClientOutputBufferSoftLimit": 512</code>. Soft limit of the replica buffer zone capacity in MB.</p>

			"ClientOutputBufferPersistTime": 60. Soft limit duration of the replica buffer zone in seconds. "ReplBacklogSize": 512, Limit of the circular buffer zone capacity in MB. "ReplTimeout":120, Replication timeout period in seconds] Note: This field may return null, indicating that no valid values can be obtained.
MigrateWay	String	No	

Objects

Description of synced database objects

Used by actions: ConfigureSyncJob, DescribeSyncJobs, ModifySyncJobConfig.

Name	Type	Required	Description
Mode	String	No	Sync object type. Valid value: <code>Partial</code> (Partial objects). Note: This field may return null, indicating that no valid values can be obtained.
Databases	Array of Database	No	Sync object, which is required if <code>Mode</code> is <code>Partial</code> . Note: This field may return null, indicating that no valid values can be obtained.
AdvancedObjects	Array of String	No	Advanced object types, such as function and procedure. Note: If you want to migrate and synchronize advanced objects, the corresponding advanced object type should be included in this configuration. When advanced objects need to be synchronized, the initialization type must include the structure initialization type, that is, the <code>Options.InitType</code> value of the task is <code>Structure</code> or <code>Full</code> . Note: This field may return null, indicating that no valid values can be obtained.
OnlineDDL	OnlineDDL	No	A redundant field that specifies the online DDL type Note: This field may return null, indicating that no valid values can be obtained.

OnlineDDL

Online DDL type

Used by actions: ConfigureSyncJob, DescribeSyncJobs, ModifySyncJobConfig.

Name	Type	Required	Description
Status	String	Yes	Status Note: This field may return null, indicating that no valid values can be obtained.

Options

Data sync options

Used by actions: ConfigureSyncJob, DescribeSyncJobs.

Name	Type	Required	Description
InitType	String	No	Sync initialization option. Valid values: <code>data</code> (full data initialization); <code>Structure</code> (structure initialization); <code>Full</code> (full data and structure initialization); <code>None</code> (incremental data only). Default value: <code>Full</code> . Note: This field may return null, indicating that no valid values can be obtained.
DealOfExistSameTable	String	No	Processing method for duplicate tables. Valid values: <code>ReportErrorAfterCheck</code> , <code>InitializeAfterDelete</code> , <code>ExecuteAfterIgnore</code> . Default value: <code>ReportErrorAfterCheck</code> . Note: This field may return null, indicating that no valid values can be obtained.
ConflictHandleType	String	No	Conflict processing option. Valid values: <code>ReportError</code> (report an error); <code>Ignore</code> (ignore); <code>Cover</code> (overwrite); <code>ConditionCover</code> (conditionally overwrite). Default value: <code>ReportError</code> . Note: This field may return null,

			indicating that no valid values can be obtained.
AddAdditionalColumn	Boolean	No	Whether to add the additional column Note: This field may return null, indicating that no valid values can be obtained.
OpTypes	Array of String	No	DML and DDL options to be synced. Valid values: <code>Insert</code> (INSERT operations); <code>Update</code> (UPDATE operations); <code>Delete</code> (DELETE operations); <code>DDL</code> (structure sync); <code>PartialDDL</code> (custom option, which is used together with <code>DdlOptions</code>). You can also leave this parameter empty. Note: This field may return null, indicating that no valid values can be obtained.
ConflictHandleOption	ConflictHandleOption	No	Detailed option for conflict processing, such as condition rows and operations in conditional overwrite. Note: This field may return null, indicating that no valid values can be obtained.
DdlOptions	Array of DdlOption	No	DDL statements to be synced Note: This field may return null, indicating that no valid values can be obtained.
KafkaOption	KafkaOption	No	Kafka sync options Note: This field may return null, indicating that no valid values can be obtained.
RateLimitOption	RateLimitOption	No	Task speed limit information Note: This field may return null, indicating that no valid values can be obtained.
AutoRetryTimeRangeMinutes	Integer	No	Settings of the automatic retry time range Note: This field may return null,

			indicating that no valid values can be obtained.
FilterBeginCommit	Boolean	No	
FilterCheckpoint	Boolean	No	

ProcessProgress

Task step information

Used by actions: DescribeCompareTasks, DescribeMigrationDetail.

Name	Type	Description
Status	String	Step status. Valid values: <code>notStarted</code> , <code>running</code> , <code>success</code> , <code>failed</code> . Note: This field may return null, indicating that no valid values can be obtained.
Percent	Integer	Progress information Note: This field may return null, indicating that no valid values can be obtained.
StepAll	Integer	Total number of steps Note: This field may return null, indicating that no valid values can be obtained.
StepNow	Integer	Current step Note: This field may return null, indicating that no valid values can be obtained.
Message	String	The prompt output in the current step Note: This field may return null, indicating that no valid values can be obtained.
Steps	Array of StepDetailInfo	Step information Note: This field may return null, indicating that no valid values can be obtained.

ProcessStepTip

Object of the error or warning information

Used by actions: DescribeCompareTasks, DescribeMigrationDetail, DescribeMigrationJobs.

Name	Type	Description
Message	String	Prompt message Note: This field may return null, indicating that no valid values can be obtained.
Solution	String	Solution Note: This field may return null, indicating that no valid values can be obtained.
HelpDoc	String	Help document Note: This field may return null, indicating that no valid values can be obtained.

RateLimitOption

Speed limit details of migration and sync tasks

Used by actions: ConfigureSyncJob, DescribeMigrationDetail, DescribeSyncJobs.

Name	Type	Required	Description
CurrentDumpThread	Integer	Yes	The number of full export threads currently in effect. The value of this field can be adjusted when configuring the task. Note: If it is not set or set to 0, it means the current value is maintained. The maximum value is 16. Note: This field may return null, indicating that no valid values can be obtained.
DefaultDumpThread	Integer	Yes	The default number of full export threads. This field is only meaningful in the output parameter. Note: This field may return null, indicating that no valid values can be obtained.
CurrentDumpRps	Integer	Yes	The full export Rps currently in effect. The value of this field can be adjusted when configuring the task. Note: If it is not set or set to 0, it means the current value is maintained. The maximum value is 50,000,000. Note: This field may return null, indicating that no valid values can be obtained.
DefaultDumpRps	Integer	Yes	The default full export Rps. This field is only meaningful in the output parameter. Note: This field may return null, indicating that no valid values can be obtained.
CurrentLoadThread	Integer	Yes	The number of full import threads currently in effect. The value of this field can be adjusted when configuring the task. Note: If it is not set or set to 0, it means the current value is

			maintained. The maximum value is 16.Note: This field may return null, indicating that no valid values can be obtained.
DefaultLoadThread	Integer	Yes	The default number of full import threads. This field is only meaningful in the output parameter.Note: This field may return null, indicating that no valid values can be obtained.
CurrentLoadRps	Integer	Yes	The full import Rps currently in effect. The value of this field can be adjusted when configuring the task. Note: If it is not set or set to 0, it means the current value is maintained. The maximum value is 50,000,000.Note: This field may return null, indicating that no valid values can be obtained.
DefaultLoadRps	Integer	Yes	The default full import Rps. This field is only meaningful in the output parameter.Note: This field may return null, indicating that no valid values can be obtained.
CurrentSinkerThread	Integer	Yes	The number of incremental import threads currently in effect. The value of this field can be adjusted when configuring the task. Note: If it is not set or set to 0, it means the current value is maintained. The maximum value is 128.Note: This field may return null, indicating that no valid values can be obtained.
DefaultSinkerThread	Integer	Yes	The default number of incremental import threads. This field is only meaningful in the output parameter. Note: This field may return null, indicating that no valid values can be obtained.
HasUserSetRateLimit	String	Yes	enum:"no"/"yes", no: the user has not set a speed limit; yes: a speed limit has been set. This field is only meaningful in the output parameter.Note: This field may return null, indicating that no valid values can be obtained.

RoleItem

Role object, which is exclusive to PostgreSQL.

Used by actions: DescribeMigrationDetail, ModifyMigrationJob.

Name	Type	Required	Description
RoleName	String	No	Role name Note: This field may return null, indicating that no valid values can be obtained.

NewRoleName	String	No	Role name after migration Note: This field may return null, indicating that no valid values can be obtained.
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SkippedDetail

Details of skipped tables

Used by actions: DescribeCompareReport.

Name	Type	Description
TotalCount	Integer	Number of skipped tables Note: This field may return null, indicating that no valid values can be obtained.
Items	Array of SkippedItem	Details of skipped tables Note: This field may return null, indicating that no valid values can be obtained.

SkippedItem

Details of skipped tables

Used by actions: DescribeCompareReport.

Name	Type	Description
Db	String	Database name Note: This field may return null, indicating that no valid values can be obtained.
Table	String	Table name Note: This field may return null, indicating that no valid values can be obtained.
Reason	String	The cause why check is not initiated Note: This field may return null, indicating that no valid values can be obtained.

StepDetailInfo

Step information

Used by actions: DescribeCompareTasks, DescribeMigrationDetail, DescribeMigrationJobs.

Name	Type	Description
StepNo	Integer	Step number Note: This field may return null, indicating that no valid values can be obtained.
StepName	String	Step name Note: This field may return null, indicating that no valid values can be obtained.
StepId	String	Step ID Note: This field may return null, indicating that no valid values can be obtained.
Status	String	Step status. Valid values: <code>success</code> , <code>failed</code> , <code>running</code> , <code>notStarted</code> . Default value: <code>notStarted</code> . Note: This field may return null, indicating that no valid values can be obtained.
StartTime	String	Start time of the current step in the format of "yyyy-mm-dd hh:mm:ss". If this field does not exist or is empty, it is meaningless. Note: This field may return null, indicating that no valid values can be obtained.
StepMessage	String	Step error message Note: This field may return null, indicating that no valid values can be obtained.
Percent	Integer	Execution progress Note: This field may return null, indicating that no valid values can be obtained.
Errors	Array of ProcessStepTip	Error message Note: This field may return null, indicating that no valid values can be obtained.
Warnings	Array of ProcessStepTip	Warning Note: This field may return null, indicating that no valid values can be obtained.

StepInfo

Step details

Used by actions: DescribeCheckSyncJobResult, DescribeModifyCheckSyncJobResult, DescribeSyncJobs.

Name	Type	Required	Description
StepNo	Integer	No	Step number Note: This field may return null, indicating that no valid values can be obtained.
StepName	String	No	Step name Note: This field may return null, indicating that no valid values can be obtained.
StepId	String	No	Step ID Note: This field may return null, indicating that no valid values can be obtained.
Status	String	No	Status of the current step. Valid values: <code>notStarted</code> , <code>running</code> , <code>failed</code> , <code>finished</code> , <code>skipped</code> , <code>paused</code> . Note: This field may return null, indicating that no valid values can be obtained.
StartTime	String	No	Step start time, which may be null. Note: This field may return null, indicating that no valid values can be obtained.
Errors	Array of StepTip	No	Error message Note: This field may return null, indicating that no valid values can be obtained.
Warnings	Array of StepTip	No	Warning message Note: This field may return null, indicating that no valid values can be obtained.
Progress	Integer	No	Current step progress. Value range: 0-100. The value <code>-1</code> indicates that the progress of the current step is unavailable. Note: This field may return null, indicating that no valid values can be obtained.

StepTip

Error or warning information in the current step

Used by actions: DescribeCheckSyncJobResult, DescribeModifyCheckSyncJobResult.

Name	Type	Required	Description

Code	String	No	Error code Note: This field may return null, indicating that no valid values can be obtained.
Message	String	No	Error message Note: This field may return null, indicating that no valid values can be obtained.
Solution	String	No	Solution Note: This field may return null, indicating that no valid values can be obtained.
HelpDoc	String	No	Help document Note: This field may return null, indicating that no valid values can be obtained.
SkipInfo	String	No	Whether the current step is skipped Note: This field may return null, indicating that no valid values can be obtained.

SyncDBEndpointInfos

Node information of multi-node databases configured for data sync. This data structure is valid for multi-node databases such as TDSQL for MySQL. For single-node databases such as MySQL, use `Endpoint` instead.

Used by actions: `ConfigureSyncJob`, `DescribeSyncJobs`.

Name	Type	Required	Description
Region	String	Yes	Region of the database Note: This field may return null, indicating that no valid values can be obtained.
AccessType	String	Yes	Instance network access type. Valid values: <code>extranet</code> (public network); <code>ipv6</code> (public IPv6); <code>cvm</code> (self-build on CVM); <code>dcg</code> (Direct Connect); <code>vpncloud</code> (VPN access); <code>cdb</code> (database); <code>ccn</code> (CCN); <code>intranet</code> (intranet); <code>vpc</code> (VPC). Note that the valid values are subject to the current link. Note: This field may return null, indicating that no valid values can be obtained.
DatabaseType	String	Yes	Database type, such as <code>mysql</code> , <code>redis</code> , <code>mongodb</code> , <code>postgresql</code> , <code>mariadb</code> , and <code>percona</code> .

			Note: This field may return null, indicating that no valid values can be obtained.
Info	Array of Endpoint	Yes	Database information. Note: If the data type is tdsqmysql, the order of this Endpoint array should correspond to the set order, and the first shard (shardkey range starting from 0) must be entered first. Note: This field may return null, indicating that no valid values can be obtained.

SyncDetailInfo

Step information of the sync task

Used by actions: DescribeSyncJobs.

Name	Type	Description
StepAll	Integer	Total number of steps Note: This field may return null, indicating that no valid values can be obtained.
StepNow	Integer	Current step Note: This field may return null, indicating that no valid values can be obtained.
Progress	Integer	Overall progress Note: This field may return null, indicating that no valid values can be obtained.
CurrentStepProgress	Integer	Progress of the current step. Value range: 0-100. The value of <code>-1</code> indicates that you can't check the progress of the current step. Note: This field may return null, indicating that no valid values can be obtained.
MasterSlaveDistance	Integer	Data volume difference between the sync source and target Note: This field may return null, indicating that no valid values can be obtained.
SecondsBehindMaster	Integer	Time difference between the sync source and target Note: This field may return null, indicating that no valid values can be obtained.
Message	String	Overall description Note: This field may return null, indicating that no valid values can be obtained.

StepInfos	Array of StepInfo	Step details Note: This field may return null, indicating that no valid values can be obtained.
CauseOfCompareDisable	String	Cause of the failure of initiating data consistency check Note: This field may return null, indicating that no valid values can be obtained.
ErrInfo	ErrInfo	Task error and the corresponding solution Note: This field may return null, indicating that no valid values can be obtained.

SyncJobInfo

Sync task information

Used by actions: DescribeSyncJobs.

Name	Type	Description
JobId	String	Sync task ID, such as <code>sync-btso140</code> . Note: This field may return null, indicating that no valid values can be obtained.
JobName	String	Sync task name Note: This field may return null, indicating that no valid values can be obtained.
PayMode	String	Billing mode. Valid values: <code>PostPay</code> (pay-as-you-go); <code>PrePay</code> (monthly subscription). Note: This field may return null, indicating that no valid values can be obtained.
RunMode	String	Running mode. Valid values: <code>Immediate</code> , <code>Timed</code> . Default value: <code>Immediate</code> . Note: This field may return null, indicating that no valid values can be obtained.
ExpectRunTime	String	Expected execution time in the format of <code>yyyy-mm-dd hh:mm:ss</code> . Note: This field may return null, indicating that no valid values can be obtained.
AllActions	Array of String	All supported operations Note: This field may return null, indicating that no

		valid values can be obtained.
Actions	Array of String	Operations that can be performed under the current status Note: This field may return null, indicating that no valid values can be obtained.
Options	Options	Sync options Note: This field may return null, indicating that no valid values can be obtained.
Objects	Objects	Sync database/table objects Note: This field may return null, indicating that no valid values can be obtained.
Specification	String	Task specification Note: This field may return null, indicating that no valid values can be obtained.
ExpireTime	String	Expiration time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
SrcRegion	String	Source database region, such as <code>ap-guangzhou</code> . Note: This field may return null, indicating that no valid values can be obtained.
SrcDatabaseType	String	Source database type, such as <code>mysql</code> , <code>cynosdbmysql</code> , <code>tdapg</code> , <code>tdpg</code> , and <code>tdsqlmysql</code> . Note: This field may return null, indicating that no valid values can be obtained.
SrcAccessType	String	Source database access type. Valid values: <code>cdb</code> (database); <code>cvm</code> (self-build on CVM); <code>vpc</code> (VPC); <code>extranet</code> (public network); <code>vpncloud</code> (VPN access); <code>dccg</code> (Direct Connect); <code>ccn</code> (CCN); <code>intranet</code> (intranet). Note: This field may return null, indicating that no valid values can be obtained.
SrcInfo	Endpoint	Source database information. This parameter is used by single-node databases.

		Note: This field may return null, indicating that no valid values can be obtained.
SrcNodeType	String	Valid values: <code>cluster</code> , <code>single</code> . <code>single</code> : For single-node source databases; <code>cluster</code> : For multi-node source databases. Note: This field may return null, indicating that no valid values can be obtained.
SrcInfos	SyncDBEndpointInfos	Source database information. This parameter is used for multi-node databases. Note: This field may return null, indicating that no valid values can be obtained.
DstRegion	String	Target database region, such as <code>ap-guangzhou</code> . Note: This field may return null, indicating that no valid values can be obtained.
DstDatabaseType	String	Target database type, such as <code>mysql</code> , <code>cynosdbmysql</code> , <code>tdapg</code> , <code>tdpg</code> , and <code>tdsqlmysql</code> . Note: This field may return null, indicating that no valid values can be obtained.
DstAccessType	String	Target database access type. Valid values: <code>cdb</code> (database); <code>cvm</code> (self-build on CVM); <code>vpc</code> (VPC); <code>extranet</code> (public network); <code>vpncloud</code> (VPN access); <code>dcg</code> (Direct Connect); <code>ccn</code> (CCN); <code>intranet</code> (intranet). Note: This field may return null, indicating that no valid values can be obtained.
DstInfo	Endpoint	Target database information. This parameter is used by single-node databases. Note: This field may return null, indicating that no valid values can be obtained.
DstNodeType	String	Valid values: <code>cluster</code> , <code>single</code> . <code>single</code> : For single-node target databases; <code>cluster</code> : For multi-node target databases. Note: This field may return null, indicating that no valid values can be obtained.
DstInfos	SyncDBEndpointInfos	Target database information. This parameter is used for multi-node databases.

		Note: This field may return null, indicating that no valid values can be obtained.
CreateTime	String	Creation time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
StartTime	String	Start time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
Status	String	Task status. Valid values: <code>UnInitialized</code> , <code>Initialized</code> , <code>Checking</code> , <code>CheckPass</code> , <code>CheckNotPass</code> , <code>ReadyRunning</code> , <code>Running</code> , <code>Pausing</code> , <code>Paused</code> , <code>Stopping</code> , <code>Stopped</code> , <code>ResumableErr</code> , <code>Resuming</code> , <code>Failed</code> , <code>Released</code> , <code>Resetting</code> , <code>Unknown</code> . Note: This field may return null, indicating that no valid values can be obtained.
EndTime	String	End time in the format of <code>yyyy-mm-dd hh:mm:ss</code> Note: This field may return null, indicating that no valid values can be obtained.
Tags	Array of TagItem	Tag information Note: This field may return null, indicating that no valid values can be obtained.
Detail	SyncDetailInfo	Step information of the sync task Note: This field may return null, indicating that no valid values can be obtained.
TradeStatus	String	Billing status. Valid values: <code>Normal</code> , <code>Resizing</code> , <code>Renewing</code> , <code>Isolating</code> , <code>Isolated</code> , <code>Offlining</code> , <code>Offlined</code> , <code>NotBilled</code> , <code>Recovering</code> , <code>PostPay2Prepaying</code> , <code>PrePay2Postpaying</code> . Note: This field may return null, indicating that no valid values can be obtained.
InstanceClass	String	Sync link specification, such as <code>micro</code> ,

		<p><code>small</code> , <code>medium</code> , and <code>large</code> .</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
AutoRenew	Integer	<p>Auto-renewal flag, which takes effect if <code>PayMode</code> is <code>PrePay</code> . Valid values: <code>1</code> (auto-renewal enabled); <code>0</code> (auto-renewal disabled).</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
OfflineTime	String	<p>Deletion time in the format of <code>yyyy-mm-dd hh:mm:ss</code></p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
AutoRetryTimeRangeMinutes	Integer	<p>Settings of automatic retry time</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
DumperResumeCtrl	String	<p>Whether the task can be reentered in the full export stage. Valid values: <code>yes</code> , <code>no</code> . <code>yes</code> : The current task can be reentered. <code>no</code> : The current task is in the full export stage which cannot be reentered. If the value of this parameter is <code>no</code> , the checkpoint restart is not supported when the task is restarted in the export stage.</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>

Table

Synced table description

Used by actions: `ConfigureSyncJob`, `DescribeSyncJobs`, `ModifySyncJobConfig`.

Name	Type	Required	Description
TableName	String	No	<p>Table name</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>
NewTableName	String	No	<p>New table name</p> <p>Note: This field may return null, indicating that no valid values can be obtained.</p>

FilterCondition	String	No	Filter condition Note: This field may return null, indicating that no valid values can be obtained.
ColumnMode	String	No	Whether to synchronize all columns in the table. All: all columns under the current table; Partial (the corresponding field ColumnMode in ModifySyncJobConfig interface does not support Partial at the moment): some columns under the current table, detailed table information is provided by filling the Columns field. Note: This field may return null, indicating that no valid values can be obtained.
Columns	Array of Column	No	Column information in data sync. This field is required when ColumnMode is set to Partial. Note: This field may return null, indicating that no valid values can be obtained.
TmpTables	Array of String	No	The temp tables to be synced. This parameter is mutually exclusive with <code>NewTableName</code> . It is valid only when the configured sync objects are table-level ones and <code>TableEditMode</code> is <code>pt</code> . To sync temp tables generated when <code>pt-osc</code> or other tools are used during the sync process, you must configure this parameter first. For example, if you want to perform the <code>pt-osc</code> operation on a table named "t1", configure this parameter as ["_t1_new", "_t1_old"]; to perform the <code>gh-ost</code> operation on t1, configure it as ["_t1_ghc", "_t1_gho", "_t1_del"]. Temp tables generated by <code>pt-osc</code> and <code>gh-ost</code> operations can be configured at the same time. Note: This field may return null, indicating that no valid values can be obtained.
TableEditMode	String	No	Table editing type. Valid values: <code>rename</code> (table mapping); <code>pt</code> (additional table sync). Note: This field may return null, indicating that no valid values can be obtained.

TableItem

The set of table objects, which is required if `TableMode` is `partial`.

Used by actions: DescribeMigrationDetail, ModifyMigrationJob.

Name	Type	Required	Description
TableName	String	No	Name of the migrated table, which is case-sensitive

			Note: This field may return null, indicating that no valid values can be obtained.
NewTableName	String	No	New name of the migrated table. This parameter is required when <code>TableEditMode</code> is <code>rename</code> . It is mutually exclusive with <code>TmpTables</code> . Note: This field may return null, indicating that no valid values can be obtained.
TmpTables	Array of String	No	The temp tables to be migrated. This parameter is mutually exclusive with <code>NewTableName</code> . It is valid only when the configured migration objects are table-level ones and <code>TableEditMode</code> is <code>pt</code> . To migrate temp tables generated when pt-osc or other tools are used during the migration process, you must configure this parameter first. For example, if you want to perform the pt-osc operation on a table named "t1", configure this parameter as ["_t1_new", "_t1_old"]; to perform the gh-ost operation on t1, configure it as ["_t1_ghc", "_t1_gho", "_t1_del"]. Temp tables generated by pt-osc and gh-ost operations can be configured at the same time. Note: This field may return null, indicating that no valid values can be obtained.
TableEditMode	String	No	Table editing type. Valid values: <code>rename</code> (table mapping); <code>pt</code> (additional table sync). Note: This field may return null, indicating that no valid values can be obtained.

TagFilter

Tag filter

Used by actions: DescribeMigrationJobs, DescribeSyncJobs.

Name	Type	Required	Description
TagKey	String	Yes	Tag key
TagValue	Array of String	No	Tag value

TagItem

Tag

Used by actions: CreateMigrationService, CreateSyncJob, DescribeMigrationDetail, DescribeMigrationJobs, DescribeSyncJobs, ModifyMigrationJob.

Name	Type	Required	Description
TagKey	String	No	Tag key Note: This field may return null, indicating that no valid values can be obtained.
TagValue	String	No	Tag value Note: This field may return null, indicating that no valid values can be obtained.

TopicRule

Topic description

Used by actions: ConfigureSyncJob, DescribeSyncJobs.

Name	Type	Required	Description
TopicName	String	No	Topic name
PartitionType	String	No	Topic partitioning policy. If the topic sync policy is delivering data to multiple custom topics (<code>TopicType = Multi</code>), the value of this parameter is <code>Random</code> (deliver to a random partition). If the topic sync policy is delivering all data to a single topic (<code>TopicType = Single</code>), this parameter has three valid values: <code>AllInPartitionZero</code> (deliver all data to partition0), <code>PartitionByTable</code> (partition by table name), <code>PartitionByTableAndKey</code> (partition by table name and primary key).
DbMatchMode	String	No	Database name matching rule. This parameter takes effect only when <code>TopicType</code> is <code>Multi</code> . Valid values: <code>Regular</code> (match by regex), <code>Default</code> (default rule for the remaining databases that cannot be matched by regex). The default rule must be included in the array of matching rules.
DbName	String	No	Database name, which can only be matched by regex when <code>TopicType</code> is <code>Multi</code> and <code>DbMatchMode</code> is <code>Regular</code> .

TableMatchMode	String	No	Table name matching rule. This parameter takes effect only when <code>TopicType</code> is <code>Multi</code> . Valid values: <code>Regular</code> (match by regex), <code>Default</code> (default rule for the remaining databases that cannot be matched by regex). The default rule must be included in the array of matching rules.
TableName	String	No	Table name, which can only be matched by regex when <code>TopicType</code> is <code>Multi</code> and <code>DbMatchMode</code> is <code>Regular</code> .

TradeInfo

Billing status information

Used by actions: DescribeMigrationDetail, DescribeMigrationJobs.

Name	Type	Description
DealName	String	Order number Note: This field may return null, indicating that no valid values can be obtained.
LastDealName	String	Last order number Note: This field may return null, indicating that no valid values can be obtained.
InstanceClass	String	Instance specification. Valid values: <code>micro</code> , <code>small</code> , <code>medium</code> , <code>large</code> , <code>xlarge</code> , <code>2xlarge</code> . Note: This field may return null, indicating that no valid values can be obtained.
TradeStatus	String	Task billing status. Valid values: <code>normal</code> (billed or to be billed); <code>resizing</code> (adjusting configuration); <code>reversing</code> (topping up, which is a short status); <code>isolating</code> (isolating, which is a short status); <code>isolated</code> (isolated); <code>offlining</code> (deleting); <code>offlined</code> (deleted); <code>notBilled</code> (not billed). Note: This field may return null, indicating that no valid values can be obtained.
ExpireTime	String	Expiration time in the format of "yyyy-mm-dd hh:mm:ss" Note: This field may return null, indicating that no valid values can be obtained.
OfflineTime	String	Deletion time in the format of "yyyy-mm-dd hh:mm:ss" Note: This field may return null, indicating that no valid values can be obtained.
IsolateTime	String	Isolation time in the format of "yyyy-mm-dd hh:mm:ss" Note: This field may return null, indicating that no valid values can be obtained.
OfflineReason	String	The cause of deletion Note: This field may return null, indicating that no valid values can be obtained.

IsolateReason	String	The cause of isolation Note: This field may return null, indicating that no valid values can be obtained.
PayType	String	Billing mode. Valid values: <code>postpay</code> (postpaid); <code>prepay</code> (prepaid). Note: This field may return null, indicating that no valid values can be obtained.
BillingType	String	Task billing type. Valid values: <code>billing</code> (billed); <code>notBilling</code> (free); <code>promotions</code> (in promotion). Note: This field may return null, indicating that no valid values can be obtained.

View

Synced view description

Used by actions: `ConfigureSyncJob`, `DescribeSyncJobs`, `ModifySyncJobConfig`.

Name	Type	Required	Description
ViewName	String	No	View name Note: This field may return null, indicating that no valid values can be obtained.
NewViewName	String	No	Reserved field. Currently, a view cannot be renamed. Note: This field may return null, indicating that no valid values can be obtained.

ViewItem

View object

Used by actions: `DescribeMigrationDetail`, `ModifyMigrationJob`.

Name	Type	Required	Description
ViewName	String	No	View name Note: This field may return null, indicating that no valid values can be obtained.
NewViewName	String	No	View name after migration Note: This field may return null, indicating that no valid values can be obtained.

Error Codes

Last updated : 2024-07-24 10:17:36

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	The CAM signature/authentication information is incorrect.
AuthFailure.AuthFailureError	Authentication failed.
AuthFailure.AuthorizedOperationDenyError	Authentication was denied.
AuthFailure.UnauthorizedOperationError	The current user is not allowed to perform this operation as the authentication failed.
DryRunOperation.DryRunOperationError	DryRun operation, which means an unnecessary DryRun parameter is passed in yet the request will still be successful.
FailedOperation.FailedOperationError	The operation failed.
FailedOperation.NotAllowOperation	This operation is prohibited.

FailedOperation.StartJobFailed	Failed to start the task.
FailedOperation.StatusInConflict	This operation cannot be performed due to a status conflict.
InternalError.AddTaskError	Failed to create the async task.
InternalError.CeleryError	An internal scheduling system error occurred.
InternalError.CgwSystemError	A CGW system error occurred.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.InternalErrorError	An internal error occurred.
InternalError.InternalHttpServerError	An HTTP access request error occurred.
InternalError.InternalInnerCommonError	An error occurred while accessing the internal component.
InternalError.InternalTradeError	Failed to call the billing service.
InternalError.LockError	Locks are in conflict.
InternalError.NotEnoughMoneyError	The account balance is insufficient.
InternalError.ProtocolError	A communication protocol error occurred.
InternalError.UndefinedError	An internal error occurred.
InternalError.UnknownError	An unknown internal error occurred.
InvalidParameter.ControllerNotFoundError	The current API is not registered due to an exception.
InvalidParameter.InstanceNotFound	The instance does not exist.
InvalidParameter.InvalidParameterError	The parameter is invalid.
InvalidParameterValue.DataConvertError	A data conversion error occurred.
InvalidParameterValue.InvalidParameterValue	The parameter value is incorrect.
InvalidParameterValue.InvalidParameterValueError	The parameter is invalid.

LimitExceeded.LimitExceededError	The quantity exceeds the limit.
LimitExceeded.MaxUnusedJobs	The number of idle migration tasks exceeds the limit.
MissingParameter.MissingParameterError	The parameter is lost.
OperationDenied	The operation was denied.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.JobOperationDeniedError	The task operation failed.
OperationDenied.NotEnoughMoneyError	The account balance is insufficient.
OperationDenied.OperationDeniedError	The operation was denied.
RequestLimitExceeded.RequestLimitExceededError	The number of requests exceeds the limit.
ResourceInUse.ResourceInUseError	The resource is being used.
ResourceInsufficient.ResourceInsufficientError	The resources are insufficient.
ResourceNotFound.BizResourceNotFoundError	The resource was not found.
ResourceNotFound.JobNotExist	The migration task does not exist.
ResourceNotFound.ResourceNotFound	The instance was not found.
ResourceNotFound.ResourceNotFoundError	The resource was not found.
ResourceUnavailable.ResourceUnavailableError	The resource is unavailable.
ResourcesSoldOut.ResourcesSoldOutError	The resources have been sold out.
UnauthorizedOperation.NotEnoughPrivileges	Authentication failed as there were no required permissions.
UnauthorizedOperation.PermissionDenied	The operation is unauthorized.
UnauthorizedOperation.UnauthorizedOperationError	The operation is unauthorized.
UnknownParameter.UnknownParameterError	The parameter is unknown.
UnsupportedOperation.IntraNetUserNotTaggedError	The intranet user did not specify the required tags when creating the migration task. The department , product , and owner tags must be specified.

UnsupportedOperation.IntraNetUserNotTaggedForSyncJobError	The intranet user did not specify the required tags when creating the sync task. The department , product , and owner tags must be specified.
UnsupportedOperation.UnsupportedOperationError	The operation is not supported.

DTS API 2018-03-30

Introduction

Last updated : 2018-08-17 17:27:51

Data Transfer Service (DTS) provides database data transfer service integrated with data migration, data synchronization and data subscription features, helping you achieve database migration without downtime. It also supports building a highly available database architecture that allows remote disaster recovery using a real-time synchronization channel.

DTS is designed to take over complicated data interaction activities, allowing you to focus on the development of the upper layer business.

History

Last updated : 2022-05-12 10:02:14

Release 6

Release time: 2022-05-11 16:58:52

Release updates:

Improvement to existing documentation.

Modified APIs:

- [CreateMigrateJob](#)
 - New input parameters:SrcNodeType, SrcInfoMulti
- [CreateSubscribe](#)
 - New input parameters:Name
- [DescribeSubscribeConf](#)
 - New output parameters:SubscribeVersion, Errors
- [ModifyMigrateJob](#)
 - New input parameters:SrcNodeType, SrcInfoMulti

New data structures:

- [SubsErr](#)

Modified data structures:

- [MigrateJobInfo](#)
 - New members:SrcInfoMulti

Release 5

Release time: 2022-01-11 10:08:05

Release updates:

Improvement to existing documentation.

Deleted APIs:

- [CreateSyncCheckJob](#)
- [CreateSyncJob](#)
- [DeleteSyncJob](#)
- [DescribeSyncCheckJob](#)
- [DescribeSyncJobs](#)
- [ModifySyncJob](#)
- [StartSyncJob](#)
- [SwitchDrToMaster](#)

Modified APIs:

- [CreateMigrateJob](#)
 - New input parameters:Tags

Deleted data structures:

- [SyncCheckStepInfo](#)
- [SyncDetailInfo](#)
- [SyncInstanceInfo](#)
- [SyncJobInfo](#)
- [SyncOption](#)
- [SyncStepDetailInfo](#)

Release 4

Release time: 2021-09-13 15:58:38

Release updates:

Improvement to existing documentation.

Modified APIs:

- [DescribeMigrateJobs](#)
 - New input parameters:TagFilters

Modified data structures:

- [MigrateJobInfo](#)
 - New members:Tags

Release 3

Release time: 2021-07-02 15:40:35

Release updates:

Improvement to existing documentation.

Modified APIs:

- [CompleteMigrateJob](#)
 - New input parameters:CompleteMode

Release 2

Release time: 2021-03-02 17:36:09

Release updates:

Improvement to existing documentation.

Modified APIs:

- [CreateSubscribe](#)
 - New input parameters:Tags
- [DescribeSubscribeConf](#)
 - New output parameters:Tags, AutoRenewFlag
- [DescribeSubscribes](#)
 - New input parameters:TagFilters, SubscribeVersion

New data structures:

- [TagFilter](#)
- [TagItem](#)

Modified data structures:

- [SubscribeInfo](#)
 - New members:Tags, AutoRenewFlag, SubscribeVersion

Existing Release

Release time: None

Existing APIs/data structures are as follows:

Improvement to existing documentation.

Existing APIs:

- [ActivateSubscribe](#)
- [CompleteMigrateJob](#)
- [CreateMigrateCheckJob](#)
- [CreateMigrateJob](#)
- [CreateSubscribe](#)
- [CreateSyncCheckJob](#)
- [CreateSyncJob](#)
- [DeleteMigrateJob](#)
- [DeleteSyncJob](#)
- [DescribeAsyncRequestInfo](#)
- [DescribeMigrateCheckJob](#)
- [DescribeMigrateJobs](#)
- [DescribeRegionConf](#)
- [DescribeSubscribeConf](#)
- [DescribeSubscribes](#)
- [DescribeSyncCheckJob](#)
- [DescribeSyncJobs](#)
- [IsolateSubscribe](#)
- [ModifyMigrateJob](#)
- [ModifySubscribeConsumeTime](#)
- [ModifySubscribeName](#)
- [ModifySubscribeObjects](#)
- [ModifySubscribeVipVport](#)
- [ModifySyncJob](#)
- [OffinIsolatedSubscribe](#)
- [ResetSubscribe](#)
- [StartMigrateJob](#)
- [StartSyncJob](#)
- [StopMigrateJob](#)
- [SwitchDrToMaster](#)

Existing data structures:

- [ConsistencyParams](#)
- [DstInfo](#)
- [ErrorInfo](#)
- [MigrateDetailInfo](#)
- [MigrateJobInfo](#)
- [MigrateOption](#)
- [MigrateStepDetailInfo](#)
- [SrcInfo](#)
- [SubscribeInfo](#)
- [SubscribeObject](#)
- [SubscribeRegionConf](#)
- [SyncCheckStepInfo](#)
- [SyncDetailInfo](#)
- [SyncInstanceInfo](#)
- [SyncJobInfo](#)
- [SyncOption](#)
- [SyncStepDetailInfo](#)

API Category

Last updated : 2022-01-11 10:10:56

DTS APIs

API Name	Feature
CompleteMigrateJob	Completes a data migration task
CreateMigrateCheckJob	Creates a migration check task
CreateMigrateJob	Creates a data migration task
DeleteMigrateJob	Deletes a data migration task
DescribeMigrateCheckJob	Gets the migration check result
DescribeMigrateJobs	Queries data migration tasks
ModifyMigrateJob	Modifies a data migration task
StartMigrateJob	Starts a migration task
StopMigrateJob	Cancel a data migration task

Data Subscription APIs

API Name	Feature
ActivateSubscribe	Configures data subscription channel
CreateSubscribe	Creates subscription object
DescribeAsyncRequestInfo	Queries task execution result
DescribeRegionConf	Queries purchasable subscription instance regions
DescribeSubscribeConf	Queries subscription instance configuration
DescribeSubscribes	Gets data subscription instance list
IsolateSubscribe	Isolates subscription instance

ModifySubscribeConsumeTime	Modifies the consumption time point of data subscription instance channel
ModifySubscribeName	Renames data subscription instance
ModifySubscribeObjects	Modifies the subscription rule of data subscription channel
ModifySubscribeVipVport	Modifies the IP and port number of data subscription instance
OfflinelolatedSubscribe	Deactivates isolated data subscription instance
ResetSubscribe	Resets data subscription instance

Making API Requests

Request Structure

Last updated : 2021-09-13 16:00:29

1. Service Address

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

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

2. Communications Protocol

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

3. Request Methods

Supported HTTP request methods:

- POST (recommended)
- GET

The Content-Type types supported by POST requests:

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

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

4. Character Encoding

Only UTF-8 encoding is used.

Common Params

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

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

Common parameters for Signature Algorithm v3

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

Parameter Name	Type	Required	Description
X-TC-Action	String	Yes	The name of the API for the desired operation. For the specific value, see description of common parameter <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> .
X-TC-Region	String	Yes	Region parameter, which is used to identify the region to which the data you 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. This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even it is passed.
X-TC-Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request is sent. For example, 1529223702. Note: If the difference between the UNIX timestamp and server time is greater than 5 minutes, a signature expiration error may occur.
X-TC-Version	String	Yes	API version of the action. For the valid values, see the description of the common parameter <code>Version</code> in the API documentation. For example, the valid version is 2017-03-12.
Authorization	String	Yes	The HTTP authentication request header, for example: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/Date/service/tc3_request;SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc96317 Here: - TC3-HMAC-SHA256: Signature method, currently fixed as this value; - Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date is UNIX 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
Southeast Asia Pacific (Bangkok)	ap-bangkok
North China (Beijing)	ap-beijing
Southwest China (Chengdu)	ap-chengdu
Southwest China (Chongqing)	ap-chongqing
South China (Guangzhou)	ap-guangzhou
Hong Kong/Macao/Taiwan (Hong Kong, China)	ap-hongkong
Southeast Asia Pacific (Jakarta)	ap-jakarta
South Asia Pacific (Mumbai)	ap-mumbai
East China (Nanjing)	ap-nanjing
Northeast Asia Pacific (Seoul)	ap-seoul
East China (Shanghai)	ap-shanghai
East China (Shanghai Finance)	ap-shanghai-fsi
South China (Shenzhen Finance)	ap-shenzhen-fsi
Southeast Asia Pacific (Singapore)	ap-singapore
Northeast Asia Pacific (Tokyo)	ap-tokyo

Europe (Frankfurt)	eu-frankfurt
Europe (Moscow)	eu-moscow
Eastern U.S. (Virginia)	na-ashburn
Western U.S. (Silicon Valley)	na-siliconvalley
North America (Toronto)	na-toronto

Signature

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

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

1. Applying for Security Credentials

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

Security credentials consist of SecretId and SecretKey:

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

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

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

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

2. Generating a Signature

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

Assume that the SecretId and SecretKey are:

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

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

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

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

2.1. Sorting Parameters

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

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

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

2.2. Concatenating a Request String

This step generates a request string.

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

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

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

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

2.3. Concatenating the Signature Original String

This step generates a signature original string.

The signature original string consists of the following parameters:

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

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

The concatenation result of the example is:

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

2.4. Generating a Signature String

This step generates a signature string.

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

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

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

```
$secretKey = 'Gu5t9xGARNpq86cd98joQYCN3*****';  
$srcStr = 'GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins  
-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5  
yKBZQpn74WFkmLPx3*****&Timestamp=1465185768&Version=2017-03-12';  
$signStr = base64_encode(hash_hmac('sha1', $srcStr, $secretKey, true));  
echo $signStr;
```

The final signature is:

```
zmmjn35mikh6pM3V7sUEuX4wyYM=
```

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

3. Encoding a Signature String

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

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

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

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

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

4. Signature Failure

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

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

5. Signature Demo

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

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

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

The final output URL might be:

```
https://cvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****&Signature=zmmjN35mikh6pM3V7sUEuX4wyYM%3D&Timestamp=1465185768&Version=2017-03-12
```

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

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

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

Java

```
import java.io.UnsupportedEncodingException;
import java.net.URLEncoder;
import java.util.Random;
import java.util.TreeMap;
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
import javax.xml.bind.DatatypeConverter;
public class TencentCloudAPIDemo {
    private final static String CHARSET = "UTF-8";
    public static String sign(String s, String key, String method) throws Exception {
        Mac mac = Mac.getInstance(method);
        SecretKeySpec secretKeySpec = new SecretKeySpec(key.getBytes(CHARSET), mac.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 enable
    s automatic sorting
    // A random number should be used when actually calling, for example: params.put
    ("Nonce", new Random().nextInt(java.lang.Integer.MAX_VALUE));
    params.put("Nonce", 11886); // Common parameter
    // The current time of the system should be used when actually calling, for examp
    le: params.put("Timestamp", System.currentTimeMillis() / 1000);
    params.put("Timestamp", 1465185768); // Common parameter
    params.put("SecretId", "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****"); // Common paramet
    er
    params.put("Action", "DescribeInstances"); // Common parameter
    params.put("Version", "2017-03-12"); // Common parameter
    params.put("Region", "ap-guangzhou"); // Common parameter
    params.put("Limit", 20); // Business parameter
    params.put("Offset", 0); // Business parameter
    params.put("InstanceIds.0", "ins-09dx96dg"); // Business parameter
    params.put("Signature", sign(getStringToSign(params), "Gu5t9xGARNpq86cd98joQYCN3*
    *****", "HmacSHA1")); // Common parameter
    System.out.println(getUrl(params));
}
}

```

Python

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

```

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

```

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

Golang

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

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

PHP

```
<?php
$secretId = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3*****";
$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
```

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

Ruby

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

NodeJS

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

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

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

Signature v3

Last updated : 2021-03-02 17:37:14

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., <code>Gu5t9xGARNpq86cd98joQYCN3*****</code> .
Date	The Date field information in <code>Credential</code> , such as <code>2019-02-25</code> 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&InstanceId=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().timestamp(timestamp).strftime("%Y-%m-%d")
params = {"Limit": 1, "Filters": [{"Name": "instance-name", "Values": ["unnamed"]}]}

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

```

```

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

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

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

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

print ('curl -X POST ' + endpoint
+ ' -H "Authorization: ' + authorization + '" '
+ ' -H "Content-Type: application/json; charset=utf-8" '
+ ' -H "Host: ' + host + '" '
+ ' -H "X-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).

Responses

Last updated : 2020-01-13 16:00:51

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.

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

DTS APIs

DescribeMigrateJobs

Last updated : 2022-05-12 10:02:18

1. API Description

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

This API is used to query data migration tasks.

For a finance zone linkage, please use the domain name <https://dts.ap-shenzhen-fsi.tencentcloudapi.com>.

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: DescribeMigrateJobs.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	No	String	Data migration task ID
JobName	No	String	Data migration task name
Order	No	String	Sort by field. Value range: JobId, Status, JobName, MigrateType, RunMode, CreateTime

OrderSeq	No	String	Sorting order. Value range: ASC (ascending), DESC (descending)
Offset	No	Integer	Offset. Default value: 0
Limit	No	Integer	Number of the returned instances. Value range: [1, 100]. Default value: 20
TagFilters.N	No	Array of TagFilter	Tag filter.

3. Output Parameters

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

4. Example

Example1 Querying data migration tasks

Input Example

```
https://dts.tencentcloudapi.com/?Action=DescribeMigrateJobs
&Order=CreateTime
&OrderSeq=DESC
&Offset=0
&Limit=2
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "TotalCount": 1,
    "JobList": [
```

```
{
  "JobId": "dts-1kl0iy0v",
  "JobName": "userdts",
  "MigrateOption": {
    "RunMode": 1,
    "ExpectTime": "0000-00-00 00:00:00",
    "MigrateType": 2,
    "MigrateObject": 2,
    "ConsistencyType": 5,
    "IsOverrideRoot": 0,
    "ExternParams": "[]",
    "ConsistencyParams": {
      "SelectRowsPerTable": 0,
      "TablesSelectAll": 0,
      "TablesSelectCount": 0
    }
  },
  "SrcAccessType": "extranet",
  "SrcDatabaseType": "mysql",
  "SrcInfo": {
    "AccessKey": "",
    "Ip": "9.18.84.24",
    "Port": 10304,
    "User": "root",
    "Password": "",
    "RdsInstanceId": "",
    "CvmInstanceId": "",
    "UniqDcgId": "",
    "SubnetId": "",
    "UniqVpnGwId": "",
    "InstanceId": "",
    "Region": "ap-guangzhou",
    "VpcId": ""
  },
  "DstAccessType": "cdb",
  "DstDatabaseType": "mysql",
  "DstInfo": {
    "InstanceId": "cdb-178e0nbv",
    "Ip": "",
    "Port": 0,
    "Region": "ap-shanghai",
    "ReadOnly": 0
  },
  "Tags": [
    {
      "TagKey": "Owner",
      "TagValue": "alice"
    }
  ]
}
```

```
}
],
"Detail": {
  "StepAll": 0,
  "StepNow": 0,
  "Progress": "0",
  "CurrentStepProgress": "0",
  "MasterSlaveDistance": 0,
  "SecondsBehindMaster": 0,
  "StepInfo": []
},
"Status": 1,
"DatabaseInfo": "[]",
"CreateTime": "2018-05-24 15:06:03",
"StartTime": "0000-00-00 00:00:00",
"EndTime": "0000-00-00 00:00:00",
"ErrorInfo": []
}
},
"RequestId": "c032aab5-b56a-428d-9cf7-e5f324ee408b"
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.UnauthorizedOperationError	The current user is not allowed to perform this operation as the authentication failed.
FailedOperation.NotAllowOperation	This operation is prohibited.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.ProtocolError	Communication protocol error.
InternalError.UndefinedError	Internal error.
InternalError.UnknownError	Unknown internal error.
InvalidParameter	A parameter error occurred.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.

StopMigrateJob

Last updated : 2022-05-12 10:02:17

1. API Description

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

This API (StopMigrateJob) is used to cancel a data migration task.

During migration, this API can be used to cancel migration if the task status queried through the DescribeMigrateJobs API is running (status=7) or ready (status=8), and the migration task will fail.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: StopMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	Yes	String	Data migration task ID

3. Output Parameters

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

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

4. Example

Example1 Canceling a data migration task

Input Example

```
https://dts.tencentcloudapi.com/?Action=StopMigrateJob
&JobId=dts-1kl0iy0v
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "22f6b9ca-e94d-4a4d-b48f-a5133e791374"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.NotAllowOperation	This operation is prohibited.
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.ProtocolError	Communication protocol error.
InternalError.UnknownError	Unknown internal error.
InvalidParameter	A parameter error occurred.
OperationDenied.JobOperationDeniedError	Task operation failure.
ResourceNotFound.JobNotExist	The migration task does not exist.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.

StartMigrateJob

Last updated : 2022-05-12 10:02:18

1. API Description

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

This API (StartMigrationJob) is used to start a migration task. After the API is called, non-scheduled migration tasks will start the migration immediately, while scheduled tasks will start the countdown.

Before calling this API, be sure to use the CreateMigrateCheckJob API to check the data migration task, which can be started only if its status queried through the DescribeMigrateJobs API is check succeeded (status=4).

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: StartMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	Yes	String	Data migration task ID

3. Output Parameters

--	--	--

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

4. Example

Example1 Starting a migration task

Input Example

```
https://dts.tencentcloudapi.com/?Action=StartMigrateJob
&JobId=dts-1kl0iy0v
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "bab78b9b-ce8a-4645-bfb2-5b03397d6ea0"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.NotAllowOperation	This operation is prohibited.
FailedOperation.StartJobFailed	Failed to start the task.
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalError.AddTaskError	Failed to create the async task.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.LockError	Locks are in conflict.
InternalError.ProtocolError	Communication protocol error.
InternalError.UnknownError	Unknown internal error.
InvalidParameter	A parameter error occurred.
LimitExceeded.MaxUnusedJobs	The number of idle migration tasks exceeds the limit.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.JobOperationDeniedError	Task operation failure.
ResourceNotFound.JobNotExist	The migration task does not exist.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.

ModifyMigrateJob

Last updated : 2022-05-12 10:02:18

1. API Description

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

This API (ModifyMigrateJob) is used to modify a data migration task.

If the status of a migration task is creating (status=1), check succeeded (status=4), check failed (status=5), or migration failed (status=10), this API can be called to modify the task, but the type of the source and target instances and the region of the target instance cannot be modified.

For a finance zone linkage, please use the domain name dts.ap-shenzhen-fsi.tencentcloudapi.com.

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: ModifyMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	Yes	String	ID of the data migration task to be modified
JobName	No	String	Data migration task name

MigrateOption	No	MigrateOption	Migration task configuration options
SrcAccessType	No	String	Source instance access type. Valid values: extranet (public network), cvm (CVM-based self-created instance), dcg (Direct Connect-enabled instance), vpncloud (Tencent Cloud VPN-enabled instance), cdb (TencentDB instance)
SrcInfo	No	SrcInfo	Source instance information, which is correlated with the migration task type
DstAccessType	No	String	Target instance access type. Valid values: extranet (public network), cvm (CVM-based self-created instance), dcg (Direct Connect-enabled instance), vpncloud (Tencent Cloud VPN-enabled instance), cdb (TencentDB instance). Currently, only <code>cdb</code> is supported
DstInfo	No	DstInfo	Target instance information. The region where the target instance is located cannot be modified.
DatabasesInfo	No	String	<p>When migrating the specified table, you need to set the information of the source database table to be migrated, which should be described in JSON string format. Below are examples.</p> <p>For databases with a database-table structure: <code>[{"Database":"db1","Table":["table1","table2"]}, {"Database":"db2"}]</code></p> <p>For databases with a database-schema-table structure: <code>[{"Database":"db1","Schema":"s1","Table":["table1","table2"]}, {"Database":"db1","Schema":"s2","Table":["table1","table2"]}, {"Database":"db2","Schema":"s1","Table":["table1","table2"]}, {"Database":"db3","Table":["table1","table2"]}, {"Database":"db4","Schema":"s1"}]</code></p> <p>This field does not need to be set when the entire instance is to be migrated</p>
SrcNodeType	No	String	Source instance type. <code>simple</code> : Primary/Secondary node; <code>cluster</code> : Cluster node. If this field is left empty, the value defaults to primary/secondary node.
SrcInfoMulti.N	No	Array of SrcInfo	Source instance information, which is correlated with the migration task type.

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 a data migration task

This example shows you how to modify the configuration of the migration task “dts-1kl0iy0v”.

Input Example

```
https://dts.tencentcloudapi.com/?Action=ModifyMigrateJob
&JobId=dts-1kl0iy0v
&JobName=userdts
&DatabaseInfo=[{"Database":"test","Table":["user","log"]}]
&MigrateOption.RunMode=1
&MigrateOption.MigrateType=2
&MigrateOption.MigrateObject=2
&MigrateOption.ConsistencyType=5
&MigrateOption.IsOverrideRoot=0
&DstInfo.ReadOnly=0
&DstInfo.Region=ap-guangzhou
&SrcInfo.Supplier=others
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "27ef2b7c-a786-48b4-9404-2f9baf3f4916"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.NotAllowOperation	This operation is prohibited.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.ProtocolError	Communication protocol error.
InvalidParameter	A parameter error occurred.
ResourceNotFound.JobNotExist	The migration task does not exist.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.

DescribeMigrateCheckJob

Last updated : 2022-05-12 10:02:18

1. API Description

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

This API is used to get the check result and query check status and progress after a check is created.

If the check succeeds, you can call the StartMigrateJob API to start migration.

If the check fails, the reason can be queried. Please modify the migration configuration or adjust relevant parameters of the source/target instances through the ModifyMigrateJob API based on the error message.

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: DescribeMigrateCheckJob.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	Yes	String	Data migration task ID

3. Output Parameters

Parameter Name	Type	Description
Status	String	Check task status: unavailable, starting, running, finished
ErrorCode	Integer	Task error code
ErrorMessage	String	Task error message
Progress	String	Check task progress. For example, "30" means 30% completed
CheckFlag	Integer	Whether the check succeeds. 0: no; 1: yes; 3: not checked
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the migration check result - 2

Check failed

Input Example

```
https://dts.tencentcloudapi.com/?Action=DescribeMigrateCheckJob
&JobId=dts-1kl0iy0v
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "Status": "finished",
    "ErrorCode": -1,
    "ErrorMessage": "The selected table does not exist. Please select another one [the input parameter \"table\" was not found in the source instance]",
    "Progress": "100",
    "CheckFlag": 0,
    "RequestId": "67b4cfcf-6957-48ae-b7ef-ba33209895e3"
  }
}
```

Example2 Getting the migration check result

Check succeeded

Input Example

```
https://dts.tencentcloudapi.com/?Action=DescribeMigrateCheckJob
&JobId=dts-dau5czmd
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "Status": "finished",
    "ErrorCode": 0,
    "ErrorMessage": "ok",
    "Progress": "100",
    "CheckFlag": 1,
    "RequestId": "336448b0-2a45-4be4-8356-c245eab5784f"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.NotAllowOperation	This operation is prohibited.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.ProtocolError	Communication protocol error.
InvalidParameter	A parameter error occurred.
ResourceNotFound.JobNotExist	The migration task does not exist.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.

DeleteMigrateJob

Last updated : 2022-05-12 10:02:19

1. API Description

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

This API (DeleteMigrationJob) is used to delete a data migration task. If the task status queried through the DescribeMigrateJobs API is checking (status=3), running (status=7), ready (status=8), canceling (status=11), or completing (status=12), the task cannot be deleted.

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: DeleteMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	Yes	String	Data migration task ID

3. Output Parameters

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

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

4. Example

Example1 Deleting a data migration task

Input Example

```
https://dts.tencentcloudapi.com/?Action=DeleteMigrateJob
&JobId=dts-1kl0iy0v
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "e15f9b4c-9841-40d2-a28b-dea284a17315"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.NotAllowOperation	This operation is prohibited.
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalError	An internal error occurred.
InternalError.CeleryError	Internal scheduling system error.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.ProtocolError	Communication protocol error.
InternalError.UndefinedError	Internal error.
InternalError.UnknownError	Unknown internal error.
InvalidParameter	A parameter error occurred.
OperationDenied.JobOperationDeniedError	Task operation failure.
OperationDenied.MigrateServiceSupportError	DTS does not support the current migration type.
OperationDenied.OperationDenied	This operation cannot be performed.
ResourceNotFound.JobNotExist	The migration task does not exist.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.

CreateMigrateJob

Last updated : 2022-05-12 10:02:19

1. API Description

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

This API (CreateMigrateJob) is used to create a data migration task.

For a finance zone linkage, please use the domain name dts.ap-shenzhen-fsi.tencentcloudapi.com.

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: CreateMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobName	Yes	String	Data migration task name
MigrateOption	Yes	MigrateOption	Migration task configuration options
SrcDatabaseType	Yes	String	Source instance database type, which currently supports MySQL, Redis, MongoDB, PostgreSQL, MariaDB, Percona, and SQL Server. For more information on the

			supported types in a specific region, see the migration task creation page in the console.
SrcAccessType	Yes	String	Source instance access type. Valid values: extranet (public network), cvm (CVM-based self-created instance), dcg (Direct Connect-enabled instance), vpncloud (Tencent Cloud VPN-enabled instance), cdb (TencentDB instance), ccn (CCN instance)
SrcInfo	Yes	SrcInfo	Source instance information, which is correlated with the migration task type
DstDatabaseType	Yes	String	Target instance access type, which currently supports MySQL, Redis, MongoDB, PostgreSQL, MariaDB, and Percona, SQL Server, and TDSQL-C for MySQL. For more information on the supported types in a specific region, see the migration task creation page in the console.
DstAccessType	Yes	String	Target instance access type, which currently only supports cdb (TencentDB instance)
DstInfo	Yes	DstInfo	Destination instance information
DatabasesInfo	No	String	Information of the source table to be migrated, which is described in JSON string format. It is required if MigrateOption.MigrateObject is 2 (migrating the specified table). For databases with a database-table structure: [{"Database":"db1","Table":["table1","table2"]}, {"Database":"db2"}] For databases with a database-schema-table structure: [{"Database":"db1","Schema":"s1","Table":["table1","table2"]}, {"Database":"db1","Schema":"s2","Table":["table1","table2"]}, {"Database":"db2","Schema":"s1","Table":["table1","table2"]}, {"Database":"db3"}, {"Database":"db4","Schema":"s1"}]
Tags.N	No	Array of TagItem	Tag of the instance to be migrated.
SrcNodeType	No	String	Source instance type. <code>simple</code> : Primary/Secondary node; <code>cluster</code> : Cluster node. If this field is left empty, the value defaults to primary/secondary node.

SrcInfoMulti.N	No	Array of SrcInfo	Source instance information, which is correlated with the migration task type.
----------------	----	-------------------------------------	--------------------------------------------------------------------------------

3. Output Parameters

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

4. Example

Example1 Creating a data migration task over public network

This example shows you how to fully migrate the data from a public network MySQL instance in Guangzhou to the instance cdb-e78e0nnv in Shanghai and perform a full data consistency check.

Input Example

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

{
  "JobName": "Set an identifiable name",
  "SrcDatabaseType": "mysql",
  "SrcAccessType": "extranet",
  "SrcInfo": {
    "Supplier": "others",
    "Ip": "14.17.22.36",
    "Region": "ap-guangzhou",
    "User": "root",
    "Password": "yourPassword",
    "Port": 3306
  },
  "DstDatabaseType": "mysql",
  "DstAccessType": "cdb",
```

```
"DstInfo": {
  "InstanceId": "cdb-e78e0nnv",
  "Region": "ap-shanghai",
  "ReadOnly": 0,
  "User": "root",
  "Password": "yourPassword"
},
"DatabaseInfo": "[]",
"Tags": [
  {
    "TagKey": "Owner",
    "TagValue": "bob"
  }
],
"MigrateOption": {
  "ExternParams": "{}",
  "MigrateObject": 1,
  "RunMode": 1,
  "ExpectTime": "2020-09-22 00:00:00",
  "ConsistencyType": 2,
  "MigrateType": 2,
  "IsOverrideRoot": 0
}
}
```

Output Example

```
{
  "Response": {
    "JobId": "dts-1k10iy0v",
    "RequestId": "2201c42a-714f-4faa-915b-a51cc09f5cec"
  }
}
```

Example2 Creating a data migration task over Direct Connect

This example shows you how to fully and incrementally migrate a Direct Connect-enabled MySQL instance in Guangzhou to the instance cdb-d0dqj8nv in Shanghai.

Input Example

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

```
<Common request parameters>

{
  "JobName": "Set an identifiable name",
  "SrcDatabaseType": "mysql",
  "SrcAccessType": "dcg",
  "SrcInfo": {
    "Supplier": "others",
    "UniqDcgId": "dcg-cyrjcc09",
    "VpcId": "vpc-72jblfaa",
    "SubnetId": "subnet-7raec42a",
    "Ip": "192.168.120.136",
    "Region": "ap-guangzhou",
    "User": "root",
    "Password": "yourPassword",
    "Port": 3306
  },
  "DstDatabaseType": "mysql",
  "DstAccessType": "cdb",
  "DstInfo": {
    "InstanceId": "cdb-d0dqi8nv",
    "Region": "ap-shanghai",
    "ReadOnly": 0,
    "User": "root",
    "Password": "yourPassword"
  },
  "DatabaseInfo": "[{\\"Database\\":\\"test\\",\\"Table\\":[\\"user\\",\\"log\\"]}]",
  "Tags": [
    {
      "TagKey": "Owner",
      "TagValue": "bob"
    }
  ],
  "MigrateOption": {
    "ExternParams": "{}",
    "MigrateObject": 1,
    "RunMode": 1,
    "ExpectTime": "2020-09-22 00:00:00",
    "ConsistencyType": 2,
    "MigrateType": 2,
    "IsOverrideRoot": 0
  }
}
```

Output Example

```
{
  "Response": {
    "JobId": "dts-o3s1vxsp",
    "RequestId": "915bc42a-714f-4faa-915b-a51cc09f5714"
  }
}
```

Example3 Creating a database migration task

This example shows you how to perform structural migration of selected tables from one MySQL instance to another MySQL instance on Tencent Cloud without performing data consistency check.

Input Example

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

{
  "JobName": "Set an identifiable name",
  "SrcDatabaseType": "mysql",
  "SrcAccessType": "cdb",
  "SrcInfo": {
    "Supplier": "others",
    "InstanceId": "cdb-ieow93923",
    "User": "root",
    "Password": "yourPassword"
  },
  "DstDatabaseType": "mysql",
  "DstAccessType": "cdb",
  "DstInfo": {
    "InstanceId": "cdb-e78e0nnv",
    "Region": "ap-shanghai",
    "ReadOnly": 0,
    "User": "root",
    "Password": "yourPassword"
  },
  "DatabaseInfo": "[]",
  "Tags": [
    {
      "TagKey": "Owner",
      "TagValue": "bob"
    }
  ]
}
```

```
],  
  "MigrateOption": {  
    "ExternParams": "{}",  
    "MigrateObject": 1,  
    "RunMode": 1,  
    "ExpectTime": "2020-09-22 00:00:00",  
    "ConsistencyType": 5,  
    "MigrateType": 2,  
    "IsOverrideRoot": 0  
  }  
}
```

Output Example

```
{  
  "Response": {  
    "JobId": "dts-46i7easd",  
    "RequestId": "bc94c57b-9d69-11e9-84cb-256e968056b0"  
  }  
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.UnauthorizedOperationError	The current user is not allowed to perform this operation as the authentication failed.
FailedOperation.NotAllowOperation	This operation is prohibited.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.ProtocolError	Communication protocol error.
InternalError.UnknownError	Unknown internal error.
InvalidParameter	A parameter error occurred.
InvalidParameter.BizInvalidParameterValueError	Parameter value error.
LimitExceeded.MaxUnusedJobs	The number of idle migration tasks exceeds the limit.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.

CreateMigrateCheckJob

Last updated : 2022-05-12 10:02:19

1. API Description

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

This API is used to create a migration check task.

Before migration, you should call this API to create a check. Migration will start only if the check succeeds. You can view the check result through the `DescribeMigrateCheckJob` API.

After successful check, if the migration task needs to be modified, a new check task should be created and migration will begin only after the new check succeeds.

For a finance zone link, use the domain name <https://dts.ap-shenzhen-fsi.tencentcloudapi.com>.

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: CreateMigrateCheckJob.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	Yes	String	Data migration task ID

3. Output Parameters

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

4. Example

Example1 Creating a migration check task

Input Example

```
https://dts.tencentcloudapi.com/?Action=CreateMigrateCheckJob
&JobId=dts-1kl0iy0v
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "46b45da1-3e8e-4ef2-8de8-b1bffa027385"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.NotAllowOperation	This operation is prohibited.
InternalError.AddTaskError	Failed to create the async task.
InternalError.CgwSystemError	CGW system error.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.LockError	Locks are in conflict.
InternalError.ProtocolError	Communication protocol error.
InternalError.UndefinedError	Internal error.
InternalError.UnknownError	Unknown internal error.
InvalidParameter	A parameter error occurred.
InvalidParameter.InstanceNotFound	The instance does not exist.
LimitExceeded.MaxUnusedJobs	The number of idle migration tasks exceeds the limit.
OperationDenied	Operation denied.
OperationDenied.JobOperationDeniedError	Task operation failure.
ResourceNotFound.JobNotExist	The migration task does not exist.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.

CompleteMigrateJob

Last updated : 2022-05-12 10:02:19

1. API Description

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

This API (CompleteMigrateJob) is used to complete a data migration task.

For tasks in incremental migration mode, you need to call this API before migration gets ready, so as to stop migrating incremental data.

If the task status queried through the (DescribeMigrateJobs) API is ready (status=8), you can call this API to complete the migration 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: CompleteMigrateJob.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
JobId	Yes	String	Data migration task ID
CompleteMode	No	String	The way to complete the task, which is supported only for legacy MySQL migration task. waitForSync: wait for the source-replica lag to become 0 before stopping; immediately: complete immediately without waiting for source-replica sync. Default value: waitForSync

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 Completing a data migration task

Input Example

```
https://dts.tencentcloudapi.com/?Action=CompleteMigrateJob
&JobId=dts-1kl0iy0v
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "5268ea15-6636-44d1-89f9-e989d1c82e7d"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.NotAllowOperation	This operation is prohibited.
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.
InternalError.ProtocolError	Communication protocol error.
InternalError.UnknownError	Unknown internal error.
InvalidParameter	A parameter error occurred.
OperationDenied.JobOperationDeniedError	Task operation failure.
ResourceNotFound.BizResourceNotFound	Resource not found.
ResourceNotFound.JobNotExist	The migration task does not exist.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.

Data Subscription APIs

ResetSubscribe

Last updated : 2022-05-12 10:02:14

1. API Description

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

This API is used to reset a data subscription instance. Once reset, an activated instance can be bound to other database instances through the `ActivateSubscribe` API.

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

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params . The value used for this API: ResetSubscribe.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
Subscribelid	Yes	String	Data subscription instance ID

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 Resetting a data subscription instance

Input Example

```
https://dts.tencentcloudapi.com/?Action=ResetSubscribe
&SubscribeId=subs-ieuwi83j2e
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalServerError	An internal error occurred.
InvalidParameter	A parameter error occurred.
OperationDenied	Operation denied.
ResourceNotFound	The resource does not exist.

OfflineIsolatedSubscribe

Last updated : 2022-05-12 10:02:14

1. API Description

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

This API is used to deactivate an isolated data subscription instance.

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: OfflineIsolatedSubscribe.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
SubscribeId	Yes	String	Data subscription instance 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 Deactivating an isolated data subscription instance

This example shows you how to deactivate an isolated subscription instance.

Input Example

```
https://dts.tencentcloudapi.com/?Action=OfflineIsolatedSubscribe
&SubscribeId=subs-ieuwi83j2e
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalServerError	An internal error occurred.
InvalidParameter	A parameter error occurred.
ResourceNotFound	The resource does not exist.

ModifySubscribeVipVport

Last updated : 2022-05-12 10:02:15

1. API Description

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

This API is used to modify the IP and port number of a data subscription instance.

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: ModifySubscribeVipVport.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
Subscribelid	Yes	String	Data subscription instance ID
DstUniqSubnetId	No	String	Specified destination subnet. If this parameter is passed in, <code>DstIp</code> must be in the destination subnet
DstIp	No	String	Target IP. Either this field or <code>DstPort</code> must be passed in
DstPort	No	Integer	Target port. Value range: [1025-65535]

3. Output Parameters

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

4. Example

Example1 Modifying the IP and port number of data subscription instance

Input Example

```
https://dts.tencentcloudapi.com/?Action=ModifySubscribeVipVport
&SubscribeId=subs-ieuwi83j2e
&DstVip=192.168.0.1
&DstPort=7575
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb"
  }
}
```

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](#)

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalError	An internal error occurred.
InvalidParameter	A parameter error occurred.
ResourceNotFound	The resource does not exist.

ModifySubscribeObjects

Last updated : 2022-05-12 10:02:15

1. API Description

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

This API is used to modify the subscription rule of a data subscription channel.

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: ModifySubscribeObjects.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
SubscribeId	Yes	String	Data subscription instance ID
SubscribeObjectType	Yes	Integer	Data subscription type. Valid values: 0 (full instance subscription), 1 (data subscription), 2 (structure subscription), 3 (data subscription + structure subscription)
Objects.N	No	Array of SubscribeObject	Information of subscribed table

3. Output Parameters

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

4. Example

Example1 Modifying the subscription rule of a data subscription channel

This example shows you how to modify the subscription rule of a data subscription, such as adding or removing certain tables.

Input Example

```
https://dts.tencentcloudapi.com/?Action=ModifySubscribeObjects
&SubscribeId=subs-ieuwi83j2e
&SubscribeObjectType=0
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb",
    "AsyncRequestId": "19b514a7-816c43c1-ffb34ab6-8c6a23eb"
  }
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalServerError	An internal error occurred.
InvalidParameter	A parameter error occurred.
OperationDenied	Operation denied.
ResourceNotFound	The resource does not exist.
ResourceNotFound.BizResourceNotFound	Resource not found.

ModifySubscribeName

Last updated : 2022-05-12 10:02:15

1. API Description

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

This API is used to rename a data subscription instance.

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: ModifySubscribeName.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
SubscribeId	Yes	String	Data subscription instance ID
SubscribeName	Yes	String	Data subscription instance name. Length limit: [1,60]

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 Renaming a data subscription instance

Input Example

```
https://dts.tencentcloudapi.com/?Action=ModifySubscribeName
&SubscribeId=subs-ieuwi83j2e
&SubscribeName=test
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb"
  }
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError	An internal error occurred.
InvalidParameter	A parameter error occurred.
ResourceNotFound	The resource does not exist.

ModifySubscribeConsumeTime

Last updated : 2022-05-12 10:02:15

1. API Description

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

This API is used to modify the consumption time point of a data subscription channel.

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: ModifySubscribeConsumeTime.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
SubscribedId	Yes	String	Data subscription instance ID
ConsumeStartTime	Yes	String	Consumption starting time point in the format of <code>Y-m-d h:m:s</code> , i.e., the starting time point for data subscription. Value range: within the last 24 hours

3. Output Parameters

--	--	--

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

4. Example

Example1 Modifying the consumption starting time point of data subscription channel

This example shows you how to reset the data starting point of a data subscription channel, so that the SDK can consume data starting at this time point.

Input Example

```
https://dts.tencentcloudapi.com/?Action=ModifySubscribeConsumeTime
&SubscribeId=subs-ieuwi83j2e
&ConsumeStartTime=2019-10-26 00:00:00
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb"
  }
}
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalError	An internal error occurred.
InvalidParameter	A parameter error occurred.
OperationDenied	Operation denied.
ResourceNotFound	The resource does not exist.

IsolateSubscribe

Last updated : 2022-05-12 10:02:16

1. API Description

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

This API is used to isolate an hourly billed subscription instance. After this API is called, the instance will become unavailable and billing will stop for it.

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: IsolateSubscribe.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
Subscribelid	Yes	String	Subscription instance 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 Isolating subscription objects

Input Example

```
https://dts.tencentcloudapi.com/?Action=IsolateSubscribe
&SubscribeId=subs-ieuwi83j2e
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb"
  }
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InvalidParameter	A parameter error occurred.
InvalidParameter.BizInvalidParameterValueError	Parameter value error.
ResourceNotFound	The resource does not exist.
ResourceNotFound.BizResourceNotFoundError	Resource not found.
UnsupportedOperation	Unsupported operation

DescribeSubscribes

Last updated : 2022-05-12 10:02:16

1. API Description

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

This API is used to get the information list of data subscription instances. Pagination is enabled by default with 20 results returned each time.

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: DescribeSubscribes.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
SubscribeId	No	String	Data subscription instance ID
SubscribeName	No	String	Data subscription instance name
InstanceId	No	String	ID of bound database instance
ChannelId	No	String	Data subscription instance channel ID
PayType	No	String	Billing mode filter. Default value: 1 (pay-as-you-go)

Product	No	String	Subscribed database product, such as MySQL
Status.N	No	Array of String	Data subscription instance status. Valid values: creating, normal, isolating, isolated, offlining
SubsStatus.N	No	Array of String	Data subscription instance configuration status. Valid values: unconfigure, configuring, configured
Offset	No	Integer	Starting offset of returned results
Limit	No	Integer	Number of results to be returned at a time
OrderDirection	No	String	Sorting order. Valid values: DESC, ASC. Default value: DESC, indicating descending by creation time
TagFilters.N	No	Array of TagFilter	Tag filtering condition
SubscribeVersion	No	String	Subscription instance edition. <code>txdts</code> : legacy data subscription; <code>kafka</code> : data subscription in Kafka edition

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Number of eligible instances.
Items	Array of SubscribeInfo	Information list of data subscription instances
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying data subscription instance list

Input Example

```
https://dts.tencentcloudapi.com/?Action=DescribeSubscribes
&Status.0=isolate
&Offset=0
```

```
&Limit=1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "TotalCount": 2,
    "Items": [
      {
        "ChannelId": "dts-channel-C9rS58f2rFx11ZEZ",
        "ConsumeStartTime": "2019-12-19 16:23:45",
        "CreateTime": "2019-12-20 14:59:07",
        "ExpireTime": "0000-00-00 00:00:00",
        "InstanceId": "cdb-forsubsc",
        "InstanceStatus": "running",
        "IsolateTime": "0000-00-00 00:00:00",
        "ModifyTime": "2019-12-20 18:06:26",
        "OfflineTime": "0000-00-00 00:00:00",
        "PayType": 1,
        "Product": "mysql",
        "Region": "ap-guangzhou",
        "SdkConsumedTime": "0000-00-00 00:00:00",
        "Status": "normal",
        "SubsStatus": "configured",
        "SubscribeId": "subs-58zcu8bax0",
        "SubscribeName": "Test instance",
        "UniqSubnetId": "subnet-4p1hpsj8",
        "UniqVpcId": "vpc-fbg8gh1j",
        "Vip": "192.168.1.143",
        "Vport": 7507
      }
    ],
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb"
  }
}
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.UnauthorizedOperationError	The current user is not allowed to perform this operation as the authentication failed.
InternalError	An internal error occurred.
InvalidParameter	A parameter error occurred.

DescribeSubscribeConf

Last updated : 2022-05-12 10:02:16

1. API Description

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

This API is used to query the subscription instance configuration.

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: DescribeSubscribeConf.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
Subscribelid	Yes	String	Subscription instance ID

3. Output Parameters

Parameter Name	Type	Description
Subscribelid	String	Subscription instance ID

SubscribeName	String	Subscription instance name
ChannelId	String	Subscription channel
Product	String	Subscribed database type
InstanceId	String	Subscribed instance
InstanceStatus	String	Subscribed instance status. Valid values: running, offline, isolate
SubsStatus	String	Subscription instance status. Valid values: unconfigure, configuring, configured
Status	String	Subscription instance lifecycle status. Valid values: normal, isolating, isolated, offlining
CreateTime	String	Subscription instance creation time
IsolateTime	String	Subscription instance isolation time
ExpireTime	String	Subscription instance expiration time
OfflineTime	String	Subscription instance deactivation time
ConsumeStartTime	String	Consumption starting time point of subscription instance
PayType	Integer	Subscription instance billing mode. 1: hourly billing
Vip	String	Subscription channel VIP
Vport	Integer	Subscription channel port
UniqVpcId	String	Subscription channel <code>VpcId</code>
UniqSubnetId	String	Subscription channel <code>SubnetId</code>
SdkConsumedTime	String	Current SDK consumption time point
SdkHost	String	Subscription SDK IP address
SubscribeObjectType	Integer	Subscription object type. 0: full instance subscription, 1: DDL data subscription, 2: DML structure subscription, 3: DDL data subscription + DML structure subscription
SubscribeObjects	Array of SubscribeObject	Subscription object, which is an empty array if <code>SubscribeObjectType</code> is 0
ModifyTime	String	Modification time

Region	String	Region
Tags	Array of TagItem	Tags of the subscription Note: this field may return <code>null</code> , indicating that no valid values can be obtained.
AutoRenewFlag	Integer	Whether auto-renewal is enabled. 0: do not enable, 1: enable Note: this field may return <code>null</code> , indicating that no valid values can be obtained.
SubscribeVersion	String	Data subscription edition. <code>txdts</code> : Legacy edition; <code>kafka</code> : Kafka edition.
Errors	Array of SubsErr	Error message. Note: This field may return <code>null</code> , 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 Viewing subscription configuration details

Input Example

```
https://dts.tencentcloudapi.com/?Action=DescribeSubscribeConf
&SubscribeId=subs-ieuwi83j2e
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "ChannelId": "dts-channel-C9rS58f2rFx11ZEZ",
    "ConsumeStartTime": "2019-12-19 16:23:45",
    "CreateTime": "2019-12-20 14:59:07",
    "ExpireTime": "0000-00-00 00:00:00",
    "InstanceId": "cdb-forsubsc",
    "InstanceStatus": "running",
    "IsolateTime": "0000-00-00 00:00:00",
    "ModifyTime": "2019-12-20 18:06:26",
    "OfflineTime": "0000-00-00 00:00:00",
    "PayType": 1,
  }
}
```

```
"Product": "mysql",
"Region": "ap-guangzhou",
"RequestId": "e580eac0-26c7-11ea-8e66-910ac0afe95e",
"SdkConsumedTime": "0000-00-00 00:00:00",
"SdkHost": "",
"Status": "normal",
"SubsStatus": "configured",
"SubscribeId": "subs-58zcu8bax0",
"SubscribeName": "Test instance",
"SubscribeObjectType": 3,
"SubscribeObjects": [
{
"DatabaseName": "dts",
"ObjectsType": 0,
"TableNames": null
}
],
"UniqSubnetId": "subnet-4p1hpsj8",
"SubscribeVersion": "kafka",
"UniqVpcId": "vpc-fbg8gh1j",
"Vip": "192.168.1.143",
"Vport": 7507,
"AutoRenewFlag": 0,
"Errors": [
{
"Message": ""
}
],
"Tags": [
{
"TagKey": "userDefineKey",
"TagValue": "userDefineValue"
}
]
}
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalServerError	An internal error occurred.
InvalidParameter	A parameter error occurred.
InvalidParameterValue.InvalidParameterValue	Incorrect parameter value.
ResourceNotFound	The resource does not exist.
ResourceNotFound.BizResourceNotFound	Resource not found.
ResourceNotFound.ResourceNotFound	The instance is not found.

DescribeAsyncRequestInfo

Last updated : 2022-05-12 10:02:17

1. API Description

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

This API is used to query the execution 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: DescribeAsyncRequestInfo.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
AsyncRequestId	Yes	String	Task ID

3. Output Parameters

Parameter Name	Type	Description

Info	String	Task execution result information
Status	String	Task execution status. Valid values: success, failed, running
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying task execution result

Input Example

```
https://dts.tencentcloudapi.com/?Action=DescribeAsyncRequestInfo
&AsyncRequestId=cafebabe-254f-11ea-8995-e92c139e6918
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "Status": "success",
    "Info": "ok"
  }
}
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalError	An internal error occurred.
InvalidParameter	A parameter error occurred.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.OperationDenied	This operation cannot be performed.
ResourceNotFound	The resource does not exist.
UnsupportedOperation	Unsupported operation

CreateSubscribe

Last updated : 2022-05-12 10:02:17

1. API Description

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

This API is used to create a data subscription instance.

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: CreateSubscribe.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
Product	Yes	String	Subscribed database type. Currently, MySQL is supported
PayType	Yes	Integer	Instance billing mode, which is always 1 (hourly billing),
Duration	No	Integer	Purchase duration in months, which is required if <code>PayType</code> is 0. Maximum value: 120 (this field is not required of global site users and is better to be hidden)
Count	No	Integer	Quantity. Default value: 1. Maximum value: 10
AutoRenew	No	Integer	Whether to auto-renew. Default value: 0. This flag does not take effect

			for hourly billed instances (this field should be hidden from global site users)
Tags.N	No	Array of TagItem	Instance resource tags
Name	No	String	A custom instance name.

3. Output Parameters

Parameter Name	Type	Description
SubscribeIds	Array of String	Data subscription instance ID array 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 data subscription instance

Input Example

```
https://dts.tencentcloudapi.com/?Action=CreateSubscribe
&Product=mysql
&PayType=1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "SubscribeIds": [
      "subs-ieuwi83j2e"
    ],
    "RequestId": "14a719b5-ffb34ab6-816c43c1-8c6a23eb"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalServerError	An internal error occurred.
InvalidParameter	A parameter error occurred.
OperationDenied	Operation denied.
OperationDenied.OperationDenied	This operation cannot be performed.

ActivateSubscribe

Last updated : 2022-05-12 10:02:17

1. API Description

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

This API is used to configure a data subscription, which can be called only for subscription instances in unconfigured status.

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: ActivateSubscribe.
Version	Yes	String	Common Params . The value used for this API: 2018-03-30.
Region	Yes	String	Common Params . For more information, please see the list of regions supported by the product.
Subscribelid	Yes	String	Subscription instance ID.
Instanceid	Yes	String	Database Instance ID
SubscribeObjectType	Yes	Integer	Data subscription type. 0: full instance subscription, 1: data subscription, 2: structure subscription, 3: data subscription and structure subscription
Objects	No	SubscribeObject	Subscription object

UniqSubnetId	No	String	Subnet of data subscription service, which is the subnet of the database instance by default.
Vport	No	Integer	Subscription service port. Default value: 7507

3. Output Parameters

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

4. Example

Example1 Configuring data subscription

This example shows you how to configure data subscription.

Input Example

```
https://dts.tencentcloudapi.com/?Action=ActivateSubscribe
&SubscribeId=subs-ieuwi83j2e
&InstanceId=cdb-9dijwkkw2
&SubscribeObjectType=0
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "AsyncRequestId": "cafebabe-254f-11ea-8995-e92c139e6978",
    "RequestId": "9iu7ueht-c38f-11ea-84e5-d5a93c1b919b"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
InternalServerError	An internal error occurred.
InternalServerError.DatabaseError	Failed to access the database on the DTS platform.
InvalidParameter	A parameter error occurred.
InvalidParameter.InstanceNotFound	The instance does not exist.
OperationDenied	Operation denied.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.OperationDenied	This operation cannot be performed.
ResourceNotFound	The resource does not exist.
UnsupportedOperation	Unsupported operation

Data Types

Last updated : 2022-05-12 10:02:19

ConsistencyParams

Sampling parameter for spot check

Used by actions: CreateMigrateJob, DescribeMigrateJobs, ModifyMigrateJob.

Name	Type	Required	Description
SelectRowsPerTable	Integer	Yes	Data content check parameter, which refers to the proportion of the rows selected for data comparison in all the rows of the table. Value: an integer between 1 and 100.
TablesSelectAll	Integer	Yes	Data content check parameter, which refers to the proportion of the tables selected for data detection in all the tables. Value: an integer between 1 and 100.
TablesSelectCount	Integer	Yes	Data quantity check parameter, which checks whether the numbers of rows are identical. It refers to the proportion of the tables selected for quantity check in all the tables. Value: an integer between 1 and 100.

DstInfo

Target instance information, which is correlated with the migration task type

Used by actions: CreateMigrateJob, DescribeMigrateJobs, ModifyMigrateJob.

Name	Type	Required	Description
InstanceId	String	Yes	Target instance ID, such as cdb-jd92ijd8
Region	String	Yes	Target instance region, such as ap-guangzhou
Ip	String	No	Target instance VIP, which has been disused and does not need to be entered
Port	Integer	No	Target instance Vport, which has been disused and does not need to be entered

ReadOnly	Integer	No	Only valid for MySQL currently. For instance-level migration, the value range is: 1 (read-only), 0 (read/write)
User	String	No	Target database account
Password	String	No	Target database password

ErrorInfo

Message and prompt for migration task error

Used by actions: DescribeMigrateJobs.

Name	Type	Description
ErrorLog	String	Specific error log, including error code and error message
HelpDoc	String	Help document URL corresponding to error

MigrateDetailInfo

Describes the specific migration process

Used by actions: DescribeMigrateJobs.

Name	Type	Description
StepAll	Integer	Total number of steps
StepNow	Integer	Current step
Progress	String	Overall progress, such as "10"
CurrentStepProgress	String	Progress of current step, such as "1"
MasterSlaveDistance	Integer	Master/slave lag in MB, which is valid during incremental sync and currently supported by TencentDB for Redis and MySQL
SecondsBehindMaster	Integer	Master/slave lag in seconds, which is valid during incremental sync and currently supported by TencentDB for MySQL
StepInfo	Array of	Step information

[MigrateStepDetailInfo](#)

MigrateJobInfo

Migration task details

Used by actions: DescribeMigrateJobs.

Name	Type	Description
JobId	String	Data migration task ID
JobName	String	Data migration task name
MigrateOption	MigrateOption	Migration task configuration options
SrcDatabaseType	String	Source instance database type: MySQL, Redis, MongoDB, PostgreSQL, MariaDB, Percona
SrcAccessType	String	Source instance access type. Value range: extranet (public network), cvm (CVM-created instance), dcg (Direct Connect-enabled instance), vpncloud (Tencent Cloud VPN-enabled instance), cdb (TencentDB instance), ccn (CCN instances)
SrcInfo	SrcInfo	Source instance information, which is correlated with the migration task type
DstDatabaseType	String	Target instance access type: MySQL, Redis, MongoDB, PostgreSQL, MariaDB, Percona
DstAccessType	String	Target instance access type, which currently only supports cdb (TencentDB instance)
DstInfo	DstInfo	Target instance information
DatabaseInfo	String	Information of the source table to be migrated. If the entire instance is to be migrated, this field should be []
CreateTime	Timestamp	Task creation/submission time
StartTime	Timestamp	Task start time
EndTime	Timestamp	Task end time
Status	Integer	Task status. Value range: 1 (Creating), 3 (Checking), 4 (CheckPass), 5 (CheckNotPass), 7 (Running), 8 (ReadyComplete),

		9 (Success), 10 (Failed), 11 (Stopping), 12 (Completing)
Detail	MigrateDetailInfo	Task details
ErrorInfo	Array of ErrorInfo	Prompt message for task error, which is not null or empty when an error occurs with the task
Tags	Array of TagItem	Tag Note: this field may return <code>null</code> , indicating that no valid values can be obtained.
SrcInfoMulti	Array of SrcInfo	Information of the source instance, a cluster edition instance whose access type is not <code>cdb</code> . Note: This field may return <code>null</code> , indicating that no valid values can be obtained.

MigrateOption

Migration task configuration options

Used by actions: CreateMigrateJob, DescribeMigrateJobs, ModifyMigrateJob.

Name	Type	Required	Description
RunMode	Integer	Yes	Task operation mode. Value range: 1 (immediate execution), 2 (scheduled execution)
ExpectTime	Timestamp	No	Expected execution time in the format of yyyy-mm-dd hh:mm:ss. If runMode=2, this field is required
MigrateType	Integer	No	Data migration type. Value range: 1 (structural migration), 2 (full migration), 3 (full + incremental migration)
MigrateObject	Integer	No	Migration subject. 1: entire instance; 2: specified table
ConsistencyType	Integer	No	Parameter of spot data consistency check. 1: not configured; 2: full check; 3: spot check; 4: check inconsistent tables only; 5: no check
IsOverrideRoot	Integer	No	Whether to overwrite the target database with the root account of the source database. Value range:

			0 (no), 1 (yes). This value should be 0 for table or structural migration
ExternParams	String	No	<p>Additional parameters for different databases, which are described in JSON format.</p> <p>The following parameters can be defined for Redis:</p> <pre>{ "ClientOutputBufferHardLimit":512, Hard capacity limit of slave buffer (MB) "ClientOutputBufferSoftLimit":512, Soft capacity limit of slave buffer (MB) "ClientOutputBufferPersistTime":60, Soft limit duration of slave buffer (s) "ReplBacklogSize":512, Circular buffer capacity limit (MB) "ReplTimeout":120, Replication timeout period (s) }</pre> <p>The following parameters can be defined for MongoDB:</p> <pre>{ 'SrcAuthDatabase':'admin', 'SrcAuthFlag': "1", 'SrcAuthMechanism':"SCRAM-SHA-1" }</pre> <p>MySQL currently does not support configuring additional parameters.</p>
ConsistencyParams	ConsistencyParams	No	Only used for "spot data consistency check". It is required if ConsistencyType is spot check

MigrateStepDetailInfo

Information of steps in migration

Used by actions: DescribeMigrateJobs.

Name	Type	Description
StepNo	Integer	Step number
StepName	String	Step name
StepId	String	Step ID

Status	Integer	Step status. Value range: 0 (default), 1 (succeeded), 2 (failed), 3 (in progress), 4 (not started)
StartTime	String	Start time of current step in the format of <code>yyyy-mm-dd hh:mm:ss</code> . This field is meaningless if it does not exist or is empty Note: this field may return null, indicating that no valid values can be obtained.

SrcInfo

Source instance information

Used by actions: CreateMigrateJob, DescribeMigrateJobs, ModifyMigrateJob.

Name	Type	Required	Description
AccessKey	String	No	Alibaba Cloud AccessKey, which is applicable if the source database is an Alibaba Cloud ApsaraDB for RDS 5.6 instance
Ip	String	No	Instance IP address
Port	Integer	No	Instance port
User	String	No	Instance username
Password	String	No	Instance password
RdsInstanceid	String	No	Alibaba Cloud ApsaraDB for RDS instance ID, which is applicable if the source database is an Alibaba Cloud ApsaraDB for RDS 5.6/5.7 instance
CvmInstanceid	String	No	Short CVM instance ID in the format of <code>ins-olgl39y8</code> . It is the same as the instance ID displayed on the CVM Console page. For CVM-based self-created instances, this field needs to be passed in
UniqDcgId	String	No	Direct Connect gateway ID in the format of <code>dcg-0rxtqqxb</code>
VpcId	String	No	VPC ID in the format of <code>vpc-92jblxto</code>
SubnetId	String	No	VPC Subnet ID in the format of <code>subnet-3paxmkdz</code>
UniqVpnGwId	String	No	VPN gateway ID in the format of <code>vpngw-9ghexg7q</code>
Instanceid	String	No	Database instance ID in the format of <code>cdb-powiqx8q</code>
Region	String	No	Region name, such as <code>ap-guangzhou</code>

Supplier	String	No	For Alibaba Cloud ApsaraDB for RDS instances, enter "aliyun"; otherwise, enter "others"
CcnId	String	No	CCN instance ID, such as ccn-afp6kltc Note: This field may return null, indicating that no valid values can be obtained.
EngineVersion	String	No	Database version. This parameter is valid only when the instance is an RDS instance. Value: 5.6 or 5.7. Default value: 5.6

SubsErr

Error message displayed when the subscription configuration was queried.

Used by actions: DescribeSubscribeConf.

Name	Type	Description
Message	String	Error message. Note: This field may return <code>null</code> , indicating that no valid values can be obtained.

SubscribeInfo

Subscription instance information

Used by actions: DescribeSubscribes.

Name	Type	Required	Description
SubscribeId	String	No	Data subscription instance ID
SubscribeName	String	No	Data subscription instance name
ChannelId	String	No	ID of channel bound to data subscription instance
Product	String	No	Name of product bound to data subscription instance
InstanceId	String	No	ID of database instance bound to data subscription instance
InstanceStatus	String	No	Status of database instance bound to data subscription instance
SubsStatus	String	No	Data subscription instance configuration status. Valid values: unconfigure, configuring, configured

ModifyTime	String	No	Last modified time
CreateTime	String	No	Creation time
IsolateTime	String	No	Isolation time
ExpireTime	String	No	Expiration time
OfflineTime	String	No	Deactivation time
ConsumeStartTime	String	No	Last modified consumption starting time point. If it has never been modified, this field is 0
Region	String	No	Data subscription instance region
PayType	Integer	No	Billing mode. 1: pay-as-you-go
Vip	String	No	Data subscription instance VIP
Vport	Integer	No	Data subscription instance Vport
UniqVpclid	String	No	Unique ID of the VPC where the data subscription instance VIP resides
UniqSubnetId	String	No	Unique ID of the subnet where the data subscription instance VIP resides
Status	String	No	Data subscription instance status. Valid values: creating, normal, isolating, isolated, offlining, offline
SdkConsumedTime	String	No	Timestamp of the last message confirmed by the SDK. If the SDK keeps consuming, this field can also be used as the current consumption time point of the SDK
Tags	Array of TagItem	No	Tag Note: this field may return <code>null</code> , indicating that no valid values can be obtained.
AutoRenewFlag	Integer	No	Whether auto-renewal is enabled. 0: do not enable; 1: enable Note: this field may return <code>null</code> , indicating that no valid values can be obtained.
SubscribeVersion	String	No	Subscription instance edition. <code>txdts</code> : legacy data subscription; <code>kafka</code> : data subscription in Kafka edition Note: this field may return <code>null</code> , indicating that no valid values can be obtained.

SubscribeObject

Data subscription object

Used by actions: ActivateSubscribe, DescribeSubscribeConf, ModifySubscribeObjects.

Name	Type	Required	Description
ObjectsType	Integer	Yes	Data subscription object type. 0: database, 1: database table Note: this field may return null, indicating that no valid values can be obtained.
DatabaseName	String	Yes	Name of subscribed database Note: this field may return null, indicating that no valid values can be obtained.
TableNames	Array of String	No	Array of table names in subscribed database Note: this field may return null, indicating that no valid values can be obtained.

SubscribeRegionConf

Sale information of data subscription region

Used by actions: DescribeRegionConf.

Name	Type	Description
RegionName	String	Region name, such as Guangzhou Note: this field may return null, indicating that no valid values can be obtained.
Region	String	Region ID, such as ap-guangzhou Note: this field may return null, indicating that no valid values can be obtained.
Area	String	Region name, such as South China Note: this field may return null, indicating that no valid values can be obtained.
IsDefaultRegion	Integer	Whether it is the default region. 0: no, 1: yes Note: this field may return null, indicating that no valid values can be obtained.
Status	Integer	Purchasable status of current region. 1: normal, 2: beta test, 3: not purchasable Note: this field may return null, indicating that no valid values can be obtained.

TagFilter

Tag filtering

Used by actions: DescribeMigrateJobs, DescribeSubscribes.

Name	Type	Required	Description
TagKey	String	Yes	Tag key value
TagValue	Array of String	No	Tag value

TagItem

Tag

Used by actions: CreateMigrateJob, CreateSubscribe, DescribeMigrateJobs, DescribeSubscribeConf, DescribeSubscribes.

Name	Type	Required	Description
TagKey	String	Yes	Tag key value
TagValue	String	No	Tag value Note: this field may return <code>null</code> , indicating that no valid values can be obtained.

Error Codes

Last updated : 2022-05-12 10:02:20

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.
InternalError	Internal error.
InvalidAction	The API does not exist.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidRequest	The multipart format of the request body is incorrect.
IpInBlacklist	Your IP is in uin IP blacklist.
IpNotInWhitelist	Your IP is not in uin IP whitelist.
LimitExceeded	Quota limit exceeded.
MissingParameter	A parameter is missing.
NoSuchProduct	The product does not exist.
NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
RequestLimitExceeded.GlobalRegionUinLimitExceeded	Uin exceeds the frequency limit.
RequestLimitExceeded.IPLimitExceeded	The number of ip requests exceeds the frequency limit.
RequestLimitExceeded.UinLimitExceeded	The number of uin requests exceeds the frequency

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

Service Error Codes

Error Code	Description
AuthFailure.UnauthorizedOperationError	The current user is not allowed to perform this operation as the authentication failed.
FailedOperation.NotAllowOperation	This operation is prohibited.
FailedOperation.StartJobFailed	Failed to start the task.
FailedOperation.StatusInConflict	This operation cannot be performed due to status conflict.
InternalError.AddTaskError	Failed to create the async task.
InternalError.CeleryError	Internal scheduling system error.
InternalError.CgwSystemError	CGW system error.
InternalError.DatabaseError	Failed to access the database on the DTS platform.
InternalError.DuplicateJob	Migration tasks are in conflict.

InternalError.LockError	Locks are in conflict.
InternalError.ProtocolError	Communication protocol error.
InternalError.UndefinedError	Internal error.
InternalError.UnknownError	Unknown internal error.
InvalidParameter.BizInvalidParameterValueError	Parameter value error.
InvalidParameter.InstanceNotFound	The instance does not exist.
InvalidParameterValue.InvalidParameterValue	Incorrect parameter value.
LimitExceeded.MaxUnusedJobs	The number of idle migration tasks exceeds the limit.
OperationDenied	Operation denied.
OperationDenied.BizOperationDeniedError	The operation was denied as the condition was not met.
OperationDenied.JobOperationDeniedError	Task operation failure.
OperationDenied.MigrateServiceSupportError	DTS does not support the current migration type.
OperationDenied.OperationDenied	This operation cannot be performed.
ResourceNotFound.BizResourceNotFoundError	Resource not found.
ResourceNotFound.JobNotExist	The migration task does not exist.
ResourceNotFound.ResourceNotFound	The instance is not found.
UnauthorizedOperation.NotEnoughPrivileges	Verification failed. Insufficient permissions.