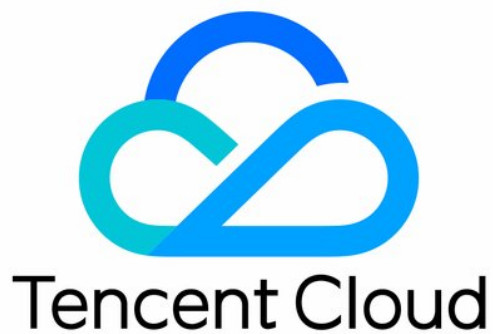


# **Batch Compute**

## **API Documentation**

### **Product Documentation**



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# Contents

## API Documentation

History

Introduction

API Category

Making API Requests

Request Structure

Common Params

Signature v3

Signature

Responses

Configuration Viewing-related APIs

DescribeAvailableCvmInstanceTypes

DescribeCvmZoneInstanceConfigInfos

DescribeInstanceCategories

Compute Environment APIs

DeleteComputeEnv

ModifyComputeEnv

CreateComputeEnv

DescribeComputeEnv

DescribeComputeEnvs

DescribeComputeEnvCreateInfos

TerminateComputeNode

DescribeComputeEnvActivities

DescribeComputeEnvCreateInfo

TerminateComputeNodes

DetachInstances

AttachInstances

Task Template-related APIs

CreateTaskTemplate

DeleteTaskTemplates

ModifyTaskTemplate

DescribeTaskTemplates

Job-related APIs

DescribeJob

DescribeTask

DeleteJob

SubmitJob

TerminateTaskInstance

DescribeJobs

DescribeJobSubmitInfo

TerminateJob

DescribeTaskLogs

RetryJobs

Data Types

Error Codes

# API Documentation

## History

Last updated : 2023-05-04 15:47:06

### Release 8

Release time: 2023-05-04 15:43:06

Release updates:

Improvement to existing documentation.

New APIs:

- [AttachInstances](#)
- [CreateComputeEnv](#)
- [CreateTaskTemplate](#)
- [DeleteComputeEnv](#)
- [DeleteJob](#)
- [DeleteTaskTemplates](#)
- [DescribeComputeEnv](#)
- [DescribeComputeEnvActivities](#)
- [DescribeComputeEnvCreateInfo](#)
- [DescribeComputeEnvCreateInfos](#)
- [DescribeComputeEnvs](#)
- [DescribeJob](#)
- [DescribeJobSubmitInfo](#)
- [DescribeJobs](#)
- [DescribeTask](#)
- [DescribeTaskLogs](#)
- [DescribeTaskTemplates](#)
- [DetachInstances](#)
- [ModifyComputeEnv](#)
- [ModifyTaskTemplate](#)
- [RetryJobs](#)
- [TerminateComputeNode](#)
- [TerminateComputeNodes](#)
- [TerminateJob](#)

- [TerminateTaskInstance](#)

New data structures:

- [Activity](#)
- [AgentRunningMode](#)
- [AnonymousComputeEnv](#)
- [Application](#)
- [Authentication](#)
- [ComputeEnvCreateInfo](#)
- [ComputeEnvData](#)
- [ComputeEnvView](#)
- [ComputeNode](#)
- [ComputeNodeMetrics](#)
- [DataDisk](#)
- [Dependence](#)
- [Docker](#)
- [EnhancedService](#)
- [EnvData](#)
- [EnvVar](#)
- [EventConfig](#)
- [EventVar](#)
- [InputMapping](#)
- [Instance](#)
- [InstanceMarketOptionsRequest](#)
- [InstanceTypeOptions](#)
- [InternetAccessible](#)
- [JobView](#)
- [LoginSettings](#)
- [MountDataDisk](#)
- [NamedComputeEnv](#)
- [Notification](#)
- [OutputMapping](#)
- [OutputMappingConfig](#)
- [OutputMappingOption](#)
- [Placement](#)
- [RedirectInfo](#)
- [RedirectLocalInfo](#)

- [RunAutomationServiceEnabled](#)
- [RunMonitorServiceEnabled](#)
- [RunSecurityServiceEnabled](#)
- [SpotMarketOptions](#)
- [SystemDisk](#)
- [Tag](#)
- [Task](#)
- [TaskInstanceLog](#)
- [TaskInstanceMetrics](#)
- [TaskInstanceView](#)
- [TaskMetrics](#)
- [TaskTemplateView](#)
- [TaskView](#)
- [VirtualPrivateCloud](#)

Modified data structures:

- [InstanceTypeQuotaItem](#)
  - New members: GpuCount, Frequency

## Release 7

Release time: 2022-09-19 11:32:48

Release updates:

Improvement to existing documentation.

### Deleted APIs:

- [AttachInstances](#)
- [CreateComputeEnv](#)
- [CreateTaskTemplate](#)
- [DeleteComputeEnv](#)
- [DeleteJob](#)
- [DeleteTaskTemplates](#)
- [DescribeComputeEnv](#)
- [DescribeComputeEnvActivities](#)
- [DescribeComputeEnvCreateInfo](#)
- [DescribeComputeEnvCreateInfos](#)

- DescribeComputeEnvs
- DescribeJob
- DescribeJobSubmitInfo
- DescribeJobs
- DescribeTask
- DescribeTaskLogs
- DescribeTaskTemplates
- DetachInstances
- ModifyComputeEnv
- ModifyTaskTemplate
- RetryJobs
- TerminateComputeNode
- TerminateComputeNodes
- TerminateJob
- TerminateTaskInstance

**Deleted data structures:**

- Activity
- AgentRunningMode
- AnonymousComputeEnv
- Application
- Authentication
- ComputeEnvCreateInfo
- ComputeEnvData
- ComputeEnvView
- ComputeNode
- ComputeNodeMetrics
- DataDisk
- Dependence
- Docker
- EnhancedService
- EnvData
- EnvVar
- EventConfig
- EventVar
- InputMapping
- Instance



- InstanceMarketOptionsRequest
- InstanceTypeOptions
- InternetAccessible
- JobView
- LoginSettings
- MountDataDisk
- NamedComputeEnv
- Notification
- OutputMapping
- OutputMappingConfig
- Placement
- RedirectInfo
- RedirectLocalInfo
- RunAutomationServiceEnabled
- RunMonitorServiceEnabled
- RunSecurityServiceEnabled
- SpotMarketOptions
- SystemDisk
- Tag
- Task
- TaskInstanceLog
- TaskInstanceMetrics
- TaskInstanceView
- TaskMetrics
- TaskTemplateView
- TaskView
- VirtualPrivateCloud

## Release 6

Release time: 2022-04-01 10:44:32

Release updates:

Improvement to existing documentation.

### Deleted APIs:

- SubmitJob

**Deleted data structures:**

- Job

## Release 5

Release time: 2021-09-09 11:37:02

Release updates:

Improvement to existing documentation.

New data structures:

- [RunAutomationServiceEnabled](#)

Modified data structures:

- [EnhancedService](#)
  - New members:AutomationService

## Release 4

Release time: 2021-09-01 11:32:58

Release updates:

Improvement to existing documentation.

Modified data structures:

- [DataDisk](#)
  - New members:Cdclid
- [SystemDisk](#)
  - New members:Cdclid

## Release 3

Release time: 2021-01-28 19:50:43

Release updates:

Improvement to existing documentation.

Modified data structures:

- [DataDisk](#)
  - New members:ThroughputPerformance
- [ItemPrice](#)
  - New members:OriginalPriceThreeYear, DiscountPriceThreeYear, DiscountThreeYear, OriginalPriceFiveYear, DiscountPriceFiveYear, DiscountFiveYear, OriginalPriceOneYear, DiscountPriceOneYear, DiscountOneYear

## Release 2

Release time: 2020-10-20 15:58:04

Release updates:

Improvement to existing documentation.

Modified APIs:

- [CreateTaskTemplate](#)
  - New input parameters:Tags
- [DescribeComputeEnv](#)
  - New output parameters:Tags
- [DescribeComputeEnvCreateInfo](#)
  - New output parameters:Tags
- [DescribeJob](#)
  - New output parameters:Tags, NextAction
  - \*\*Modified output parameters:\*\*TaskInstanceMetrics
- [DescribeJobSubmitInfo](#)
  - New output parameters:Tags

New data structures:

- [Tag](#)

Modified data structures:

- [ComputeEnvCreateInfo](#)
  - New members:Tags
- [ComputeEnvView](#)
  - New members:Tags
- [Job](#)

- New members:Tags
- [JobView](#)
  - New members:Tags
- [NamedComputeEnv](#)
  - New members:Tags
- [TaskTemplateView](#)
  - New members:Tags

## Existing Release

Release time: 2020-07-30 19:49:15

Existing APIs/data structures are as follows:

Improvement to existing documentation.

Existing APIs:

- [AttachInstances](#)
- [CreateComputeEnv](#)
- [CreateTaskTemplate](#)
- [DeleteComputeEnv](#)
- [DeleteJob](#)
- [DeleteTaskTemplates](#)
- [DescribeAvailableCvmInstanceTypes](#)
- [DescribeComputeEnv](#)
- [DescribeComputeEnvActivities](#)
- [DescribeComputeEnvCreateInfo](#)
- [DescribeComputeEnvCreateInfos](#)
- [DescribeComputeEnvs](#)
- [DescribeCvmZoneInstanceConfigInfos](#)
- [DescribeInstanceCategories](#)
- [DescribeJob](#)
- [DescribeJobSubmitInfo](#)
- [DescribeJobs](#)
- [DescribeTask](#)
- [DescribeTaskLogs](#)
- [DescribeTaskTemplates](#)
- [DetachInstances](#)

- [ModifyComputeEnv](#)
- [ModifyTaskTemplate](#)
- [RetryJobs](#)
- [SubmitJob](#)
- [TerminateComputeNode](#)
- [TerminateComputeNodes](#)
- [TerminateJob](#)
- [TerminateTaskInstance](#)

Existing data structures:

- [Activity](#)
- [AgentRunningMode](#)
- [AnonymousComputeEnv](#)
- [Application](#)
- [Authentication](#)
- [ComputeEnvCreateInfo](#)
- [ComputeEnvData](#)
- [ComputeEnvView](#)
- [ComputeNode](#)
- [ComputeNodeMetrics](#)
- [DataDisk](#)
- [Dependence](#)
- [Docker](#)
- [EnhancedService](#)
- [EnvData](#)
- [EnvVar](#)
- [EventConfig](#)
- [EventVar](#)
- [Externals](#)
- [Filter](#)
- [InputMapping](#)
- [Instance](#)
- [InstanceCategoryItem](#)
- [InstanceMarketOptionsRequest](#)
- [InstanceTypeConfig](#)
- [InstanceTypeOptions](#)
- [InstanceTypeQuotaItem](#)

- [InternetAccessible](#)
- [ItemPrice](#)
- [Job](#)
- [JobView](#)
- [LocalDiskType](#)
- [LoginSettings](#)
- [MountDataDisk](#)
- [NamedComputeEnv](#)
- [Notification](#)
- [OutputMapping](#)
- [OutputMappingConfig](#)
- [Placement](#)
- [RedirectInfo](#)
- [RedirectLocalInfo](#)
- [RunMonitorServiceEnabled](#)
- [RunSecurityServiceEnabled](#)
- [SpotMarketOptions](#)
- [StorageBlock](#)
- [SystemDisk](#)
- [Task](#)
- [TaskInstanceLog](#)
- [TaskInstanceMetrics](#)
- [TaskInstanceView](#)
- [TaskMetrics](#)
- [TaskTemplateView](#)
- [TaskView](#)
- [VirtualPrivateCloud](#)

# Introduction

Last updated : 2022-09-19 11:34:00

BatchCompute is a distributed computing platform for massive batch processing tasks. It's applicable to scenarios like gene sequencing, medical analysis, scientific research, video rendering, financial big data, and precision advertising.

Featured with intelligent resource assignment and job management, BatchCompute releases customers from complex manual operations, and helps save time and reduce costs.

# API Category

Last updated : 2023-05-04 15:47:06

## Compute Environment APIs

| API Name                                      | Feature                                                          | Frequency Limit |
|-----------------------------------------------|------------------------------------------------------------------|-----------------|
| <a href="#">AttachInstances</a>               | Adds instances to the compute environment                        | 20              |
| <a href="#">CreateComputeEnv</a>              | Creates a compute environment                                    | 2               |
| <a href="#">DeleteComputeEnv</a>              | Deletes a compute environment                                    | 2               |
| <a href="#">DescribeComputeEnv</a>            | Gets compute environment details                                 | 2               |
| <a href="#">DescribeComputeEnvActivities</a>  | Queries the information of activities in the compute environment | 2               |
| <a href="#">DescribeComputeEnvCreateInfo</a>  | Queries the creation information of a compute environment        | 2               |
| <a href="#">DescribeComputeEnvCreateInfos</a> | Queries the list of compute environment creation information     | 20              |
| <a href="#">DescribeComputeEnvs</a>           | Gets the list of compute environments                            | 2               |
| <a href="#">DetachInstances</a>               | Removes instances from the compute environment                   | 20              |
| <a href="#">ModifyComputeEnv</a>              | Modifies a compute environment                                   | 2               |
| <a href="#">TerminateComputeNode</a>          | Terminates a compute node                                        | 20              |
| <a href="#">TerminateComputeNodes</a>         | Batch terminates the compute nodes                               | 20              |

## Task Template APIs

| API Name                            | Feature                 | Frequency Limit |
|-------------------------------------|-------------------------|-----------------|
| <a href="#">CreateTaskTemplate</a>  | Creates a task template | 2               |
| <a href="#">DeleteTaskTemplates</a> | Deletes a task template | 2               |



|                                       |                          |   |
|---------------------------------------|--------------------------|---|
| <a href="#">DescribeTaskTemplates</a> | Queries task templates   | 2 |
| <a href="#">ModifyTaskTemplate</a>    | Modifies a task template | 2 |

## Job APIs

| API Name                              | Feature                            | Frequency Limit |
|---------------------------------------|------------------------------------|-----------------|
| <a href="#">DeleteJob</a>             | Deletes a job                      | 30              |
| <a href="#">DescribeJob</a>           | Queries job details                | 2               |
| <a href="#">DescribeJobSubmitInfo</a> | Queries job submission information | 2               |
| <a href="#">DescribeJobs</a>          | Queries the list of jobs           | 2               |
| <a href="#">DescribeTask</a>          | Queries task details               | 3               |
| <a href="#">DescribeTaskLogs</a>      | Queries task log details           | 20              |
| <a href="#">RetryJobs</a>             | Retries jobs                       | 2               |
| <a href="#">TerminateJob</a>          | Terminates a job                   | 2               |
| <a href="#">TerminateTaskInstance</a> | Terminates a task instance         | 2               |

## Configuration Viewing APIs

| API Name                                           | Feature                                                                           | Frequency Limit |
|----------------------------------------------------|-----------------------------------------------------------------------------------|-----------------|
| <a href="#">DescribeAvailableCvmInstanceTypes</a>  | Gets the information of CVM model configurations available to BatchCompute        | 2               |
| <a href="#">DescribeCvmZoneInstanceConfigInfos</a> | Gets the model configuration information of the availability zone of BatchCompute | 5               |
| <a href="#">DescribeInstanceCategories</a>         | Queries instance category information                                             | 20              |

# Making API Requests

## Request Structure

Last updated : 2023-05-04 15:47:06

### 1. Service Address

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

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| Southeast Asia (Bangkok)         | batch.ap-bangkok.tencentcloudapi.com       |
| South Asia (Mumbai)              | batch.ap-mumbai.tencentcloudapi.com        |
| Northeast Asia (Seoul)           | batch.ap-seoul.tencentcloudapi.com         |
| Northeast Asia (Tokyo)           | batch.ap-tokyo.tencentcloudapi.com         |
| U.S. East Coast (Virginia)       | batch.na-ashburn.tencentcloudapi.com       |
| U.S. West Coast (Silicon Valley) | batch.na-siliconvalley.tencentcloudapi.com |
| North America (Toronto)          | batch.na-toronto.tencentcloudapi.com       |
| Europe (Frankfurt)               | batch.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 : 2023-05-04 15:47:06

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 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 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 version is 2017-03-12.                                                                                                                                                                                                                                                            |
| Authorization  | String  | Yes      | The HTTP authentication request header, for example:<br>TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/Date/service/tc3_request/Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc96317<br>Here:<br>- TC3-HMAC-SHA256: Signature method, currently fixed as this value;<br>- Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date is the UNIX timestamp in UTC time, and this value must match the value of X-TC-Timestamp (a co |

|            |        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------|--------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |        |    | <p>parameter) in UTC time format; service is the name of the product/service generally a domain name prefix. For example, a domain name cvm.tencentcloud.com refers to the CVM product and the value would be cvm;</p> <ul style="list-style-type: none"> <li>- SignedHeaders: The headers that contains the authentication information type and host are the required headers;</li> <li>- Signature: Signature digest.</li> </ul> |
| X-TC-Token | String | No | <p>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.</p>                                                                                                                                                                                                                                |

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 <a href="#">Cloud API Key</a> 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=37ac2f4fde00b0ac9bd9eadeb459b1bb224158d66e7ae5fcadb70b2d181d02&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=37ac2f4fde00b0ac9bd9eadeb459b1bbec224158d66e7ae5fcadb70b2d181d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKIDEXAMPLE
```

# Signature v3

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

## Applying for Security Credentials

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

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

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

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

## Using the Resources for Developers

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

## TC3-HMAC-SHA256 Signature Algorithm

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

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

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

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

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

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

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

```
curl -X POST https://cvm.tencentcloudapi.com \
-H "Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff" \
-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&amp;Offset=0</code>.</p> <p>Note: <code>CanonicalQueryString</code> must be URL-encoded, referencing <a href="#">RFC3986</a>, 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"> <li>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;</li> <li>If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase).</li> </ol> <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"> <li>Both the key and value of the header should be converted to lowercase;</li> <li>If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase) and separated by semicolons (;).</li> </ol> <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). <b>Date is a date in UTC time, whose value should match the UTC date converted by the common parameter X-TC-Timestamp</b> ; <code>service</code> is the product name, which should be the domain name of the product called. The calculation result in this example is <code>2018-05-25/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.utcfromtimestamp(timestamp).strftime("%Y-%m-%d")
params = {"Limit": 1, "Filters": [{"Name": "instance-name", "Values": ["unnamed"]}]}

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

```

```

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

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

# ***** Step 3: Calculate the Signature *****
# Function for computing signature digest
def sign(key, msg):
    return hmac.new(key, msg.encode("utf-8"), hashlib.sha256).digest()
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 : 2021-08-06 17:35:44

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

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

## 1. Applying for Security Credentials

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

Security credentials consist of SecretId and SecretKey:

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

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

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

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

## 2. Generating a Signature

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

Assume that the SecretId and SecretKey are:

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

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

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

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

## 2.1. Sorting Parameters

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

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

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

## 2.2. Concatenating a Request String

This step generates a request string.

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

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

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

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

## 2.3. Concatenating the Signature Original String

This step generates a signature original string.

The signature original string consists of the following parameters:

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

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

The concatenation result of the example is:

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

## 2.4. Generating a Signature String

This step generates a signature string.

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

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

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

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

The final signature is:

```
zmmjn35mikh6pM3V7sUEuX4wyYM=
```

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

### 3. Encoding a Signature String

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

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

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

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

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

### 4. Signature Failure

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

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

## 5. Signature Demo

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

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

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

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

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

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

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

## Java

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

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

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

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

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



```

}
return url.toString().substring(0, url.length() - 1);
}
public static void main(String[] args) throws Exception {
    TreeMap<String, Object> params = new TreeMap<String, Object>(); // TreeMap enables automatic sorting
    // A random number should be used when actually calling, for example: params.put("Nonce", new Random().nextInt(Integer.MAX_VALUE));
    params.put("Nonce", 11886); // Common parameter
    // The current time of the system should be used when actually calling, for example: params.put("Timestamp", System.currentTimeMillis() / 1000);
    params.put("Timestamp", 1465185768); // Common parameter
    params.put("SecretId", "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****"); // Common parameter
    params.put("Action", "DescribeInstances"); // Common parameter
    params.put("Version", "2017-03-12"); // Common parameter
    params.put("Region", "ap-guangzhou"); // Common parameter
    params.put("Limit", 20); // Business parameter
    params.put("Offset", 0); // Business parameter
    params.put("InstanceIds.0", "ins-09dx96dg"); // Business parameter
    params.put("Signature", sign(getStringToSign(params), "Gu5t9xGARNpq86cd98joQYCN3*****", "HmacSHA1")); // Common parameter
    System.out.println(getUrl(params));
}
}

```

## Python

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

```

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

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

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

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

```

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

## Golang

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

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

## PHP

```
<?php
$secretId = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3*****";
$params["Nonce"] = 11886; // rand();
$params["Timestamp"] = 1465185768; // time();
$params["Region"] = "ap-guangzhou";
$params["SecretId"] = $secretId;
$params["Version"] = "2017-03-12";
$params["Action"] = "DescribeInstances";
$params["InstanceIds.0"] = "ins-09dx96dg";
$params["Limit"] = 20;
$params["Offset"] = 0;
ksort($params);
$signStr = "GETcvm.tencentcloudapi.com/?";
foreach ( $params as $key => $value ) {
    $signStr = $signStr . $key . "=" . $value . "&";
}
$signStr = substr($signStr, 0, -1);
$signature = base64_encode(hash_hmac("sha1", $signStr, $secretKey, true));
echo $signature.PHP_EOL;
// need to install and enable curl extension in php.ini
```

```
// $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 : 2019-12-05 15:55:34

## 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.                            |

# Configuration Viewing-related APIs

## DescribeAvailableCvmInstanceTypes

Last updated : 2023-05-04 15:47:09

### 1. API Description

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

This API is used to view the information of available CVM model configurations.

A maximum of 2 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                          | <a href="#">Common Params</a> . The value used for this API: DescribeAvailableCvmInstanceTypes.                                                                                                                                        |
| Version        | Yes      | String                          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                                                                                                                                                               |
| Region         | No       | String                          | <a href="#">Common Params</a> . This parameter is not required for this API.                                                                                                                                                           |
| Filters.N      | No       | Array of <a href="#">Filter</a> | Filter. <ul style="list-style-type: none"><li>zone - String - Required: No - (Filter) Filter by availability zone.</li><li>instance-family - String - Required: No - (Filter) Filter by model family such as S1, I1, and M1.</li></ul> |

### 3. Output Parameters

| Parameter Name        | Type                                        | Description                                                                                              |
|-----------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------|
| InstanceTypeConfigSet | Array of <a href="#">InstanceTypeConfig</a> | Array of model configurations                                                                            |
| RequestId             | String                                      | The unique request ID, which is returned for each request. RequestId is required for locating a problem. |

## 4. Example

### Example1 Querying GN2 instances in Guangzhou Zone 3

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeAvailableCvmInstanceTypes
&Filters.0.Name=zone
&Filters.0.Values.0=ap-guangzhou-3
&Filters.1.Name=instance-family
&Filters.1.Values.0=GN2
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "InstanceTypeConfigSet": [
      {
        "Mem": 56,
        "Cpu": 28,
        "InstanceType": "GN2.7XLARGE56",
        "Zone": "ap-guangzhou-3",
        "InstanceFamily": "GN2"
      },
      {
        "Mem": 112,
        "Cpu": 56,
        "InstanceType": "GN2.14XLARGE112",
        "Zone": "ap-guangzhou-3",
        "InstanceFamily": "GN2"
      }
    ],
    "RequestId": "59f5b671-c492-4536-bbed-e5fbf78619dd"
  }
}
```

```
}  
}
```

## 5. Developer Resources

### SDK

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

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

### Command Line Interface

- [Tencent Cloud CLI 3.0](#)

## 6. Error Code

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

| Error Code                                      | Description                                              |
|-------------------------------------------------|----------------------------------------------------------|
| InternalError                                   | Internal error.                                          |
| InternalError.CallCvm                           | An error is returned for the CVM API call.               |
| InvalidFilter                                   | The specified filter is not supported.                   |
| InvalidParameterValue                           | Incorrect parameter value.                               |
| InvalidParameterValue.InvalidFilter             | Incorrect <code>Filter</code> parameter.                 |
| InvalidParameterValue.InvalidZoneMismatchRegion | The availability zone and the region do not match.       |
| InvalidParameterValue.LimitExceeded             | The number of filter parameter values exceeds the limit. |

|                            |                                    |
|----------------------------|------------------------------------|
| InvalidZone.MismatchRegion | The specified zone does not exist. |
|----------------------------|------------------------------------|

# DescribeCvmZoneInstanceConfigInfos

Last updated : 2023-05-04 15:47:09

## 1. API Description

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

This API is used to get the model configuration information of the availability zone of BatchCompute.

A maximum of 5 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                          | <a href="#">Common Params</a> . The value used for this API: DescribeCvmZoneInstanceConfigInfos.                                                                                                                                                                                                                                                                                                                                                                            |
| Version        | Yes      | String                          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                                                                                                                                                                                                                                                                                                                                                                                                    |
| Region         | No       | String                          | <a href="#">Common Params</a> . This parameter is not required for this API.                                                                                                                                                                                                                                                                                                                                                                                                |
| Filters.N      | No       | Array of <a href="#">Filter</a> | Filter. <ul style="list-style-type: none"><li>zone - String - Required: No - (Filter) Filter by availability zone.</li><li>instance-family - String - Required: No - (Filter) Filter by model family such as S1, I1, and M1.</li><li>instance-type - String - Required: No - (Filter) Filter by model.</li><li>instance-charge-type - String - Required: No - (Filter) Filter by instance billing method. ( POSTPAID_BY_HOUR: pay-as-you-go   SPOTPAID: bidding.)</li></ul> |



## 3. Output Parameters

| Parameter Name       | Type                                           | Description                                                                                              |
|----------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| InstanceTypeQuotaSet | Array of <a href="#">InstanceTypeQuotaItem</a> | List of model configurations in the availability zone.                                                   |
| RequestId            | String                                         | The unique request ID, which is returned for each request. RequestId is required for locating a problem. |

## 4. Example

### Example1 Querying the configuration information of pay-as-you-go models in Chongqing Zone 1

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeCvmZoneInstanceConfigInfos
&Filters.0.Name=zone
&Filters.0.Values.0=ap-chongqing-1
&Filters.1.Name=instance-charge-type
&Filters.1.Values.0=POSTPAID_BY_HOUR
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "InstanceTypeQuotaSet": [
      {
        "Status": "SELL",
        "Zone": "ap-chongqing-1",
        "NetworkCard": 0,
        "Price": {
          "UnitPrice": 0.18,
          "ChargeUnit": "HOUR"
        },
        "InstanceFamily": "S3",
        "Externals": {},
        "Cpu": 1,
        "TypeName": "Standard S3",
        "InstanceChargeType": "POSTPAID_BY_HOUR",
        "Memory": 1,

```

```
"LocalDiskTypeList": [],
"InstanceType": "S3.SMALL1",
},
{
  "Status": "SELL",
  "Zone": "ap-chongqing-1",
  "NetworkCard": 0,
  "Price": {
    "UnitPrice": 0.26,
    "ChargeUnit": "HOURLY"
  },
  "InstanceFamily": "S3",
  "Externals": {},
  "Cpu": 1,
  "TypeName": "Standard S3",
  "InstanceChargeType": "POSTPAID_BY_HOUR",
  "Memory": 2,
  "LocalDiskTypeList": [],
  "InstanceType": "S3.SMALL2"
}
],
"RequestId": "2fba5b9c-e4ee-47ad-a776-dabb79ff2c35"
}
```

## 5. Developer Resources

### SDK

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

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

### Command Line Interface

- [Tencent Cloud CLI 3.0](#)

## 6. Error Code

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

| Error Code                                               | Description                                              |
|----------------------------------------------------------|----------------------------------------------------------|
| InternalError                                            | Internal error.                                          |
| InternalError.CallCvm                                    | An error is returned for the CVM API call.               |
| InvalidFilter                                            | The specified filter is not supported.                   |
| InvalidParameterValue                                    | Incorrect parameter value.                               |
| InvalidParameterValue.InvalidFilter                      | Incorrect <code>Filter</code> parameter.                 |
| InvalidParameterValue.InvalidZoneMismatchRegion          | The availability zone and the region do not match.       |
| InvalidParameterValue.LimitExceeded                      | The number of filter parameter values exceeds the limit. |
| InvalidParameterValue.UnsupportedBatchInstanceChargeType | The model billing type is not supported by BatchCompute. |
| InvalidZone.MismatchRegion                               | The specified zone does not exist.                       |

# DescribeInstanceCategories

Last updated : 2023-05-04 15:47:09

## 1. API Description

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

Currently, CVM instance families are classified into different category, and each category contains several instance families. This API is used to query the instance category information.

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

We recommend you to use API Explorer

[Try it](#)

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

## 2. Input Parameters

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

| Parameter Name | Required | Type   | Description                                                                              |
|----------------|----------|--------|------------------------------------------------------------------------------------------|
| Action         | Yes      | String | <a href="#">Common Params</a> . The value used for this API: DescribeInstanceCategories. |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                 |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API.             |

## 3. Output Parameters

| Parameter Name      | Type                                          | Description                     |
|---------------------|-----------------------------------------------|---------------------------------|
| InstanceCategorySet | Array of <a href="#">InstanceCategoryItem</a> | List of CVM instance categories |
|                     |                                               |                                 |

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

## 4. Example

### Example1 Querying instance types

This example shows you how to query CVM instance families and types.

#### Input Example

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

#### Output Example

```
{
  "Response": {
    "InstanceCategorySet": [
      {
        "InstanceFamilySet": [
          "C3",
          "CN3"
        ],
        "InstanceCategory": "COMPUTE_3"
      },
      {
        "InstanceFamilySet": [
          "C2"
        ],
        "InstanceCategory": "COMPUTE_2"
      },
      {
        "InstanceFamilySet": [
          "S2",
          "S2ne",
          "I2",
          "D1",
          "M2"
        ],
        "InstanceCategory": "GENERAL_2"
      },
      {
        "InstanceFamilySet": [
```

```
"S3",
"SN3ne",
"S4",
"I3",
"M3",
"M4"
],
"InstanceCategory": "GENERAL_3"
}
],
"RequestId": "166a2a24-888f-4fd5-82ef-f41e4754d994"
}
}
```

## 5. Developer Resources

### SDK

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

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

### Command Line Interface

- [Tencent Cloud CLI 3.0](#)

## 6. Error Code

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

| Error Code    | Description     |
|---------------|-----------------|
| InternalError | Internal error. |

|                      |                        |
|----------------------|------------------------|
| UnsupportedOperation | Unsupported operation. |
|----------------------|------------------------|

# Compute Environment APIs

## DeleteComputeEnv

Last updated : 2023-05-04 15:47:11

### 1. API Description

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

This API is used to delete a compute environment.

A maximum of 2 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 | <a href="#">Common Params</a> . The value used for this API: DeleteComputeEnv. |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.       |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API.   |
| EnvId          | Yes      | String | Compute environment 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 compute environment

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DeleteComputeEnv
&EnvId=env-3dhmblr3
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "RequestId": "8b71050a-55c1-4f3b-bf66-5e4f8510a5a0"
  }
}
```

## 5. Developer Resources

### SDK

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

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

### Command Line Interface

- [Tencent Cloud CLI 3.0](#)

## 6. Error Code

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

| Error Code                                        | Description                                                    |
|---------------------------------------------------|----------------------------------------------------------------|
| InternalError                                     | Internal error.                                                |
| InvalidParameter.EnvIdMalformed                   | Invalid compute environment ID format.                         |
| ResourceNotFound.ComputeEnv                       | The specified compute environment does not exist.              |
| UnsupportedOperation                              | Unsupported operation.                                         |
| UnsupportedOperation.AcceptOtherRequest           | Another request is being processed and deletion is prohibited. |
| UnsupportedOperation.ComputeEnvAcceptOtherRequest | The compute environment accepts other requests.                |
| UnsupportedOperation.ComputeEnvOperation          | Deletion is prohibited.                                        |
| UnsupportedOperation.ComputeNodeForbidTerminate   | Compute node termination is prohibited.                        |

# ModifyComputeEnv

Last updated : 2023-05-04 15:47:10

## 1. API Description

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

This API is used to modify the attributes of a compute environment.

A maximum of 2 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                         | <a href="#">Common Params</a> . The value used for this API: ModifyComputeEnv. |
| Version                 | Yes      | String                         | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.       |
| Region                  | No       | String                         | <a href="#">Common Params</a> . This parameter is not required for this API.   |
| EnvId                   | Yes      | String                         | Compute environment ID                                                         |
| DesiredComputeNodeCount | No       | Integer                        | Number of desired compute nodes                                                |
| EnvName                 | No       | String                         | Compute environment name                                                       |
| EnvDescription          | No       | String                         | Compute environment description                                                |
| EnvData                 | No       | <a href="#">ComputeEnvData</a> | Compute environment attributes                                                 |

## 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 Changing the desired number of nodes in a compute environment to 2

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=ModifyComputeEnv
&EnvId=env-lcpcej85
&DesiredComputeNodeCount=2
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "RequestId": "147fbf83-f817-4528-a547-f5f313b673d2"
  }
}
```

## 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                               | Internal error.                                                |
| InternalServerError.CallCpmAPI                    | The CPM API call returns an error.                             |
| InvalidParameter.EnvDescriptionTooLong            | The compute environment description is too long.               |
| InvalidParameter.EnvIdMalformed                   | Invalid compute environment ID format.                         |
| InvalidParameter.EnvNameTooLong                   | The compute environment name is too long.                      |
| InvalidParameterValue.InstanceType                | The specified instance type is not supported.                  |
| InvalidParameterValue.InstanceTypeDuplicate       | The instance type value must be unique.                        |
| InvalidParameterValue.InstanceTypesEmpty          | The list of instance types cannot be empty.                    |
| InvalidParameterValue.LimitExceeded               | The number of filter parameter values exceeds the limit.       |
| InvalidParameterValue.Negative                    | Invalid negative parameter.                                    |
| LimitExceeded.CpuQuota                            | Insufficient CPU quota.                                        |
| ResourceNotFound.ComputeEnv                       | The specified compute environment does not exist.              |
| UnsupportedOperation.AcceptOtherRequest           | Another request is being processed and deletion is prohibited. |
| UnsupportedOperation.ComputeEnvAcceptOtherRequest | The compute environment accepts other requests.                |

|                                                       |                                                                                                              |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| UnsupportedOperation.ComputeNodeForbidTerminate       | Compute node termination is prohibited.                                                                      |
| UnsupportedOperation.NotEnoughComputeNodesToTerminate | The number of compute nodes to be removed for scale-in is greater than the number of existing compute nodes. |

# CreateComputeEnv

Last updated : 2023-05-04 15:47:11

## 1. API Description

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

This API is used to create a compute environment.

A maximum of 2 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                          | <a href="#">Common Params</a> . The value used for this API: CreateComputeEnv.                                                                                                                                                                                             |
| Version        | Yes      | String                          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                                                                                                                                                                                                   |
| Region         | No       | String                          | <a href="#">Common Params</a> . This parameter is not required for this API.                                                                                                                                                                                               |
| ComputeEnv     | Yes      | <a href="#">NamedComputeEnv</a> | Compute environment information                                                                                                                                                                                                                                            |
| Placement      | Yes      | <a href="#">Placement</a>       | Location information                                                                                                                                                                                                                                                       |
| ClientToken    | No       | String                          | The string used to guarantee the idempotency of the request, which is generated by the user and must be unique for different requests. The maximum length is 64 ASCII characters. If this parameter is not specified, the idempotency of the request cannot be guaranteed. |

### 3. Output Parameters

| Parameter Name | Type   | Description                                                                                              |
|----------------|--------|----------------------------------------------------------------------------------------------------------|
| EnvId          | String | Compute environment 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 compute environment

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=CreateComputeEnv
&Placement.Zone=ap-guangzhou-2
&ComputeEnv.EnvName=test compute env
&ComputeEnv.EnvDescription=test compute env
&ComputeEnv.EnvType=MANAGED
&ComputeEnv.EnvData.InstanceType=S1.SMALL2
&ComputeEnv.EnvData.ImageId=img-bd78fy2t
&ComputeEnv.DesiredComputeNodeCount=1
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "EnvId": "env-3dhmb1r3",
    "RequestId": "b2ac2379-6453-4eab-8f63-7ade00cb67b0"
  }
}
```

### 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                             | Internal error.                                  |
| InternalServerError.CallCvm                     | An error is returned for the CVM API call.       |
| InternalServerError.CallTagAPI                  | Error while obtaining the Tag component.         |
| InvalidParameter.CvmParameters                  | Invalid CVM parameter.                           |
| InvalidParameter.EnvDescriptionTooLong          | The compute environment description is too long. |
| InvalidParameter.EnvNameTooLong                 | The compute environment name is too long.        |
| InvalidParameter.ImageIdMalformed               | Incorrect image ID.                              |
| InvalidParameter.InvalidParameterCombination    | Invalid parameter combination.                   |
| InvalidParameter.NotificationEventNameDuplicate | Duplicate message notification event name.       |
| InvalidParameter.NotificationTopicName          | Invalid topic name.                              |
| InvalidParameter.NotificationTopicNameTooLong   | The topic name is too long.                      |
| InvalidParameterValue.ComputeEnv                | Compute environment parameter validation failed. |

|                                                 |                                                    |
|-------------------------------------------------|----------------------------------------------------|
| InvalidParameterValue.InstanceType              | The specified instance type is not supported.      |
| InvalidParameterValue.InvalidDataTypeAny        | The value of <code>DataTypeAny</code> is invalid.  |
| InvalidParameterValue.InvalidZoneMismatchRegion | The availability zone and the region do not match. |
| InvalidParameterValue.LocalPath                 | Invalid local storage path.                        |
| InvalidParameterValue.Negative                  | Invalid negative parameter.                        |
| InvalidParameterValue.RemoteStoragePath         | Invalid storage path format.                       |
| InvalidParameterValue.RemoteStorageSchemeType   | Invalid storage type.                              |
| InvalidParameterValue.UnavailableZone           | The availability zone is unavailable.              |
| InvalidZone.MismatchRegion                      | The specified zone does not exist.                 |
| LimitExceeded.ComputeEnvQuota                   | Insufficient compute environment quota.            |
| LimitExceeded.CpuQuota                          | Insufficient CPU quota.                            |
| UnauthorizedOperation.UserNotAllowedToUseBatch  | It is prohibited to use the BatchCompute service.  |

# DescribeComputeEnv

Last updated : 2023-05-04 15:47:11

## 1. API Description

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

This API is used to query compute environment details.

A maximum of 2 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 | <a href="#">Common Params</a> . The value used for this API: DescribeComputeEnv. |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.         |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API.     |
| EnvId          | Yes      | String | Compute environment ID                                                           |

## 3. Output Parameters

| Parameter Name | Type   | Description            |
|----------------|--------|------------------------|
| EnvId          | String | Compute environment ID |
|                |        |                        |

|                          |                                      |                                                                                                                                         |
|--------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| EnvName                  | String                               | Compute environment name                                                                                                                |
| Placement                | <a href="#">Placement</a>            | Location information                                                                                                                    |
| CreateTime               | String                               | Compute environment creation time                                                                                                       |
| ComputeNodeSet           | Array of <a href="#">ComputeNode</a> | List of compute nodes                                                                                                                   |
| ComputeNodeMetrics       | <a href="#">ComputeNodeMetrics</a>   | Compute node statistical metrics                                                                                                        |
| DesiredComputeNodeCount  | Integer                              | Number of desired compute nodes                                                                                                         |
| EnvType                  | String                               | Compute environment type                                                                                                                |
| ResourceType             | String                               | Compute environment resource type. Values: <code>CVM</code> , <code>CPM</code> (Bare Metal)                                             |
| NextAction               | String                               | Next action                                                                                                                             |
| AttachedComputeNodeCount | Integer                              | Number of compute nodes added to the compute environment                                                                                |
| Tags                     | Array of <a href="#">Tag</a>         | Tag list bound to the compute environment.<br>Note: This field may return <code>null</code> , indicating that no valid value was found. |
| RequestId                | String                               | The unique request ID, which is returned for each request. RequestId is required for locating a problem.                                |

## 4. Example

### Example1 Querying the compute environment details

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeComputeEnv
&EnvId=env-lcpcej85
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
```

```
"EnvId": "env-lcpcej85",
"ComputeNodeMetrics": {
  "CreatedCount": 0,
  "DeletingCount": 0,
  "CreationFailedCount": 0,
  "SubmittedCount": 0,
  "CreatingCount": 0,
  "AbnormalCount": 1,
  "RunningCount": 1
},
"ResourceType": "CVM",
"EnvType": "MANAGED",
"CreateTime": "2018-03-08T11:48:43Z",
"EnvName": "test compute env",
"NextAction": "",
"Placement": {
  "Zone": "ap-guangzhou-2"
},
"ComputeNodeSet": [
  {
    "ComputeNodeId": "node-noa8vefu",
    "ComputeNodeState": "ABNORMAL",
    "Mem": 2,
    "ResourceCreatedTime": "2018-03-08T11:49:17Z",
    "ResourceType": "CVM",
    "ResourceOrigin": "BATCH_CREATED",
    "ComputeNodeInstanceId": "ins-0kj3gz6s",
    "AgentVersion": "1.1.9",
    "TaskInstanceNumAvailable": 1,
    "Cpu": 1,
    "PublicIpAddresses": [
      "132.20.19.18"
    ],
    "PrivateIpAddresses": [
      "10.10.8.3"
    ]
  },
  {
    "ComputeNodeId": "node-9yzd5jei",
    "ComputeNodeState": "RUNNING",
    "Mem": 2,
    "ResourceCreatedTime": "2018-03-09T13:15:44Z",
    "ResourceType": "CVM",
    "ResourceOrigin": "BATCH_CREATED",
    "ComputeNodeInstanceId": "ins-jyafz2sk",
    "AgentVersion": "1.1.9",
    "TaskInstanceNumAvailable": 1,
```

```
"Cpu": 1,
"PublicIpAddresses": [
  "132.20.19.18"
],
"PrivateIpAddresses": [
  "10.10.8.3"
]
},
{
  "DesiredComputeNodeCount": 2,
  "AttachedComputeNodeCount": 0,
  "Tags": [
    {
      "Key": "batch-test-tag-env-key",
      "Value": "batch-test-tag-env-value1"
    }
  ],
  "RequestId": "274cbd4f-77d2-4bf6-9984-643318ed3ef8"
}
```

## 5. Developer Resources

### SDK

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- [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             | Internal error.                                   |
| InvalidParameter.EnvIdMalformed | Invalid compute environment ID format.            |
| ResourceNotFound.ComputeEnv     | The specified compute environment does not exist. |

# DescribeComputeEnvs

Last updated : 2023-05-04 15:47:10

## 1. API Description

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

This API is used to get the list of compute environments.

A maximum of 2 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                          | <a href="#">Common Params</a> . The value used for this API: DescribeComputeEnvs.                                                                                                                                                                                                                                                                                                                                                                                      |
| Version        | Yes      | String                          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                                                                                                                                                                                                                                                                                                                                                                                               |
| Region         | No       | String                          | <a href="#">Common Params</a> . This parameter is not required for this API.                                                                                                                                                                                                                                                                                                                                                                                           |
| EnvIds.N       | No       | Array of String                 | List of compute environment IDs, which cannot be specified together with the <code>Filters</code> parameter.                                                                                                                                                                                                                                                                                                                                                           |
| Filters.N      | No       | Array of <a href="#">Filter</a> | <b>Filters</b> <ul style="list-style-type: none"><li><code>zone</code> - String - Optional - Availability zone.</li><li><code>env-id</code> - String - Optional - Compute environment ID.</li><li><code>env-name</code> - String - Optional - Compute environment name.</li><li><code>resource-type</code> - String - Optional - Compute resource type ( <code>CVM</code> or <code>CPM</code> ).</li><li><code>tag-key</code> - String - Optional - Tag key.</li></ul> |



|        |    |         |                                                                                                                                                                                                                                                                                                         |
|--------|----|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |    |         | <code>tag-value</code> - String - Optional - Tag value.<br><ul style="list-style-type: none"> <li><code>tag:tag-key</code> - String - Optional - Tag key-value pair. Replace <code>tag-key</code> with the actual tag key.</li> </ul> <p>It cannot be specified together with <code>EnvIds</code> .</p> |
| Offset | No | Integer | Offset                                                                                                                                                                                                                                                                                                  |
| Limit  | No | Integer | Maximum number of returned items                                                                                                                                                                                                                                                                        |

### 3. Output Parameters

| Parameter Name | Type                                    | Description                                                                                              |
|----------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------|
| ComputeEnvSet  | Array of <a href="#">ComputeEnvView</a> | List of compute environments                                                                             |
| TotalCount     | Integer                                 | Number of compute environments                                                                           |
| 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 compute environments

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeComputeEnvs
&EnvIds.0=env-lcx7qbbr
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "TotalCount": 1,
    "ComputeEnvSet": [
      {
```

```
"EnvId": "env-lcx7qbbr",
"ComputeNodeMetrics": {
  "CreatedCount": 0,
  "DeletingCount": 0,
  "CreationFailedCount": 0,
  "SubmittedCount": 0,
  "CreatingCount": 0,
  "AbnormalCount": 1,
  "RunningCount": 0
},
"Tags": [
{
  "Key": "batch-test-tag-env-key",
  "Value": "batch-test-tag-env-value"
}
],
"ResourceType": "CVM",
"EnvType": "MANAGED",
"AttachedComputeNodeCount": 0,
"DesiredComputeNodeCount": 1,
"EnvName": "test-compute-env",
"Placement": {
  "Zone": "ap-guangzhou-4"
},
"NextAction": "",
"CreateTime": "2020-09-22T06:51:42Z"
}
],
"RequestId": "bedb1750-a09f-4c4d-9f25-6afccda50dea"
}
}
```

## 5. Developer Resources

### SDK

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

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

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

## Command Line Interface

- [Tencent Cloud CLI 3.0](#)

## 6. Error Code

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

| Error Code                                   | Description                                         |
|----------------------------------------------|-----------------------------------------------------|
| InternalError                                | Internal error.                                     |
| InvalidFilter                                | The specified filter is not supported.              |
| InvalidParameter.EnvIdMalformed              | Invalid compute environment ID format.              |
| InvalidParameter.InvalidParameterCombination | Invalid parameter combination.                      |
| InvalidParameterValue                        | Incorrect parameter value.                          |
| InvalidParameterValue.InvalidFilter          | Incorrect <code>Filter</code> parameter.            |
| InvalidParameterValue.ResourceType           | The specified <code>ResourceType</code> is invalid. |
| InvalidZone.MismatchRegion                   | The specified zone does not exist.                  |
| UnknownParameter                             | Unknown parameter error.                            |

# DescribeComputeEnvCreateInfos

Last updated : 2023-05-04 15:47:10

## 1. API Description

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

This API is used to view the list of information of compute environment creation, including name, description, type, environment parameters, notifications, and number of desired nodes.

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                          | <a href="#">Common Params</a> . The value used for this API: DescribeComputeEnvCreateInfos.                                                                                                                                                                                                                                    |
| Version        | Yes      | String                          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                                                                                                                                                                                                                                                       |
| Region         | No       | String                          | <a href="#">Common Params</a> . This parameter is not required for this API.                                                                                                                                                                                                                                                   |
| EnvIds.N       | No       | Array of String                 | List of compute environment IDs, which cannot be specified together with the <code>Filters</code> parameter.                                                                                                                                                                                                                   |
| Filters.N      | No       | Array of <a href="#">Filter</a> | Filter conditions <ul style="list-style-type: none"><li><code>zone</code> - String - Optional - Filter by the availability zone.</li><li><code>env-id</code> - String - Optional - Filter by the compute environment ID.</li><li><code>env-name</code> - String - Optional - Filter by the compute environment name.</li></ul> |

|        |    |         |                                                            |
|--------|----|---------|------------------------------------------------------------|
|        |    |         | It cannot be specified together with <code>EnvIds</code> . |
| Offset | No | Integer | Offset                                                     |
| Limit  | No | Integer | Maximum number of returned items                           |

### 3. Output Parameters

| Parameter Name          | Type                                          | Description                                                                                              |
|-------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------|
| TotalCount              | Integer                                       | Number of compute environments                                                                           |
| ComputeEnvCreateInfoSet | Array of <a href="#">ComputeEnvCreateInfo</a> | List of compute environment creation information                                                         |
| 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 compute environment creation information

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeComputeEnvCreateInfos
&EnvIds.0=env-lcx7qbbr
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "TotalCount": 1,
    "RequestId": "bb976df4-42a0-41cc-82d4-69bea1007083",
    "ComputeEnvCreateInfoSet": [
      {
        "EnvId": "env-lcx7qbbr",
        "Notifications": [
          {
            "EventConfigs": [
              {
```

```
"EventName": "COMPUTE_ENV_CREATED_SUCCESS",
"EventVars": [
{
  "Name": "COMPUTE_ENV_CREATED_SUCCESS",
  "Value": "COMPUTE_ENV_CREATED_SUCCESS"
}
],
"TopicName": "compute-env-topic"
},
"Tags": [
{
  "Value": "test",
  "Key": "test-env"
}
],
"Authentications": [
{
  "SecretKey": "xx",
  "SecretId": "xx",
  "Scene": "xx"
}
],
"EnvData": {
  "VirtualPrivateCloud": {
    "SubnetId": "subnet-23syenxk",
    "AsVpcGateway": true,
    "Ipv6AddressCount": 1,
    "VpcId": "vpc-1xnwrwxw2",
    "PrivateIpAddresses": [
      "10.10.2.29"
    ]
  },
  "LoginSettings": {
    "Password": "xx",
    "KeepImageLogin": "True",
    "KeyIds": [
      "xx"
    ]
  },
  "InstanceMarketOptions": {
    "SpotOptions": {
      "SpotInstanceType": "one-time",
      "MaxPrice": "1"
    }
  },
```

```
"MarketType": "spot",
},
"SystemDisk": {
  "DiskSize": 0,
  "CdcId": "xx",
  "DiskId": "disk-sdfk23nw",
  "DiskType": "CLOUD_SSD"
},
"InstanceTypes": [
  "S5.SMALL2"
],
"Zones": [
  "ap-guangzhou-2"
],
"InstanceChargeType": "POSTPAID_BY_HOUR",
"EnhancedService": {
  "SecurityService": {
    "Enabled": true
  },
  "MonitorService": {
    "Enabled": true
  },
  "AutomationService": {
    "Enabled": true
  }
},
"SecurityGroupIds": [
  "xx"
],
"InternetAccessible": {
  "PublicIpAssigned": true,
  "InternetChargeType": "POSTPAID_BY_HOUR",
  "BandwidthPackageId": "xx",
  "InternetMaxBandwidthOut": 0
},
"VirtualPrivateClouds": [
  {
    "SubnetId": "subnet-23syenxk",
    "AsVpcGateway": true,
    "Ipv6AddressCount": 1,
    "VpcId": "vpc-1xnwrwxw2",
    "PrivateIpAddresses": [
      "10.10.2.29"
    ]
  }
],
"ImageId": "img-3sdke3x2",
```

```
"InstanceName": "test-env",
"InstanceType": "S5.SMALL2",
"InstanceTypeOptions": {
  "Memory": 1,
  "CPU": 1,
  "InstanceCategories": [
    "ALL"
  ]
},
"DataDisks": [
  {
    "DeleteWithInstance": true,
    "Encrypt": true,
    "CdcId": "xx",
    "DiskType": "CLOUD_SSD",
    "ThroughputPerformance": 0,
    "KmsKeyId": "kms-213k73kx",
    "DiskSize": 0,
    "SnapshotId": "snap-fsdekxe2",
    "DiskId": "xx"
  }
],
"EnvDescription": "test-env",
"MountDataDisks": [
  {
    "FileSystemType": "ext4",
    "LocalPath": "/mnt"
  }
],
"DesiredComputeNodeCount": 1,
"EnvName": "test-env",
"InputMappings": [
  {
    "SourcePath": "cos://test-1111123424.cos.ap-guangzhou.myqcloud.com/batchtest/input/",
    "DestinationPath": "/opt/data",
    "MountOptionParameter": ""
  }
],
"EnvType": "MANAGED"
}
```



## 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                            |
|----------------------------------------------|----------------------------------------|
| InvalidParameter.EnvIdMalformed              | Invalid compute environment ID format. |
| InvalidParameter.InvalidParameterCombination | Invalid parameter combination.         |
| InvalidParameterValue                        | Incorrect parameter value.             |
| InvalidZone.MismatchRegion                   | The specified zone does not exist.     |
| UnknownParameter                             | Unknown parameter error.               |

# TerminateComputeNode

Last updated : 2023-05-04 15:47:10

## 1. API Description

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

This API is used to terminate a compute node.

Termination is allowed for nodes in the CREATED, CREATION\_FAILED, RUNNING or ABNORMAL state.

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 | <a href="#">Common Params</a> . The value used for this API: TerminateComputeNode. |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.           |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API.       |
| EnvId          | Yes      | String | Compute environment ID                                                             |
| ComputeNodeId  | Yes      | String | Compute node 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 Terminating a compute node

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=TerminateComputeNode
&EnvId=env-lcx7qbbr
&ComputeNodeId=node-lcpcej85
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "RequestId": "c50bfbf1-d214-4e41-90f6-39270dc9f071"
  }
}
```

## 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                                                    |
|---------------------------------------------------|----------------------------------------------------------------|
| InvalidParameter.ComputeNodeIdMalformed           | Invalid compute node ID format.                                |
| InvalidParameter.EnvIdMalformed                   | Invalid compute environment ID format.                         |
| ResourceNotFound.ComputeEnv                       | The specified compute environment does not exist.              |
| ResourceNotFound.ComputeNode                      | The specified compute node does not exist.                     |
| UnsupportedOperation.AcceptOtherRequest           | Another request is being processed and deletion is prohibited. |
| UnsupportedOperation.ComputeEnvAcceptOtherRequest | The compute environment accepts other requests.                |
| UnsupportedOperation.ComputeEnvOperation          | Deletion is prohibited.                                        |
| UnsupportedOperation.ComputeNodeForbidTerminate   | Compute node termination is prohibited.                        |
| UnsupportedOperation.ComputeNodesTerminating      | The compute node is terminating.                               |

# DescribeComputeEnvActivities

Last updated : 2023-05-04 15:47:11

## 1. API Description

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

This API is used to query the information of activities in the compute environment.

A maximum of 2 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                 | <a href="#">Common Params</a> . The value used for this API: DescribeComputeEnvActivities.                                               |
| Version        | Yes      | String                 | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                                                                 |
| Region         | No       | String                 | <a href="#">Common Params</a> . This parameter is not required for this API.                                                             |
| EnvId          | Yes      | String                 | Compute environment ID                                                                                                                   |
| Offset         | No       | Integer                | Offset                                                                                                                                   |
| Limit          | No       | Integer                | Maximum number of returned items                                                                                                         |
| Filters        | No       | <a href="#">Filter</a> | Filter <ul style="list-style-type: none"><li><code>compute-node-id</code> - String - Optional - Filter by the compute node ID.</li></ul> |

### 3. Output Parameters

| Parameter Name | Type                              | Description                                                                                              |
|----------------|-----------------------------------|----------------------------------------------------------------------------------------------------------|
| ActivitySet    | Array of <a href="#">Activity</a> | List of activities in the compute environment                                                            |
| TotalCount     | Integer                           | Number of activities                                                                                     |
| 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 activities in the compute environment

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeComputeEnvActivities
&EnvId=env-lcpcej85
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "TotalCount": 2,
    "ActivitySet": [
      {
        "ComputeNodeId": "node-9yzd5jei",
        "EnvId": "env-lcpcej85",
        "InstanceId": "ins-x23sd8xk",
        "ActivityState": "SUCCEED",
        "ActivityId": "act-83xvnt5p",
        "StartTime": "2018-03-09T13:14:34Z",
        "StateReason": "",
        "EndTime": "2018-03-09T13:15:44Z",
        "Cause": "ModifyComputeEnv: increase the capacity from 1 to 2",
        "ComputeNodeActivityType": "CREATE_COMPUTE_NODE"
      },
      {
        "ComputeNodeId": "node-noa8vefu",
```

```
"EnvId": "env-lcpcej85",
"InstanceId": "ins-x23sdiwd",
"ActivityState": "SUCCEED",
"ActivityId": "act-ezle9e7v",
"StartTime": "2018-03-08T11:48:43Z",
"StateReason": "",
"EndTime": "2018-03-08T11:49:17Z",
"Cause": "CreateComputeEnv: the capacity is 1",
"ComputeNodeActivityType": "CREATE_COMPUTE_NODE"
},
"RequestId": "ecfeec77-6ec1-4daf-8730-1dd00c742252"
}
```

## 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 |
|------------|-------------|
|            |             |

|                                         |                                                   |
|-----------------------------------------|---------------------------------------------------|
| InternalError                           | Internal error.                                   |
| InvalidParameter.ComputeNodeIdMalformed | Invalid compute node ID format.                   |
| InvalidParameter.EnvIdMalformed         | Invalid compute environment ID format.            |
| ResourceNotFound.ComputeEnv             | The specified compute environment does not exist. |
| UnknownParameter                        | Unknown parameter error.                          |



# DescribeComputeEnvCreateInfo

Last updated : 2023-05-04 15:47:11

## 1. API Description

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

This API is used to query the compute environment creation information.

A maximum of 2 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 | <a href="#">Common Params</a> . The value used for this API: DescribeComputeEnvCreateInfo. |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                   |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API.               |
| EnvId          | Yes      | String | Compute environment ID                                                                     |

## 3. Output Parameters

| Parameter Name | Type   | Description            |
|----------------|--------|------------------------|
| EnvId          | String | Compute environment ID |
|                |        |                        |

|                         |                                         |                                                                                                                                         |
|-------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| EnvName                 | String                                  | Compute environment name                                                                                                                |
| EnvDescription          | String                                  | Compute environment description<br>Note: This field may return <code>null</code> , indicating that no valid value was found.            |
| EnvType                 | String                                  | Compute environment type. Only <code>MANAGED</code> is supported                                                                        |
| EnvData                 | <a href="#">EnvData</a>                 | Compute environment parameter                                                                                                           |
| MountDataDisks          | Array of <a href="#">MountDataDisk</a>  | Data disk mounting option                                                                                                               |
| InputMappings           | Array of <a href="#">InputMapping</a>   | Input mapping                                                                                                                           |
| Authentications         | Array of <a href="#">Authentication</a> | Authorization information                                                                                                               |
| Notifications           | Array of <a href="#">Notification</a>   | Notification information                                                                                                                |
| DesiredComputeNodeCount | Integer                                 | Number of desired compute nodes                                                                                                         |
| Tags                    | Array of <a href="#">Tag</a>            | Tag list bound to the compute environment.<br>Note: This field may return <code>null</code> , indicating that no valid value was found. |
| RequestId               | String                                  | The unique request ID, which is returned for each request. RequestId is required for locating a problem.                                |

## 4. Example

### Example1 Querying the creation information of the compute environment

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeComputeEnvCreateInfo
&EnvId=env-lcpcej85
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
```

```
"EnvId": "env-qlawxzt",
"EnvType": "MANAGED",
"DesiredComputeNodeCount": 2,
"MountDataDisks": [
{
"FileSystemType": "xx",
"LocalPath": "xx"
}
],
"EnvName": "test compute env",
"EnvDescription": "test compute env",
"InputMappings": [
{
"SourcePath": "cos://bucket-appid.cos.ap-hongkong.myqcloud.com/",
"DestinationPath": "/mnt/disk/"
},
{
"SourcePath": "cos://bucket-appid.cos.ap-hongkong.myqcloud.com/test/",
"DestinationPath": "/mnt/input/"
}
],
"Notifications": [
{
"TopicName": "topic name",
"EventConfigs": [
{
"EventName": "ComputeEnvCreated",
"EventVars": [
{
"Name": "name1",
"Value": "value1"
},
{
"Name": "name2",
"Value": "value2"
}
]
}
]
}
],
"EnvData": {
"VirtualPrivateCloud": {
"SubnetId": "subnet-8axej2jc",
"VpcId": "vpc-cg18la4l"
},
"SystemDisk": {
```

```
"DiskSize": 50,
"DiskType": "CLOUD_BASIC"
},
"InternetAccessible": {
  "PublicIpAssigned": "TRUE",
  "InternetMaxBandwidthOut": 50
},
"ImageId": "img-bd78fy2t",
"InstanceType": "S1.SMALL2",
"DataDisks": [
  {
    "DiskSize": 50,
    "DiskType": "CLOUD_BASIC"
  }
],
"Tags": [
  {
    "Key": "batch-test-tag-env-key",
    "Value": "batch-test-tag-env-value1"
  }
],
"Authentications": [
  {
    "SecretKey": "xx",
    "SecretId": "xx",
    "Scene": "xx"
  }
],
"RequestId": "578f3fae-6908-4521-ac07-17c2cffcd5ae"
}
```

## 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                                       |
|---------------------------------|---------------------------------------------------|
| InvalidParameter.EnvIdMalformed | Invalid compute environment ID format.            |
| ResourceNotFound.ComputeEnv     | The specified compute environment does not exist. |

# TerminateComputeNodes

Last updated : 2023-05-04 15:47:09

## 1. API Description

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

This API is used to terminate compute nodes in batches. It is not allowed to repeatedly terminate the same node.

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          | <a href="#">Common Params</a> . The value used for this API: TerminateComputeNodes. |
| Version          | Yes      | String          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.            |
| Region           | No       | String          | <a href="#">Common Params</a> . This parameter is not required for this API.        |
| EnvId            | Yes      | String          | Compute environment ID                                                              |
| ComputeNodeIds.N | Yes      | Array of String | List of compute node IDs                                                            |

## 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 Batch terminating the compute nodes

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=TerminateComputeNodes
&EnvId=env-lcx7qbbr
&ComputeNodeIds.0=node-lcpcej85
&ComputeNodeIds.1=node-lcz8jkw
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "RequestId": "c50bfbf1-d214-4e41-90f6-39270dc9f071"
  }
}
```

## 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                                                    |
|---------------------------------------------------|----------------------------------------------------------------|
| InvalidParameter.ComputeNodeIdMalformed           | Invalid compute node ID format.                                |
| InvalidParameter.EnvIdMalformed                   | Invalid compute environment ID format.                         |
| ResourceNotFound.ComputeEnv                       | The specified compute environment does not exist.              |
| ResourceNotFound.ComputeNode                      | The specified compute node does not exist.                     |
| UnsupportedOperation                              | Unsupported operation.                                         |
| UnsupportedOperation.AcceptOtherRequest           | Another request is being processed and deletion is prohibited. |
| UnsupportedOperation.ComputeEnvAcceptOtherRequest | The compute environment accepts other requests.                |
| UnsupportedOperation.ComputeNodeForbidTerminate   | Compute node termination is prohibited.                        |



# DetachInstances

Last updated : 2023-05-04 15:47:10

## 1. API Description

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

This API is used to remove instances that from compute environment.

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          | <a href="#">Common Params</a> . The value used for this API: DetachInstances. |
| Version        | Yes      | String          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.      |
| Region         | No       | String          | <a href="#">Common Params</a> . This parameter is not required for this API.  |
| EnvId          | Yes      | String          | Compute environment ID                                                        |
| InstanceIds.N  | Yes      | Array of String | List of instance IDs                                                          |

## 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 Removing instances from a compute environment

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DetachInstances
&EnvId=env-1mekuyxs
&InstanceIds.0=ins-kjoossv5
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "RequestId": "bd757b4d-9797-493e-b421-89873457a071"
  }
}
```

## 5. Developer Resources

### SDK

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

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

## Command Line Interface

- [Tencent Cloud CLI 3.0](#)

## 6. Error Code

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

| Error Code                                 | Description                                       |
|--------------------------------------------|---------------------------------------------------|
| InternalError                              | Internal error.                                   |
| InternalError.CallCvm                      | An error is returned for the CVM API call.        |
| InvalidParameter.EnvIdMalformed            | Invalid compute environment ID format.            |
| InvalidParameterValue.InstanceIdDuplicated | Instance IDs duplicate.                           |
| ResourceNotFound.ComputeEnv                | The specified compute environment does not exist. |
| UnknownParameter                           | Unknown parameter error.                          |
| UnsupportedOperation                       | Unsupported operation.                            |

# AttachInstances

Last updated : 2023-05-04 15:47:12

## 1. API Description

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

This API is used to add existing instances to the compute environment.

Requirements:

1. The instance is not in the batch compute system.
2. The instance is in "Running" status.
3. Spot instances are not supported.

**For instances added to the compute environment, their UserData will be reset, and the operating systems will be reinstalled.**

**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 | <a href="#">Common Params</a> . The value used for this API: AttachInstances. |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.      |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for            |

|             |     |                                   |                                                         |
|-------------|-----|-----------------------------------|---------------------------------------------------------|
|             |     |                                   | this API.                                               |
| EnvId       | Yes | String                            | Compute environment ID                                  |
| Instances.N | Yes | Array of <a href="#">Instance</a> | List of instances that added to the compute environment |

### 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 Adding an instance to the compute environment

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=AttachInstances
&EnvId=env-nuydksjj
&Instances.0.InstanceId=ins-dus5t7tu
&Instances.0.ImageId=img-8toqc6s3
&Instances.0.LoginSettings.Password=xxxxxxxxxx
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "RequestId": "a402b86a-5b45-4edf-b64c-d233c2984fbd"
  }
}
```

### 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                                                      |
|---------------------------------------------------------|------------------------------------------------------------------|
| <b>InternalError</b>                                    | <b>Internal error.</b>                                           |
| <b>InternalError.CallCvm</b>                            | <b>An error is returned for the CVM API call.</b>                |
| <b>InvalidParameter.EnvIdMalformed</b>                  | <b>Invalid compute environment ID format.</b>                    |
| <b>InvalidParameterValue.InstanceIdDuplicated</b>       | <b>Instance IDs duplicate.</b>                                   |
| <b>ResourceNotFound.ComputeEnv</b>                      | <b>The specified compute environment does not exist.</b>         |
| <b>UnsupportedOperation</b>                             | <b>Unsupported operation.</b>                                    |
| <b>UnsupportedOperation.InstancesNotAllowedToAttach</b> | <b>This instance cannot be added to the compute environment.</b> |

## Task Template-related APIs

### CreateTaskTemplate

Last updated : 2023-05-04 15:47:07

## 1. API Description

Domain name for API request: `batch.tencentcloudapi.com`.

This API is used to create a task template.

A maximum of 2 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                       | <a href="#">Common Params</a> . The value used for this API: <code>CreateTaskTemplate</code> .     |
| Version                 | Yes      | String                       | <a href="#">Common Params</a> . The value used for this API: <code>2017-03-12</code> .             |
| Region                  | No       | String                       | <a href="#">Common Params</a> . This parameter is not required for this API.                       |
| TaskTemplateName        | Yes      | String                       | Task template name                                                                                 |
| TaskTemplateInfo        | Yes      | <a href="#">Task</a>         | Task template content with the same parameter requirements as the task                             |
| TaskTemplateDescription | No       | String                       | Task template description                                                                          |
| Tags.N                  | No       | Array of <a href="#">Tag</a> | Specifies the tags you want to bind to a task template. Each task template supports up to 10 tags. |

### 3. Output Parameters

| Parameter Name        | Type          | Description                                                                                                     |
|-----------------------|---------------|-----------------------------------------------------------------------------------------------------------------|
| <b>TaskTemplateId</b> | <b>String</b> | <b>Task template ID</b>                                                                                         |
| <b>RequestId</b>      | <b>String</b> | <b>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</b> |

### 4. Example

#### Example1 Creating a task template

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=CreateTaskTemplate
&TaskTemplateName=A
&TaskTemplateDescription=test
&TaskTemplateInfo.TaskName=A
&TaskTemplateInfo.TaskInstanceNum=1
&TaskTemplateInfo.Application.DeliveryForm=LOCAL
&TaskTemplateInfo.Application.Command=python-c"fib=lambdan:1ifn<=2elsefib(n-1)+fib(n-2);print(fib(20))"
&TaskTemplateInfo.ComputeEnv.EnvType=MANAGED
&TaskTemplateInfo.ComputeEnv.EnvData.InstanceType=S1.SMALL1
&TaskTemplateInfo.ComputeEnv.EnvData.ImageId=img-bd78fy2t
&TaskTemplateInfo.RedirectInfo.StdoutRedirectPath=cos://bucket-appid.cosgz.myqcloud.com/hello2/logs/
&TaskTemplateInfo.RedirectInfo.StderrRedirectPath=cos://bucket-appid.cosgz.myqcloud.com/hello2/logs/
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "TaskTemplateId": "task-tmpl-7vtx96n2",
    "RequestId": "83cd875b-7ac0-4e5b-b150-0e69c59e5e52"
  }
}
```



## 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                                                              |
|------------------------------------------------|--------------------------------------------------------------------------|
| <b>AllowedOneAttributeInEnvIdAndComputeEnv</b> | <code>ComputeEnv</code> and <code>EnvId</code> cannot be both specified. |
| <b>InternalError</b>                           | Internal error.                                                          |
| <b>InternalError.CallTagAPI</b>                | Error while obtaining the Tag component.                                 |
| <b>InvalidParameter.CvmParameters</b>          | Invalid CVM parameter.                                                   |
| <b>InvalidParameter.EnvIdMalformed</b>         | Invalid compute environment ID format.                                   |
| <b>InvalidParameter.ImageIdMalformed</b>       | Incorrect image ID.                                                      |
| <b>InvalidParameter.TaskName</b>               | Invalid task name.                                                       |
| <b>InvalidParameter.TaskNameTooLong</b>        | The task name is too long.                                               |
|                                                |                                                                          |

|                                                         |                                                          |
|---------------------------------------------------------|----------------------------------------------------------|
| <b>InvalidParameter.TaskTemplateName</b>                | <b>Invalid task template name.</b>                       |
| <b>InvalidParameter.TaskTemplateNameTooLong</b>         | <b>The task template name is too long.</b>               |
| <b>InvalidParameterValue.ComputeEnv</b>                 | <b>Compute environment parameter validation failed.</b>  |
| <b>InvalidParameterValue.DependenceNotFoundTaskName</b> | <b>The dependent task definition was not found.</b>      |
| <b>InvalidParameterValue.DependenceUnfeasible</b>       | <b>Loop task dependency is prohibited.</b>               |
| <b>InvalidParameterValue.InvalidDataTypeAny</b>         | <b>The value of <code>DataTypeAny</code> is invalid.</b> |
| <b>InvalidParameterValue.LocalPath</b>                  | <b>Invalid local storage path.</b>                       |
| <b>InvalidParameterValue.MaxRetryCount</b>              | <b>Too many retry attempts</b>                           |
| <b>InvalidParameterValue.Negative</b>                   | <b>Invalid negative parameter.</b>                       |
| <b>InvalidParameterValue.RemoteStoragePath</b>          | <b>Invalid storage path format.</b>                      |
| <b>InvalidParameterValue.RemoteStorageSchemeType</b>    | <b>Invalid storage type.</b>                             |
| <b>LimitExceeded.TaskTemplateQuota</b>                  | <b>Insufficient task template quota.</b>                 |

# DeleteTaskTemplates

Last updated : 2023-05-04 15:47:07

## 1. API Description

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

This API is used to delete task template information.

A maximum of 2 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          | <a href="#">Common Params</a> . The value used for this API: DeleteTaskTemplates. |
| Version           | Yes      | String          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.          |
| Region            | No       | String          | <a href="#">Common Params</a> . This parameter is not required for this API.      |
| TaskTemplateIds.N | Yes      | Array of String | This API is used to delete task template information.                             |

## 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 Deleting a task template

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DeleteTaskTemplates
&TaskTemplateIds.0=task-tmpl-7vtx96n2
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "RequestId": "1b68e632-c0eb-4e85-b9ef-a152aa3cc073"
  }
}
```

## 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                                           |
|-------------------------------------------------|-------------------------------------------------------|
| <b>InternalError</b>                            | <b>Internal error.</b>                                |
| <b>InvalidParameter.TaskTemplateIdMalformed</b> | <b>Invalid task template ID format.</b>               |
| <b>ResourceNotFound.TaskTemplate</b>            | <b>The specified task template ID does not exist.</b> |

# ModifyTaskTemplate

Last updated : 2023-05-04 15:47:06

## 1. API Description

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

This API is used to modify a task template.

A maximum of 2 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               | <a href="#">Common Params</a> . The value used for this API: ModifyTaskTemplate. |
| Version                 | Yes      | String               | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.         |
| Region                  | No       | String               | <a href="#">Common Params</a> . This parameter is not required for this API.     |
| TaskTemplateId          | Yes      | String               | Task template ID                                                                 |
| TaskTemplateName        | No       | String               | Task template name                                                               |
| TaskTemplateDescription | No       | String               | Task template description                                                        |
| TaskTemplateInfo        | No       | <a href="#">Task</a> | Task template information                                                        |

### 3. Output Parameters

| Parameter Name   | Type          | Description                                                                                                     |
|------------------|---------------|-----------------------------------------------------------------------------------------------------------------|
| <b>RequestId</b> | <b>String</b> | <b>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</b> |

### 4. Example

#### Example1 Modifying a task template

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=ModifyTaskTemplate
&TaskTemplateId=task-tmpl-606i415o
&TaskTemplateName=A
&TaskTemplateDescription=test
&TaskTemplateInfo.TaskName=A
&TaskTemplateInfo.TaskInstanceNum=1
&TaskTemplateInfo.Application.DeliveryForm=LOCAL
&TaskTemplateInfo.Application.Command=python -c "fib=lambda n:1 if n<=2 else fib
(n-1)+fib(n-2); print(fib(20))"
&TaskTemplateInfo.ComputeEnv.EnvType=MANAGED
&TaskTemplateInfo.ComputeEnv.EnvData.InstanceType=S1.SMALL1
&TaskTemplateInfo.ComputeEnv.EnvData.ImageId=img-bd78fy2t
&TaskTemplateInfo.RedirectInfo.StdoutRedirectPath=cos://bucket-appid.cos.ap-guang
zhou.myqcloud.com/hello2/logs/
&TaskTemplateInfo.RedirectInfo.StderrRedirectPath=cos://bucket-appid.ap-guangzho
u.myqcloud.com/hello2/logs/
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "RequestId": "8a56bd93-688e-41c3-bc8b-f9867ffb0dd0"
  }
}
```

## 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                                                              |
|--------------------------------------------------------|--------------------------------------------------------------------------|
| <b>AllowedOneAttributeInEnvIdAndComputeEnv</b>         | <code>ComputeEnv</code> and <code>EnvId</code> cannot be both specified. |
| <b>InternalError</b>                                   | Internal error.                                                          |
| <b>InvalidParameter.CvmParameters</b>                  | Invalid CVM parameter.                                                   |
| <b>InvalidParameter.TaskName</b>                       | Invalid task name.                                                       |
| <b>InvalidParameter.TaskNameTooLong</b>                | The task name is too long.                                               |
| <b>InvalidParameter.TaskTemplateDescriptionTooLong</b> | The task template description is too long.                               |
| <b>InvalidParameter.TaskTemplateIdMalformed</b>        | Invalid task template ID format.                                         |
| <b>InvalidParameter.TaskTemplateName</b>               | Invalid task template name.                                              |
|                                                        |                                                                          |



|                                                         |                                                                                                                                             |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>InvalidParameter.TaskTemplateNameTooLong</b>         | The task template name is too long.                                                                                                         |
| <b>InvalidParameterAtLeastOneAttribute</b>              | At least one of <code>TaskTemplateName</code> , <code>TaskTemplateDescription</code> , and <code>TaskTemplateInfo</code> must be specified. |
| <b>InvalidParameterValue.ComputeEnv</b>                 | Compute environment parameter validation failed.                                                                                            |
| <b>InvalidParameterValue.DependenceNotFoundTaskName</b> | The dependent task definition was not found.                                                                                                |
| <b>InvalidParameterValue.DependenceUnfeasible</b>       | Loop task dependency is prohibited.                                                                                                         |
| <b>InvalidParameterValue.LocalPath</b>                  | Invalid local storage path.                                                                                                                 |
| <b>InvalidParameterValue.MaxRetryCount</b>              | Too many retry attempts                                                                                                                     |
| <b>InvalidParameterValue.Negative</b>                   | Invalid negative parameter.                                                                                                                 |
| <b>InvalidParameterValue.RemoteStoragePath</b>          | Invalid storage path format.                                                                                                                |
| <b>InvalidParameterValue.RemoteStorageSchemeType</b>    | Invalid storage type.                                                                                                                       |
| <b>ResourceNotFound.TaskTemplate</b>                    | The specified task template ID does not exist.                                                                                              |

# DescribeTaskTemplates

Last updated : 2023-05-04 15:47:07

## 1. API Description

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

This API is used to query the information of task templates.

A maximum of 2 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                          | <a href="#">Common Params</a> . The value used for this API: DescribeTaskTemplates.                                                                                                          |
| Version           | Yes      | String                          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                                                                                                                     |
| Region            | No       | String                          | <a href="#">Common Params</a> . This parameter is not required for this API.                                                                                                                 |
| TaskTemplateIds.N | No       | Array of String                 | List of task template IDs. It cannot be specified together with <code>Filters</code> .                                                                                                       |
| Filters.N         | No       | Array of <a href="#">Filter</a> | Filter <ul style="list-style-type: none"><li><code>task-template-name</code> - String - Optional - Task template name.</li><li><code>tag-key</code> - String - Optional - Tag key.</li></ul> |

|        |    |         |                                                                                                                                                                                                                                                                                                                      |
|--------|----|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |    |         | <ul style="list-style-type: none"><li><code>tag-value</code> - String - Optional - Tag value.</li><li><code>tag:tag-key</code> - String - Optional - Tag key-value pair. The tag-key should be replaced by a specified tag key.</li></ul> <p>It cannot be specified together with <code>TaskTemplateIds</code> .</p> |
| Offset | No | Integer | Offset                                                                                                                                                                                                                                                                                                               |
| Limit  | No | Integer | Maximum number of returned items                                                                                                                                                                                                                                                                                     |

### 3. Output Parameters

| Parameter Name               | Type                                      | Description                                                                                              |
|------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <code>TaskTemplateSet</code> | Array of <a href="#">TaskTemplateView</a> | List of task templates                                                                                   |
| <code>TotalCount</code>      | Integer                                   | Number of task templates                                                                                 |
| <code>RequestId</code>       | String                                    | The unique request ID, which is returned for each request. RequestId is required for locating a problem. |

### 4. Example

#### Example1 Querying the task templates

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeTaskTemplates
&TaskTemplateIds.0=task-tmpl-pq24rq1e
&TaskTemplateIds.1=task-tmpl-606i415o
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "TotalCount": 2,
    "TaskTemplateSet": [
```

```
{
  "TaskTemplateName": "rendering",
  "TaskTemplateDescription": "3ds Max 2018 Demo",
  "TaskTemplateId": "task-tmpl-pq24rq1e",
  "CreateTime": "2018-03-08T03:27:43Z",
  "Tags": [
    {
      "Key": "batch-test-tag-tp-key",
      "Value": "batch-test-tag-tp-value"
    }
  ],
  "TaskTemplateInfo": {
    "OutputMappings": [
      {
        "SourcePath": "C:\\\\\\render\\\\\\",
        "DestinationPath": "cos://bucket-appid.cos.ap-guangzhou.myqcloud.com/"
      }
    ],
    "TaskInstanceNum": 1,
    "ComputeEnv": {
      "EnvType": "MANAGED",
      "EnvData": {
        "SystemDisk": {
          "DiskSize": "50",
          "DiskType": "CLOUD_BASIC"
        },
        "LoginSettings": {
          "Password": "B1habcdB1habcd"
        },
        "InternetAccessible": {
          "InternetMaxBandwidthOut": "10",
          "InternetChargeType": "TRAFFIC_POSTPAID_BY_HOUR"
        },
        "ImageId": "img-i64lx84h",
        "InstanceType": "S1.LARGE8",
        "DataDisks": [
          {
            "DiskSize": "0",
            "DiskType": "CLOUD_BASIC"
          }
        ]
      }
    },
    "RedirectInfo": {
      "StdoutRedirectPath": "cos://bucket-appid.cos.ap-guangzhou.myqcloud.com/wonderfile/logs/",
      "StderrRedirectPath": "cos://bucket-appid.cos.ap-guangzhou.myqcloud.com/wonderfile"
```

```

t/logs/"
},
"Application": {
"Command": "3dsmaxcmd Demo.max -outputName:c:\\\\render\\\\image.jpg",
"PackagePath": "cos://bucket-appid.cos.ap-guangzhou.myqcloud.com/render/max.tar.gz",
"DeliveryForm": "PACKAGE"
},
"MaxRetryCount": 0,
"Timeout": 259200,
"FailedAction": "TERMINATE",
"TaskName": "rendering"
}
},
{
"TaskTemplateName": "A",
"TaskTemplateDescription": "",
"TaskTemplateId": "task-tmpl-606i415o",
"CreateTime": "2018-01-25T07:46:12Z",
"Tags": [
{
"Key": "batch-test-tag-tp-key",
"Value": "batch-test-tag-tp-value"
}
],
"TaskTemplateInfo": {
"TaskInstanceNum": 2,
"ComputeEnv": {
"EnvType": "MANAGED",
"EnvData": {
"InstanceType": "S1.SMALL1",
"ImageId": "img-bq1gnde2"
}
}
},
"RedirectInfo": {
"StdoutRedirectPath": "cos://bucket-appid.cos.ap-guangzhou.myqcloud.com/hello2/logs/",
"StderrRedirectPath": "cos://bucket-appid.cos.ap-guangzhou.myqcloud.com/hello2/logs/"
},
"Application": {
"Command": "python -c \"fib=lambda n:1 if n<2 else fib(n-1)+fib(n-2); print(fib(20))\"",
"DeliveryForm": "LOCAL"
},
"MaxRetryCount": 0,
"FailedAction": "TERMINATE",

```

```
"TaskName": "A"
}
},
"RequestId": "23f7d202-1cd4-4658-a989-88ad4ed77aac"
}
```

## 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                             |
|-----------------------------------------------------|-----------------------------------------|
| <b>InternalError</b>                                | <b>Internal error.</b>                  |
| <b>InvalidParameter.InvalidParameterCombination</b> | <b>Invalid parameter combination.</b>   |
| <b>InvalidParameter.TaskTemplateIdMalformed</b>     | <b>Invalid task template ID format.</b> |
| <b>InvalidParameterValue</b>                        | <b>Incorrect parameter value.</b>       |
|                                                     |                                         |

|                  |                          |
|------------------|--------------------------|
| UnknownParameter | Unknown parameter error. |
|------------------|--------------------------|

# Job-related APIs

## DescribeJob

Last updated : 2023-05-04 15:47:08

### 1. API Description

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

This API is used to query the details of a job, including internal task ( `Task` ) and dependency ( `Dependence` ) information.

A maximum of 2 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 | <a href="#">Common Params</a> . The value used for this API: DescribeJob.    |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.     |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API. |
| JobId          | Yes      | String | Job ID                                                                       |

### 3. Output Parameters



| Parameter Name             | Type                                | Description                                                                                                                                 |
|----------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>JobId</b>               | String                              | <b>Job ID</b>                                                                                                                               |
| <b>JobName</b>             | String                              | <b>Job name</b>                                                                                                                             |
| <b>Zone</b>                | String                              | <b>Availability zone information</b>                                                                                                        |
| <b>Priority</b>            | Integer                             | <b>Job priority</b>                                                                                                                         |
| <b>JobState</b>            | String                              | <b>Job state</b>                                                                                                                            |
| <b>CreateTime</b>          | String                              | <b>Creation Date</b>                                                                                                                        |
| <b>EndTime</b>             | String                              | <b>End time</b>                                                                                                                             |
| <b>TaskSet</b>             | Array of <a href="#">TaskView</a>   | <b>Task view information</b>                                                                                                                |
| <b>DependenceSet</b>       | Array of <a href="#">Dependence</a> | <b>Information of the dependency among tasks</b>                                                                                            |
| <b>TaskMetrics</b>         | <a href="#">TaskMetrics</a>         | <b>Task statistical metrics</b>                                                                                                             |
| <b>TaskInstanceMetrics</b> | <a href="#">TaskInstanceMetrics</a> | <b>Task instance statistical metrics</b>                                                                                                    |
| <b>StateReason</b>         | String                              | <b>Job failure reason</b>                                                                                                                   |
| <b>Tags</b>                | Array of <a href="#">Tag</a>        | <b>List of tags bound with the job.</b><br><b>Note:</b> This field may return <code>null</code> , indicating that no valid value was found. |
| <b>NextAction</b>          | String                              | <b>Next action</b><br><b>Note:</b> This field may return <code>null</code> , indicating that no valid value was found.                      |
| <b>RequestId</b>           | String                              | <b>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</b>                             |

## 4. Example

### Example1 Querying details of a job

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeJob
&JobId=job-97zcl3wt
&<Common request parameters>
```

## Output Example

```
{
  "Response": {
    "JobState": "SUCCEED",
    "TaskSet": [
      {
        "EndTime": "2018-02-07T09:30:31Z",
        "TaskName": "A",
        "TaskState": "SUCCEED",
        "CreateTime": "2018-02-07T09:29:09Z"
      },
      {
        "EndTime": "2018-02-07T09:31:49Z",
        "TaskName": "B",
        "TaskState": "SUCCEED",
        "CreateTime": "2018-02-07T09:29:09Z"
      },
      {
        "EndTime": "2018-02-07T09:31:48Z",
        "TaskName": "C",
        "TaskState": "SUCCEED",
        "CreateTime": "2018-02-07T09:29:09Z"
      },
      {
        "EndTime": "2018-02-07T09:33:01Z",
        "TaskName": "D",
        "TaskState": "SUCCEED",
        "CreateTime": "2018-02-07T09:29:09Z"
      }
    ],
    "Zone": "ap-guangzhou-2",
    "TaskMetrics": {
      "PendingCount": 0,
      "FailedCount": 0,
      "StartingCount": 0,
      "SucceedCount": 4,
      "FailedInterruptedCount": 0,
      "SubmittedCount": 0,
      "RunnableCount": 0,
      "RunningCount": 0
    }
  }
}
```

```
},
"JobName": "test job",
"JobId": "job-97zcl3wt",
"Priority": 1,
"StateReason": "",
"TaskInstanceMetrics": {
  "PendingCount": 0,
  "FailedCount": 0,
  "StartingCount": 0,
  "SucceedCount": 4,
  "FailedInterruptedCount": 0,
  "SubmittedCount": 0,
  "RunnableCount": 0,
  "RunningCount": 0
},
"EndTime": "2018-02-07T09:33:01Z",
"DependenceSet": [
  {
    "StartTask": "A",
    "EndTask": "B"
  },
  {
    "StartTask": "A",
    "EndTask": "C"
  },
  {
    "StartTask": "B",
    "EndTask": "D"
  },
  {
    "StartTask": "C",
    "EndTask": "D"
  }
],
"CreateTime": "2018-02-07T09:29:09Z",
"Tags": [
  {
    "Key": "batch-test-tag-job-key",
    "Value": "batch-test-tag-job-value"
  }
],
"NextAction": "",
"RequestId": "d1b08863-b8ee-49d4-aa08-f464499f97a0"
}
```

## 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                              |
|----------------------------------------|------------------------------------------|
| <b>InternalError</b>                   | <b>Internal error.</b>                   |
| <b>InvalidParameter.JobIdMalformed</b> | <b>Invalid job ID format.</b>            |
| <b>ResourceNotFound.Job</b>            | <b>The specified job does not exist.</b> |

# DescribeTask

Last updated : 2023-05-04 15:47:08

## 1. API Description

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

This API is used to query the details of a specified task, including information of the task instances inside the task.

A maximum of 3 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  | <a href="#">Common Params</a> . The value used for this API: DescribeTask.   |
| Version        | Yes      | String  | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.     |
| Region         | No       | String  | <a href="#">Common Params</a> . This parameter is not required for this API. |
| JobId          | Yes      | String  | Job ID                                                                       |
| TaskName       | Yes      | String  | Task name                                                                    |
| Offset         | No       | Integer | Offset                                                                       |
| Limit          | No       | Integer | Number of returned results. Default value: 100. Maximum value: 1,000.        |
| Filters.N      | No       | Array   | Filter as detailed below:                                                    |

|  |  |                     |                                                                                                                                                                                                                                                                                                                                                   |
|--|--|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | of<br><b>Filter</b> | <ul style="list-style-type: none"><li><code>task-instance-type</code> - String - Optional - Filter by the task instance state. ( <code>SUBMITTED</code> , <code>PENDING</code> , <code>RUNNABLE</code> , <code>STARTING</code> , <code>RUNNING</code> , <code>SUCCEED</code> , <code>FAILED</code> , <code>FAILED_INTERRUPTED</code> ).</li></ul> |
|--|--|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 3. Output Parameters

| Parameter Name                | Type                                         | Description                                                                                              |
|-------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>JobId</b>                  | String                                       | <b>Job ID</b>                                                                                            |
| <b>TaskName</b>               | String                                       | <b>Task name</b>                                                                                         |
| <b>TaskState</b>              | String                                       | <b>Task status</b>                                                                                       |
| <b>CreateTime</b>             | String                                       | <b>Creation time</b>                                                                                     |
| <b>EndTime</b>                | String                                       | <b>End time</b>                                                                                          |
| <b>TaskInstanceTotalCount</b> | Integer                                      | <b>Total number of task instances</b>                                                                    |
| <b>TaskInstanceSet</b>        | Array of<br><a href="#">TaskInstanceView</a> | <b>Task instance information</b>                                                                         |
| <b>TaskInstanceMetrics</b>    | <a href="#">TaskInstanceMetrics</a>          | <b>Task instance statistical metrics</b>                                                                 |
| <b>RequestId</b>              | String                                       | The unique request ID, which is returned for each request. RequestId is required for locating a problem. |

### 4. Example

#### Example1 Queries task details

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeTask
&JobId=job-97zcl3wt
&TaskName=A
&Filters.0.Name=task-instance-state
&Filters.0.Values.0=SUCCEED
&<Common request parameters>
```

## Output Example

```
{
  "Response": {
    "TaskInstanceSet": [
      {
        "TaskInstanceId": 1,
        "RedirectInfo": {
          "StderrRedirectFileName": "stderr.job-97zcl3wt.A.1.log",
          "StdoutRedirectFileName": "stdout.job-97zcl3wt.A.1.log",
          "StdoutRedirectPath": "cos://dondonbatch-1251783334.cosgz.myqcloud.com/hello2/logs/",
          "StderrRedirectPath": "cos://dondonbatch-1251783334.cosgz.myqcloud.com/hello2/logs/"
        },
        "RunningTime": "2018-02-07T09:29:55Z",
        "LaunchTime": "2018-02-07T09:29:09Z",
        "StateReason": "",
        "StateDetailedReason": "xx",
        "ComputeNodeInstanceId": null,
        "EndTime": "2018-02-07T09:30:23Z",
        "TaskInstanceState": "SUCCEED",
        "CreateTime": "2018-02-07T09:29:09Z",
        "ExitCode": 0
      },
      {
        "TaskInstanceId": 0,
        "RedirectInfo": {
          "StderrRedirectFileName": "stderr.job-97zcl3wt.A.0.log",
          "StdoutRedirectFileName": "stdout.job-97zcl3wt.A.0.log",
          "StdoutRedirectPath": "cos://dondonbatch-1251783334.cosgz.myqcloud.com/hello2/logs/",
          "StderrRedirectPath": "cos://dondonbatch-1251783334.cosgz.myqcloud.com/hello2/logs/"
        },
        "RunningTime": "2018-02-07T09:30:02Z",
        "LaunchTime": "2018-02-07T09:29:09Z",
        "StateReason": "",
        "StateDetailedReason": "xx",
        "ComputeNodeInstanceId": null,
        "EndTime": "2018-02-07T09:30:31Z",
        "TaskInstanceState": "SUCCEED",
        "CreateTime": "2018-02-07T09:29:09Z",
        "ExitCode": 0
      }
    ],
    "TaskState": "SUCCEED",
```

```
"JobId": "job-97zc13wt",
"TaskInstanceMetrics": {
  "PendingCount": 0,
  "FailedCount": 0,
  "StartingCount": 0,
  "SucceedCount": 2,
  "FailedInterruptedCount": 0,
  "SubmittedCount": 0,
  "RunnableCount": 0,
  "RunningCount": 0
},
"TaskInstanceTotalCount": 2,
"TaskName": "A",
"EndTime": "2018-02-07T09:30:31Z",
"CreateTime": "2018-02-07T09:29:09Z",
"RequestId": "f4723b24-e080-4599-b12d-b7eb657faefe"
}
```

## 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                                   |
|----------------------------------------|-----------------------------------------------|
| <b>InternalError</b>                   | <b>Internal error.</b>                        |
| <b>InvalidParameter.JobIdMalformed</b> | <b>Invalid job ID format.</b>                 |
| <b>ResourceNotFound.Task</b>           | <b>The specified job task does not exist.</b> |

# DeleteJob

Last updated : 2023-05-04 15:47:09

## 1. API Description

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

This API is used to delete a job.

When a job is deleted, all related information is deleted and the job cannot be queried.

To delete a job, the job and all its task instances must be in SUCCEED or FAILED status.

A maximum of 30 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 | <a href="#">Common Params</a> . The value used for this API: DeleteJob.      |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.     |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API. |
| JobId          | Yes      | String | Job 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 job

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DeleteJob
&JobId=job-f5da1ed1
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "RequestId": "0ffc9347-a47a-43a6-a64a-aa77fda7ea13"
  }
}
```

## 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                              |
|----------------------------------------|------------------------------------------|
| <b>InternalError</b>                   | <b>Internal error.</b>                   |
| <b>InvalidParameter.JobIdMalformed</b> | <b>Invalid job ID format.</b>            |
| <b>ResourceInUse.Job</b>               | <b>The job is in use.</b>                |
| <b>ResourceNotFound.Job</b>            | <b>The specified job does not exist.</b> |
| <b>UnsupportedOperation</b>            | <b>Unsupported operation.</b>            |

# SubmitJob

Last updated : 2022-02-23 15:31:57

## 1. API Description

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

This API is used to submit a instance.

A maximum of 7 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](#).

This document describes the parameters for Signature V1. It's recommended to use the V3 signature, which provides higher security. Note that for Signature V3, the common parameters need to be placed in the HTTP Header. [See details](#).

| Parameter Name | Required | Type                      | Description                                                                                                                                                                     |
|----------------|----------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action         | Yes      | String                    | Common parameter. The value used for this API: SubmitJob.                                                                                                                       |
| Version        | Yes      | String                    | Common parameter. The value used for this API: 2017-03-12.                                                                                                                      |
| Region         | Yes      | String                    | Common parameter. For more information, please see the <a href="#">list of regions</a> supported by the product.                                                                |
| Placement      | Yes      | <a href="#">Placement</a> | Location information of the submitted job. This parameter allows you to specify information such as the availability zone of the CVM instance with which the job is associated. |
|                |          |                           |                                                                                                                                                                                 |

| Job         | Yes | Job    | Job information                                                                                                                                                                                                                                                            |
|-------------|-----|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken | No  | String | The string used to guarantee the idempotency of the request, which is generated by the user and must be unique for different requests. The maximum length is 64 ASCII characters. If this parameter is not specified, the idempotency of the request cannot be guaranteed. |

### 3. Output Parameters

| Parameter Name | Type   | Description                                                                                                                                                                                                                                      |
|----------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JobId          | String | When a job is submitted through this API, this parameter is returned and indicates the job ID. Returning the list of job IDs does not mean that the job is parsed/executed successfully. The job state can be queried using the DescribeJob API. |
| RequestId      | String | The unique request ID, which is returned for each request. RequestId is required for locating a problem.                                                                                                                                         |

### 4. Example

#### Example1 Submitting a job

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=SubmitJob
&Placement.Zone=ap-guangzhou-2
&Job.JobName=test
&Job.JobDescription=test
&Job.Priority=1
&Job.Tasks.0.TaskName=hello2
&Job.Tasks.0.TaskInstanceNum=1
&Job.Tasks.0.Application.DeliveryForm=LOCAL
&Job.Tasks.0.Application.Command=python -c "fib=lambda n:1 if n<=2 else fib(n-1)+
fib(n-2); print(fib(20))"
&Job.Tasks.0.ComputeEnv.EnvType=MANAGED
&Job.Tasks.0.ComputeEnv.EnvData.InstanceType=S1.SMALL1
&Job.Tasks.0.ComputeEnv.EnvData.ImageId=img-bd78fy2t
&Job.Tasks.0.RedirectInfo.StdoutRedirectPath=csc://dondonbatch-1251783334.cosgz.m
yqcloud.com/hello2/logs/
```

```
&Job.Tasks.0.RedirectInfo.StderrRedirectPath=cos://dondonbatch-1251783334.cosgz.m
yqcloud.com/hello2/logs/
&<Common request parameters>
```

## Output Example

```
{
  "Response": {
    "JobId": "job-4yn0we13",
    "RequestId": "bf2a9734-e485-423f-9d73-a93f5e6c6a0c"
  }
}
```

## Example2 Submitting a DAG-type job containing dependencies

### Input Example

```
https://batch.tencentcloudapi.com/?Action=SubmitJob
&Placement.Zone=ap-beijing-2
&Job.JobName=dag
&Job.JobDescription=dag_demo
&Job.Tasks.0.TaskName=pre_task
&Job.Tasks.0.TaskInstanceNum=1
&Job.Tasks.0.Application.DeliveryForm=LOCAL
&Job.Tasks.0.Application.Command=echo pre_task
&Job.Tasks.0.ComputeEnv.EnvData.InstanceType=S2.SMALL1
&Job.Tasks.0.RedirectInfo.StdoutRedirectPath=cos://batch-demo-1251783334.cosbj.my
qcloud.com/logs/
&Job.Tasks.0.RedirectInfo.StderrRedirectPath=cos://batch-demo-1251783334.cosbj.my
qcloud.com/logs/
&Job.Tasks.1.TaskName=post_task
&Job.Tasks.1.TaskInstanceNum=1
&Job.Tasks.1.Application.DeliveryForm=LOCAL
&Job.Tasks.1.Application.Command=echo post_task
&Job.Tasks.1.ComputeEnv.EnvData.InstanceType=S2.SMALL1
&Job.Tasks.1.RedirectInfo.StdoutRedirectPath=cos://batch-demo-1251783334.cosbj.my
qcloud.com/logs/
&Job.Tasks.1.RedirectInfo.StderrRedirectPath=cos://batch-demo-1251783334.cosbj.my
qcloud.com/logs/
&Job.Dependences.0.StartTask=pre_task
&Job.Dependences.0.EndTask=post_task
&<Common request parameters>
```

## Output Example

```
{
  "Response": {
    "JobId": "job-2bmv4p7o",
    "RequestId": "165dc518-52a4-4363-8ea4-14f1ee8dea1a"
  }
}
```

## 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                                                                     |
|------------------------------------------------|---------------------------------------------------------------------------------|
| <b>AllowedOneAttributeInEnvIdAndComputeEnv</b> | <b>One (and only one) parameter must be specified for ComputeEnv and EnvId.</b> |
| <b>InternalError</b>                           | <b>Internal error.</b>                                                          |
| <b>InternalError.CallCvm</b>                   | <b>An error is returned for the CVM API call.</b>                               |
| <b>InternalError.CallTagAPI</b>                | <b>Error while obtaining the Tag</b>                                            |



|                                                         |                                                          |
|---------------------------------------------------------|----------------------------------------------------------|
|                                                         | component.                                               |
| <b>InvalidParameter.CvmParameters</b>                   | Invalid CVM parameter.                                   |
| <b>InvalidParameter.EnvIdMalformed</b>                  | Invalid compute environment ID format.                   |
| <b>InvalidParameter.ImageIdMalformed</b>                | Incorrect image ID.                                      |
| <b>InvalidParameter.InvalidParameterCombination</b>     | Invalid parameter combination.                           |
| <b>InvalidParameter.JobDescriptionTooLong</b>           | The instance description is too long.                    |
| <b>InvalidParameter.JobNameTooLong</b>                  | The instance name is too long.                           |
| <b>InvalidParameter.NotificationEventNameDuplicate</b>  | Duplicate message notification event name.               |
| <b>InvalidParameter.NotificationTopicName</b>           | Invalid topic name.                                      |
| <b>InvalidParameter.NotificationTopicNameTooLong</b>    | The topic name is too long.                              |
| <b>InvalidParameter.TaskName</b>                        | Invalid job name.                                        |
| <b>InvalidParameter.TaskNameTooLong</b>                 | The task name is too long.                               |
| <b>InvalidParameterValue.ComputeEnv</b>                 | Compute environment parameter validation failed.         |
| <b>InvalidParameterValue.DependenceNotFoundTaskName</b> | The dependent task definition was not found.             |
| <b>InvalidParameterValue.DependenceUnfeasible</b>       | Loop task dependency is prohibited.                      |
| <b>InvalidParameterValue.InstanceTypeDuplicate</b>      | The instance type value must be unique.                  |
| <b>InvalidParameterValue.LimitExceeded</b>              | The number of filter parameter values exceeds the limit. |
| <b>InvalidParameterValue.LocalPath</b>                  | Invalid local storage path.                              |
| <b>InvalidParameterValue.MaxRetryCount</b>              | The number of retries is too large.                      |
| <b>InvalidParameterValue.Negative</b>                   | Invalid negative parameter.                              |
| <b>InvalidParameterValue.NotFloat</b>                   | The parameter value is not in float type.                |
| <b>InvalidParameterValue.RemoteStoragePath</b>          | Invalid storage path format.                             |
| <b>InvalidParameterValue.RemoteStorageSchemeType</b>    | Invalid storage type.                                    |
|                                                         |                                                          |

|                                                       |                                                          |
|-------------------------------------------------------|----------------------------------------------------------|
| <b>InvalidZone.MismatchRegion</b>                     | <b>The specified zone does not exist.</b>                |
| <b>LimitExceeded.JobQuota</b>                         | <b>Insufficient instance quota.</b>                      |
| <b>ResourceNotFound.ComputeEnv</b>                    | <b>The specified compute environment does not exist.</b> |
| <b>UnauthorizedOperation.UserNotAllowedToUseBatch</b> | <b>It is prohibited to use the BatchCompute service.</b> |

# TerminateTaskInstance

Last updated : 2023-05-04 15:47:07

## 1. API Description

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

This API is used to terminate a task instance.

**SUCCEED** and **FAILED** task instances: No action

**SUBMITTED** , **PENDING** , and **RUNNABLE** task instances: Change status to **FAILED** .

**STARTING** , **RUNNING** and **FAILED\_INTERRUPTED** task instances: If **EnvId** is not specified, the CVM instance is terminated, and then the task status goes to **FAILED** . If **EnvId** is specified, the task instance changes to **FAILED** , then the related CVM instance is restarted.

**FAILED\_INTERRUPTED** task instances: The related resources and quotas will be released only after the termination actually succeeds.

A maximum of 2 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 | <a href="#">Common Params</a> . The value used for this API: TerminateTaskInstance. |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.            |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API.        |

|                |     |         |                     |
|----------------|-----|---------|---------------------|
| JobId          | Yes | String  | Job ID              |
| TaskName       | Yes | String  | Task name           |
| TaskInstanceId | Yes | Integer | Task instance index |

### 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 Terminating a task instance

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=TerminateTaskInstance
&JobId=job-rybwp57
&TaskName=A
&TaskInstanceId=0
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "RequestId": "72e9a712-1fed-4b57-be72-62e71eefd4c3"
  }
}
```

### 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                                                                                      |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>InternalError</b>                                    | <b>Internal error.</b>                                                                           |
| <b>InvalidParameter.JobIdMalformed</b>                  | <b>Invalid job ID format.</b>                                                                    |
| <b>ResourceNotFound.TaskInstance</b>                    | <b>The specified task instance does not exist.</b>                                               |
| <b>UnsupportedOperation.TerminateOperationWithEnvId</b> | <b>This operation is prohibited for the task instances in the specified compute environment.</b> |

# DescribeJobs

Last updated : 2023-05-04 15:47:08

## 1. API Description

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

This API is used to query the overview information of several jobs.

A maximum of 2 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                          | <a href="#">Common Params</a> . The value used for this API: DescribeJobs.                                                                                                                                                                                                                                                                                                                                                           |
| Version        | Yes      | String                          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.                                                                                                                                                                                                                                                                                                                                                             |
| Region         | No       | String                          | <a href="#">Common Params</a> . This parameter is not required for this API.                                                                                                                                                                                                                                                                                                                                                         |
| JobIds.N       | No       | Array of String                 | List of job IDs. It cannot be specified together with <code>Filters</code> .                                                                                                                                                                                                                                                                                                                                                         |
| Filters.N      | No       | Array of <a href="#">Filter</a> | <b>Filter</b> <ul style="list-style-type: none"><li><code>job-id</code> - String - Optional - Filter by the job ID.</li><li><code>job-name</code> - String - Optional - Filter by the job name.</li><li><code>job-state</code> - String - Optional - Filter by the job state.</li><li><code>zone</code> - String - Optional - Filter by the availability zone.</li><li><code>tag-key</code> - String - Optional - Tag key.</li></ul> |

|        |    |         |                                                                                                                                                                                                                                                                                                                           |
|--------|----|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |    |         | <ul style="list-style-type: none"><li><code>tag-value</code> - String - Optional - Tag value.</li><li><code>tag:tag-key</code> - String - Optional - Filter by the tag key-value pair. The tag-key should be replaced by a specified tag key.</li></ul> <p>It cannot be specified together with <code>JobIds</code> .</p> |
| Offset | No | Integer | Offset                                                                                                                                                                                                                                                                                                                    |
| Limit  | No | Integer | Maximum number of returned items                                                                                                                                                                                                                                                                                          |

### 3. Output Parameters

| Parameter Name | Type                             | Description                                                                                              |
|----------------|----------------------------------|----------------------------------------------------------------------------------------------------------|
| JobSet         | Array of <a href="#">JobView</a> | List of jobs                                                                                             |
| TotalCount     | Integer                          | Number of matched jobs                                                                                   |
| RequestId      | String                           | The unique request ID, which is returned for each request. RequestId is required for locating a problem. |

### 4. Example

#### Example1 Querying job information

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeJobs
&JobIds.0=job-7e7evk2x
&JobIds.1=job-3n2weaqt
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "TotalCount": 2,
    "JobSet": [
```

```
{
  "EndTime": null,
  "JobState": "STARTING",
  "Tags": [
    {
      "Key": "batch-test-tag-job-key",
      "Value": "batch-test-tag-job-value"
    }
  ],
  "TaskMetrics": {
    "PendingCount": 0,
    "FailedCount": 0,
    "StartingCount": 1,
    "SucceedCount": 0,
    "FailedInterruptedCount": 0,
    "SubmittedCount": 0,
    "RunnableCount": 0,
    "RunningCount": 0
  },
  "JobId": "job-3n2weaqt",
  "Priority": 1,
  "Placement": {
    "Zone": "ap-guangzhou-4"
  },
  "JobName": "hello-test-job",
  "CreateTime": "2020-09-22T07:14:54Z"
},
{
  "EndTime": "2020-09-21T08:59:45Z",
  "JobState": "FAILED",
  "Tags": [
    {
      "Key": "job-key1",
      "Value": "job-value1"
    },
    {
      "Key": "job-key",
      "Value": "job-value"
    }
  ],
  "TaskMetrics": {
    "PendingCount": 0,
    "FailedCount": 1,
    "StartingCount": 0,
    "SucceedCount": 0,
    "FailedInterruptedCount": 0,
    "SubmittedCount": 0,
```



```
"RunnableCount": 0,
"RunningCount": 0
},
"JobId": "job-7e7evk2x",
"Priority": 1,
"Placement": {
  "Zone": "ap-guangzhou-4"
},
"JobName": "hello-test-job",
"CreateTime": "2020-09-21T08:57:01Z"
}
],
"RequestId": "ba5df388-51bd-434d-81aa-d640f284b4e7"
}
```

## 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 |
|------------|-------------|
|------------|-------------|

|                                                     |                                                                 |
|-----------------------------------------------------|-----------------------------------------------------------------|
| <b>InternalError</b>                                | <b>Internal error.</b>                                          |
| <b>InvalidFilter</b>                                | <b>The specified filter is not supported.</b>                   |
| <b>InvalidParameter.InvalidParameterCombination</b> | <b>Invalid parameter combination.</b>                           |
| <b>InvalidParameter.JobIdMalformed</b>              | <b>Invalid job ID format.</b>                                   |
| <b>InvalidParameterValue</b>                        | <b>Incorrect parameter value.</b>                               |
| <b>InvalidParameterValue.InvalidFilter</b>          | <b>Incorrect <code>Filter</code> parameter.</b>                 |
| <b>InvalidParameterValue.LimitExceeded</b>          | <b>The number of filter parameter values exceeds the limit.</b> |
| <b>InvalidZone.MismatchRegion</b>                   | <b>The specified zone does not exist.</b>                       |
| <b>UnknownParameter</b>                             | <b>Unknown parameter error.</b>                                 |

# DescribeJobSubmitInfo

Last updated : 2023-05-04 15:47:08

## 1. API Description

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

This API is used to query the submission information of the specified job, with the return including the job submission information used as input parameters in the JobId and SubmitJob APIs.

A maximum of 2 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 | <a href="#">Common Params</a> . The value used for this API: DescribeJobSubmitInfo. |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.            |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API.        |
| JobId          | Yes      | String | Job ID                                                                              |

## 3. Output Parameters

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

|                |                                     |                                                                                                                               |
|----------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| JobId          | String                              | Job ID                                                                                                                        |
| JobName        | String                              | Job name                                                                                                                      |
| JobDescription | String                              | Job description                                                                                                               |
| Priority       | Integer                             | Job priority. Tasks (Task) and task instances (TaskInstance) inherit the job priority                                         |
| Tasks          | Array of <a href="#">Task</a>       | Information of tasks in the job                                                                                               |
| Dependencies   | Array of <a href="#">Dependence</a> | Dependency information                                                                                                        |
| Tags           | Array of <a href="#">Tag</a>        | List of tags bound with the job.<br>Note: This field may return <code>null</code> , indicating that no valid value was found. |
| RequestId      | String                              | The unique request ID, which is returned for each request. RequestId is required for locating a problem.                      |

## 4. Example

### Example1 Obtaining job submission information

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeJobSubmitInfo
&JobId=job-97zcl3wt
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "Tasks": [
      {
        "TaskInstanceNum": 2,
        "ComputeEnv": {
          "EnvType": "MANAGED",
          "EnvData": {
            "InstanceType": "S1.SMALL1",
            "ImageId": "img-bd78fy2t"
          }
        }
      }
    ]
  }
}
```

```
}
},
"RedirectInfo": {
  "StdoutRedirectPath": "cos://bucket-appid.cosgz.myqcloud.com/hello2/logs/",
  "StderrRedirectPath": "cos://bucket-appid..cosgz.myqcloud.com/hello2/logs/"
},
"Application": {
  "Command": "python -c \"fib=lambda n:1 if n<=2 else fib(n-1)+fib(n-2); print(fib(20))\"",
  "DeliveryForm": "LOCAL"
},
"MaxRetryCount": 0,
"FailedAction": "TERMINATE",
"TaskName": "A"
},
{
  "TaskInstanceNum": 2,
  "ComputeEnv": {
    "EnvType": "MANAGED",
    "EnvData": {
      "InstanceType": "S1.SMALL1",
      "ImageId": "img-bd78fy2t"
    }
  },
  "RedirectInfo": {
    "StdoutRedirectPath": "cos://bucket-appid.cosgz.myqcloud.com/hello2/logs/",
    "StderrRedirectPath": "cos://bucket-appid.cosgz.myqcloud.com/hello2/logs/"
  },
  "Application": {
    "Command": "python -c \"fib=lambda n:1 if n<=2 else fib(n-1)+fib(n-2); print(fib(20))\"",
    "DeliveryForm": "LOCAL"
  },
  "MaxRetryCount": 0,
  "FailedAction": "TERMINATE",
  "TaskName": "B"
},
{
  "TaskInstanceNum": 2,
  "ComputeEnv": {
    "EnvType": "MANAGED",
    "EnvData": {
      "InstanceType": "S1.SMALL1",
      "ImageId": "img-bd78fy2t"
    }
  },
  "RedirectInfo": {
```

```
"StdoutRedirectPath": "cos://bucket-appid.cosgz.myqcloud.com/hello2/logs/",
"StderrRedirectPath": "cos://bucket-appid.cosgz.myqcloud.com/hello2/logs/"
},
"Application": {
"Command": "python -c \"fib=lambda n:1 if n<=2 else fib(n-1)+fib(n-2); print(fib(20))\"",
"DeliveryForm": "LOCAL"
},
"MaxRetryCount": 0,
"FailedAction": "TERMINATE",
"TaskName": "C"
},
{
"TaskInstanceNum": 2,
"ComputeEnv": {
"EnvType": "MANAGED",
"EnvData": {
"InstanceType": "S1.SMALL1",
"ImageId": "img-bd78fy2t"
}
},
"RedirectInfo": {
"StdoutRedirectPath": "cos://bucket-appid.cosgz.myqcloud.com/hello2/logs/",
"StderrRedirectPath": "cos://bucket-appid.cosgz.myqcloud.com/hello2/logs/"
},
"Application": {
"Command": "python -c \"fib=lambda n:1 if n<=2 else fib(n-1)+fib(n-2); print(fib(20))\"",
"DeliveryForm": "LOCAL"
},
"MaxRetryCount": 0,
"FailedAction": "TERMINATE",
"TaskName": "D"
}
],
"Dependencies": [
{
"StartTask": "A",
"EndTask": "B"
},
{
"StartTask": "A",
"EndTask": "C"
},
{
"StartTask": "B",
"EndTask": "D"
}
```

```
},
{
  "StartTask": "C",
  "EndTask": "D"
},
{
  "JobName": "test job",
  "Priority": 1,
  "JobDescription": "xxx",
  "JobId": "job-97zcl3wt",
  "Tags": [
    {
      "Key": "batch-test-tag-job-key",
      "Value": "batch-test-tag-job-value"
    }
  ],
  "RequestId": "1a69db97-95ff-4bf7-9eb2-875ea6e5737b"
}
```

## 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                              |
|----------------------------------------|------------------------------------------|
| <b>InternalError</b>                   | <b>Internal error.</b>                   |
| <b>InvalidParameter.JobIdMalformed</b> | <b>Invalid job ID format.</b>            |
| <b>ResourceNotFound.Job</b>            | <b>The specified job does not exist.</b> |



# TerminateJob

Last updated : 2023-05-04 15:47:07

## 1. API Description

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

This API is used to terminate a job.

Termination is prohibited if a job is in the **SUBMITTED** state and does not take effect if it is in the **SUCCEED** state.

Job termination is an asynchronous process, and the time it takes to complete the entire process is directly proportional to the total number of tasks. The effect of terminating a job is equivalent to performing the **TerminateTaskInstance** operation on all the task instances contained in the job. For more information on the specific effect and usage, see **TerminateTaskInstance**.

A maximum of 2 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 | <a href="#">Common Params</a> . The value used for this API: <b>TerminateJob</b> . |
| Version        | Yes      | String | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.           |
| Region         | No       | String | <a href="#">Common Params</a> . This parameter is not required for this API.       |
| JobId          | Yes      | String | Job 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 Terminating a job

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=TerminateJob
&JobId=job-rybewp57
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "RequestId": "970e5a9f-2963-436c-8dad-4847360676f7"
  }
}
```

### 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                                                                                      |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>InternalError</b>                                    | <b>Internal error.</b>                                                                           |
| <b>InvalidParameter.JobIdMalformed</b>                  | <b>Invalid job ID format.</b>                                                                    |
| <b>ResourceInUse.Job</b>                                | <b>The job is in use.</b>                                                                        |
| <b>ResourceNotFound.Job</b>                             | <b>The specified job does not exist.</b>                                                         |
| <b>UnsupportedOperation</b>                             | <b>Unsupported operation.</b>                                                                    |
| <b>UnsupportedOperation.TerminateOperationWithEnvId</b> | <b>This operation is prohibited for the task instances in the specified compute environment.</b> |

# DescribeTaskLogs

Last updated : 2023-05-04 15:47:08

## 1. API Description

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

This API is used to get the standard outputs and standard error logs of multiple task 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           | <a href="#">Common Params</a> . The value used for this API: DescribeTaskLogs. |
| Version               | Yes      | String           | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.       |
| Region                | No       | String           | <a href="#">Common Params</a> . This parameter is not required for this API.   |
| JobId                 | Yes      | String           | Job ID                                                                         |
| TaskName              | Yes      | String           | Task name                                                                      |
| TaskInstanceIndexes.N | No       | Array of Integer | Set of task instances                                                          |
| Offset                | No       | Integer          | The start point of query                                                       |
|                       |          |                  |                                                                                |

| Limit | No | Integer | Maximum number of task instances returned |
|-------|----|---------|-------------------------------------------|
|-------|----|---------|-------------------------------------------|

### 3. Output Parameters

| Parameter Name            | Type                                            | Description                                                                                                     |
|---------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>TotalCount</b>         | <b>Integer</b>                                  | <b>Total number of task instances</b>                                                                           |
| <b>TaskInstanceLogSet</b> | <b>Array of <a href="#">TaskInstanceLog</a></b> | <b>Set of task instance log details</b>                                                                         |
| <b>RequestId</b>          | <b>String</b>                                   | <b>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</b> |

### 4. Example

#### Example1 Obtaining task log details

##### Input Example

```
https://batch.tencentcloudapi.com/?Action=DescribeTaskLogs
&JobId=job-mawzp3ja
&TaskName=task
&TaskInstanceIndexes.0=0
&TaskInstanceIndexes.1=1
&<Common request parameters>
```

##### Output Example

```
{
  "Response": {
    "TotalCount": 1,
    "TaskInstanceLogSet": [
      {
        "StdoutLog": "data:text/plain;charset=utf-8;base64,bWFpbGpjbJ2RlbW8ucHknLCAnMyCsIC
cvbW50L2lucHV0JywgJy9tbnQvb3V0cHV0JywgJzEnXWZsdXNoIHRvIC9tbnQvb3V0cHV0LzE1MzU3MjY
wMDQuOTEKZmx1c2ggdG8gL2ludC9vdXRwdXQvMTUzNTcyNjAwNi4zOQpmbHVzaCB0byAvbW50L291dHB1
dC8xNTM1NzI2MDA3LjcK",
        "TaskInstanceIndex": 0,
        "StderrLog": "data:text/plain;charset=utf-8;base64,Zmx1c2ggdG8gL2ludC9vdXRwdXQvMT
UzNTcyNjAwNC45MQpmbHVzaCB0byAvbW50L291dHB1dC8xNTM1NzI2MDA2LjM5MzsdXNoIHRvIC9tbnQ
```

```
vb3V0cHV0LzE1MzU3MjYwMDcuNwo=",
"StdoutRedirectPath": "",
"StderrRedirectPath": "",
"StdoutRedirectFileName": "",
"StderrRedirectFileName": ""
},
],
"RequestId": "3b1ba3bf-a315-42ec-9e8e-af8def768f8a"
}
```

## 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                   |
|----------------------------------------|-------------------------------|
| <b>InternalError</b>                   | <b>Internal error.</b>        |
| <b>InvalidParameter.JobIdMalformed</b> | <b>Invalid job ID format.</b> |
| <b>InvalidParameter.TaskName</b>       | <b>Invalid task name.</b>     |

|                                         |                                                    |
|-----------------------------------------|----------------------------------------------------|
| <b>InvalidParameter.TaskNameTooLong</b> | <b>The task name is too long.</b>                  |
| <b>InvalidParameterValue</b>            | <b>Incorrect parameter value.</b>                  |
| <b>InvalidParameterValue.Negative</b>   | <b>Invalid negative parameter.</b>                 |
| <b>ResourceNotFound.Job</b>             | <b>The specified job does not exist.</b>           |
| <b>ResourceNotFound.Task</b>            | <b>The specified job task does not exist.</b>      |
| <b>ResourceNotFound.TaskInstance</b>    | <b>The specified task instance does not exist.</b> |
| <b>UnknownParameter</b>                 | <b>Unknown parameter error.</b>                    |

# RetryJobs

Last updated : 2023-05-04 15:47:07

## 1. API Description

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

This API is used to retry the failed task instances in a job.

Job retry is supported only if a job is in the "FAILED" state. After the retry operation succeeds, the job will retry the failing task instances in each task in turn according to the task dependencies specified in the "DAG". The history information of the task instances will be reset, the instances will participate in subsequent scheduling and execution as if they are run for the first time.

A maximum of 2 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          | <a href="#">Common Params</a> . The value used for this API: RetryJobs.      |
| Version        | Yes      | String          | <a href="#">Common Params</a> . The value used for this API: 2017-03-12.     |
| Region         | No       | String          | <a href="#">Common Params</a> . This parameter is not required for this API. |
| JobIds.N       | Yes      | Array of String | List of job IDs.                                                             |



## 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 jobs

This example shows you how to retry the task instances that were failed in a job.

#### Input Example

```
https://batch.tencentcloudapi.com/?Action=RetryJobs
&JobIds.0=job-rybewp57
&JobIds.1=job-97zcl3wt
&<Common request parameters>
```

#### Output Example

```
{
  "Response": {
    "RequestId": "970e5a9f-2963-436c-8dad-4847360676f7"
  }
}
```

## 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                              |
|----------------------------------------|------------------------------------------|
| <b>InternalError</b>                   | <b>Internal error.</b>                   |
| <b>InvalidParameter.JobIdMalformed</b> | <b>Invalid job ID format.</b>            |
| <b>ResourceNotFound.Job</b>            | <b>The specified job does not exist.</b> |
| <b>UnsupportedOperation</b>            | <b>Unsupported operation.</b>            |

# Data Types

Last updated : 2023-05-09 15:39:21

## Activity

Information of the creation/termination activity of a compute node

Used by actions: DescribeComputeEnvActivities.

| Name                    | Type   | Description                                                                                                    |
|-------------------------|--------|----------------------------------------------------------------------------------------------------------------|
| ActivityId              | String | Activity ID                                                                                                    |
| ComputeNodeId           | String | Compute node ID                                                                                                |
| ComputeNodeActivityType | String | Activity type. Values: <code>CREATE_COMPUTE_NODE</code> , <code>TERMINATE_COMPUTE_NODE</code>                  |
| EnvId                   | String | Compute environment ID                                                                                         |
| Cause                   | String | Cause of the activity                                                                                          |
| ActivityState           | String | Activity state                                                                                                 |
| StateReason             | String | Reason of going to this state                                                                                  |
| StartTime               | String | Activity start time                                                                                            |
| EndTime                 | String | Activity end time<br>Note: This field may return <code>null</code> , indicating that no valid value was found. |
| InstanceId              | String | CVM instance ID<br>Note: This field may return <code>null</code> , indicating that no valid value was found.   |

## AgentRunningMode

Agent running mode

Used by actions: CreateComputeEnv, CreateTaskTemplate, DescribeJobSubmitInfo, ModifyTaskTemplate.

| Name    | Type   | Required | Description                         |
|---------|--------|----------|-------------------------------------|
| Scene   | String | Yes      | Scenario type. Windows is supported |
| User    | String | Yes      | The user that runs the Agent        |
| Session | String | Yes      | The session that runs the Agent     |

## AnonymousComputeEnv

### Compute environment

Used by actions: **CreateTaskTemplate**, **DescribeJobSubmitInfo**, **ModifyTaskTemplate**.

| Name             | Type                                   | Required | Description                                |
|------------------|----------------------------------------|----------|--------------------------------------------|
| EnvType          | String                                 | No       | Compute environment management type        |
| EnvData          | <a href="#">EnvData</a>                | No       | Compute environment's parameters           |
| MountDataDisks   | Array of <a href="#">MountDataDisk</a> | No       | Data disk mounting option                  |
| AgentRunningMode | <a href="#">AgentRunningMode</a>       | No       | Agent running mode; applicable for Windows |

## Application

### Application information

Used by actions: **CreateTaskTemplate**, **DescribeJobSubmitInfo**, **ModifyTaskTemplate**.

| Name         | Type   | Required | Description                                                                                                                                |
|--------------|--------|----------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command      | String | Yes      | Task execution command                                                                                                                     |
| DeliveryForm | String | Yes      | Delivery form of the application. Values: <code>PACKAGE</code> (package stored in a remote location), <code>LOCAL</code> (local computer). |
| PackagePath  | String | No       | Remote storage path of the application package                                                                                             |

| Name   | Type   | Required | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------|--------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Docker | Docker | No       | Relevant configuration of the Docker used by the application. In case that the Docker configuration is used, "LOCAL" DeliveryForm means that the application software inside the Docker image is used directly and run in Docker mode; "PACKAGE" DeliveryForm means that the remote application package is run in Docker mode after being injected into the Docker image. To avoid compatibility issues with different versions of Docker, the Docker installation package and relevant dependencies are taken care of by BatchCompute. For custom images where Docker has already been installed, uninstall Docker first and then use the Docker feature. |

## Authentication

### Authentication information

Used by actions: CreateComputeEnv, CreateTaskTemplate, DescribeComputeEnvCreateInfo, DescribeComputeEnvCreateInfos, DescribeJobSubmitInfo, ModifyTaskTemplate.

| Name      | Type   | Required | Description                         |
|-----------|--------|----------|-------------------------------------|
| Scene     | String | Yes      | Authentication scenario such as COS |
| SecretId  | String | Yes      | SecretId                            |
| SecretKey | String | Yes      | SecretKey                           |

## ComputeEnvCreateInfo

### Compute environment creation information

Used by actions: DescribeComputeEnvCreateInfos.

| Name  | Type   | Description            |
|-------|--------|------------------------|
| EnvId | String | Compute environment ID |

| Name                    | Type                    | Description                                                                                                                       |
|-------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| EnvName                 | String                  | Compute environment name<br>Note: This field may return <code>null</code> , indicating that no valid value was found.             |
| EnvDescription          | String                  | Compute environment description<br>Note: This field may return <code>null</code> , indicating that no valid value was found.      |
| EnvType                 | String                  | Compute environment type. Only "MANAGED" type is supported                                                                        |
| EnvData                 | EnvData                 | Compute environment parameter                                                                                                     |
| MountDataDisks          | Array of MountDataDisk  | Data disk mounting option<br>Note: This field may return <code>null</code> , indicating that no valid value was found.            |
| InputMappings           | Array of InputMapping   | Input mapping<br>Note: This field may return <code>null</code> , indicating that no valid value was found.                        |
| Authentications         | Array of Authentication | Authorization information<br>Note: This field may return <code>null</code> , indicating that no valid value was found.            |
| Notifications           | Array of Notification   | Notification information<br>Note: This field may return <code>null</code> , indicating that no valid value was found.             |
| DesiredComputeNodeCount | Integer                 | Number of desired compute nodes                                                                                                   |
| Tags                    | Array of Tag            | Tag list of the compute environment.<br>Note: This field may return <code>null</code> , indicating that no valid value was found. |

## ComputeEnvData

Compute environment attributes

Used by actions: ModifyComputeEnv.

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

| Name                 | Type                   | Required   | Description                       |
|----------------------|------------------------|------------|-----------------------------------|
| <b>InstanceTypes</b> | <b>Array of String</b> | <b>Yes</b> | <b>List of CVM instance types</b> |

## ComputeEnvView

### Compute environment information

Used by actions: **DescribeComputeEnvs**.

| Name                            | Type                                | Description                                                                                                                                           |
|---------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EnvId</b>                    | <b>String</b>                       | <b>Compute environment ID</b>                                                                                                                         |
| <b>EnvName</b>                  | <b>String</b>                       | <b>Compute environment name</b>                                                                                                                       |
| <b>Placement</b>                | <a href="#">Placement</a>           | <b>Location information</b>                                                                                                                           |
| <b>CreateTime</b>               | <b>String</b>                       | <b>Creation time</b>                                                                                                                                  |
| <b>ComputeNodeMetrics</b>       | <a href="#">ComputeNodeMetrics</a>  | <b>Compute node statistical metrics</b>                                                                                                               |
| <b>EnvType</b>                  | <b>String</b>                       | <b>Compute environment type</b>                                                                                                                       |
| <b>DesiredComputeNodeCount</b>  | <b>Integer</b>                      | <b>Number of desired compute nodes</b>                                                                                                                |
| <b>ResourceType</b>             | <b>String</b>                       | <b>Compute environment resource type.</b><br>Values: <code>CVM</code> , <code>CPM</code> (Bare Metal)                                                 |
| <b>NextAction</b>               | <b>String</b>                       | <b>Next action</b>                                                                                                                                    |
| <b>AttachedComputeNodeCount</b> | <b>Integer</b>                      | <b>Number of compute nodes added to the compute environment</b>                                                                                       |
| <b>Tags</b>                     | <b>Array of <a href="#">Tag</a></b> | <b>Tag list bound to the compute environment.</b><br><b>Note:</b> This field may return <code>null</code> , indicating that no valid value was found. |

## ComputeNode

### Compute node

Used by actions: **DescribeComputeEnv**.

| Name                            | Type            | Description                                                                                                                                                                                         |
|---------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ComputeNodeId</b>            | String          | Compute node ID                                                                                                                                                                                     |
| <b>ComputeNodeInstanceId</b>    | String          | Compute node instance ID. In a CVM scenario, this parameter is the CVM InstanceId                                                                                                                   |
| <b>ComputeNodeState</b>         | String          | Compute node state                                                                                                                                                                                  |
| <b>Cpu</b>                      | Integer         | Number of CPU cores                                                                                                                                                                                 |
| <b>Mem</b>                      | Integer         | Memory size in GiB                                                                                                                                                                                  |
| <b>ResourceCreatedTime</b>      | String          | Resource creation time                                                                                                                                                                              |
| <b>TaskInstanceNumAvailable</b> | Integer         | Available capacity of the compute node when running TaskInstance. 0 means that the compute node is busy.                                                                                            |
| <b>AgentVersion</b>             | String          | BatchCompute Agent version                                                                                                                                                                          |
| <b>PrivateIpAddresses</b>       | Array of String | Private IP of the instance                                                                                                                                                                          |
| <b>PublicIpAddresses</b>        | Array of String | Public IP of the instance                                                                                                                                                                           |
| <b>ResourceType</b>             | String          | Compute environment resource type. Values: <code>CVM</code> , <code>CPM</code> (Bare Metal)                                                                                                         |
| <b>ResourceOrigin</b>           | String          | Source of compute environment resources.<br><code>BATCH_CREATED</code> : Instances created by BatchCompute.<br><code>USER_ATTACHED</code> : Instances added to the compute environment by the user. |

## ComputeNodeMetrics

### Compute node statistical metrics

Used by actions: `DescribeComputeEnv`, `DescribeComputeEnvs`.

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



| Name                       | Type           | Description                                              |
|----------------------------|----------------|----------------------------------------------------------|
| <b>SubmittedCount</b>      | <b>Integer</b> | <b>Number of compute nodes that have been submitted</b>  |
| <b>CreatingCount</b>       | <b>Integer</b> | <b>Number of compute nodes that are being created</b>    |
| <b>CreationFailedCount</b> | <b>Integer</b> | <b>Number of compute nodes that failed to be created</b> |
| <b>CreatedCount</b>        | <b>Integer</b> | <b>Number of compute nodes that have been created</b>    |
| <b>RunningCount</b>        | <b>Integer</b> | <b>Number of running compute nodes</b>                   |
| <b>DeletingCount</b>       | <b>Integer</b> | <b>Number of compute nodes that are being terminated</b> |
| <b>AbnormalCount</b>       | <b>Integer</b> | <b>Number of exceptional compute nodes</b>               |

## DataDisk

Describes data disk information.

Used by actions: **CreateComputeEnv**, **DescribeComputeEnvCreateInfo**.

| Name            | Type           | Required   | Description                                                                                                                                                                                                                                                                                                       |
|-----------------|----------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DiskSize</b> | <b>Integer</b> | <b>Yes</b> | <b>Data disk size (in GB). The minimum adjustment increment is 10 GB. The value range varies by data disk type. For more information on limits, see <a href="#">Storage Overview</a>. The default value is 0, indicating that no data disk is purchased. For more information, see the product documentation.</b> |

| Name               | Type    | Required | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------|---------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DiskType           | String  | No       | <p>Data disk type. For more information about limits on different data disk types, see <a href="#">Storage Overview</a>. Valid values:</p> <ul style="list-style-type: none"> <li>LOCAL_BASIC: local disk</li> <li>LOCAL_SSD: local SSD disk</li> <li>LOCAL_NVME: local NVME disk, specified in the <code>InstanceType</code></li> <li>LOCAL_PRO: local HDD disk, specified in the <code>InstanceType</code></li> <li>CLOUD_BASIC: HDD cloud disk</li> <li>CLOUD_PREMIUM: Premium Cloud Storage</li> <li>CLOUD_SSD: SSD</li> <li>CLOUD_HSSD: Enhanced SSD</li> <li>CLOUD_TSSD: Tremendous SSD</li> <li>CLOUD_BSSD: Balanced SSD</li> </ul> <p>Default value: LOCAL_BASIC.</p> <p>This parameter is invalid for the <code>ResizeInstanceDisk</code> API.</p> |
| DiskId             | String  | No       | <p>Data disk ID. Note that it's not available for <code>LOCAL_BASIC</code> and <code>LOCAL_SSD</code> disks. It is only used as a response parameter for APIs such as <code>DescribeInstances</code>, and cannot be used as a request parameter for APIs such as <code>RunInstances</code>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| DeleteWithInstance | Boolean | No       | <p>Whether to terminate the data disk when its CVM is terminated. Valid values:</p> <ul style="list-style-type: none"> <li>TRUE: terminate the data disk when its CVM is terminated. This value only supports pay-as-you-go cloud disks billed on an hourly basis.</li> <li>FALSE: retain the data disk when its CVM is terminated.</li> </ul> <p>Default value: TRUE</p> <p>Currently this parameter is only used in the <code>RunInstances</code> API.</p> <p>Note: This field may return null, indicating that no valid value is found.</p>                                                                                                                                                                                                              |

| Name                  | Type    | Required | Description                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------|---------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SnapshotId            | String  | No       | <p>Data disk snapshot ID. The size of the selected data disk snapshot must be smaller than that of the data disk.</p> <p>Note: This field may return null, indicating that no valid value is found.</p>                                                                                                                                                                 |
| Encrypt               | Boolean | No       | <p>Specifies whether the data disk is encrypted.</p> <p>Valid values:</p> <ul style="list-style-type: none"><li>TRUE: encrypted</li><li>FALSE: not encrypted</li></ul> <p>Default value: FALSE</p> <p>This parameter is only used with <code>RunInstances</code>.</p> <p>Note: this field may return <code>null</code>, indicating that no valid value is obtained.</p> |
| KmsKeyId              | String  | No       | <p>ID of the custom CMK in the format of UUID or "kms-abcd1234". This parameter is used to encrypt cloud disks.</p> <p>Currently, this parameter is only used in the <code>RunInstances</code> API.</p> <p>Note: this field may return null, indicating that no valid values can be obtained.</p>                                                                       |
| ThroughputPerformance | Integer | No       | <p>Cloud disk performance, in MB/s</p> <p>Note: this field may return <code>null</code>, indicating that no valid values can be obtained.</p>                                                                                                                                                                                                                           |
| CdId                  | String  | No       | <p>ID of the dedicated cluster to which the instance belongs.</p> <p>Note: this field may return <code>null</code>, indicating that no valid values can be obtained.</p>                                                                                                                                                                                                |

## Dependence

### Dependency

Used by actions: `DescribeJob`, `DescribeJobSubmitInfo`.

| Name      | Type   | Required | Description                |
|-----------|--------|----------|----------------------------|
| StartTask | String | Yes      | Dependency start task name |
| EndTask   | String | Yes      | Dependency end task name   |

## Docker

### Docker container information

Used by actions: **CreateTaskTemplate**, **DescribeJobSubmitInfo**, **ModifyTaskTemplate**.

| Name            | Type    | Required | Description                                                                                                                                                      |
|-----------------|---------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| User            | String  | Yes      | Docker Hub username or Tencent Registry username                                                                                                                 |
| Password        | String  | Yes      | Docker Hub password or Tencent Registry password                                                                                                                 |
| Image           | String  | Yes      | For Docker Hub, enter "[user/repo]:[tag]"; for Tencent Registry, enter "ccr.ccs.tencentyun.com/[namespace/repo]:[tag]"                                           |
| Server          | String  | No       | For Docker Hub, this can be left blank, but please ensure public network access is present. For Tencent Registry, the server address is "ccr.ccs.tencentyun.com" |
| MaxRetryCount   | Integer | No       | Maximum retry attempts to load docket images. Range: 0 - 10. Default: 0                                                                                          |
| DelayOnRetry    | Integer | No       | Docker image loading timeout period (in seconds). Range: 1 - 360                                                                                                 |
| DockerRunOption | String  | No       | Docker command execution parameter<br>Note: This field may return <code>null</code> , indicating that no valid value was found.                                  |

## EnhancedService

Describes the configuration of enhanced services, such as Cloud Security and Cloud Monitor.

Used by actions: **CreateComputeEnv**, **DescribeComputeEnvCreateInfo**.

| Name              | Type                                        | Required | Description                                                                                                                                                   |
|-------------------|---------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SecurityService   | <a href="#">RunSecurityServiceEnabled</a>   | No       | Enables cloud security service. If this parameter is not specified, the cloud security service will be enabled by default.                                    |
| MonitorService    | <a href="#">RunMonitorServiceEnabled</a>    | No       | Enables cloud monitor service. If this parameter is not specified, the cloud monitor service will be enabled by default.                                      |
| AutomationService | <a href="#">RunAutomationServiceEnabled</a> | No       | Whether to enable the TAT service. If this parameter is not specified, the TAT service is enabled for public images and disabled for other images by default. |

## EnvData

### Compute environment information

Used by actions: [CreateComputeEnv](#), [CreateTaskTemplate](#), [DescribeComputeEnvCreateInfo](#), [DescribeComputeEnvCreateInfos](#), [DescribeJobSubmitInfo](#), [ModifyTaskTemplate](#).

| Name         | Type                              | Required | Description                                                                                                              |
|--------------|-----------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------|
| InstanceType | String                            | No       | CVM instance type. It cannot be specified together with <code>InstanceTypes</code> or <code>InstanceTypeOptions</code> . |
| ImageId      | String                            | No       | CVM image ID                                                                                                             |
| SystemDisk   | <a href="#">SystemDisk</a>        | No       | System disk configuration of the instance                                                                                |
| DataDisks    | Array of <a href="#">DataDisk</a> | No       | Data disk configuration of the instance                                                                                  |

| Name                  | Type                                         | Required | Description                                                                                                                                                                                    |
|-----------------------|----------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VirtualPrivateCloud   | <a href="#">VirtualPrivateCloud</a>          | No       | Information of the VPC configuration. It cannot be specified together with <code>Zones</code> and <code>VirtualPrivateClouds</code> .                                                          |
| InternetAccessible    | <a href="#">InternetAccessible</a>           | No       | Public network bandwidth configuration                                                                                                                                                         |
| InstanceName          | String                                       | No       | CVM instance display name                                                                                                                                                                      |
| LoginSettings         | <a href="#">LoginSettings</a>                | No       | Instance login settings                                                                                                                                                                        |
| SecurityGroupIds      | Array of String                              | No       | Security groups associated with the instance                                                                                                                                                   |
| EnhancedService       | <a href="#">EnhancedService</a>              | No       | Whether to activate CWPP agent and Cloud Monitor. CWPP agent and Cloud Monitor are activated by default.                                                                                       |
| InstanceChargeType    | String                                       | No       | CVM instance billing method <ul style="list-style-type: none"><li><code>POSTPAID_BY_HOUR</code> (default): Hourly-billed pay-as-you-go</li><li><code>SPOTPAID</code> : Spot instance</li></ul> |
| InstanceMarketOptions | <a href="#">InstanceMarketOptionsRequest</a> | No       | Market-related options for instances, such as parameters related to spot instances.                                                                                                            |

| Name                        | Type                                         | Required | Description                                                                                                                                                                                                                                                          |
|-----------------------------|----------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>InstanceTypes</b>        | Array of String                              | No       | Types of CVM instances to create (up to 10). The system creates compute nodes of types specified in this list from top to down till the creation is successful. It cannot be specified together with <code>InstanceType</code> or <code>InstanceTypeOptions</code> . |
| <b>InstanceTypeOptions</b>  | <a href="#">InstanceTypeOptions</a>          | No       | CVM instance model configuration. It cannot be specified together with <code>InstanceType</code> or <code>InstanceTypes</code> .                                                                                                                                     |
| <b>Zones</b>                | Array of String                              | No       | List of availability zones. You can create CVM cross AZs in the same region. It cannot be specified together with <code>VirtualPrivateCloud</code> or <code>VirtualPrivateClouds</code> .                                                                            |
| <b>VirtualPrivateClouds</b> | Array of <a href="#">VirtualPrivateCloud</a> | No       | List of VPCs (creation of CVM instances across VPCs is supported). It cannot be specified together with <code>VirtualPrivateCloud</code> or <code>Zones</code> .                                                                                                     |

## EnvVar

### Environment variable

Used by actions: **CreateTaskTemplate**, **DescribeJobSubmitInfo**, **ModifyTaskTemplate**.

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

| Name         | Type          | Required   | Description                       |
|--------------|---------------|------------|-----------------------------------|
| <b>Name</b>  | <b>String</b> | <b>Yes</b> | <b>Environment variable name</b>  |
| <b>Value</b> | <b>String</b> | <b>Yes</b> | <b>Environment variable value</b> |

## EventConfig

### Event configuration

Used by actions: **CreateComputeEnv**, **DescribeComputeEnvCreateInfo**.

| Name             | Type          | Required   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------|---------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EventName</b> | <b>String</b> | <b>Yes</b> | <b>Event type. Value range:</b> <ul style="list-style-type: none"> <li><b>JOB_RUNNING</b> : The job is running, applicable to <code>SubmitJob</code> .</li> <li><b>JOB_SUCCEED</b> : The job succeeded, applicable to <code>SubmitJob</code> .</li> <li><b>JOB_FAILED</b> : The job failed, applicable to <code>SubmitJob</code> .</li> <li><b>JOB_FAILED_INTERRUPTED</b> : The job failed and the instance is retained, applicable to <code>SubmitJob</code> .</li> <li><b>TASK_RUNNING</b> : The task is running, applicable to <code>SubmitJob</code> .</li> <li><b>TASK_SUCCEED</b> : The task succeeded, applicable to <code>SubmitJob</code> .</li> <li><b>TASK_FAILED</b> : The task failed, applicable to <code>SubmitJob</code> .</li> <li><b>TASK_FAILED_INTERRUPTED</b> : The task failed and the instance is retained, applicable to <code>SubmitJob</code> .</li> <li><b>TASK_INSTANCE_RUNNING</b> : The task instance is running, applicable to <code>SubmitJob</code> .</li> <li><b>TASK_INSTANCE_SUCCEED</b> : The task instance succeeded, applicable to <code>SubmitJob</code> .</li> <li><b>TASK_INSTANCE_FAILED</b> : The task instance failed, applicable to <code>SubmitJob</code> .</li> <li><b>TASK_INSTANCE_FAILED_INTERRUPTED</b> : The task instance failed and the instance is retained, applicable to <code>SubmitJob</code> .</li> <li><b>COMPUTE_ENV_CREATED</b> : the compute environment has been created, applicable to "CreateComputeEnv".</li> </ul> |



| Name      | Type                              | Required | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|-----------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                                   |          | <ul style="list-style-type: none"> <li><code>COMPUTE_ENV_DELETED</code> : The compute environment has been deleted, applicable to <code>CreateComputeEnv</code> .</li> <li><code>COMPUTE_NODE_CREATED</code> : The compute node has been created, applicable to <code>CreateComputeEnv</code> and <code>SubmitJob</code> .</li> <li><code>COMPUTE_NODE_CREATION_FAILED</code> : The compute node creation failed, applicable to <code>CreateComputeEnv</code> and <code>SubmitJob</code> .</li> <li><code>COMPUTE_NODE_RUNNING</code> : The compute node is running, applicable to <code>CreateComputeEnv</code> and <code>SubmitJob</code> .</li> <li><code>COMPUTE_NODE_ABNORMAL</code> : The compute node is exceptional, applicable to "CreateComputeEnv" and "SubmitJob".</li> <li><code>COMPUTE_NODE_DELETING</code> : The compute node has been deleted, applicable to <code>CreateComputeEnv</code> and <code>SubmitJob</code> .</li> </ul> |
| EventVars | Array of <a href="#">EventVar</a> | Yes      | Custom key-value pair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## EventVar

Custom key-value pair

Used by actions: `CreateComputeEnv`, `DescribeComputeEnvCreateInfo`.

| Name  | Type   | Required | Description  |
|-------|--------|----------|--------------|
| Name  | String | Yes      | Custom key   |
| Value | String | Yes      | Custom value |

## Externals

Additional data

Used by actions: `DescribeCvmZoneInstanceConfigInfos`.

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

| Name                     | Type                   | Required  | Description                                                                                                                                                                                                                            |
|--------------------------|------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ReleaseAddress</b>    | <b>Boolean</b>         | <b>No</b> | <b>Release address</b><br><b>Note:</b> This field may return null, indicating that no valid value is found.                                                                                                                            |
| <b>UnsupportNetworks</b> | <b>Array of String</b> | <b>No</b> | <b>Not supported network. Value:</b> <ul style="list-style-type: none"> <li><b>BASIC:</b> classic network</li> <li><b>VPC1.0:</b> VPC1.0</li> </ul> <b>Note:</b> This field may return null, indicating that no valid value was found. |
| <b>StorageBlockAttr</b>  | <b>StorageBlock</b>    | <b>No</b> | <b>Attributes of local HDD storage</b><br><b>Note:</b> This field may return null, indicating that no valid value is found.                                                                                                            |

## Filter

Key-value pair filters used for conditional queries, such as filtering results by ID, name, and state.

- If there are multiple **Filter** parameters, they are evaluated using the logical **AND** operator.
- If a **Filter** contains multiple **Values**, they are evaluated using the logical **OR** operator.

Take **DescribeInstances** as an example. You can use the following filters to query the instances in availability zone ( **zone** ) Guangzhou Zone 1 *and* whose billing plan ( **instance-charge-type** ) is pay-as-you-go:

```
Filters.0.Name=zone
&Filters.0.Values.0=ap-guangzhou-1
&Filters.1.Name=instance-charge-type
&Filters.1.Values.0=POSTPAID_BY_HOUR
```

**Used by actions:** **DescribeAvailableCvmInstanceTypes**, **DescribeComputeEnvActivities**, **DescribeComputeEnvCreateInfos**, **DescribeComputeEnvs**, **DescribeCvmZoneInstanceConfigInfos**, **DescribeJobs**, **DescribeTask**, **DescribeTaskTemplates**.

| Name        | Type          | Required   | Description     |
|-------------|---------------|------------|-----------------|
| <b>Name</b> | <b>String</b> | <b>Yes</b> | <b>Filters.</b> |

| Name   | Type            | Required | Description    |
|--------|-----------------|----------|----------------|
| Values | Array of String | Yes      | Filter values. |

## InputMapping

### Input mapping

Used by actions: **CreateComputeEnv**, **CreateTaskTemplate**, **DescribeComputeEnvCreateInfo**, **DescribeComputeEnvCreateInfos**, **DescribeJobSubmitInfo**, **ModifyTaskTemplate**.

| Name                 | Type   | Required | Description                           |
|----------------------|--------|----------|---------------------------------------|
| SourcePath           | String | Yes      | Source path                           |
| DestinationPath      | String | Yes      | Destination path                      |
| MountOptionParameter | String | No       | Mounting configuration item parameter |

## Instance

### Describes information of an instance

Used by actions: **AttachInstances**.

| Name          | Type                          | Required | Description              |
|---------------|-------------------------------|----------|--------------------------|
| InstanceId    | String                        | Yes      | Instance ID.             |
| ImageId       | String                        | No       | Image ID                 |
| LoginSettings | <a href="#">LoginSettings</a> | No       | Instance login settings. |

## InstanceCategoryItem

### List of instance categories

Used by actions: **DescribeInstanceCategories**.

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

| Name                     | Type                   | Description                      |
|--------------------------|------------------------|----------------------------------|
| <b>InstanceCategory</b>  | <b>String</b>          | <b>Instance type name</b>        |
| <b>InstanceFamilySet</b> | <b>Array of String</b> | <b>List of instance families</b> |

## InstanceMarketOptionsRequest

Options related to bidding requests

Used by actions: **CreateComputeEnv**, **DescribeComputeEnvCreateInfo**.

| Name               | Type                              | Required   | Description                                                                                                                                                     |
|--------------------|-----------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SpotOptions</b> | <a href="#">SpotMarketOptions</a> | <b>Yes</b> | <b>Spot-related options</b><br><b>Note:</b> This field may return <code>null</code> , indicating that no valid values can be obtained.                          |
| <b>MarketType</b>  | <b>String</b>                     | <b>No</b>  | <b>Market type. Valid value:</b> <code>spot</code> .<br><b>Note:</b> This field may return <code>null</code> , indicating that no valid values can be obtained. |

## InstanceTypeConfig

Information of InstanceTypeConfig available to BatchCompute

Used by actions: **DescribeAvailableCvmInstanceTypes**.

| Name                  | Type           | Description                   |
|-----------------------|----------------|-------------------------------|
| <b>Mem</b>            | <b>Integer</b> | <b>Memory size in GB.</b>     |
| <b>Cpu</b>            | <b>Integer</b> | <b>Number of CPU cores.</b>   |
| <b>InstanceType</b>   | <b>String</b>  | <b>Instance model.</b>        |
| <b>Zone</b>           | <b>String</b>  | <b>Availability zone.</b>     |
| <b>InstanceFamily</b> | <b>String</b>  | <b>Instance model family.</b> |

## InstanceTypeOptions

Instance model configuration.

Used by actions: `CreateComputeEnv`, `DescribeComputeEnvCreateInfo`.

| Name               | Type            | Required | Description                                                                                                                                                                                                        |
|--------------------|-----------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                | Integer         | Yes      | Number of CPU cores                                                                                                                                                                                                |
| Memory             | Integer         | Yes      | Memory size in GB.                                                                                                                                                                                                 |
| InstanceCategories | Array of String | No       | Instance model category. Values: <code>ALL</code> (default), <code>GENERAL</code> , <code>GENERAL_2</code> , <code>GENERAL_3</code> , <code>COMPUTE</code> , <code>COMPUTE_2</code> , and <code>COMPUTE_3</code> . |

## InstanceTypeQuotaItem

Describes instance model quota.

Used by actions: `DescribeCvmZoneInstanceConfigInfos`.

| Name               | Type                      | Description                                                                                                                                                                                                                                                                                                       |
|--------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Zone               | String                    | Availability zone.                                                                                                                                                                                                                                                                                                |
| InstanceType       | String                    | Instance model.                                                                                                                                                                                                                                                                                                   |
| InstanceChargeType | String                    | Instance billing plan. Valid values: <ul style="list-style-type: none"><li><code>POSTPAID_BY_HOUR</code>: pay after use. You are billed for your traffic by the hour.</li><li><code>CDHPAID</code> : <code>CDH</code> billing plan. Applicable to <code>CDH</code> only, not the instances on the host.</li></ul> |
| NetworkCard        | Integer                   | ENI type. For example, 25 represents an ENI of 25 GB.                                                                                                                                                                                                                                                             |
| Externals          | <a href="#">Externals</a> | Additional data.<br>Note: This field may return null, indicating that no valid value is found.                                                                                                                                                                                                                    |
| Cpu                | Integer                   | Number of CPU cores of an instance model.                                                                                                                                                                                                                                                                         |
| Memory             | Integer                   | Instance memory capacity; unit: <code>GB</code> .                                                                                                                                                                                                                                                                 |
| InstanceFamily     | String                    | Instance model family.                                                                                                                                                                                                                                                                                            |
| TypeName           | String                    | Model name.                                                                                                                                                                                                                                                                                                       |

| Name               | Type                                   | Description                                                                                                                                          |
|--------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| LocalDiskTypeList  | Array of <a href="#">LocalDiskType</a> | List of local disk specifications. If the parameter returns null, it means that local disks cannot be created.                                       |
| Status             | String                                 | Whether an instance model is available. Valid values: <ul style="list-style-type: none"><li>• SELL: available</li><li>• SOLD_OUT: sold out</li></ul> |
| Price              | <a href="#">ItemPrice</a>              | Price of an instance model.                                                                                                                          |
| SoldOutReason      | String                                 | Details of out-of-stock items<br>Note: this field may return null, indicating that no valid value is obtained.                                       |
| InstanceBandwidth  | Float                                  | Private network bandwidth, in Gbps.                                                                                                                  |
| InstancePps        | Integer                                | The max packet sending and receiving capability (in 10k PPS).                                                                                        |
| StorageBlockAmount | Integer                                | Number of local storage blocks.                                                                                                                      |
| CpuType            | String                                 | CPU type.                                                                                                                                            |
| Gpu                | Integer                                | Number of GPUs of the instance.                                                                                                                      |
| Fpga               | Integer                                | Number of FPGAs of the instance.                                                                                                                     |
| Remark             | String                                 | Descriptive information of the instance.                                                                                                             |
| GpuCount           | Float                                  |                                                                                                                                                      |
| Frequency          | String                                 | CPU clock rate of the instance                                                                                                                       |

## InternetAccessible

Describes the accessibility of an instance in the public network, including its network billing method, maximum bandwidth, etc.

Used by actions: [CreateComputeEnv](#), [DescribeComputeEnvCreateInfo](#).

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

| Name                    | Type    | Required | Description                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|---------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| InternetChargeType      | String  | No       | <b>Network connection billing plan. Valid value:</b> <ul style="list-style-type: none"><li>• <b>TRAFFIC_POSTPAID_BY_HOUR:</b> pay after use. You are billed for your traffic, by the hour.</li></ul>                                                                                                                                                                                                                                    |
| InternetMaxBandwidthOut | Integer | No       | <b>The maximum outbound bandwidth of the public network, in Mbps. The default value is 0 Mbps. The upper limit of bandwidth varies for different models. For more information, see <a href="#">Purchase Network Bandwidth</a>.</b>                                                                                                                                                                                                      |
| PublicIpAssigned        | Boolean | No       | <b>Whether to assign a public IP. Valid values:</b> <ul style="list-style-type: none"><li>• <b>TRUE:</b> Assign a public IP</li><li>• <b>FALSE:</b> Do not assign a public IP</li></ul><br><b>If the public network bandwidth is greater than 0 Mbps, you can choose whether to assign a public IP; by default a public IP will be assigned. If the public network bandwidth is 0 Mbps, you will not be able to assign a public IP.</b> |
| BandwidthPackageId      | String  | No       | <b>Bandwidth package ID. To obtain the IDs, you can call <a href="#">DescribeBandwidthPackages</a> and look for the <code>BandwidthPackageId</code> fields in the response.</b>                                                                                                                                                                                                                                                         |

## ItemPrice

Describes pricing information.

Used by actions: **DescribeCvmZoneInstanceConfigInfos**.

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

| Name              | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UnitPrice         | Float  | <p>The original unit price for pay-as-you-go mode in USD.</p> <ul style="list-style-type: none"><li>When a billing tier is returned, it indicates the price for the returned billing tier. For example, if <code>UnitPriceSecondStep</code> is returned, it refers to the unit price for the usage between 0 to 96 hours. Otherwise, it refers to that the unit price for unlimited usage.</li></ul> <p>Note: this field may return null, indicating that no valid value is obtained.</p>   |
| ChargeUnit        | String | <p>Billing unit for pay-as-you-go mode. Valid values:</p> <ul style="list-style-type: none"><li>• HOUR: billed on an hourly basis. It's used for hourly postpaid instances ( <code>POSTPAID_BY_HOUR</code> ).</li><li>• GB: bill by traffic in GB. It's used for postpaid products that are billed by the hourly traffic ( <code>TRAFFIC_POSTPAID_BY_HOUR</code> ).</li></ul> <p>Note: this field may return null, indicating that no valid value is obtained.</p>                          |
| OriginalPrice     | Float  | <p>The original price of a pay-in-advance instance, in USD.</p> <p>Note: this field may return null, indicating that no valid value is obtained.</p>                                                                                                                                                                                                                                                                                                                                        |
| DiscountPrice     | Float  | <p>Discount price of a prepaid instance, in USD.</p> <p>Note: this field may return null, indicating that no valid value is obtained.</p>                                                                                                                                                                                                                                                                                                                                                   |
| Discount          | Float  | <p>Percentage of the original price. For example, if you enter "20.0", the discounted price will be 20% of the original price.</p> <p>Note: this field may return null, indicating that no valid values can be obtained.</p>                                                                                                                                                                                                                                                                |
| UnitPriceDiscount | Float  | <p>The discounted unit price for pay-as-you-go mode in USD.</p> <ul style="list-style-type: none"><li>When a billing tier is returned, it indicates the price for the returned billing tier. For example, if <code>UnitPriceSecondStep</code> is returned, it refers to the unit price for the usage between 0 to 96 hours. Otherwise, it refers to that the unit price for unlimited usage.</li></ul> <p>Note: this field may return null, indicating that no valid value is obtained.</p> |



| Name                        | Type  | Description                                                                                                                                                                                                                                                                                    |
|-----------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UnitPriceSecondStep         | Float | Original unit price for the usage between 96 to 360 hours in USD. It's applicable to pay-as-you-go mode.<br>Note: this field may return null, indicating that no valid value is obtained.                                                                                                      |
| UnitPriceDiscountSecondStep | Float | Discounted unit price for the usage between 96 to 360 hours in USD. It's applicable to pay-as-you-go mode.<br>Note: this field may return null, indicating that no valid value is obtained.                                                                                                    |
| UnitPriceThirdStep          | Float | Original unit price for the usage after 360 hours in USD. It's applicable to pay-as-you-go mode.<br>Note: this field may return null, indicating that no valid value is obtained.                                                                                                              |
| UnitPriceDiscountThirdStep  | Float | Discounted unit price for the usage after 360 hours in USD. It's applicable to pay-as-you-go mode.<br>Note: this field may return null, indicating that no valid value is obtained.                                                                                                            |
| OriginalPriceThreeYear      | Float | Original 3-year payment, in USD. This parameter is only available to upfront payment mode.<br>Note: this field may return <code>null</code> , indicating that no valid value was found.<br>Note: this field may return <code>null</code> , indicating that no valid value was found.           |
| DiscountPriceThreeYear      | Float | Discounted 3-year upfront payment, in USD. This parameter is only available to upfront payment mode.<br>Note: this field may return <code>null</code> , indicating that no valid value was found.<br>Note: this field may return <code>null</code> , indicating that no valid value was found. |
| DiscountThreeYear           | Float | Discount for 3-year upfront payment. For example, 20.0 indicates 80% off.<br>Note: this field may return <code>null</code> , indicating that no valid value was found.<br>Note: this field may return <code>null</code> , indicating that no valid value was found.                            |

| Name                         | Type  | Description                                                                                                                                                                                                                                                                                                   |
|------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OriginalPriceFiveYear</b> | Float | <p>Original 5-year payment, in USD. This parameter is only available to upfront payment mode.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p>           |
| <b>DiscountPriceFiveYear</b> | Float | <p>Discounted 5-year upfront payment, in USD. This parameter is only available to upfront payment mode.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p> |
| <b>DiscountFiveYear</b>      | Float | <p>Discount for 5-year upfront payment. For example, 20.0 indicates 80% off.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p>                            |
| <b>OriginalPriceOneYear</b>  | Float | <p>Original 1-year payment, in USD. This parameter is only available to upfront payment mode.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p>           |
| <b>DiscountPriceOneYear</b>  | Float | <p>Discounted 1-year payment, in USD. This parameter is only available to upfront payment mode.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p>         |
| <b>DiscountOneYear</b>       | Float | <p>Discount for 1-year upfront payment. For example, 20.0 indicates 80% off.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p> <p>Note: this field may return <code>null</code> , indicating that no valid value was found.</p>                            |

## JobView

### Job information

Used by actions: DescribeJobs.

| Name               | Type                | Description                                                                                                                          |
|--------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>JobId</b>       | <b>String</b>       | <b>Job ID</b>                                                                                                                        |
| <b>JobName</b>     | <b>String</b>       | <b>Job name</b>                                                                                                                      |
| <b>JobState</b>    | <b>String</b>       | <b>Job state</b>                                                                                                                     |
| <b>Priority</b>    | <b>Integer</b>      | <b>Job priority</b>                                                                                                                  |
| <b>Placement</b>   | <b>Placement</b>    | <b>Location information</b><br>Note: This field may return <code>null</code> , indicating that no valid value was found.             |
| <b>CreateTime</b>  | <b>String</b>       | <b>Creation time</b>                                                                                                                 |
| <b>EndTime</b>     | <b>String</b>       | <b>End time</b><br>Note: This field may return <code>null</code> , indicating that no valid value was found.                         |
| <b>TaskMetrics</b> | <b>TaskMetrics</b>  | <b>Task statistical metrics</b>                                                                                                      |
| <b>Tags</b>        | <b>Array of Tag</b> | <b>List of tags bound with the job.</b><br>Note: This field may return <code>null</code> , indicating that no valid value was found. |

## LocalDiskType

Describes local disk specifications.

Used by actions: DescribeCvmZoneInstanceConfigInfos.

| Name                 | Type           | Description                          |
|----------------------|----------------|--------------------------------------|
| <b>Type</b>          | <b>String</b>  | <b>Type of a local disk.</b>         |
| <b>PartitionType</b> | <b>String</b>  | <b>Attributes of a local disk.</b>   |
| <b>MinSize</b>       | <b>Integer</b> | <b>Minimum size of a local disk.</b> |

| Name            | Type           | Description                                                                                                                                                                           |
|-----------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MaxSize</b>  | <b>Integer</b> | <b>Maximum size of a local disk.</b>                                                                                                                                                  |
| <b>Required</b> | <b>String</b>  | <b>Whether a local disk is required during purchase. Valid values:</b> <ul style="list-style-type: none"> <li><b>REQUIRED:</b> required</li> <li><b>OPTIONAL:</b> optional</li> </ul> |

## LoginSettings

Describes login settings of an instance.

Used by actions: **AttachInstances**, **CreateComputeEnv**, **DescribeComputeEnvCreateInfo**.

| Name                  | Type                   | Required  | Description                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------|------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Password</b>       | <b>String</b>          | <b>No</b> | <b>Login password of the instance.</b> <ul style="list-style-type: none"> <li><b>Linux instances:</b> 8-16 characters, containing at least two of the following categories: [a-z, A-Z], [0-9] and [()~!@#\$\$%^&amp;*~+=</li> </ul>                                                                                                                                                |
| <b>KeyIds</b>         | <b>Array of String</b> | <b>No</b> | <b>List of key IDs. After an instance is associated with a key, you can access the instance with the private key in the key pair. You can call <code>DescribeKeyPairs</code> to obtain <code>KeyId</code> . Key and password cannot be specified at the same time. Windows instances do not support keys. Currently, you can only specify one key when purchasing an instance.</b> |
| <b>KeepImageLogin</b> | <b>String</b>          | <b>No</b> | <b>Whether to keep the original settings of an image. Values: <code>TRUE</code> (default), <code>FALSE</code> . It cannot be specified together with <code>Password</code> or <code>KeyIds.N</code> . You can specify this parameter as <code>TRUE</code> only when you create an instance using a custom image, a shared image, or an imported image.</b>                         |

## MountDataDisk

Data disk mounting option

Used by actions: **CreateComputeEnv**, **CreateTaskTemplate**, **DescribeComputeEnvCreateInfo**, **DescribeComputeEnvCreateInfos**, **DescribeJobSubmitInfo**, **ModifyTaskTemplate**.

| Name                  | Type          | Required   | Description                                                                                                    |
|-----------------------|---------------|------------|----------------------------------------------------------------------------------------------------------------|
| <b>LocalPath</b>      | <b>String</b> | <b>Yes</b> | <b>Mounting point. A valid path (for Linux) for a drive (for Windows, such as "H:\")</b>                       |
| <b>FileSystemType</b> | <b>String</b> | <b>No</b>  | <b>File system type. Linux: <code>EXT3</code> (default) and <code>EXT4</code> . Windows: <code>NTFS</code></b> |

## NamedComputeEnv

### Compute environment

Used by actions: **CreateComputeEnv**.

| Name                           | Type                                    | Required   | Description                                       |
|--------------------------------|-----------------------------------------|------------|---------------------------------------------------|
| <b>EnvName</b>                 | <b>String</b>                           | <b>Yes</b> | <b>Compute environment name</b>                   |
| <b>DesiredComputeNodeCount</b> | <b>Integer</b>                          | <b>Yes</b> | <b>Number of desired compute nodes</b>            |
| <b>EnvDescription</b>          | <b>String</b>                           | <b>No</b>  | <b>Compute environment description</b>            |
| <b>EnvType</b>                 | <b>String</b>                           | <b>No</b>  | <b>Compute environment management type</b>        |
| <b>EnvData</b>                 | <a href="#">EnvData</a>                 | <b>No</b>  | <b>Compute environment's specific parameters</b>  |
| <b>MountDataDisks</b>          | Array of <a href="#">MountDataDisk</a>  | <b>No</b>  | <b>Data disk mounting option</b>                  |
| <b>Authentications</b>         | Array of <a href="#">Authentication</a> | <b>No</b>  | <b>Authorization information</b>                  |
| <b>InputMappings</b>           | Array of <a href="#">InputMapping</a>   | <b>No</b>  | <b>Input mapping information</b>                  |
| <b>AgentRunningMode</b>        | <a href="#">AgentRunningMode</a>        | <b>No</b>  | <b>Agent running mode; applicable for Windows</b> |
| <b>Notifications</b>           | Array of <a href="#">Notification</a>   | <b>No</b>  | <b>Notification information</b>                   |

| Name                               | Type                         | Required | Description                                                                                                                                                                                                                                                                                                                      |
|------------------------------------|------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ActionIfComputeNodeInactive</b> | String                       | No       | <b>Policy for inactive nodes.</b><br>Default: <code>RECREATE</code> , which means that instance resources will be re-created periodically for compute nodes where instance creation fails or is abnormally returned.                                                                                                             |
| <b>ResourceMaxRetryCount</b>       | Integer                      | No       | When the instances are failed to be created or returned because of exceptions, the related compute node will retry to create instances periodically. This parameter specifies the maximum retry attempts. The max value is 100 and the default value is <code>7</code> .                                                         |
| <b>Tags</b>                        | Array of <a href="#">Tag</a> | No       | List of tags to bind with a compute environment. Each compute environment can have up to 10 tags.                                                                                                                                                                                                                                |
| <b>NotificationTarget</b>          | String                       | No       | <b>Target of the notification</b><br>Values: <code>CMQ</code> , <code>TDMQ_CMQ</code><br><code>CMQ</code> : Tencent Cloud CMQ (default)<br><code>TDMQ_CMQ</code> : Tencent Cloud TDMQ_CMQ.<br><b>Note:</b> CMQ has been discontinued. Please use <code>TDMQ_CMQ</code> . See <a href="#">CMQ Queue Migration to TDMQ for CMQ</a> |

## Notification

### Notification information

**Used by actions:** `CreateComputeEnv`, `DescribeComputeEnvCreateInfo`, `DescribeComputeEnvCreateInfos`.

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

| Name                | Type                                        | Required   | Description                                                                    |
|---------------------|---------------------------------------------|------------|--------------------------------------------------------------------------------|
| <b>TopicName</b>    | <b>String</b>                               | <b>Yes</b> | <b>CMQ topic name which should be valid and associated with a subscription</b> |
| <b>EventConfigs</b> | <b>Array of <a href="#">EventConfig</a></b> | <b>Yes</b> | <b>Event configuration</b>                                                     |

## OutputMapping

### Output mapping

Used by actions: **CreateTaskTemplate**, **DescribeJobSubmitInfo**, **ModifyTaskTemplate**.

| Name                       | Type                                       | Required   | Description                                                                                                                       |
|----------------------------|--------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>SourcePath</b>          | <b>String</b>                              | <b>Yes</b> | <b>Source path</b>                                                                                                                |
| <b>DestinationPath</b>     | <b>String</b>                              | <b>Yes</b> | <b>Destination path</b>                                                                                                           |
| <b>OutputMappingOption</b> | <b><a href="#">OutputMappingOption</a></b> | <b>No</b>  | <b>Output mapping options</b><br><b>Note: This field may return <code>null</code> , indicating that no valid value was found.</b> |

## OutputMappingConfig

### Output mapping configuration

Used by actions: **CreateTaskTemplate**, **DescribeJobSubmitInfo**, **ModifyTaskTemplate**.

| Name                  | Type           | Required   | Description                                              |
|-----------------------|----------------|------------|----------------------------------------------------------|
| <b>Scene</b>          | <b>String</b>  | <b>Yes</b> | <b>Storage type. Only <code>cos</code> is supported.</b> |
| <b>WorkerNum</b>      | <b>Integer</b> | <b>Yes</b> | <b>Number of concurrent workers</b>                      |
| <b>WorkerPartSize</b> | <b>Integer</b> | <b>Yes</b> | <b>Size of a worker part, in MB.</b>                     |

## OutputMappingOption

## Output mapping options

Used by actions: `CreateTaskTemplate`, `DescribeJobSubmitInfo`, `ModifyTaskTemplate`.

| Name      | Type   | Required | Description                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|--------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Workspace | String | No       | <p>The mapped output workspace on the container side for the instance.</p> <p><code>BATCH_WORKSPACE</code> (Default): The workspace is the workspace defined for the usage of Batch Compute. Batch Compute ensures the isolation between jobs.</p> <p><code>GLOBAL_WORKSPACE</code> : The workspace is the instance OS space..</p> <p>Note: This field may return <code>null</code> , indicating that no valid value was found.</p> |

## Placement

Placement of an instance, including its availability zone, project, host (for CDH products only), master host IP, etc.

Used by actions: `CreateComputeEnv`, `DescribeComputeEnv`, `DescribeComputeEnvs`, `DescribeJobs`.

| Name      | Type            | Required | Description                                                                                                                                                                                                       |
|-----------|-----------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Zone      | String          | Yes      | ID of the availability zone where the instance resides. You can call the <a href="#">DescribeZones</a> API and obtain the ID in the returned <code>Zone</code> field.                                             |
| ProjectId | Integer         | No       | ID of the project to which the instance belongs. This parameter can be obtained from the <code>projectId</code> returned by <a href="#">DescribeProject</a> . If this is left empty, the default project is used. |
| HostIds   | Array of String | No       | ID list of CDHs from which the instance can be created. If you have purchased CDHs and specify this parameter, the instances you purchase will be randomly deployed on the CDHs.                                  |
| HostIps   | Array of String | No       | IPs of the hosts to create CVMs                                                                                                                                                                                   |
| HostId    | String          | No       | The ID of the CDH to which the instance belongs, only used as an output parameter.                                                                                                                                |



## RedirectInfo

### Redirection information

Used by actions: **CreateTaskTemplate**, **DescribeJobSubmitInfo**, **DescribeTask**, **ModifyTaskTemplate**.

| Name                          | Type          | Required  | Description                                                                                                                                                                                              |
|-------------------------------|---------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>StdoutRedirectPath</b>     | <b>String</b> | <b>No</b> | <b>Standard output redirection path</b>                                                                                                                                                                  |
| <b>StderrRedirectPath</b>     | <b>String</b> | <b>No</b> | <b>Standard error redirection path</b>                                                                                                                                                                   |
| <b>StdoutRedirectFileName</b> | <b>String</b> | <b>No</b> | <b>Standard output redirection file name, which supports three placeholders:</b><br><code>\${BATCH_JOB_ID}</code> , <code>\${BATCH_TASK_NAME}</code> ,<br>and <code>\${BATCH_TASK_INSTANCE_INDEX}</code> |
| <b>StderrRedirectFileName</b> | <b>String</b> | <b>No</b> | <b>Standard error redirection file name, which supports three placeholders:</b><br><code>\${BATCH_JOB_ID}</code> , <code>\${BATCH_TASK_NAME}</code> ,<br>and <code>\${BATCH_TASK_INSTANCE_INDEX}</code>  |

## RedirectLocalInfo

### Local redirection information

Used by actions: **CreateTaskTemplate**, **DescribeJobSubmitInfo**, **ModifyTaskTemplate**.

| Name                       | Type          | Required  | Description                                                                                                                                                                                                    |
|----------------------------|---------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>StdoutLocalPath</b>     | <b>String</b> | <b>No</b> | <b>Standard output redirection local path</b>                                                                                                                                                                  |
| <b>StderrLocalPath</b>     | <b>String</b> | <b>No</b> | <b>Standard error redirection local path</b>                                                                                                                                                                   |
| <b>StdoutLocalFileName</b> | <b>String</b> | <b>No</b> | <b>Standard output redirection local file name, which supports three placeholders:</b> <code>\${BATCH_JOB_ID}</code> ,<br><code>\${BATCH_TASK_NAME}</code> , and<br><code>\${BATCH_TASK_INSTANCE_INDEX}</code> |
| <b>StderrLocalFileName</b> | <b>String</b> | <b>No</b> | <b>Standard error redirection local file name, which supports three placeholders:</b> <code>\${BATCH_JOB_ID}</code> ,<br><code>\${BATCH_TASK_NAME}</code> , and<br><code>\${BATCH_TASK_INSTANCE_INDEX}</code>  |

## RunAutomationServiceEnabled

Describes the TAT service information.

Used by actions: `CreateComputeEnv`, `DescribeComputeEnvCreateInfo`.

| Name    | Type    | Required | Description                                                                                                                                                                                           |
|---------|---------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enabled | Boolean | No       | <p>Whether to enable the TAT service. Valid values:</p> <ul style="list-style-type: none"><li><code>TRUE</code> : yes;</li><li><code>FALSE</code> : no</li></ul> <p>Default: <code>FALSE</code> .</p> |

## RunMonitorServiceEnabled

Describes information related to the Cloud Monitor service.

Used by actions: `CreateComputeEnv`, `DescribeComputeEnvCreateInfo`.

| Name    | Type    | Required | Description                                                                                                                                                                                                                                                    |
|---------|---------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enabled | Boolean | No       | <p>Whether to enable <a href="#">Cloud Monitor</a>. Valid values:</p> <ul style="list-style-type: none"><li><code>TRUE</code>: enable Cloud Monitor</li><li><code>FALSE</code>: do not enable Cloud Monitor</li></ul> <p>Default value: <code>TRUE</code>.</p> |

## RunSecurityServiceEnabled

Describes information related to the Cloud Security service.

Used by actions: `CreateComputeEnv`, `DescribeComputeEnvCreateInfo`.

| Name    | Type    | Required | Description                                                                                                                                                                                                                                                       |
|---------|---------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enabled | Boolean | No       | <p>Whether to enable <a href="#">Cloud Security</a>. Valid values:</p> <ul style="list-style-type: none"><li><code>TRUE</code>: enable Cloud Security</li><li><code>FALSE</code>: do not enable Cloud Security</li></ul> <p>Default value: <code>TRUE</code>.</p> |

## SpotMarketOptions

Options related to bidding.

Used by actions: `CreateComputeEnv`, `DescribeComputeEnvCreateInfo`.

| Name                    | Type          | Required   | Description                                                          |
|-------------------------|---------------|------------|----------------------------------------------------------------------|
| <b>MaxPrice</b>         | <b>String</b> | <b>Yes</b> | <b>Bidding price</b>                                                 |
| <b>SpotInstanceType</b> | <b>String</b> | <b>No</b>  | <b>Bidding request type. Currently only "one-time" is supported.</b> |

## StorageBlock

Information on local HDD storage.

Used by actions: `DescribeCvmZoneInstanceConfigInfos`.

| Name           | Type           | Description                                                                                                                           |
|----------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type</b>    | <b>String</b>  | <b>Local HDD storage type. Value: LOCAL_PRO.</b><br><b>Note: This field may return null, indicating that no valid value is found.</b> |
| <b>MinSize</b> | <b>Integer</b> | <b>Minimum capacity of local HDD storage</b><br><b>Note: This field may return null, indicating that no valid value is found.</b>     |
| <b>MaxSize</b> | <b>Integer</b> | <b>Maximum capacity of local HDD storage</b><br><b>Note: This field may return null, indicating that no valid value is found.</b>     |

## SystemDisk

Describes information on the block device where the operating system is stored, i.e., the system disk.

Used by actions: `CreateComputeEnv`, `DescribeComputeEnvCreateInfo`.

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

| Name     | Type    | Required | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|---------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DiskType | String  | No       | <p><b>System disk type. For more information about the limits of system disk types, please see <a href="#">Storage Overview</a>. Valid values:</b></p> <ul style="list-style-type: none"> <li>• LOCAL_BASIC: local disk</li> <li>• LOCAL_SSD: local SSD disk</li> <li>• CLOUD_BASIC: HDD cloud disk</li> <li>• CLOUD_SSD: SSD cloud disk</li> <li>• CLOUD_PREMIUM: Premium cloud storage</li> <li>• CLOUD_BSSD: Balanced SSD</li> </ul> <p>The disk currently in stock will be used by default.</p> |
| DiskId   | String  | No       | <p><b>System disk ID. System disks whose type is <code>LOCAL_BASIC</code> or <code>LOCAL_SSD</code> do not have an ID and do not support this parameter.</b></p> <p>It is only used as a response parameter for APIs such as <code>DescribeInstances</code> , and cannot be used as a request parameter for APIs such as <code>RunInstances</code> .</p>                                                                                                                                            |
| DiskSize | Integer | No       | System disk size; unit: GB; default value: 50 GB.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| CdId     | String  | No       | ID of the dedicated cluster to which the instance belongs.                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Tag

### Information on tags

**Used by actions:** `CreateComputeEnv`, `CreateTaskTemplate`, `DescribeComputeEnv`, `DescribeComputeEnvCreateInfo`, `DescribeComputeEnvCreateInfos`, `DescribeComputeEnvs`, `DescribeJob`, `DescribeJobSubmitInfo`, `DescribeJobs`, `DescribeTaskTemplates`.

| Name  | Type   | Required | Description                                                                                                              |
|-------|--------|----------|--------------------------------------------------------------------------------------------------------------------------|
| Key   | String | Yes      | <p><b>Tag key</b></p> <p>Note: This field may return <code>null</code> , indicating that no valid value was found.</p>   |
| Value | String | Yes      | <p><b>Tag value</b></p> <p>Note: This field may return <code>null</code> , indicating that no valid value was found.</p> |

# Task

## Task

Used by actions: `CreateTaskTemplate`, `DescribeJobSubmitInfo`, `DescribeTaskTemplates`, `ModifyTaskTemplate`.

| Name                        | Type                                         | Required | Description                                                                                                                          |
|-----------------------------|----------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>          | <a href="#">Application</a>                  | Yes      | <b>Application information</b>                                                                                                       |
| <b>TaskName</b>             | String                                       | No       | Task name, which should be unique within a job                                                                                       |
| <b>TaskInstanceNum</b>      | Integer                                      | No       | Number of running task instances                                                                                                     |
| <b>ComputeEnv</b>           | <a href="#">AnonymousComputeEnv</a>          | No       | Compute environment information. One (and only one) parameter must be specified for <code>ComputeEnv</code> and <code>EnvId</code> . |
| <b>EnvId</b>                | String                                       | No       | Compute environment ID. One (and only one) parameter must be specified for <code>ComputeEnv</code> and <code>EnvId</code> .          |
| <b>RedirectInfo</b>         | <a href="#">RedirectInfo</a>                 | No       | Redirection information                                                                                                              |
| <b>RedirectLocalInfo</b>    | <a href="#">RedirectLocalInfo</a>            | No       | Local redirection information                                                                                                        |
| <b>InputMappings</b>        | Array of <a href="#">InputMapping</a>        | No       | Input mapping                                                                                                                        |
| <b>OutputMappings</b>       | Array of <a href="#">OutputMapping</a>       | No       | Output mapping                                                                                                                       |
| <b>OutputMappingConfigs</b> | Array of <a href="#">OutputMappingConfig</a> | No       | Output mapping configuration                                                                                                         |
| <b>EnvVars</b>              | Array of <a href="#">EnvVar</a>              | No       | Custom environment variable                                                                                                          |
| <b>Authentications</b>      | Array of <a href="#">Authentication</a>      | No       | Authorization information                                                                                                            |

| Name                         | Type           | Required  | Description                                                                                                                                               |
|------------------------------|----------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FailedAction</b>          | <b>String</b>  | <b>No</b> | The processing method after the TaskInstance fails; Value range: <code>TERMINATE</code> (default), <code>INTERRUPT</code> , <code>FAST_INTERRUPT</code> . |
| <b>MaxRetryCount</b>         | <b>Integer</b> | <b>No</b> | The maximum number of retries after the task fails. Range: 0 - 5. Default value: 0                                                                        |
| <b>Timeout</b>               | <b>Integer</b> | <b>No</b> | Timeout period of the task in seconds. Defaults value: 86400                                                                                              |
| <b>MaxConcurrentNum</b>      | <b>Integer</b> | <b>No</b> | The maximum number of concurrent tasks. Range: 0 - 200000. There is no limit by default.                                                                  |
| <b>RestartComputeNode</b>    | <b>Boolean</b> | <b>No</b> | Restarts the compute node after the task is completed. This is suitable for specifying the compute environment for task execution.                        |
| <b>ResourceMaxRetryCount</b> | <b>Integer</b> | <b>No</b> | Maximum number of retry attempts after failing to create computing resources such as the CVM in the task launch process. Default: 0 ; Maximum: 100 .      |

## TaskInstanceLog

Task instance log details.

Used by actions: `DescribeTaskLogs`.

| Name                     | Type           | Description          |
|--------------------------|----------------|----------------------|
| <b>TaskInstanceIndex</b> | <b>Integer</b> | <b>Task instance</b> |

| Name                          | Type   | Description                                                                                                                                                                    |
|-------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>StdoutLog</b>              | String | <b>Standard output log (Base64-encoded, up to 2048 bytes after decompression)</b><br>Note: This field may return <code>null</code> , indicating that no valid value was found. |
| <b>StderrLog</b>              | String | <b>Standard error log (Base64-encoded, up to 2048 bytes after decompression)</b><br>Note: This field may return <code>null</code> , indicating that no valid value was found.  |
| <b>StdoutRedirectPath</b>     | String | <b>Standard output redirection path</b><br>Note: This field may return <code>null</code> , indicating that no valid value was found.                                           |
| <b>StderrRedirectPath</b>     | String | <b>Standard error redirection path</b><br>Note: This field may return <code>null</code> , indicating that no valid value was found.                                            |
| <b>StdoutRedirectFileName</b> | String | <b>Standard output redirection file name</b><br>Note: This field may return <code>null</code> , indicating that no valid value was found.                                      |
| <b>StderrRedirectFileName</b> | String | <b>Standard error redirection file name</b><br>Note: This field may return <code>null</code> , indicating that no valid value was found.                                       |

## TaskInstanceMetrics

### Task instance statistical metrics

Used by actions: **DescribeJob**, **DescribeTask**.

| Name                  | Type    | Description                      |
|-----------------------|---------|----------------------------------|
| <b>SubmittedCount</b> | Integer | <b>Number of submitted tasks</b> |
| <b>PendingCount</b>   | Integer | <b>Number of pending tasks</b>   |
| <b>RunnableCount</b>  | Integer | <b>Number of Runnable tasks</b>  |
| <b>StartingCount</b>  | Integer | <b>Number of starting tasks</b>  |
| <b>RunningCount</b>   | Integer | <b>Number of running tasks</b>   |

| Name                          | Type           | Description                                   |
|-------------------------------|----------------|-----------------------------------------------|
| <b>SucceedCount</b>           | <b>Integer</b> | <b>Number of successful tasks</b>             |
| <b>FailedInterruptedCount</b> | <b>Integer</b> | <b>Number of failed and interrupted tasks</b> |
| <b>FailedCount</b>            | <b>Integer</b> | <b>Number of failed tasks</b>                 |

## TaskInstanceView

Task instance view information

Used by actions: **DescribeTask**.

| Name                         | Type           | Description                                                                                                                                                                                                                                                                                                                                           |
|------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TaskInstanceIndex</b>     | <b>Integer</b> | <b>Task instance index</b>                                                                                                                                                                                                                                                                                                                            |
| <b>TaskInstanceState</b>     | <b>String</b>  | <b>Task instance state</b>                                                                                                                                                                                                                                                                                                                            |
| <b>ExitCode</b>              | <b>Integer</b> | <b>Exit code after application execution is completed</b><br><b>Note:</b> This field may return <code>null</code> , indicating that no valid value was found.                                                                                                                                                                                         |
| <b>StateReason</b>           | <b>String</b>  | <b>Task instance state reason.</b> If the task instance fails, the reason for the failure will be logged.                                                                                                                                                                                                                                             |
| <b>ComputeNodeInstanceId</b> | <b>String</b>  | The <code>InstanceId</code> of the compute node (e.g., CVM instance) where the task instance is running. This field is empty if the task instance is not running or has already been completed and will change when the task instance is retried.<br><b>Note:</b> This field may return <code>null</code> , indicating that no valid value was found. |
| <b>CreateTime</b>            | <b>String</b>  | <b>Creation time</b>                                                                                                                                                                                                                                                                                                                                  |
| <b>LaunchTime</b>            | <b>String</b>  | <b>Start time</b><br><b>Note:</b> This field may return <code>null</code> , indicating that no valid value was found.                                                                                                                                                                                                                                 |
| <b>RunningTime</b>           | <b>String</b>  | <b>Running start time</b><br><b>Note:</b> This field may return <code>null</code> , indicating that no valid value was found.                                                                                                                                                                                                                         |



| Name                | Type                         | Description                                                                                                              |
|---------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| EndTime             | String                       | <b>Task end time</b><br><b>Note:</b> This field may return <code>null</code> , indicating that no valid value was found. |
| RedirectInfo        | <a href="#">RedirectInfo</a> | Redirection information                                                                                                  |
| StateDetailedReason | String                       | <b>Task instance state reason details.</b> If the task instance fails, the reason for the failure will be logged         |

## TaskMetrics

### Task statistical metrics

Used by actions: [DescribeJob](#), [DescribeJobs](#).

| Name                   | Type    | Description                            |
|------------------------|---------|----------------------------------------|
| SubmittedCount         | Integer | Number of submitted tasks              |
| PendingCount           | Integer | Number of pending tasks                |
| RunnableCount          | Integer | Number of Runnable tasks               |
| StartingCount          | Integer | Number of starting tasks               |
| RunningCount           | Integer | Number of running tasks                |
| SucceedCount           | Integer | Number of successful tasks             |
| FailedInterruptedCount | Integer | Number of failed and interrupted tasks |
| FailedCount            | Integer | Failed count                           |

## TaskTemplateView

### Task template information

Used by actions: [DescribeTaskTemplates](#).

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

| Name                           | Type                | Description                                                                                                                                     |
|--------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TaskTemplateId</b>          | <b>String</b>       | <b>Task template ID</b>                                                                                                                         |
| <b>TaskTemplateName</b>        | <b>String</b>       | <b>Task template name</b>                                                                                                                       |
| <b>TaskTemplateDescription</b> | <b>String</b>       | <b>Task template description</b>                                                                                                                |
| <b>TaskTemplateInfo</b>        | <b>Task</b>         | <b>Task template information</b>                                                                                                                |
| <b>CreateTime</b>              | <b>String</b>       | <b>Creation time</b>                                                                                                                            |
| <b>Tags</b>                    | <b>Array of Tag</b> | <b>Tag list bound to the task template.</b><br><b>Note: This field may return <code>null</code> , indicating that no valid value was found.</b> |

## TaskView

Task view information

Used by actions: **DescribeJob**.

| Name              | Type          | Description                                                                                                         |
|-------------------|---------------|---------------------------------------------------------------------------------------------------------------------|
| <b>TaskName</b>   | <b>String</b> | <b>Task name</b>                                                                                                    |
| <b>TaskState</b>  | <b>String</b> | <b>Task status</b>                                                                                                  |
| <b>CreateTime</b> | <b>String</b> | <b>Start time</b>                                                                                                   |
| <b>EndTime</b>    | <b>String</b> | <b>End time</b><br><b>Note: This field may return <code>null</code> , indicating that no valid value was found.</b> |

## VirtualPrivateCloud

Describes information on VPC, including subnets, IP addresses, etc.

Used by actions: **CreateComputeEnv**, **DescribeComputeEnvCreateInfo**.

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

| Name               | Type            | Required | Description                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------|-----------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VpcId              | String          | Yes      | VPC ID in the format of <code>vpc-xxx</code> . To obtain valid VPC IDs, you can log in to the <a href="#">console</a> or call the DescribeVpcEx API and look for the <code>unVpcId</code> fields in the response. If you specify <code>DEFAULT</code> for both <code>VpcId</code> and <code>SubnetId</code> when creating an instance, the default VPC will be used.                        |
| SubnetId           | String          | Yes      | VPC subnet ID in the format <code>subnet-xxx</code> . To obtain valid subnet IDs, you can log in to the <a href="#">console</a> or call <a href="#">DescribeSubnets</a> and look for the <code>unSubnetId</code> fields in the response. If you specify <code>DEFAULT</code> for both <code>SubnetId</code> and <code>VpcId</code> when creating an instance, the default VPC will be used. |
| AsVpcGateway       | Boolean         | No       | Whether to use a CVM instance as a public gateway. The public gateway is only available when the instance has a public IP and resides in a VPC. Valid values: <ul style="list-style-type: none"> <li><code>TRUE</code> : yes;</li> <li><code>FALSE</code> : no</li> </ul> Default: <code>FALSE</code> .                                                                                     |
| PrivateIpAddresses | Array of String | No       | Array of VPC subnet IPs. You can use this parameter when creating instances or modifying VPC attributes of instances. Currently you can specify multiple IPs in one subnet only when creating multiple instances at the same time.                                                                                                                                                          |
| Ipv6AddressCount   | Integer         | No       | Number of IPv6 addresses randomly generated for the ENI.                                                                                                                                                                                                                                                                                                                                    |

# Error Codes

Last updated : 2023-05-04 15:47:12

## Feature Description

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

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

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

## Error Code List

### Common Error Codes

| Error Code                       | Description                                                                                                                                                                                          |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ActionOffline                    | This API has been deprecated.                                                                                                                                                                        |
| AuthFailure.InvalidAuthorization | Authorization in the request header is invalid.                                                                                                                                                      |
| AuthFailure.InvalidSecretId      | Invalid key (not a TencentCloud API key type).                                                                                                                                                       |
| AuthFailure.MFAFailure           | MFA failed.                                                                                                                                                                                          |
| AuthFailure.SecretIdNotFound     | Key does not exist. Check if the key has been deleted or disabled in the console, and if not, check if the key is correctly entered. Note that whitespaces should not exist before or after the key. |
|                                  |                                                                                                                                                                                                      |

|                                                          |                                                                                                                                                               |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AuthFailure.SignatureExpire</b>                       | Signature expired. Timestamp and server time cannot differ by more than five minutes. Please ensure your current local time matches the standard time.        |
| <b>AuthFailure.SignatureFailure</b>                      | Invalid signature. Signature calculation error. Please ensure you've followed the signature calculation process described in the Signature API documentation. |
| <b>AuthFailure.TokenFailure</b>                          | Token error.                                                                                                                                                  |
| <b>AuthFailure.UnauthorizedOperation</b>                 | The request is not authorized. For more information, see the <a href="#">CAM</a> documentation.                                                               |
| <b>DryRunOperation</b>                                   | DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.                                                          |
| <b>FailedOperation</b>                                   | Operation failed.                                                                                                                                             |
| <b>InternalError</b>                                     | Internal error.                                                                                                                                               |
| <b>InvalidAction</b>                                     | The API does not exist.                                                                                                                                       |
| <b>InvalidParameter</b>                                  | Incorrect parameter.                                                                                                                                          |
| <b>InvalidParameterValue</b>                             | Invalid parameter value.                                                                                                                                      |
| <b>InvalidRequest</b>                                    | The multipart format of the request body is incorrect.                                                                                                        |
| <b>IpInBlacklist</b>                                     | Your IP is in uin IP blacklist.                                                                                                                               |
| <b>IpNotInWhitelist</b>                                  | Your IP is not in uin IP whitelist.                                                                                                                           |
| <b>LimitExceeded</b>                                     | Quota limit exceeded.                                                                                                                                         |
| <b>MissingParameter</b>                                  | A parameter is missing.                                                                                                                                       |
| <b>NoSuchProduct</b>                                     | The product does not exist.                                                                                                                                   |
| <b>NoSuchVersion</b>                                     | The API version does not exist.                                                                                                                               |
| <b>RequestLimitExceeded</b>                              | The number of requests exceeds the frequency limit.                                                                                                           |
| <b>RequestLimitExceeded.GlobalRegionUinLimitExceeded</b> | Uin exceeds the frequency limit.                                                                                                                              |
|                                                          |                                                                                                                                                               |

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

## Service Error Codes

| Error Code                                     | Description                                                              |
|------------------------------------------------|--------------------------------------------------------------------------|
| <b>AllowedOneAttributeInEnvIdAndComputeEnv</b> | <code>ComputeEnv</code> and <code>EnvId</code> cannot be both specified. |
| <b>InternalError.CallCpmAPI</b>                | The CPM API call returns an error.                                       |
| <b>InternalError.CallCvm</b>                   | An error is returned for the CVM API call.                               |
| <b>InternalError.CallTagAPI</b>                | Error while obtaining the Tag component.                                 |
|                                                |                                                                          |

|                                                        |                                                                                                                                             |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>InvalidFilter</b>                                   | The specified filter is not supported.                                                                                                      |
| <b>InvalidParameter.ComputeNodeIdMalformed</b>         | Invalid compute node ID format.                                                                                                             |
| <b>InvalidParameter.CvmParameters</b>                  | Invalid CVM parameter.                                                                                                                      |
| <b>InvalidParameter.EnvDescriptionTooLong</b>          | The compute environment description is too long.                                                                                            |
| <b>InvalidParameter.EnvIdMalformed</b>                 | Invalid compute environment ID format.                                                                                                      |
| <b>InvalidParameter.EnvNameTooLong</b>                 | The compute environment name is too long.                                                                                                   |
| <b>InvalidParameter.ImageIdMalformed</b>               | Incorrect image ID.                                                                                                                         |
| <b>InvalidParameter.InvalidParameterCombination</b>    | Invalid parameter combination.                                                                                                              |
| <b>InvalidParameter.JobIdMalformed</b>                 | Invalid job ID format.                                                                                                                      |
| <b>InvalidParameter.NotificationEventNameDuplicate</b> | Duplicate message notification event name.                                                                                                  |
| <b>InvalidParameter.NotificationTopicName</b>          | Invalid topic name.                                                                                                                         |
| <b>InvalidParameter.NotificationTopicNameTooLong</b>   | The topic name is too long.                                                                                                                 |
| <b>InvalidParameter.TaskName</b>                       | Invalid task name.                                                                                                                          |
| <b>InvalidParameter.TaskNameTooLong</b>                | The task name is too long.                                                                                                                  |
| <b>InvalidParameter.TaskTemplateDescriptionTooLong</b> | The task template description is too long.                                                                                                  |
| <b>InvalidParameter.TaskTemplateIdMalformed</b>        | Invalid task template ID format.                                                                                                            |
| <b>InvalidParameter.TaskTemplateName</b>               | Invalid task template name.                                                                                                                 |
| <b>InvalidParameter.TaskTemplateNameTooLong</b>        | The task template name is too long.                                                                                                         |
| <b>InvalidParameterAtLeastOneAttribute</b>             | At least one of <code>TaskTemplateName</code> , <code>TaskTemplateDescription</code> , and <code>TaskTemplateInfo</code> must be specified. |

|                                                                 |                                                          |
|-----------------------------------------------------------------|----------------------------------------------------------|
| <b>InvalidParameterValue.ComputeEnv</b>                         | Compute environment parameter validation failed.         |
| <b>InvalidParameterValue.DependenceNotFoundTaskName</b>         | The dependent task definition was not found.             |
| <b>InvalidParameterValue.DependenceUnfeasible</b>               | Loop task dependency is prohibited.                      |
| <b>InvalidParameterValue.InstanceIdDuplicated</b>               | Instance IDs duplicate.                                  |
| <b>InvalidParameterValue.InstanceType</b>                       | The specified instance type is not supported.            |
| <b>InvalidParameterValue.InstanceTypeDuplicate</b>              | The instance type value must be unique.                  |
| <b>InvalidParameterValue.InstanceTypesEmpty</b>                 | The list of instance types cannot be empty.              |
| <b>InvalidParameterValue.InvalidDataTypeAny</b>                 | The value of <code>DataTypeAny</code> is invalid.        |
| <b>InvalidParameterValue.InvalidFilter</b>                      | Incorrect <code>Filter</code> parameter.                 |
| <b>InvalidParameterValue.InvalidZoneMismatchRegion</b>          | The availability zone and the region do not match.       |
| <b>InvalidParameterValue.LimitExceeded</b>                      | The number of filter parameter values exceeds the limit. |
| <b>InvalidParameterValue.LocalPath</b>                          | Invalid local storage path.                              |
| <b>InvalidParameterValue.MaxRetryCount</b>                      | Too many retry attempts                                  |
| <b>InvalidParameterValue.Negative</b>                           | Invalid negative parameter.                              |
| <b>InvalidParameterValue.RemoteStoragePath</b>                  | Invalid storage path format.                             |
| <b>InvalidParameterValue.RemoteStorageSchemeType</b>            | Invalid storage type.                                    |
| <b>InvalidParameterValue.ResourceType</b>                       | The specified <code>ResourceType</code> is invalid.      |
| <b>InvalidParameterValue.UnavailableZone</b>                    | The availability zone is unavailable.                    |
| <b>InvalidParameterValue.UnsupportedBatchInstanceChargeType</b> | The model billing type is not supported by BatchCompute. |



|                                                          |                                                                |
|----------------------------------------------------------|----------------------------------------------------------------|
| <b>InvalidZone.MismatchRegion</b>                        | The specified zone does not exist.                             |
| <b>LimitExceeded.ComputeEnvQuota</b>                     | Insufficient compute environment quota.                        |
| <b>LimitExceeded.CpuQuota</b>                            | Insufficient CPU quota.                                        |
| <b>LimitExceeded.TaskTemplateQuota</b>                   | Insufficient task template quota.                              |
| <b>ResourceInUse.Job</b>                                 | The job is in use.                                             |
| <b>ResourceNotFound.ComputeEnv</b>                       | The specified compute environment does not exist.              |
| <b>ResourceNotFound.ComputeNode</b>                      | The specified compute node does not exist.                     |
| <b>ResourceNotFound.Job</b>                              | The specified job does not exist.                              |
| <b>ResourceNotFound.Task</b>                             | The specified job task does not exist.                         |
| <b>ResourceNotFound.TaskInstance</b>                     | The specified task instance does not exist.                    |
| <b>ResourceNotFound.TaskTemplate</b>                     | The specified task template ID does not exist.                 |
| <b>UnauthorizedOperation.UserNotAllowedToUseBatch</b>    | It is prohibited to use the BatchCompute service.              |
| <b>UnsupportedOperation.AcceptOtherRequest</b>           | Another request is being processed and deletion is prohibited. |
| <b>UnsupportedOperation.ComputeEnvAcceptOtherRequest</b> | The compute environment accepts other requests.                |
| <b>UnsupportedOperation.ComputeEnvOperation</b>          | Deletion is prohibited.                                        |
| <b>UnsupportedOperation.ComputeNodeForbidTerminate</b>   | Compute node termination is prohibited.                        |
| <b>UnsupportedOperation.ComputeNodesTerminating</b>      | The compute node is terminating.                               |
| <b>UnsupportedOperation.InstancesNotAllowedToAttach</b>  | This instance cannot be added to the compute environment.      |
|                                                          |                                                                |

|                                                              |                                                                                                              |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>UnsupportedOperation.NotEnoughComputeNodesToTerminate</b> | The number of compute nodes to be removed for scale-in is greater than the number of existing compute nodes. |
| <b>UnsupportedOperation.TerminateOperationWithEnvId</b>      | This operation is prohibited for the task instances in the specified compute environment.                    |