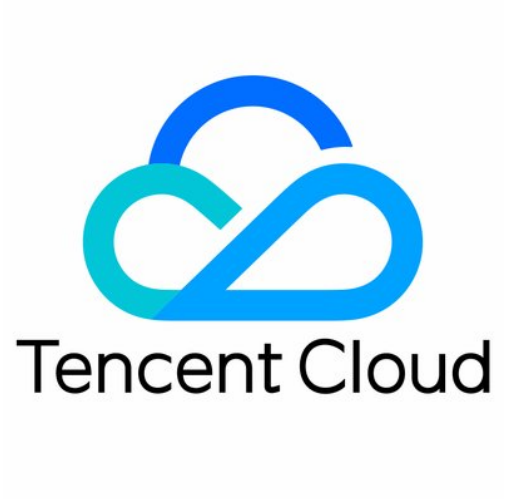
Simple Email Service

API Documentation

Product Documentation



Contents

API Documentation History

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Release 13

Release time: 2023-06-12 16:20:25

Release updates:

Improvement to existing documentation.

Modified APIs:

- SendEmail
  - New input parameters:Cc, Bcc

Release 12

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New APIs:

- UpdateEmailSmtpPassWord

Release 11

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Improvement to existing documentation.

Modified APIs:

- GetEmailTemplate
  - New output parameters:TemplateName

Release 10

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Improvement to existing documentation.

Modified data structures:

- CycleEmailParam
  - New members:TermCycle

Release 9

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Improvement to existing documentation.

Modified APIs:

- GetEmailTemplate
  - New output parameters:TemplateStatus
- ListEmailIdentities
  - New output parameters:MaxReputationLevel, MaxDailyQuota

Modified data structures:

- EmailIdentity
  - New members:CurrentReputationLevel, DailyQuota

Release 8

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New APIs:

- GetSendEmailStatus

New data structures:

- SendEmailStatus

Release 7

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New APIs:

- BatchSendEmail
- CreateEmailTemplate
- UpdateEmailTemplate

Release 6

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Deleted APIs:

- BatchSendEmail
- CreateEmailTemplate
- GetSendEmailStatus
- UpdateEmailTemplate

Deleted data structures:

- SendEmailStatus

Release 5

Release time: 2022-03-23 18:28:33

Release updates:

Improvement to existing documentation.

New APIs:

- DeleteReceiver

Modified APIs:

- BatchSendEmail
  - New input parameters:ADLocation
- SendEmail
  - New input parameters:TriggerType

Release 4

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Release updates:

Improvement to existing documentation.

New APIs:

- CreateReceiver
- CreateReceiverDetail
- ListReceivers
- ListSendTasks

Modified APIs:

- BatchSendEmail
  - New input parameters:Unsubscribe
- SendEmail
  - New input parameters:Unsubscribe

New data structures:

- ReceiverData
- SendTaskData

Release 3

Release time: 2021-11-11 11:52:50

Release updates:

Improvement to existing documentation.

New APIs:

- BatchSendEmail

New data structures:

- CycleEmailParam
- TimedEmailParam

Release 2

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Release updates:

Improvement to existing documentation.

New APIs:

- GetSendEmailStatus

New data structures:

- SendEmailStatus

Release 1

Release time: 2021-01-18 11:02:21

Release updates:

Improvement to existing documentation.

New APIs:

- CreateEmailAddress
- CreateEmailIdentity
- CreateEmailTemplate
- DeleteBlackList

- DeleteEmailAddress
- DeleteEmailIdentity
- DeleteEmailTemplate
- GetEmailIdentity
- GetEmailTemplate
- GetStatisticsReport
- ListBlackEmailAddress
- ListEmailAddress
- ListEmailIdentities
- ListEmailTemplates
- SendEmail
- UpdateEmailIdentity
- UpdateEmailTemplate

New data structures:

- Attachment
- BlackEmailAddress
- DNSAttributes
- EmailIdentity
- EmailSender
- Simple
- Template
- TemplateContent
- TemplatesMetadata
- Volume

Introduction

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Send emails around the world securely, stably, and simply

API Category

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Domain Verification APIs

API Name	Feature	Frequency Limit (maximum requests per second)
CreateEmailIdentity	Creates a sender domain	20
DeleteEmailIdentity	Deletes a sender domain	20
GetEmailIdentity	Gets the configuration details of a sender domain	20
ListEmailIdentities	Gets the list of sender domains	20
UpdateEmailIdentity	Verifies DNS configuration	20

Email APIs

API Name	Feature	Frequency Limit (maximum requests per second)
SendEmail	Sends an email	20
UpdateEmailSmtpPassWord	Sets the SMTP password	20

Template APIs

API Name	Feature	Frequency Limit (maximum requests per second)
CreateEmailTemplate	Creates an email template	20
DeleteEmailTemplate	Deletes an email template	20
GetEmailTemplate	Gets the details of a template	20
ListEmailTemplates	Gets the list of email templates	20

UpdateEmailTemplate	Updates an email template	20

Statistics APIs

API Name	Feature	Frequency Limit (maximum requests per second)
GetStatisticsReport	Gets email sending statistics	20

Sender Address APIs

API Name	Feature	Frequency Limit (maximum requests per second)
CreateEmailAddress	Creates a sender address	20
DeleteEmailAddress	Deletes a sender address	20
ListEmailAddress	Gets the list of sender addresses	20

Blocklist APIs

API Name	Feature	Frequency Limit (maximum requests per second)
DeleteBlackList	Unblocklists recipient addresses	20
ListBlackEmailAddress	Gets blocklisted email addresses	20

Sending Status Query APIs

API Name	Feature	Frequency Limit (maximum requests per second)
GetSendEmailStatus	Gets the email sending status (to be disused)	20

Batch Task APIs

API Name	Feature	Frequency Limit (maximum requests per second)
BatchSendEmail	Sends an email to multiple recipients at a time	20
CreateReceiver	Creates a recipient group	20
CreateReceiverDetail	Adds recipient email addresses	20
DeleteReceiver	Deletes a recipient group	20
ListReceivers	Queries recipient groups	20
ListSendTasks	Queries email sending tasks	20

Making API Requests
Request Structure

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1. Service Address

The API supports access from either a nearby region (at ses.tencentcloudapi.com) or a specified region (at ses.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 "ses.ap-guangzhou.tencentcloudapi.com".

Intra-region private network access is supported by private network domain : ses.internal.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)	ses.tencentcloudapi.com
South China (Guangzhou)	ses.ap-guangzhou.tencentcloudapi.com
East China (Shanghai)	ses.ap-shanghai.tencentcloudapi.com
North China (Beijing)	ses.ap-beijing.tencentcloudapi.com
Southwest China (Chengdu)	ses.ap-chengdu.tencentcloudapi.com
Southwest China (Chongqing)	ses.ap-chongqing.tencentcloudapi.com
Hong Kong, Macao, Taiwan (Hong Kong, China)	ses.ap-hongkong.tencentcloudapi.com
Southeast Asia (Singapore)	ses.ap-singapore.tencentcloudapi.com

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

2. Communications Protocol

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

3. Request Methods

Supported HTTP request methods:

- POST (recommended)
- GET

The Content-Type types supported by POST requests:

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

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

4. Character Encoding

Only UTF-8 encoding is used.

Common Params

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

Signature Algorithm v3

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

Parameter Name	Type	Required	Description
X-TC-Action	String	Yes	The name of the API for the desired operation. For the specific value, see description of common parameter `Action` in the input parameters in r documentation. For example, the API for querying the CVM instance list i `DescribeInstances` .
X-TC-Region	String	Yes	Region parameter, which is used to identify the region to which the data y work with belongs. For values supported for an API, see the description c parameter `Region` in the input parameters in related API documentati parameter is not required for some APIs (which will be indicated in relate documentation), and will not take effect even it is passed.
X-TC-Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request for example, 1529223702. Note: If the difference between the UNIX times server time is greater than 5 minutes, a signature expiration error may oc
X-TC-Version	String	Yes	API version of the action. For the valid values, see the description of the c parameter `Version` in the API documentation. For example, the versi 2017-03-12.

Parameter Name	Type	Required	Description
Authorization	String	Yes	The HTTP authentication request header, for example: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/Date/service/tc3_requ SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc96317 Here: - TC3-HMAC-SHA256: Signature method, currently fixed as this value; - Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date is UTC time, and this value must match the value of X-TC-Timestamp (a co parameter) in UTC time format; service is the name of the product/service generally a domain name prefix. For example, a domain name cvm.tencer refers to the CVM product and the value would be cvm; - SignedHeaders: The headers that contains the authentication informatic type and host are the required headers; - Signature: Signature digest.
X-TC-Token	String	No	The token used for a temporary certificate. It must be used with a tempora can obtain the temporary key and token by calling a CAM API. No token i a long-term key.

Assuming you want to query the list of Cloud Virtual Machine instances in the Guangzhou region, the request structure in the form of request URL, request header and request body may be as follows:

Example of an HTTP GET request structure:

```
https://cvm.tencentcloudapi.com/?Limit=10&Offset=0
Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/20
18-10-09/cvm/tc3_request, SignedHeaders=content-type;host, Signature=5da7a33f6993
f0614b047e5df4582db9e9bf4672ba50567dba16c6ccf174c474
Content-Type: application/x-www-form-urlencoded
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1539084154
X-TC-Region: ap-guangzhou
```

The following example shows you how to structure an HTTP POST (application/json) request:

```
https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request,
SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b1316
2d9279b0855cfba6789a8edb4c
Content-Type: application/json
```

```
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou
{"Offset":0,"Limit":10}
```

Example of an HTTP POST (multipart/form-data) request structure (only supported by specific APIs):

```
https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request,
SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b1316
2d9279b0855cfba6789a8edb4c
Content-Type: multipart/form-data; boundary=58731222010402
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou
--58731222010402
Content-Disposition: form-data; name="Offset"
0
--58731222010402
Content-Disposition: form-data; name="Limit"
10
--58731222010402--
```

Signature Algorithm v1

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

Parameter Name	Type	Required	Description
Action	String	Yes	The name of the API for the desired operation. For the specific value, see the description of common parameter `Action` in the input parameters in related API documentation. For example, the API for querying the CVM instance list is `DescribeInstances`.

Parameter Name	Type	Required	Description
Region	String	Yes	Region parameter, which is used to identify the region to which the data you want to work with belongs. For values supported for an API, see the description of common parameter `Region` in the input parameters in related API documentation. Note: This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even if it is passed.
Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request was initiated, for example, 1529223702. If the difference between the value and the current system time is too large, a signature expiration error may occur.
Nonce	Integer	Yes	A random positive integer used along with `Timestamp` to prevent replay attacks.
SecretId	String	Yes	The identifying SecretId obtained on the Cloud API Key page. A SecretId corresponds to a unique SecretKey which is used to generate the request signature (Signature).
Signature	String	Yes	Request signature used to verify the validity of this request. This is calculated based on the actual input parameters. For more information about how this is calculated, see the API authentication documentation.
Version	String	Yes	API version of the action. For the valid values, see the description of the common input parameter `Version` in the API documentation. For example, the version of CVM is 2017-03-12.
SignatureMethod	String	No	Signature method. Currently, only HmacSHA256 and HmacSHA1 are supported. The HmacSHA256 algorithm is used to verify the signature only when this parameter is specified as HmacSHA256. In other cases, the signature is verified with HmacSHA1.
Token	String	No	The token used for a temporary certificate. It must be used with a temporary key. You can obtain the temporary key and token by calling a CAM API. No token is required for a long-term key.

Assuming you want to query the list of Cloud Virtual Machine instances in the Guangzhou region, the request structure in the form of request URL, request header and request body may be as follows:

Example of an HTTP GET request structure:

```
https://cvm.tencentcloudapi.com/?Action=DescribeInstances&Version=2017-03-12&Sign
atureMethod=HmacSHA256&Timestamp=1527672334&Signature=37ac2f4fde00b0ac9bd9eadeb45
9b1bbee224158d66e7ae5fcadb70b2d181d02&Region=ap-guangzhou&Nonce=23823223&SecretId
=AKIDEXAMPLE
Host: cvm.tencentcloudapi.com
Content-Type: application/x-www-form-urlencoded
```

Example of an HTTP POST request structure:

```
https://cvm.tencentcloudapi.com/
Host: cvm.tencentcloudapi.com
Content-Type: application/x-www-form-urlencoded
Action=DescribeInstances&Version=2017-03-12&SignatureMethod=HmacSHA256&Timestamp=
1527672334&Signature=37ac2f4fde00b0ac9bd9eadeb459b1bbee224158d66e7ae5fcadb70b2d18
1d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKIDEXAMPLE
```

Region List

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

Region	Value
Southeast Asia Pacific (Singapore)	ap-singapore

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

TC3-HMAC-SHA256 Signature Algorithm

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

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

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

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

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

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

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

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

The signature calculation process is explained in detail below.

1. Concatenating the CanonicalRequest String

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

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

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

Field Name	Explanation
HTTPRequestMethod	HTTP request method (GET or POST). This example uses `POST` .
CanonicalURI	URI parameter. Slash ("/") is used for API 3.0.
CanonicalQueryString	The query string in the URL of the originating HTTP request. This is always an empty st “” for POST requests, and is the string after the question mark (?) for GET requests. Fo example: Limit=10&Offset=0。 Note: `CanonicalQueryString` must be URL-encoded, referencing RFC3986, the UTF8 character set. We recommend using the programming language library. All speci characters must be encoded and capitalized.
CanonicalHeaders	Header information for signature calculation, including at least two headers of `host` `content-type` . Custom headers can be added to participate in the signature proce improve the uniqueness and security of the request. Concatenation rules: 1. Both the key and value of the header should be converted to lowercase with the lead and trailing spaces removed, so they are concatenated in the format of key:value\n format; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase). The calculation result in this example is `content-type:application/json; charset=utf-8\nhost:cvm.tencentcloudapi.com\n` . Note: `content-type` must match the actually sent content. In some programming languages, a charset value would be added even if it is not specified. In this case, the request sent is different from the one signed, and the sever will return an error indicatin signature verification failed.
SignedHeaders	Header information for signature calculation, indicating which headers of the request participate in the signature process (they must each individually correspond to the heac in CanonicalHeaders). `Content-type` and `host` are required headers. Concatenation rules: 1. Both the key and value of the header should be converted to lowercase; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase) and separated by semicolons (;). The value in this example is `content-type;host`

Field Name	Explanation
HashedRequestPayload	Hash value of the request payload (i.e., the body, such as `{"Limit": 1, "Filter [{"Values": ["unnamed"], "Name": "instance-name"}]}` in this exampl The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(RequestPayload))) by SHA256 hashing the pay of the HTTP request, performing hexadecimal encoding, and finally converting the enco string to lowercase letters. For GET requests, `RequestPayload` is always an empt string. The calculation result in this example is `99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b49`

According to the rules above, the `CanonicalRequest` string obtained in the example is as follows:

```
POST
/
content-type:application/json; charset=utf-8
host:cvm.tencentcloudapi.com
content-type;host
99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b4907
```

2. Concatenating the String to Be Signed

The string to sign is concatenated as follows:

```
StringToSign =
Algorithm + \n +
RequestTimestamp + \n +
CredentialScope + \n +
HashedCanonicalRequest
```

Field Name	Explanation
Algorithm	Signature algorithm, which is currently always `TC3-HMAC-SHA256` .
RequestTimestamp	Request timestamp, i.e., the value of the common parameter `X-TC-Timestamp` ir request header, which is the UNIX timestamp of the current time in seconds, such as `1551113065` in this example.

Field Name	Explanation
CredentialScope	Scope of the credential in the format of `Date/service/tc3_request`, including date, requested service and termination string (tc3_request). **`Date` is a date in UTC time, whose value should match the UTC date converted by the common parameter `X-TC-Timestamp`;** `service` is the product name, which should match the domain name of the product called. The calculation result in this example is `2019-02-25/cvm/tc3_request`.
HashedCanonicalRequest	Hash value of the CanonicalRequest string concatenated in the steps above. The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(CanonicalRequ The calculation result in this example is `2815843035062fffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3ad`

Note：

1. Date has to be calculated from the timestamp "X-TC-Timestamp" and the time zone is UTC+0. If you add the system's local time zone information (such as UTC+8), calls can succeed both day and night but will definitely fail at 00:00. For example, if the timestamp is 1551113065 and the time in UTC+8 is 2019-02-26 00:44:25, the UTC+0 date in the calculated Date value should be 2019-02-25 instead of 2019-02-26.
2. Timestamp must be the same as your current system time, and your system time and standard time must be synced; if the difference between Timestamp and your current system time is larger than five minutes, the request will fail. If your system time is out of sync with the standard time for a while, the request will fail and return a signature expiration error.

According to the preceding rules, the string to be signed obtained in the example is as follows:

```
TC3-HMAC-SHA256
1551113065
2019-02-25/cvm/tc3_request
2815843035062fffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3adda7a
```

3. Calculating the Signature

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

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

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

2. Calculate the signature with the following pseudocode:

```
Signature = HexEncode(HMAC_SHA256(SecretSigning, StringToSign))
```

4. Concatenating the Authorization

The Authorization is concatenated as follows:

```
Authorization =
Algorithm + ' ' +
'Credential=' + SecretId + '/' + CredentialScope + ', ' +
'SignedHeaders=' + SignedHeaders + ', ' +
'Signature=' + Signature
```

Field Name	Explanation
Algorithm	Signature algorithm, which is always `TC3-HMAC-SHA256` .
SecretId	The SecretId in the key pair, i.e., `AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******` .
CredentialScope	Credential scope (see above). The calculation result in this example is `2019-02-25/cvm/tc3_request` .
SignedHeaders	Header information for signature calculation (see above), such as `content-type;host` in this example.
Signature	Signature value. The calculation result in this example is `c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff` .

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

```
TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******/2019-02-25/cvm/tc
3_request, SignedHeaders=content-type;host, Signature=c492e8e41437e97a620b728c301
bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
```

The following example shows a finished authorization header:

```
POST https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
Content-Type: application/json; charset=utf-8
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1551113065
X-TC-Region: ap-guangzhou
{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}
```

5. Signature Demo

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

- Python
- Java
- PHP
- Go
- NodeJS
- .NET

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

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

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

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

the URL and the signature is calculated correctly.

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

Java

```
import java.nio.charset.Charset;
import java.nio.charset.StandardCharsets;
import java.security.MessageDigest;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.TimeZone;
import java.util.TreeMap;
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
import javax.xml.bind.DatatypeConverter;
public class TencentCloudAPITC3Demo {
private final static Charset UTF8 = StandardCharsets.UTF_8;
private final static String SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
private final static String SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******";
private final static String CT_JSON = "application/json; charset=utf-8";
public static byte[] hmac256(byte[] key, String msg) throws Exception {
Mac mac = Mac.getInstance("HmacSHA256");
SecretKeySpec secretKeySpec = new SecretKeySpec(key, mac.getAlgorithm());
mac.init(secretKeySpec);
return mac.doFinal(msg.getBytes(UTF8));
}
public static String sha256Hex(String s) throws Exception {
MessageDigest md = MessageDigest.getInstance("SHA-256");
byte[] d = md.digest(s.getBytes(UTF8));
return DatatypeConverter.printHexBinary(d).toLowerCase();
}
public static void main(String[] args) throws Exception {
String service = "cvm";
String host = "cvm.tencentcloudapi.com";
String region = "ap-guangzhou";
String action = "DescribeInstances";
String version = "2017-03-12";
String algorithm = "TC3-HMAC-SHA256";
String timestamp = "1551113065";
//String timestamp = String.valueOf(System.currentTimeMillis() / 1000);
SimpleDateFormat sdf = new SimpleDateFormat("yyyy-MM-dd");
// Pay attention to the time zone; otherwise, errors may occur
sdf.setTimeZone(TimeZone.getTimeZone("UTC"));
```

```
String date = sdf.format(new Date(Long.valueOf(timestamp + "000")));
// ************* Step 1: Concatenate the CanonicalRequest string *************
String httpRequestMethod = "POST";
String canonicalUri = "/";
String canonicalQueryString = "";
String canonicalHeaders = "content-type:application/json; charset=utf-8\n" + "hos
t:" + host + "\n";
String signedHeaders = "content-type;host";
String payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"], \"Name
\": \"instance-name\"}]}";
String hashedRequestPayload = sha256Hex(payload);
String canonicalRequest = httpRequestMethod + "\n" + canonicalUri + "\n" + canoni
calQueryString + "\n"
+ canonicalHeaders + "\n" + signedHeaders + "\n" + hashedRequestPayload;
System.out.println(canonicalRequest);
// ************* Step 2: Concatenate the string to sign *************
String credentialScope = date + "/" + service + "/" + "tc3_request";
String hashedCanonicalRequest = sha256Hex(canonicalRequest);
String stringToSign = algorithm + "\n" + timestamp + "\n" + credentialScope +
"\n" + hashedCanonicalRequest;
System.out.println(stringToSign);
// ************* Step 3: Calculate the signature *************
byte[] secretDate = hmac256(("TC3" + SECRET_KEY).getBytes(UTF8), date);
byte[] secretService = hmac256(secretDate, service);
byte[] secretSigning = hmac256(secretService, "tc3_request");
String signature = DatatypeConverter.printHexBinary(hmac256(secretSigning, string
ToSign)).toLowerCase();
System.out.println(signature);
// ************* Step 4: Concatenate the Authorization *************
String authorization = algorithm + " " + "Credential=" + SECRET_ID + "/" + creden
tialScope + ", "
+ "SignedHeaders=" + signedHeaders + ", " + "Signature=" + signature;
System.out.println(authorization);
TreeMap<String, String> headers = new TreeMap<String, String>();
headers.put("Authorization", authorization);
headers.put("Content-Type", CT_JSON);
headers.put("Host", host);
headers.put("X-TC-Action", action);
headers.put("X-TC-Timestamp", timestamp);
headers.put("X-TC-Version", version);
headers.put("X-TC-Region", region);
StringBuilder sb = new StringBuilder();
sb.append("curl -X POST https://").append(host)
.append(" -H \"Authorization: ").append(authorization).append("\"")
.append(" -H \"Content-Type: application/json; charset=utf-8\"")
.append(" -H \"Host: ").append(host).append("\"")
.append(" -H \"X-TC-Action: ").append(action).append("\"")
```

```
.append(" -H \"X-TC-Timestamp: ").append(timestamp).append("\"")
.append(" -H \"X-TC-Version: ").append(version).append("\"")
.append(" -H \"X-TC-Region: ").append(region).append("\"")
.append(" -d '").append(payload).append("'");
System.out.println(sb.toString());
}
}
```

Python

```
# -*- coding: utf-8 -*-
import hashlib, hmac, json, os, sys, time
from datetime import datetime
# Key Parameters
secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*******"
service = "cvm"
host = "cvm.tencentcloudapi.com"
endpoint = "https://" + host
region = "ap-guangzhou"
action = "DescribeInstances"
version = "2017-03-12"
algorithm = "TC3-HMAC-SHA256"
#timestamp = int(time.time())
timestamp = 1551113065
date = datetime.utcfromtimestamp(timestamp).strftime("%Y-%m-%d")
params = {"Limit": 1, "Filters": [{"Name": "instance-name", "Values": ["unnamed"
]}]}
# ************* Step 1: Concatenate the CanonicalRequest string *************
http_request_method = "POST"
canonical_uri = "/"
canonical_querystring = ""
ct = "application/json; charset=utf-8"
payload = json.dumps(params)
canonical_headers = "content-type:%s\nhost:%s\n" % (ct, host)
signed_headers = "content-type;host"
hashed_request_payload = hashlib.sha256(payload.encode("utf-8")).hexdigest()
canonical_request = (http_request_method + "\n" +
canonical_uri + "\n" +
canonical_querystring + "\n" +
canonical_headers + "\n" +
signed_headers + "\n" +
hashed_request_payload)
print(canonical_request)
# ************* Step 2: Concatenate the string to sign *************
credential_scope = date + "/" + service + "/" + "tc3_request"
```

```
hashed_canonical_request = hashlib.sha256(canonical_request.encode("utf-8")).hexd
igest()
string_to_sign = (algorithm + "\n" +
str(timestamp) + "\n" +
credential_scope + "\n" +
hashed_canonical_request)
print(string_to_sign)
# ************* Step 3: Calculate the Signature *************
# Function for computing signature digest
def sign(key, msg):
return hmac.new(key, msg.encode("utf-8"), hashlib.sha256).digest()
secret_date = sign(("TC3" + secret_key).encode("utf-8"), date)
secret_service = sign(secret_date, service)
secret_signing = sign(secret_service, "tc3_request")
signature = hmac.new(secret_signing, string_to_sign.encode("utf-8"), hashlib.sha2
56).hexdigest()
print(signature)
# ************* Step 4: Concatenate the Authorization *************
authorization = (algorithm + " " +
"Credential=" + secret_id + "/" + credential_scope + ", " +
"SignedHeaders=" + signed_headers + ", " +
"Signature=" + signature)
print(authorization)
print('curl -X POST ' + endpoint
+ ' -H "Authorization: ' + authorization + '"'
+ ' -H "Content-Type: application/json; charset=utf-8"'
+ ' -H "Host: ' + host + '"'
+ ' -H "X-TC-Action: ' + action + '"'
+ ' -H "X-TC-Timestamp: ' + str(timestamp) + '"'
+ ' -H "X-TC-Version: ' + version + '"'
+ ' -H "X-TC-Region: ' + region + '"'
+ " -d '" + payload + "'")
```

Golang

```
package main
import (
"crypto/hmac"
"crypto/sha256"
"encoding/hex"
"fmt"
"time"
)
func sha256hex(s string) string {
b := sha256.Sum256([]byte(s))
return hex.EncodeToString(b[:])
```

```
}
func hmacsha256(s, key string) string {
hashed := hmac.New(sha256.New, []byte(key))
hashed.Write([]byte(s))
return string(hashed.Sum(nil))
}
func main() {
secretId := "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secretKey := "Gu5t9xGARNpq86cd98joQYCN3*******"
host := "cvm.tencentcloudapi.com"
algorithm := "TC3-HMAC-SHA256"
service := "cvm"
version := "2017-03-12"
action := "DescribeInstances"
region := "ap-guangzhou"
//var timestamp int64 = time.Now().Unix()
var timestamp int64 = 1551113065
// step 1: build canonical request string
httpRequestMethod := "POST"
canonicalURI := "/"
canonicalQueryString := ""
canonicalHeaders := "content-type:application/json; charset=utf-8\n" + "host:" +
host + "\n"
signedHeaders := "content-type;host"
payload := `{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-na
me"}]}`
hashedRequestPayload := sha256hex(payload)
canonicalRequest := fmt.Sprintf("%s\n%s\n%s\n%s\n%s\n%s",
httpRequestMethod,
canonicalURI,
canonicalQueryString,
canonicalHeaders,
signedHeaders,
hashedRequestPayload)
fmt.Println(canonicalRequest)
// step 2: build string to sign
date := time.Unix(timestamp, 0).UTC().Format("2006-01-02")
credentialScope := fmt.Sprintf("%s/%s/tc3_request", date, service)
hashedCanonicalRequest := sha256hex(canonicalRequest)
string2sign := fmt.Sprintf("%s\n%d\n%s\n%s",
algorithm,
timestamp,
credentialScope,
hashedCanonicalRequest)
fmt.Println(string2sign)
// step 3: sign string
secretDate := hmacsha256(date, "TC3"+secretKey)
```

```
secretService := hmacsha256(service, secretDate)
secretSigning := hmacsha256("tc3_request", secretService)
signature := hex.EncodeToString([]byte(hmacsha256(string2sign, secretSigning)))
fmt.Println(signature)
// step 4: build authorization
authorization := fmt.Sprintf("%s Credential=%s/%s, SignedHeaders=%s, Signature=%
s",
algorithm,
secretId,
credentialScope,
signedHeaders,
signature)
fmt.Println(authorization)
curl := fmt.Sprintf(`curl -X POST https://%s\
-H "Authorization: %s"\
-H "Content-Type: application/json; charset=utf-8"\
-H "Host: %s" -H "X-TC-Action: %s"\
-H "X-TC-Timestamp: %d"\
-H "X-TC-Version: %s"\
-H "X-TC-Region: %s"\
-d '%s'`, host, authorization, host, action, timestamp, version, region, payload)
fmt.Println(curl)
}
```

PHP

```
<?php
$secretId = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3*******";
$host = "cvm.tencentcloudapi.com";
$service = "cvm";
$version = "2017-03-12";
$action = "DescribeInstances";
$region = "ap-guangzhou";
// $timestamp = time();
$timestamp = 1551113065;
$algorithm = "TC3-HMAC-SHA256";
// step 1: build canonical request string
$httpRequestMethod = "POST";
$canonicalUri = "/";
$canonicalQueryString = "";
$canonicalHeaders = "content-type:application/json; charset=utf-8\n"."host:".$hos
t."\n";
$signedHeaders = "content-type;host";
$payload = '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-na
me"}]}';
```

```
$hashedRequestPayload = hash("SHA256", $payload);
$canonicalRequest = $httpRequestMethod."\n"
.$canonicalUri."\n"
.$canonicalQueryString."\n"
.$canonicalHeaders."\n"
.$signedHeaders."\n"
.$hashedRequestPayload;
echo $canonicalRequest.PHP_EOL;
// step 2: build string to sign
$date = gmdate("Y-m-d", $timestamp);
$credentialScope = $date."/".$service."/tc3_request";
$hashedCanonicalRequest = hash("SHA256", $canonicalRequest);
$stringToSign = $algorithm."\n"
.$timestamp."\n"
.$credentialScope."\n"
.$hashedCanonicalRequest;
echo $stringToSign.PHP_EOL;
// step 3: sign string
$secretDate = hash_hmac("SHA256", $date, "TC3".$secretKey, true);
$secretService = hash_hmac("SHA256", $service, $secretDate, true);
$secretSigning = hash_hmac("SHA256", "tc3_request", $secretService, true);
$signature = hash_hmac("SHA256", $stringToSign, $secretSigning);
echo $signature.PHP_EOL;
// 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 proj
ect, use the following parameter:
// DateTime date = DateTime.UtcNow;
// Enter the correct time zone. We recommend using UTC timestamp to avoid errors.
DateTime date = new DateTime(1970, 1, 1, 0, 0, 0, 0, DateTimeKind.Utc).AddSeconds
(1551113065);
string requestPayload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"\\u672a\\u5
47d\\u540d\"], \"Name\": \"instance-name\"}]}";
Dictionary<string, string> headers = BuildHeaders(SECRET_ID, SECRET_KEY, service
, endpoint, region, action, version, date, requestPayload);
Console.WriteLine("POST https://cvm.tencentcloudapi.com");
foreach (KeyValuePair<string, string> kv in headers)
{
Console.WriteLine(kv.Key + ": " + kv.Value);
}
Console.WriteLine();
Console.WriteLine(requestPayload);
```

```
}
}
```

NodeJS

```
const crypto = require('crypto');
function sha256(message, secret = '', encoding) {
const hmac = crypto.createHmac('sha256', secret)
return hmac.update(message).digest(encoding)
}
function getHash(message, encoding = 'hex') {
const hash = crypto.createHash('sha256')
return hash.update(message).digest(encoding)
}
function getDate(timestamp) {
const date = new Date(timestamp * 1000)
const year = date.getUTCFullYear()
const month = ('0' + (date.getUTCMonth() + 1)).slice(-2)
const day = ('0' + date.getUTCDate()).slice(-2)
return `${year}-${month}-${day}`
}
function main(){
const SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
const SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******"
const endpoint = "cvm.tencentcloudapi.com"
const service = "cvm"
const region = "ap-guangzhou"
const action = "DescribeInstances"
const version = "2017-03-12"
//const timestamp = getTime()
const timestamp = 1551113065
const date = getDate(timestamp)
// ************* Step 1: Concatenate the CanonicalRequest string *************
const signedHeaders = "content-type;host"
const payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"], \"Name
\": \"instance-name\"}]}"
const hashedRequestPayload = getHash(payload);
const httpRequestMethod = "POST"
const canonicalUri = "/"
const canonicalQueryString = ""
const canonicalHeaders = "content-type:application/json; charset=utf-8\n" + "hos
t:" + endpoint + "\n"
const canonicalRequest = httpRequestMethod + "\n"
+ canonicalUri + "\n"
+ canonicalQueryString + "\n"
+ canonicalHeaders + "\n"
```

```
+ signedHeaders + "\n"
+ hashedRequestPayload
console.log(canonicalRequest)
console.log("----------------------------")
// ************* Step 2: Concatenate the string to sign *************
const algorithm = "TC3-HMAC-SHA256"
const hashedCanonicalRequest = getHash(canonicalRequest);
const credentialScope = date + "/" + service + "/" + "tc3_request"
const stringToSign = algorithm + "\n" +
timestamp + "\n" +
credentialScope + "\n" +
hashedCanonicalRequest
console.log(stringToSign)
console.log("----------------------------")
// ************* Step 3: Calculate the signature *************
const kDate = sha256(date, 'TC3' + SECRET_KEY)
const kService = sha256(service, kDate)
const kSigning = sha256('tc3_request', kService)
const signature = sha256(stringToSign, kSigning, 'hex')
console.log(signature)
console.log("----------------------------")
// ************* Step 4: Concatenate the Authorization *************
const authorization = algorithm + " " +
"Credential=" + SECRET_ID + "/" + credentialScope + ", " +
"SignedHeaders=" + signedHeaders + ", " +
"Signature=" + signature
console.log(authorization)
console.log("----------------------------")
const Call_Information = 'curl -X POST ' + "https://" + endpoint
+ ' -H "Authorization: ' + authorization + '"'
+ ' -H "Content-Type: application/json; charset=utf-8"'
+ ' -H "Host: ' + endpoint + '"'
+ ' -H "X-TC-Action: ' + action + '"'
+ ' -H "X-TC-Timestamp: ' + timestamp.toString() + '"'
+ ' -H "X-TC-Version: ' + version + '"'
+ ' -H "X-TC-Region: ' + region + '"'
+ " -d '" + payload + "'"
console.log(Call_Information)
}
main()
```

C++

```
#include <iostream>
#include <iomanip>
#include <sstream>
```

```
#include <string>
#include <stdio.h>
#include <time.h>
#include <openssl/sha.h>
#include <openssl/hmac.h>
using namespace std;
string get_data(int64_t ×tamp)
{
string utcDate;
char buff[20] = {0};
// time_t timenow;
struct tm sttime;
sttime = *gmtime(×tamp);
strftime(buff, sizeof(buff), "%Y-%m-%d", &sttime);
utcDate = string(buff);
return utcDate;
}
string int2str(int64_t n)
{
std::stringstream ss;
ss << n;
return ss.str();
}
string sha256Hex(const string &str)
{
char buf[3];
unsigned char hash[SHA256_DIGEST_LENGTH];
SHA256_CTX sha256;
SHA256_Init(&sha256);
SHA256_Update(&sha256, str.c_str(), str.size());
SHA256_Final(hash, &sha256);
std::string NewString = "";
for(int i = 0; i < SHA256_DIGEST_LENGTH; i++)
{
snprintf(buf, sizeof(buf), "%02x", hash[i]);
NewString = NewString + buf;
}
return NewString;
}
string HmacSha256(const string &key, const string &input)
{
unsigned char hash[32];
HMAC_CTX *h;
#if OPENSSL_VERSION_NUMBER < 0x10100000L
HMAC_CTX hmac;
HMAC_CTX_init(&hmac);
h = &hmac;
```

```
#else
h = HMAC_CTX_new();
#endif
HMAC_Init_ex(h, &key[0], key.length(), EVP_sha256(), NULL);
HMAC_Update(h, ( unsigned char* )&input[0], input.length());
unsigned int len = 32;
HMAC_Final(h, hash, &len);
#if OPENSSL_VERSION_NUMBER < 0x10100000L
HMAC_CTX_cleanup(h);
#else
HMAC_CTX_free(h);
#endif
std::stringstream ss;
ss << std::setfill('0');
for (int i = 0; i < len; i++)
{
ss << hash[i];
}
return (ss.str());
}
string HexEncode(const string &input)
{
static const char* const lut = "0123456789abcdef";
size_t len = input.length();
string output;
output.reserve(2 * len);
for (size_t i = 0; i < len; ++i)
{
const unsigned char c = input[i];
output.push_back(lut[c >> 4]);
output.push_back(lut[c & 15]);
}
return output;
}
int main()
{
string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******";
string service = "cvm";
string host = "cvm.tencentcloudapi.com";
string region = "ap-guangzhou";
string action = "DescribeInstances";
string version = "2017-03-12";
int64_t timestamp = 1551113065;
string date = get_data(timestamp);
// ************* Step 1: Concatenate the CanonicalRequest string *************
string httpRequestMethod = "POST";
```

```
string canonicalUri = "/";
string canonicalQueryString = "";
string canonicalHeaders = "content-type:application/json; charset=utf-8\nhost:" +
host + "\n";
string signedHeaders = "content-type;host";
string payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"], \"Name
\": \"instance-name\"}]}";
string hashedRequestPayload = sha256Hex(payload);
string canonicalRequest = httpRequestMethod + "\n" + canonicalUri + "\n" + canoni
calQueryString + "\n"
+ canonicalHeaders + "\n" + signedHeaders + "\n" + hashedRequestPayload;
cout << canonicalRequest << endl;
cout << "-----------------------" << endl;
// ************* Step 2: Concatenate the string to sign *************
string algorithm = "TC3-HMAC-SHA256";
string RequestTimestamp = int2str(timestamp);
string credentialScope = date + "/" + service + "/" + "tc3_request";
string hashedCanonicalRequest = sha256Hex(canonicalRequest);
string stringToSign = algorithm + "\n" + RequestTimestamp + "\n" + credentialScop
e + "\n" + hashedCanonicalRequest;
cout << stringToSign << endl;
cout << "-----------------------" << endl;
// ************* Step 3: Calculate the signature ***************
string kKey = "TC3" + SECRET_KEY;
string kDate = HmacSha256(kKey, date);
string kService = HmacSha256(kDate, service);
string kSigning = HmacSha256(kService, "tc3_request");
string signature = HexEncode(HmacSha256(kSigning, stringToSign));
cout << signature << endl;
cout << "-----------------------" << endl;
// ************* Step 4: Concatenate the Authorization *************
string authorization = algorithm + " " + "Credential=" + SECRET_ID + "/" + creden
tialScope + ", "
+ "SignedHeaders=" + signedHeaders + ", " + "Signature=" + signature;
cout << authorization << endl;
cout << "-----------------------" << endl;
string headers = "curl -X POST https://" + host + "\n"
+ " -H \"Authorization: " + authorization + "\n"
+ " -H \"Content-Type: application/json; charset=utf-8\"" + "\n"
+ " -H \"Host: " + host + "\n"
+ " -H \"X-TC-Action: " + action + "\n"
+ " -H \"X-TC-Timestamp: " + RequestTimestamp + "\n"
+ " -H \"X-TC-Version: " + version + "\n"
+ " -H \"X-TC-Region: " + region + "\n"
+ " -d '" + payload;
cout << headers << endl;
```

```
return 0;
};
```

Signature Failure

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

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

Signature

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Tencent Cloud API authenticates each access request, i.e. each request needs to include authentication information (Signature) in the common parameters to verify the identity of the requester.
The Signature is generated by the security credentials which include SecretId and SecretKey. If you don't have the security credentials yet, go to the TencentCloud API Key page to apply for them; otherwise, you cannot invoke the TencentCloud API.

1. Applying for Security Credentials

Before using the TencentCloud API for the first time, go to the TencentCloud API Key page to apply for security credentials.
Security credentials consist of SecretId and SecretKey:

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

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

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

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

2. Generating a Signature

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

Assume that the SecretId and SecretKey are:

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

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

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

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

2.1. Sorting Parameters

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

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

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

2.2. Concatenating a Request String

This step generates a request string.

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

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

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

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

2.3. Concatenating the Signature Original String

This step generates a signature original string.

The signature original string consists of the following parameters:

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

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

The concatenation result of the example is:

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

2.4. Generating a Signature String

This step generates a signature string.

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

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

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

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

The final signature is:

```
zmmjn35mikh6pM3V7sUEuX4wyYM=
```

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

3. Encoding a Signature String

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

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

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

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

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

4. Signature Failure

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

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

5. Signature Demo

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

- Python
- Java
- PHP
- Go
- NodeJS
- .NET

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

The final output URL might be:

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

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

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

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

Java

```
import java.io.UnsupportedEncodingException;
import java.net.URLEncoder;
import java.util.Random;
import java.util.TreeMap;
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
import javax.xml.bind.DatatypeConverter;
public class TencentCloudAPIDemo {
private final static String CHARSET = "UTF-8";
public static String sign(String s, String key, String method) throws Exception {
Mac mac = Mac.getInstance(method);
SecretKeySpec secretKeySpec = new SecretKeySpec(key.getBytes(CHARSET), mac.getAlg
orithm());
mac.init(secretKeySpec);
byte[] hash = mac.doFinal(s.getBytes(CHARSET));
return DatatypeConverter.printBase64Binary(hash);
}
public static String getStringToSign(TreeMap<String, Object> params) {
StringBuilder s2s = new StringBuilder("GETcvm.tencentcloudapi.com/?");
// When signing, the parameters need to be sorted in lexicographical order. TreeM
ap is used here to guarantee the correct order.
for (String k : params.keySet()) {
s2s.append(k).append("=").append(params.get(k).toString()).append("&");
}
return s2s.toString().substring(0, s2s.length() - 1);
}
public static String getUrl(TreeMap<String, Object> params) throws UnsupportedEnc
odingException {
StringBuilder url = new StringBuilder("https://cvm.tencentcloudapi.com/?");
// There is no requirement for the order of the parameters in the actual request
URL.
for (String k : params.keySet()) {
// The request string needs to be URL encoded. As the Key is all in English lette
rs, only the value is URL encoded here.
url.append(k).append("=").append(URLEncoder.encode(params.get(k).toString(), CHAR
SET)).append("&");
```

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

Python

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

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

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

Golang

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

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

PHP

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

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

Ruby

```
# -*- coding: UTF-8 -*-
# require ruby>=2.3.0
require 'time'
require 'openssl'
require 'base64'
secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*******"
method = 'GET'
endpoint = 'cvm.tencentcloudapi.com'
data = {
'Action' => 'DescribeInstances',
'InstanceIds.0' => 'ins-09dx96dg',
'Limit' => 20,
'Nonce' => 11886,
'Offset' => 0,
'Region' => 'ap-guangzhou',
'SecretId' => secret_id,
'Timestamp' => 1465185768, # Time.now.to_i
'Version' => '2017-03-12',
}
sign = method + endpoint + '/?'
params = []
data.sort.each do |item|
params << "#{item[0]}=#{item[1]}"
end
sign += params.join('&')
digest = OpenSSL::Digest.new('sha1')
data['Signature'] = Base64.encode64(OpenSSL::HMAC.digest(digest, secret_key, sig
n))
puts data['Signature']
# require 'net/http'
# uri = URI('https://' + endpoint)
# uri.query = URI.encode_www_form(data)
# p uri
```

```
# res = Net::HTTP.get_response(uri)
# puts res.body
```

DotNet

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Security.Cryptography;
using System.Text;
public class Application {
public static string Sign(string signKey, string secret)
{
string signRet = string.Empty;
using (HMACSHA1 mac = new HMACSHA1(Encoding.UTF8.GetBytes(signKey)))
{
byte[] hash = mac.ComputeHash(Encoding.UTF8.GetBytes(secret));
signRet = Convert.ToBase64String(hash);
}
return signRet;
}
public static string MakeSignPlainText(SortedDictionary<string, string> requestPa
rams, string requestMethod, string requestHost, string requestPath)
{
string retStr = "";
retStr += requestMethod;
retStr += requestHost;
retStr += requestPath;
retStr += "?";
string v = "";
foreach (string key in requestParams.Keys)
{
v += string.Format("{0}={1}&", key, requestParams[key]);
}
retStr += v.TrimEnd('&');
return retStr;
}
public static void Main(string[] args)
{
string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******";
string endpoint = "cvm.tencentcloudapi.com";
string region = "ap-guangzhou";
string action = "DescribeInstances";
string version = "2017-03-12";
double RequestTimestamp = 1465185768;
```

```
// long timestamp = ToTimestamp() / 1000;
// string requestTimestamp = timestamp.ToString();
Dictionary<string, string> param = new Dictionary<string, string>();
param.Add("Limit", "20");
param.Add("Offset", "0");
param.Add("InstanceIds.0", "ins-09dx96dg");
param.Add("Action", action);
param.Add("Nonce", "11886");
// param.Add("Nonce", Math.Abs(new Random().Next()).ToString());
param.Add("Timestamp", RequestTimestamp.ToString());
param.Add("Version", version);
param.Add("SecretId", SECRET_ID);
param.Add("Region", region);
SortedDictionary<string, string> headers = new SortedDictionary<string, string>(p
aram, StringComparer.Ordinal);
string sigInParam = MakeSignPlainText(headers, "GET", endpoint, "/");
Console.WriteLine(sigInParam);
string sigOutParam = Sign(SECRET_KEY, sigInParam);
Console.WriteLine("GET https://cvm.tencentcloudapi.com");
foreach (KeyValuePair<string, string> kv in headers)
{
Console.WriteLine(kv.Key + ": " + kv.Value);
}
Console.WriteLine("Signature" + ": " + WebUtility.UrlEncode(sigOutParam));
Console.WriteLine();
string result = "https://cvm.tencentcloudapi.com/?";
foreach (KeyValuePair<string, string> kv in headers)
{
result += WebUtility.UrlEncode(kv.Key) + "=" + WebUtility.UrlEncode(kv.Value) +
"&";
}
result += WebUtility.UrlEncode("Signature") + "=" + WebUtility.UrlEncode(sigOutPa
ram);
Console.WriteLine("GET " + result);
}
}
```

NodeJS

```
const crypto = require('crypto');
function get_req_url(params, endpoint){
params['Signature'] = escape(params['Signature']);
const url_strParam = sort_params(params)
return "https://" + endpoint + "/?" + url_strParam.slice(1);
}
function formatSignString(reqMethod, endpoint, path, strParam){
```

```
let strSign = reqMethod + endpoint + path + "?" + strParam.slice(1);
return strSign;
}
function sha1(secretKey, strsign){
let signMethodMap = {'HmacSHA1': "sha1"};
let hmac = crypto.createHmac(signMethodMap['HmacSHA1'], secretKey || "");
return hmac.update(Buffer.from(strsign, 'utf8')).digest('base64')
}
function sort_params(params){
let strParam = "";
let keys = Object.keys(params);
keys.sort();
for (let k in keys) {
//k = k.replace(/_/g, '.');
strParam += ("&" + keys[k] + "=" + params[keys[k]]);
}
return strParam
}
function main(){
const SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
const SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******"
const endpoint = "cvm.tencentcloudapi.com"
const Region = "ap-guangzhou"
const Version = "2017-03-12"
const Action = "DescribeInstances"
const Timestamp = 1465185768
// const Timestamp = Math.round(Date.now() / 1000)
const Nonce = 11886
//const nonce = Math.round(Math.random() * 65535)
let params = {};
params['Action'] = Action;
params['InstanceIds.0'] = 'ins-09dx96dg';
params['Limit'] = 20;
params['Offset'] = 0;
params['Nonce'] = Nonce;
params['Region'] = Region;
params['SecretId'] = SECRET_ID;
params['Timestamp'] = Timestamp;
params['Version'] = Version;
strParam = sort_params(params)
const reqMethod = "GET";
const path = "/";
strSign = formatSignString(reqMethod, endpoint, path, strParam)
console.log(strSign)
console.log("----------------------")
params['Signature'] = sha1(SECRET_KEY, strSign)
console.log(params['Signature'])
```

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

Responses

Last updated：2021-01-18 11:11:07

Response for Successful Requests

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

```
{
"Response": {
"TotalCount": 0,
"InstanceStatusSet": [],
"RequestId": "b5b41468-520d-4192-b42f-595cc34b6c1c"
}
}
```

- The API will return `Response`, which contains `RequestId`, as long as it processes the request. It does not matter if the request is successful or not.
- RequestId is the unique ID of an API request. Contact us with this ID when an exception occurs.
- Except for the fixed fields, all fields are action-specified. For the definitions of action-specified fields, see the corresponding API documentation. In this example, `TotalCount` and `InstanceStatusSet` are the fields specified by the API `DescribeInstancesStatus`. 0 `TotalCount` means that the requester owns 0 CVM instance so the `InstanceStatusSet` is empty.

Response for Failed Requests

If the request has failed, you may see the response as shown below:

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

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

Common Error Codes

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

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

Domain Verification APIs
UpdateEmailIdentity

Last updated：2023-06-12 16:22:42

1. API Description

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

This API is used to verify whether your DNS configuration is correct.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateEmailIdentity.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
EmailIdentity	Yes	String	Domain to be verified.

3. Output Parameters

Parameter Name	Type	Description

IdentityType	String	Verification type. The value is fixed to `DOMAIN` .
VerifiedForSendingStatus	Boolean	Verification passed or not.
Attributes	Array of DNSAttributes	DNS information that needs to be configured.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Verifying DNS configuration

Input Example

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

{
"EmailIdentity": "mail.qcloud.com"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"IdentityType": "DOMAIN",
"VerifiedForSendingStatus": false,
"Attributes": [
{
"Type": "TXT",
"SendDomain": "mail.qcloud.com",
"ExpectedValue": "v=spf1 include:qcloudmail.com ~all",
"CurrentValue": "",
"Status": false
},
{
"Type": "TXT",
"SendDomain": "mail._domainkey.mail.qcloud.com",
```

```
"ExpectedValue": "k=rsa;p=MIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDeMVIzrCa3T14JsNY
0IRv5/2V1/v2itlviLQBwXsa7shBD6TrBkswsFUToPyMRWC9tbR/5ey0nRBH0ZVxp+lsmTxid2Y2z+FAp
Q6ra2VsXfbJP3HE6wAO0YTVEJt1TmeczhEd2Jiz/fcabIISgXEdSpTYJhb0ct0VJRxcg4c8c7wIDAQAB"
,
"CurrentValue": "",
"Status": false
}
]
}
}
```


5. Developer Resources

SDK

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

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.ServiceNotAvailable	The request has not taken effect. Try again.
InternalError	Internal error.
InvalidParameter	Incorrect parameter.

InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.NotExistDomain	This sender domain does not exist. Create it first.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

CreateEmailIdentity

Last updated：2023-06-12 16:22:43

1. API Description

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

This API is used to create a sender domain. Before you can send an email using Tencent Cloud SES, you must create a sender domain as your identity. It can be the domain of your website or mobile app. You must verify the domain to prove that you own it and authorize Tencent Cloud SES to use it to send emails.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateEmailIdentity.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
EmailIdentity	Yes	String	Your sender domain. You are advised to use a third-level domain, for example, mail.qcloud.com.

3. Output Parameters

Parameter Name	Type	Description

IdentityType	String	Verification type. The value is fixed to `DOMAIN`.
VerifiedForSendingStatus	Boolean	Verification passed or not.
Attributes	Array of DNSAttributes	DNS information that needs to be configured.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a sender domain

Input Example

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

{
"EmailIdentity": "mail.qcloud.com"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"IdentityType": "DOMAIN",
"VerifiedForSendingStatus": false,
"Attributes": [
{
"Type": "TXT",
"SendDomain": "mail.qcloud.com",
"ExpectedValue": "v=spf1 include:qcloudmail.com ~all",
"CurrentValue": "",
"Status": false
},
{
"Type": "TXT",
```

```
"SendDomain": "mail._domainkey.mail.qcloud.com",
"ExpectedValue": "k=rsa;p=MIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDeMVIzrCa3T14JsNY
0IRv5/2V1/v2itlviLQBwXsa7shBD6TrBkswsFUToPyMRWC9tbR/5ey0nRBH0ZVxp+lsmTxid2Y2z+FAp
Q6ra2VsXfbJP3HE6wAO0YTVEJt1TmeczhEd2Jiz/fcabIISgXEdSpTYJhb0ct0VJRxcg4c8c7wIDAQAB"
,
"CurrentValue": "",
"Status": false
}
]
}
}
```


5. Developer Resources

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.

InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.CreatedByOther	This sender domain has been created by another Tencent Cloud account.
InvalidParameterValue.InvalidEmailIdentity	Invalid domain value.
InvalidParameterValue.RepeatCreation	This sender domain already exists. Do not create it again.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
OperationDenied.ExceedDomainLimit	The number of sender domains exceeds the upper limit.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

DeleteEmailIdentity

Last updated：2023-06-12 16:22:43

1. API Description

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

This API is used to delete a sender domain. After deleted, the sender domain can no longer be used to send emails.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteEmailIdentity.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
EmailIdentity	Yes	String	Sender domain.

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 sender domain

Input Example

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

{
"EmailIdentity": "mail.qcloud.com"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

GetEmailIdentity

Last updated：2023-06-12 16:22:43

1. API Description

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

This API is used to get the configuration details of a sender domain.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetEmailIdentity.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
EmailIdentity	Yes	String	Sender domain.

3. Output Parameters

Parameter Name	Type	Description
IdentityType	String	Verification type. The value is fixed to `DOMAIN` .

VerifiedForSendingStatus	Boolean	Verification passed or not.
Attributes	Array of DNSAttributes	DNS configuration details.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the configuration details of a domain

Input Example

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

{
"EmailIdentity": "mail.qcloud.com"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"IdentityType": "DOMAIN",
"VerifiedForSendingStatus": false,
"Attributes": [
{
"Type": "TXT",
"SendDomain": "mail.qcloud.com",
"ExpectedValue": "v=spf1 include:qcloudmail.com ~all",
"CurrentValue": "",
"Status": false
},
{
"Type": "TXT",
"SendDomain": "mail._domainkey.mail.qcloud.com",
"ExpectedValue": "k=rsa;p=MIGfMA0GCSqGSIb3DQEBAQUAA4GNADCBiQKBgQDeMVIzrCa3T14JsNY
0IRv5/2V1/v2itlviLQBwXsa7shBD6TrBkswsFUToPyMRWC9tbR/5ey0nRBH0ZVxp+lsmTxid2Y2z+FAp
```

```
Q6ra2VsXfbJP3HE6wAO0YTVEJt1TmeczhEd2Jiz/fcabIISgXEdSpTYJhb0ct0VJRxcg4c8c7wIDAQAB"
,
"CurrentValue": "",
"Status": false
}
]
}
}
```


5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.NotExistDomain	This sender domain does not exist. Create it first.

LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

ListEmailIdentities

Last updated：2023-06-12 16:22:42

1. API Description

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

This API is used to get the list of sender domains, including verified and unverified domains.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ListEmailIdentities.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.

3. Output Parameters

Parameter Name	Type	Description
EmailIdentities	Array of EmailIdentity	List of sender domains.
MaxReputationLevel	Integer	Maximum reputation level

MaxDailyQuota	Integer	Maximum number of emails sent per domain name
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the list

Input Example

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

{}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"EmailIdentities": [
{
"IdentityName": "mail.qcloud.com",
"IdentityType": "DOMAIN",
"SendingEnabled": false,
"CurrentReputationLevel": 2,
"DailyQuota": 5000
}
],
"MaxReputationLevel": 10,
"MaxDailyQuota": 10000
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

Email APIs
SendEmail

Last updated：2023-06-12 16:22:42

1. API Description

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

This API is used to send an HTML or TEXT email triggered for authentication or transaction. By default, you can send emails using a template only.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: SendEmail.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
FromEmailAddress	Yes	String	Sender address. Enter a sender address, for example, noreply@mail.qcloud.com. To display the sender name, enter the address in the following format: Sender
Destination.N	Yes	Array of String	Recipient email addresses. You can send an email to up to 50 recipients at a time. Note: the email content will display

			all recipient addresses. To send one-to-one emails to several recipients, please call the API multiple times to send the emails.
Subject	Yes	String	Email subject.
ReplyToAddresses	No	String	Reply-to address. You can enter a valid personal email address that can receive emails. If this parameter is left empty, reply emails will fail to be sent.
Cc.N	No	Array of String	
Bcc.N	No	Array of String	
Template	No	Template	Template parameters for template-based sending. As `Simple` has been disused, `Template` is required.
Simple	No	Simple	Disused
Attachments.N	No	Array of Attachment	Parameters for the attachments to be sent. The TencentCloud API supports a request packet of up to 8 MB in size, and the size of the attachment content will increase by 1.5 times after Base64 encoding. Therefore, you need to keep the total size of all attachments below 4 MB. If the entire request exceeds 8 MB, the API will return an error.
Unsubscribe	No	String	Unsubscribe link option. `0` : Do not add unsubscribe link; `1` : English `2` : Simplified Chinese; `3` : Traditional Chinese; `4` : Spanish; `5` : French; `6` : German; `7` : Japanese; `8` : Korean; `9` : Arabic; `10` : Thai
TriggerType	No	Integer	Email triggering type. `0` (default): non-trigger-based, suitable for marketing emails and non-immediate emails; `1` : trigger-based, suitable for immediate emails such as emails containing verification codes. If the size of an email exceeds a specified value, the system will automatically choose the non-trigger-based type.

3. Output Parameters

Parameter Name	Type	Description

MessageId	String	Unique ID generated when receiving the message
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Sending a plain text email

Input Example

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

{
"FromEmailAddress": "QCLOUDTEAM <noreply@mail.qcloud.com>",
"ReplyToAddresses": "qcloud@tencent.com",
"Destination": [
"user@example.com"
],
"Simple": {
"Text": "aGVsbG8gd29ybGQ="
},
"Subject": "YourTestSubject"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"MessageId": "qcloud-ses-messageid"
}
}
```

Example2 Sending a rich text email

Input Example

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

{
"FromEmailAddress": "QCLOUDTEAM <noreply@mail.qcloud.com>",
"ReplyToAddresses": "qcloud@tencent.com",
"Destination": [
"user@example.com"
],
"Simple": {
"Html": "PGh0bWw+PGRpdj5IZWxsb1dvcmxkPC9kaXY+PC9odG1sPg==",
"Text": "aGVsbG8gd29ybGQ="
},
"Subject": "YourTestSubject"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"MessageId": "qcloud-ses-messageid"
}
}
```

Example3 Sending an email by using a template

Input Example

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

{
"FromEmailAddress": "QCLOUDTEAM <noreply@mail.qcloud.com>",
"ReplyToAddresses": "qcloud@tencent.com",
"Destination": [
"user@example.com"
],
```

```
"Template": {
"TemplateID": "100091",
"TemplateData": "{\"code\":\"1234\"}"
},
"Subject": "YourTestSubject"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"MessageId": "qcloud-ses-messageid"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.AttachContentToolarge	The attachments are too large. Make sure they do not exceed the size limit for a single attachment and the overall limit for all attachments.
FailedOperation.EmailAddrInBlacklist	The email address is in the blocklist.
FailedOperation.EmailContentToolarge	The email is too large. Remove some content.
FailedOperation.ExceedSendLimit	The number of emails exceeds the daily sending limit.
FailedOperation.FrequencyLimit	You have sent too many emails to the same address in a short period.
FailedOperation.HighRejectionRate	The email has been blocked temporarily due to high rejection rate.
FailedOperation.IncorrectEmail	Incorrect email address.
FailedOperation.IncorrectSender	Incorrect sender format. Follow the sample in this document.
FailedOperation.InsufficientBalance	Insufficient balance or account in arrears.
FailedOperation.InsufficientQuota	Insufficient emails in plans.
FailedOperation.InvalidAttachName	Unsupported attachment name. Make sure it does not contain special characters. For details, see the attachment description.
FailedOperation.InvalidTemplateID	Invalid template ID or unavailable template.
FailedOperation.MissingEmailContent	Missing email content (`TemplateData` and `Simple` cannot be both empty).
FailedOperation.NoAttachPermission	No permission to send an email with attachments.
FailedOperation.NotAuthenticatedSender	Unable to send because the sender is not verified.
FailedOperation.ProtocolCheckErr	Incorrect protocol. Make sure the protocol is correct.
FailedOperation.ReceiverHasUnsubscribed	The recipient has unsubscribed.
FailedOperation.RejectedByRecipients	The message was rejected by the recipient.
FailedOperation.SendEmailErr	Email sending error. Please submit a ticket to us for troubleshooting.
FailedOperation.TemporaryBlocked	The email has been blocked temporarily due to violations of

	rules.
FailedOperation.TooManyAttachments	Too many attachments. A single email supports up to 10 attachments.
FailedOperation.TooManyRecipients	Too many recipients. Set a maximum of 50 recipients at a time.
FailedOperation.UnsupportMailType	Unsupported email type.
FailedOperation.WithOutPermission	You can only send emails by using a template.
FailedOperation.WrongContentJson	The format of the `TemplateData` field is incorrect. Make sure it is in JSON format.
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.AttachContentIsWrong	Incorrect attachment content. Make sure the base64 content is correct.
InvalidParameterValue.EmailAddressIsNULL	The recipient or sender address is empty. Please check.
InvalidParameterValue.EmailContentIsWrong	Incorrect email content. Make sure TEXT/HTML base64 is correct.
InvalidParameterValue.InvalidEmailIdentity	Invalid domain value.
InvalidParameterValue.ReceiverEmailInvalid	The recipient address is incorrect.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
ResourceInsufficient	Insufficient resources.
ResourceUnavailable	The resource is unavailable.
UnknownParameter	Unknown parameter error.
UnsupportedOperation	Unsupported operation.

UpdateEmailSmtpPassWord

Last updated：2023-05-12 16:36:22

1. API Description

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

This API is used to set the SMTP password. Initially, no SMTP password is set for your email address, so emails cannot be sent over SMTP. To send emails over SMTP, you must set the SMTP password. The set password can be changed subsequently.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateEmailSmtpPassWord.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
Password	Yes	String	SMTP password. Length limit: 64.
EmailAddress	Yes	String	Email address. Length limit: 128.

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 Setting the SMTP password

This example shows you how to set or modify the SMTP password.

Input Example

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

{
"Password": "123",
"EmailAddress": "abc@ef.com"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameterValue.InvalidSmtpPassWord	The password can contain 10-20 characters and must contain at least 2 unique digits, lowercase letters, and uppercase letters.
InvalidParameterValue.NoSuchSender	You don't have the sender address. Check if it exists.
OperationDenied.RepeatPassWord	The password cannot be the same as the last set password.

Template APIs
ListEmailTemplates

Last updated：2023-06-12 16:22:40

1. API Description

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

This API is used to get the list of email templates.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ListEmailTemplates.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
Limit	Yes	Integer	Number of templates to get. This parameter is used for pagination.
Offset	Yes	Integer	Template offset to get. This parameter is used for pagination.

3. Output Parameters

Parameter Name	Type	Description
TemplatesMetadata	Array of TemplatesMetadata	List of email templates.
TotalCount	Integer	Total number of templates
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the list of templates

Input Example

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

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

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"TotalCount": 1,
"TemplatesMetadata": [
{
"TemplateID": 10091,
"CreatedTimestamp": 1607512575,
"TemplateName": "Test Template",
"ReviewReason": "Approved",
"TemplateStatus": 0
}
]
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.InvalidLimit	Reached the query limit (100).
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

GetEmailTemplate

Last updated：2023-06-12 16:22:40

1. API Description

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

This API is used to get the details of a template.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetEmailTemplate.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
TemplateID	Yes	Integer	Template ID.

3. Output Parameters

Parameter Name	Type	Description
TemplateContent	TemplateContent	Template content.

TemplateStatus	Integer	Template status. Valid values: `0` (approved); `1` (pending approval); `2` (rejected).
TemplateName	String	Template name
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting template content

Input Example

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

{
"TemplateID": 10091
}
```

Output Example

```
{
"Response": {
"TemplateStatus": 0
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"TemplateContent": {
"Html": "PGh0bWw+dGhpcyBpcyBhIGV4YW1wbGUge3tjb2RlfX08L2h0bWw+",
"Text": "dGhpcyBpcyBhIGV4YW1wbGU="
},
"TemplateName": "Template name"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.TemplateNotExist	The template does not exist. Please create a template.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
ResourceNotFound	The resource does not exist.

DeleteEmailTemplate

Last updated：2023-06-12 16:22:41

1. API Description

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

This API is used to delete an email template.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteEmailTemplate.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
TemplateID	Yes	Integer	Template 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 an email template

Input Example

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

{
"TemplateID": 10086
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

CreateEmailTemplate

Last updated：2023-06-12 16:22:41

1. API Description

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

This API is used to create a TEXT or HTML email template. To create an HTML template, ensure that it does not include external CSS files. You can use {{variable name}} to specify a variable in the template.
Note: Only an approved template can be used to send emails.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateEmailTemplate.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
TemplateName	Yes	String	Template name.
TemplateContent	Yes	TemplateContent	Template content.

3. Output Parameters

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

4. Example

Example1 Creating an HTML email template

Input Example

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

{
"TemplateContent": {
"Html": "PGh0bWw+dGhpcyBpcyBhIGV4YW1wbGUge3tjb2RlfX08L2h0bWw+"
},
"TemplateName": "TestName"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"TemplateID": 123
}
}
```

Example2 Creating a TEXT email template

Input Example

```
POST / HTTP/1.1
Host: ses.tencentcloudapi.com
Content-Type: application/json
```

```
X-TC-Action: CreateEmailTemplate
<Common request parameters>

{
"TemplateContent": {
"Text": "dGhpcyBpcyBhIGV4YW1wbGUge3tjb2RlfX0="
},
"TemplateName": "TestName"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"TemplateID": 123
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.ExceedTemplateLimit	The number of templates exceeds the upper limit.
FailedOperation.TemplateContentToolarge	The template size is too large. Reduce the size.
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.TemplateContentIsNULL	The template resource is empty.
InvalidParameterValue.TemplateContentIsWrong	Incorrect template content. Make sure the Base64 content is correct.
InvalidParameterValue.TemplateNameIllegal	Invalid template name. Make sure the characters and length of the template name are valid.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

UpdateEmailTemplate

Last updated：2023-06-12 16:22:40

1. API Description

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

This API is used to update an email template. An updated template must be approved again before it can be used.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: UpdateEmailTemplate.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
TemplateContent	Yes	TemplateContent	Template content.
TemplateID	Yes	Integer	Template ID.
TemplateName	Yes	String	Template name

3. Output Parameters

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

4. Example

Example1 Updating template content

Input Example

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

{
"TemplateID": 10091,
"TemplateName": "xx",
"TemplateContent": {
"Html": "PGh0bWw+dGhpcyBpcyBhIGV4YW1wbGUge3tjb2RlfX08L2h0bWw+",
"Text": "dGhpcyBpcyBhIGV4YW1wbGU="
}
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```

5. Developer Resources

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- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.TemplateContentIsNULL	The template resource is empty.
InvalidParameterValue.TemplateContentIsWrong	Incorrect template content. Make sure the Base64 content is correct.
InvalidParameterValue.TemplateNameIllegal	Invalid template name. Make sure the characters and length of the template name are valid.
InvalidParameterValue.TemplateNameIsNULL	The template name cannot be empty.
InvalidParameterValue.TemplateNotExist	The template does not exist. Please create a template.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

Statistics APIs
GetStatisticsReport

Last updated：2023-06-12 16:22:41

1. API Description

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

This API is used to get the email sending statistics over a recent period, including data on sent emails, delivery success rate, open rate, bounce rate, and so on.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetStatisticsReport.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
StartDate	Yes	Date	Start date.
EndDate	Yes	Date	End date.
Domain	No	String	Sender domain.
ReceivingMailboxType	No	String	Recipient address type, for example, gmail.com.

3. Output Parameters

Parameter Name	Type	Description
DailyVolumes	Array of Volume	Daily email sending statistics.
OverallVolume	Volume	Overall email sending statistics.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting statistics

Input Example

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

{
"Domain": "qcloud.com",
"StartDate": "2020-10-01",
"EndDate": "2020-10-03",
"ReceivingMailboxType": "gmail.com"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"DailyVolumes": [
{
"SendDate": "2020-10-01",
"RequestCount": 1000,
"AcceptedCount": 999,
"DeliveredCount": 998,
```

```
"OpenedCount": 300,
"ClickedCount": 199,
"BounceCount": 5,
"UnsubscribeCount": 1
}
],
"OverallVolume": {
"SendDate": "2020-10-01",
"RequestCount": 1000,
"AcceptedCount": 999,
"DeliveredCount": 998,
"OpenedCount": 300,
"ClickedCount": 199,
"BounceCount": 5,
"UnsubscribeCount": 1
}
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.WrongDate	Incorrect search date. Make sure the date and its format are valid.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

Sender Address APIs
ListEmailAddress

Last updated：2023-06-12 16:22:41

1. API Description

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

This API is used to get the list of sender addresses.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ListEmailAddress.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.

3. Output Parameters

Parameter Name	Type	Description
EmailSenders	Array of	Details of sender addresses.

	EmailSender	Note: this field may return `null`, indicating that no valid values can be obtained.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the list of sender addresses

Input Example

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

{}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"EmailSenders": [
{
"EmailAddress": "service@mail.qcloud.com",
"EmailSenderName": "Tencent Cloud email notification",
"CreatedTimestamp": 1602143617
},
{
"EmailAddress": "verify@mail.qcloud.com",
"EmailSenderName": "Tencent Cloud verification code",
"CreatedTimestamp": 1602143617
}
]
}
}
```

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	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

CreateEmailAddress

Last updated：2023-06-12 16:22:42

1. API Description

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

After the sender domain is verified, you need a sender address to send emails. For example, if your sender domain is mail.qcloud.com, your sender address can be service@mail.qcloud.com. If you want to display your name (such as "Tencent Cloud") in the inbox list of the recipients, the sender address should be in the format of `Tencent Cloud <email address>` . Please note that there must be a space between your name and the first angle bracket.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateEmailAddress.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
EmailAddress	Yes	String	Your sender address. (You can create up to 10 sender addresses for each domain.)
EmailSenderName	No	String	Sender name.

3. Output Parameters

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

4. Example

Example1 Creating a sender address

Input Example

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

{
"EmailAddress": "service@mail.qcloud.com",
"EmailSenderName": "Tencent Cloud email notification"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.IllegalEmailAddress	Invalid email address. Make sure the address format is correct.
InvalidParameterValue.IllegalSenderName	The sender alias is incorrect.
InvalidParameterValue.RepeatEmailAddress	This email address already exists. Do not create it again.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
OperationDenied.DomainNotVerified	Domain verification failed. Check whether the domain has passed verification.
OperationDenied.ExceedSenderLimit	The number of sender addresses exceeds the upper limit.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

DeleteEmailAddress

Last updated：2023-06-12 16:22:42

1. API Description

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

This API is used to delete a sender address.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteEmailAddress.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
EmailAddress	Yes	String	Sender address.

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 sender address

Input Example

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

{
"EmailAddress": "service@mail.qcloud.com"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.NoSuchSender	You don’t have the sender address. Check if it exists.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

Blocklist APIs
DeleteBlackList

Last updated：2023-06-12 16:22:43

1. API Description

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

This API is used to unblocklist email addresses. If you confirm that a blocklisted recipient address is valid and active, you can remove it from Tencent Cloud's address blocklist database.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteBlackList.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
EmailAddressList.N	Yes	Array of String	List of email addresses to be unblocklisted. Enter at least one address.

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 Unblocklisting a recipient

Input Example

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

{
"EmailAddressList": [
"23423434@qq.com"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```

5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

ListBlackEmailAddress

Last updated：2023-06-12 16:22:43

1. API Description

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

The API is used to get blocklisted addresses. In the case of a hard bounce, Tencent Cloud will blocklist the recipient address and do not allow any user to send emails to this address. If you confirm that this is a misjudgment, you can remove it from the blocklist.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ListBlackEmailAddress.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
StartDate	Yes	Date	Start date in the format of `YYYY-MM-DD`
EndDate	Yes	Date	End date in the format of `YYYY-MM-DD`
Limit	Yes	Integer	Common parameter. It must be used with `Offset` .
Offset	Yes	Integer	Common parameter. It must be used with `Limit` . Maximum value

			of `Limit` : `100` .
EmailAddress	No	String	You can specify an email address to query.
TaskID	No	String	You can specify a task ID to query.

3. Output Parameters

Parameter Name	Type	Description
BlackList	Array of BlackEmailAddress	List of blocklisted addresses.
TotalCount	Integer	Total number of blocklisted addresses.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting blocklisted email addresses

Input Example

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

{
"StartDate": "2020-09-22",
"EndDate": "2020-09-22",
"Limit": 10,
"Offset": 0
}
```

Output Example

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

```
"BlackList": [
{
"BounceTime": "2020-09-22 00:00:00",
"EmailAddress": "432843@qq.com"
},
{
"BounceTime": "2020-10-22 12:10:00",
"EmailAddress": "43fdaf2843@gmail.com"
}
],
"TotalCount": 2,
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description

FailedOperation.InvalidLimit	Reached the query limit (100).
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.WrongDate	Incorrect search date. Make sure the date and its format are valid.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.

Sending Status Query APIs
GetSendEmailStatus

Last updated：2023-06-12 16:22:41

1. API Description

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

This API is used to get email sending status. Only data within 30 days can be queried.
Default API request rate limit: 1 request/sec.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GetSendEmailStatus.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
RequestDate	Yes	Date	Date sent. This parameter is required. You can only query the sending status for a single date at a time.
Offset	Yes	Integer	Offset. Default value: `0` .
Limit	Yes	Integer	Maximum number of pulled entries. Maximum value: `100` .

MessageId	No	String	The `MessageId` field returned by the `SendMail` API.
ToEmailAddress	No	String	Recipient email address.

3. Output Parameters

Parameter Name	Type	Description
EmailStatusList	Array of SendEmailStatus	Status of sent emails
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying the sending result by `MessageId`

Input Example

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

{
"Limit": 10,
"Offset": 0,
"RequestDate": "2020-09-22",
"MessageId": "qcloudses-30-4123414323-date-20210101094334-syNARhMTbKI1"
}
```

Output Example

```
{
"Response": {
"EmailStatusList": [
{
"UserOpened": true,
```

```
"UserUnsubscribed": true,
"RequestTime": 1609831698,
"UserComplainted": true,
"ToEmailAddress": "example@cloud.com",
"FromEmailAddress": "noreply@tencent.com",
"UserClicked": true,
"DeliverTime": 1609831698,
"DeliverMessage": "",
"MessageId": "qcloudses-30-4123414323-date-20210101094334-syNARhMTbKI1",
"SendStatus": 0,
"DeliverStatus": 0
}
],
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```


Example2 Querying the sending result by recipient

Input Example

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

{
"Limit": 10,
"Offset": 0,
"RequestDate": "2020-09-22",
"ToEmailAddress": "example@cloud.com"
}
```

Output Example


```
{
"Response": {
"EmailStatusList": [
{
"UserOpened": true,
"UserUnsubscribed": true,
"RequestTime": 1609831698,
"UserComplainted": true,
"ToEmailAddress": "example@cloud.com",
```

```
"FromEmailAddress": "noreply@tencent.com",
"UserClicked": true,
"DeliverTime": 1609831698,
"DeliverMessage": "",
"MessageId": "qcloudses-30-4123414323-date-20210101094334-syNARhMTbKI1",
"SendStatus": 0,
"DeliverStatus": 0
}
],
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.EmailAddrInBlacklist	The email address is in the blocklist.

FailedOperation.EmailContentToolarge	The email is too large. Remove some content.
FailedOperation.ExceedSendLimit	The number of emails exceeds the daily sending limit.
FailedOperation.FrequencyLimit	You have sent too many emails to the same address in a short period.
FailedOperation.HighRejectionRate	The email has been blocked temporarily due to high rejection rate.
FailedOperation.IncorrectEmail	Incorrect email address.
FailedOperation.InsufficientBalance	Insufficient balance or account in arrears.
FailedOperation.InsufficientQuota	Insufficient emails in plans.
FailedOperation.InvalidLimit	Reached the query limit (100).
FailedOperation.InvalidTemplateID	Invalid template ID or unavailable template.
FailedOperation.NotAuthenticatedSender	Unable to send because the sender is not verified.
FailedOperation.NotSupportDate	You cannot query email records for this date. Only data within 90 days can be queried.
FailedOperation.ProtocolCheckErr	Incorrect protocol. Make sure the protocol is correct.
FailedOperation.TemporaryBlocked	The email has been blocked temporarily due to violations of rules.
FailedOperation.TooManyRecipients	Too many recipients. Set a maximum of 50 recipients at a time.
FailedOperation.UnsupportMailType	Unsupported email type.
FailedOperation.WithOutPermission	You can only send emails by using a template.
FailedOperation.WrongContentJson	The format of the `TemplateData` field is incorrect. Make sure it is in JSON format.
InternalError	Internal error.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidParameterValue.EmailAddressIsNULL	The recipient or sender address is empty. Please check.
InvalidParameterValue.EmailContentIsWrong	Incorrect email content. Make sure TEXT/HTML base64 is correct.

InvalidParameterValue.WrongDate	Incorrect search date. Make sure the date and its format are valid.
LimitExceeded	The quota limit is exceeded.
MissingParameter	Missing parameter.
OperationDenied	Operation denied.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
ResourceInsufficient	Insufficient resources.
ResourceUnavailable	The resource is unavailable.
UnknownParameter	Unknown parameter error.
UnsupportedOperation	Unsupported operation.

Batch Task APIs
BatchSendEmail

Last updated：2023-06-12 16:22:45

1. API Description

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

This API is used to send a TEXT or HTML email to multiple recipients at a time for marketing or notification purposes. By default, you can send emails using a template only. You need to create a recipient group with email addresses first and then send emails by group ID. SES supports scheduled and recurring email sending tasks. You need to pass in `TimedParam` for a scheduled task and `CycleParam` for a recurring one.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: BatchSendEmail.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
FromEmailAddress	Yes	String	Sender address. Enter a sender address such as `noreply@mail.qcloud.com` . To display the sender name, enter the address in the following format:

			sender <email address>. For example: Tencent Cloud team <noreply@mail.qcloud.com>
ReceiverId	Yes	Integer	Recipient group ID
Subject	Yes	String	Email subject
TaskType	Yes	Integer	Task type. `1` : immediate; `2` : scheduled; `3` : recurring
ReplyToAddresses	No	String	Reply-to address. You can enter a valid personal email address that can receive emails. If this parameter is left empty, reply emails will fail to be sent.
Template	No	Template	Template when emails are sent using a template
Simple	No	Simple	Disused
Attachments.N	No	Array of Attachment	Attachment parameters to set when you need to send attachments. This parameter is currently unavailable.
CycleParam	No	CycleEmailParam	Parameter required for a recurring sending task
TimedParam	No	TimedEmailParam	Parameter required for a scheduled sending task
Unsubscribe	No	String	Unsubscribe link option. `0` : Do not add unsubscribe link; `1` : English `2` : Simplified Chinese; `3` : Traditional Chinese; `4` : Spanish; `5` : French; `6` : German; `7` : Japanese; `8` : Korean; `9` : Arabic; `10` : Thai
ADLocation	No	Integer	Whether to add an ad tag. `0` : Add no tag; `1` : Add before the subject; `2` : Add after the subject.

3. Output Parameters

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

4. Example

Example1 Adding a batch sending task

Input Example

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

{
"Attachments": [
{
"Content": "Attachment content",
"FileName": "Filename"
}
],
"TimedParam": {
"BeginTime": "2021-09-10 11:10:11"
},
"FromEmailAddress": "abc@bbc.com",
"ReplyToAddresses": "abc@bbc.com",
"Simple": {
"Text": "text",
"Html": "html"
},
"ReceiverId": 123,
"Template": {
"TemplateData": "{\"name\":\"123\"}",
"TemplateID": 1
},
"CycleParam": {
"IntervalTime": 1,
"BeginTime": "2021-09-10 11:10:11"
},
"Subject": "Email subject",
"TaskType": 1,
"ADLocation": 0
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"TaskId": 123
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.EmailContentToolarge	The email is too large. Remove some content.
InternalError	Internal error.
InvalidParameterValue.BeginTimeBeforeNow	The start time cannot be earlier than the current time.
InvalidParameterValue.EmailContentIsWrong	Incorrect email content. Make sure TEXT/HTML base64 is correct.

InvalidParameterValue.SubjectLengthError	The email subject must contain 1 to 100 characters.
InvalidParameterValue.TemplateDataError	Template parameters must be in JSON format.
InvalidParameterValue.TemplateNotMatchData	Template variables do not match recipient list parameters.
MissingParameter.CycleParamNecessary	For a recurring sending task, you must select the start time and recurrence.
MissingParameter.SendParamNecessary	Sender address, recipient group, and email template are required.
MissingParameter.TimedParamNecessary	For a scheduled sending task, you must select the start time.
OperationDenied.ReceiverNotExist	The recipient group does not exist.
OperationDenied.ReceiverStatusError	The recipient group is empty or hasn't been completely uploaded.
OperationDenied.SendAddressStatusError	The sender address does not exist or hasn't been approved.
OperationDenied.TemplateStatusError	The email template does not exist or hasn't been approved.

ListSendTasks

Last updated：2023-06-12 16:22:44

1. API Description

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

This API is used to query batch email sending tasks (including immediate, scheduled, and recurring tasks) by page. You can query task data including the number of emails requested to be sent, the number of sent emails, the number of cached emails, and task status.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ListSendTasks.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
Offset	Yes	Integer	Offset, starting from 0. The value is an integer. `0` means to skip 0 entries.
Limit	Yes	Integer	Number of records to query. The value is an integer not exceeding 100.
Status	No	Integer	Task status. `1` : to start; `5` : sending; `6` : sending suspended today; `7` : sending error; `10` : sent. To query tasks in all states, do not pass in this parameter.

ReceiverId	No	Integer	Recipient group ID
TaskType	No	Integer	Task type. `1` : immediate; `2` : scheduled; `3` : recurring. To query tasks of all types, do not pass in this parameter.

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Total number
Data	Array of SendTaskData	Data record
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying tasks

Input Example

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

{
"Status": 1,
"Offset": 1,
"Limit": 1,
"ReceiverId": 123,
"TaskType": 1
}
```

Output Example

```
{
"Response": {
"TotalCount": 1,
"Data": [
{
"CacheCount": 1,
"UpdateTime": "2021-09-09 10:10:10",
"SendCount": 1,
"TimedParam": {
"BeginTime": "2021-09-09 10:10:10"
},
"FromEmailAddress": "abc@cd.com",
"TaskStatus": 1,
"ReceiverId": 1,
"RequestCount": 1,
"TaskId": "123",
"TaskType": 1,
"Template": {
"TemplateData": "{\"name\":\"name\"}",
"TemplateID": 1
},
"CycleParam": {
"IntervalTime": 1,
"BeginTime": "2021-09-09 10:10:10",
"TermCycle": 1
},
"CreateTime": "2021-09-09 10:10:10",
"Subject": "Email subject",
"ErrMsg": "",
"ReceiversName": "Name"
}
],
"RequestId": "xx"
}
}
```


5. Developer Resources

SDK

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

- Tencent Cloud SDK 3.0 for Python

- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.InvalidLimit	Reached the query limit (100).

ListReceivers

Last updated：2023-06-12 16:22:44

1. API Description

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

This API is used to query recipient groups. It supports pagination, fuzzy query, and query by status.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: ListReceivers.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
Offset	Yes	Integer	Offset, starting from 0. The value is an integer.
Limit	Yes	Integer	Number of records to query. The value is an integer not exceeding 100.
Status	No	Integer	Group status (`1` : to be uploaded; `2` uploading; `3` uploaded). To query groups in all states, do not pass in this parameter.
KeyWord	No	String	Group name keyword for fuzzy query

3. Output Parameters

Parameter Name	Type	Description
TotalCount	Integer	Total number
Data	Array of ReceiverData	Data record
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Querying recipient groups

Input Example

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

{
"Status": 1,
"Offset": 1,
"Limit": 1,
"KeyWord": "xx"
}
```

Output Example

```
{
"Response": {
"TotalCount": 1,
"Data": [
{
"Count": 1,
"ReceiversStatus": 1,
"ReceiverId": 123,
"ReceiversName": "name",
```

```
"CreateTime": "2021-09-28 16:40:35",
"Desc": "Description"
}
],
"RequestId": "xx"
}
}
```


5. Developer Resources

SDK

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

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation.InvalidLimit	Reached the query limit (100).
InternalError	Internal error.

CreateReceiverDetail

Last updated：2023-06-12 16:22:44

1. API Description

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

This API is used to add recipient email addresses (up to 20,000 at a time) to a recipient group. This will be processed asynchronously. If the data volume is large, it may take some time to upload. You can check the recipient group for the upload status and upload quantity. This API has basically the same feature as that of `CreateReceiverDetailWithData` except that it doesn't support uploading template parameters for email sending. You need to first call the `CreateReceiver` API to create a recipient group, then call this API to pass in recipient addresses, and finally call the `BatchSendEmail` API to batch send emails. This API supports adding more recipient addresses during upload but not address deduplication, so you need to make sure that the recipient addresses are not duplicate by yourself. This API can request up to 20,000 recipient addresses at a time, but the recipient group can contain up to 50,000 addresses currently.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateReceiverDetail.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
ReceiverId	Yes	Integer	Recipient group ID

Emails.N	Yes	Array of String	Email address

3. Output Parameters

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

4. Example

Example1 Creating a recipient

Input Example

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

{
"ReceiverId": 123,
"Emails": [
"123",
"456@bc.com"
]
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```

5. Developer Resources

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- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
FailedOperation	Operation failed.
FailedOperation.ServiceNotAvailable	The request has not taken effect. Try again.
InternalError	Internal error.
InvalidParameterValue.TemplateDataError	Template parameters must be in JSON format.
InvalidParameterValue.TemplateDataInconsistent	The name of a template parameter variable is not the same as the original name.
LimitExceeded.ReceiverDetailCountLimit	The number of recipient addresses in the recipient group exceeds the limit.
LimitExceeded.ReceiverDetailRequestLimit	The number of recipient addresses requested exceeds the limit.
MissingParameter.EmailsNecessary	The recipient email address is required.

MissingParameter.ReceiverIdNecessary	The recipient group ID is required.
OperationDenied.ReceiverIsOperating	The recipient group is being uploaded. Try again later.
OperationDenied.ReceiverNotExist	The recipient group does not exist.

CreateReceiver

Last updated：2023-06-12 16:22:44

1. API Description

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

This API is used to create a recipient group, which is the list of target email addresses for batch sending emails. After creating a group, you need to upload recipient email addresses. Then, you can create a sending task and select the group to batch send emails.

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

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: CreateReceiver.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
ReceiversName	Yes	String	Recipient group name
Desc	No	String	Recipient group description

3. Output Parameters

Parameter Name	Type	Description
ReceiverId	Integer	Recipient group ID, by which recipient email addresses are uploaded
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating a recipient group

Input Example

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

{
"ReceiversName": "Recipient group name",
"Desc": "Recipient group description"
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72",
"ReceiverId": 123
}
}
```

5. Developer Resources

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Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
InvalidParameterValue.ReceiverDescIllegal	Invalid recipient group description. The description cannot contain special characters and must contain 1 to 300 characters.
InvalidParameterValue.ReceiverNameIllegal	Invalid recipient group name. Check the name and its size.
InvalidParameterValue.RepeatReceiverName	Duplicate recipient group name.
LimitExceeded.ExceedReceiverLimit	The number of recipient groups exceeded the limit.

DeleteReceiver

Last updated：2023-06-12 16:22:44

1. API Description

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

This API is used to delete a recipient group and all recipient email addresses in the group based on the recipient group ID.

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

We recommend you to use API Explorer

Try it

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

2. Input Parameters

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: DeleteReceiver.
Version	Yes	String	Common Params. The value used for this API: 2020-10-02.
Region	Yes	String	Common Params. For more information, please see the list of regions supported by the product.
ReceiverId	Yes	Integer	Recipient group ID, which is returned when a recipient group is created.

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 recipient group

Input Example

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

{
"ReceiverId": 123
}
```

Output Example

```
{
"Response": {
"RequestId": "8979fc1e-9564-4fc9-bf7d-2958ce679b72"
}
}
```

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- Tencent Cloud SDK 3.0 for .NET

- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

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

Error Code	Description
InternalError	Internal error.
MissingParameter.ReceiverIdNecessary	The recipient group ID is required.
OperationDenied.ReceiverNotExist	The recipient group does not exist.

Data Types

Last updated：2022-11-14 15:03:21

Attachment

Attachment structure, including attachment name and Base64-encoded attachment content

Used by actions: BatchSendEmail, SendEmail.

Name	Type	Required	Description
FileName	String	Yes	Attachment name, which cannot exceed 255 characters. Some attachment types are not supported. For details, see Attachment Types.
Content	String	Yes	Base64-encoded attachment content. You can send attachments of up to 4 MB in the total size. Note: The TencentCloud API supports a request packet of up to 8 MB in size, and the size of the attachment content will increase by 1.5 times after Base64 encoding. Therefore, you need to keep the total size of all attachments below 4 MB. If the entire request exceeds 8 MB, the API will return an error.

BlackEmailAddress

Email address blocklist structure, including the blocklisted address and the time when it is blocklisted.

Used by actions: ListBlackEmailAddress.

Name	Type	Description
BounceTime	Timestamp	Time when the email address is blocklisted.
EmailAddress	String	Blocklisted email address.

CycleEmailParam

Parameter required to create a recurring sending task

Used by actions: BatchSendEmail, ListSendTasks.

Name	Type	Required	Description

BeginTime	String	Yes	Start time of the task
IntervalTime	Integer	Yes	Task recurrence in hours
TermCycle	Integer	No	Specifies whether to end the cycle. This parameter is used to update the task. Valid values: 0: No; 1: Yes.

DNSAttributes

Describes the domain name, record type, expected value, and currently configured value of DNS records.

Used by actions: CreateEmailIdentity, GetEmailIdentity, UpdateEmailIdentity.

Name	Type	Description
Type	String	Record types: CNAME, A, TXT, and MX.
SendDomain	String	Domain name.
ExpectedValue	String	Expected value.
CurrentValue	String	Currently configured value.
Status	Boolean	Approved or not. The default value is `false`.

EmailIdentity

Sender domain verification list structure

Used by actions: ListEmailIdentities.

Name	Type	Description
IdentityName	String	Sender domain.
IdentityType	String	Verification type. The value is fixed to `DOMAIN`.
SendingEnabled	Boolean	Verification passed or not.
CurrentReputationLevel	Integer	Current reputation level
DailyQuota	Integer	Maximum number of messages sent per day

EmailSender

Describes sender information.

Used by actions: ListEmailAddress.

Name	Type	Description
EmailAddress	String	Sender address.
EmailSenderName	String	Sender name. Note: this field may return `null` , indicating that no valid values can be obtained.
CreatedTimestamp	Integer	Creation time. Note: this field may return `null` , indicating that no valid values can be obtained.

ReceiverData

Recipient group data type

Used by actions: ListReceivers.

Name	Type	Description
ReceiverId	Integer	Recipient group ID
ReceiversName	String	Recipient group name
Count	Integer	Total number of recipient email addresses
Desc	String	Recipient group description Note: This field may return `null` , indicating that no valid value can be found.
ReceiversStatus	Integer	Group status (`1` : to be uploaded; `2` uploading; `3` uploaded) Note: This field may return `null` , indicating that no valid value can be found.
CreateTime	String	Creation time, such as 2021-09-28 16:40:35

SendEmailStatus

Describes the email sending status

Used by actions: GetSendEmailStatus.

Name	Type	Description
MessageId	String	The `MessageId` field returned by the `SendEmail` API
ToEmailAddress	String	Recipient email address
FromEmailAddress	String	Sender email address
SendStatus	Integer	Tencent Cloud processing status 0: Successful. 1001: Internal system exception. 1002: Internal system exception. 1003: Internal system exception. 1003: Internal system exception. 1004: Email sending timed out. 1005: Internal system exception. 1006: You have sent too many emails to the same address in a short period. 1007: The email address is in the blocklist. 1008: The sender domain is rejected by the recipient. 1009: Internal system exception. 1010: The daily email sending limit is exceeded. 1011: You have no permission to send custom content. Use a template. 1013: The sender domain is unsubscribed from by the recipient. 2001: No results were found. 3007: The template ID is invalid or the template is unavailable. 3008: The sender domain is temporarily blocked by the recipient domain. 3009: You have no permission to use this template. 3010: The format of the `TemplateData` field is incorrect. 3014: The email cannot be sent because the sender domain is not verified. 3020: The recipient email address is in the blocklist. 3024: Failed to precheck the email address format. 3030: Email sending is restricted temporarily due to a high bounce rate. 3033: The account has insufficient balance or overdue payment.
DeliverStatus	Integer	Recipient processing status 0: Tencent Cloud has accepted the request and added it to the send queue. 1: The email is delivered successfully. `DeliverTime` indicates the time when the email is delivered successfully. 2: The email is discarded. `DeliverMessage` indicates the reason for discarding. 3: The recipient's ESP rejects the email, probably because the email address does not exist or due to other reasons. 8: The email is delayed by the ESP. `DeliverMessage` indicates the reason for delay.

DeliverMessage	String	Description of the recipient processing status
RequestTime	Integer	Timestamp when the request arrives at Tencent Cloud
DeliverTime	Integer	Timestamp when Tencent Cloud delivers the email
UserOpened	Boolean	Whether the recipient has opened the email
UserClicked	Boolean	Whether the recipient has clicked the links in the email
UserUnsubscribed	Boolean	Whether the recipient has unsubscribed from the email sent by the sender
UserComplainted	Boolean	Whether the recipient has reported the sender

SendTaskData

Email sending task data

Used by actions: ListSendTasks.

Name	Type	Description
TaskId	Integer	Task ID
FromEmailAddress	String	Sender address
ReceiverId	Integer	Recipient group ID
TaskStatus	Integer	Task status. `1` : to start; `5` : sending; `6` : sending suspended today; `7` : sending error; `10` : sent
TaskType	Integer	Task type. `1` : immediate; `2` : scheduled; `3` : recurring
RequestCount	Integer	Number of emails requested to be sent
SendCount	Integer	Number of emails sent
CacheCount	Integer	Number of emails cached
CreateTime	String	Task creation time
UpdateTime	String	Task update time
Subject	String	Email subject
Template	Template	Template and template data

		Note: This field may return `null`, indicating that no valid value can be found.
CycleParam	CycleEmailParam	Parameters of a recurring task Note: This field may return `null`, indicating that no valid value can be found.
TimedParam	TimedEmailParam	Parameters of a scheduled task Note: This field may return `null`, indicating that no valid value can be found.
ErrMsg	String	Task exception information Note: This field may return `null`, indicating that no valid value can be found.
ReceiversName	String	Recipient group name

Simple

Email content, which can be plain text (TEXT), pure code (HTML), or a combination of TEXT and HTML (recommended).

Used by actions: BatchSendEmail, SendEmail.

Name	Type	Required	Description
Html	String	No	HTML code after base64 encoding. To ensure correct display, this parameter should include all code information and cannot contain external CSS.
Text	String	No	Plain text content after base64 encoding. If HTML is not involved, the plain text will be displayed in the email. Otherwise, this parameter represents the plain text style of the email.

Template

Template information, including template ID, template variable parameters, etc.

Used by actions: BatchSendEmail, ListSendTasks, SendEmail.

Name	Type	Required	Description
TemplateID	Integer	Yes	Template ID. If you don't have any template, please create one.

TemplateData	String	Yes	Variable parameters in the template. Please use `json.dump` to format the JSON object into a string type. The object is a set of key-value pairs. Each key denotes a variable, which is represented by {{key}}. The key will be replaced with the corresponding value (represented by {{value}}) when sending the email. Note: The parameter value cannot be data of a complex type such as HTML. Example: {"name":"xxx","age":"xx"}

TemplateContent

Template content, which must include at least one of TEXT and HTML. A combination of TEXT and HTML is recommended.

Used by actions: CreateEmailTemplate, GetEmailTemplate, UpdateEmailTemplate.

Name	Type	Required	Description
Html	String	No	HTML code after base64 encoding.
Text	String	No	Text content after base64 encoding.

TemplatesMetadata

Template list structure.

Used by actions: ListEmailTemplates.

Name	Type	Description
CreatedTimestamp	Integer	Creation time.
TemplateName	String	Template name.
TemplateStatus	Integer	Template status. 1: under review; 0: approved; 2: rejected; other values: unavailable.
TemplateID	Integer	Template ID.
ReviewReason	String	Review reply

TimedEmailParam

Time parameter required to create a scheduled sending task, such as the start time

Used by actions: BatchSendEmail, ListSendTasks.

Name	Type	Required	Description
BeginTime	String	Yes	Start time of a scheduled sending task

Volume

Statistics structure.

Used by actions: GetStatisticsReport.

Name	Type	Description
SendDate	Date	Date Note: this field may return `null`, indicating that no valid values can be obtained.
RequestCount	Integer	Number of email requests.
AcceptedCount	Integer	Number of email requests accepted by Tencent Cloud.
DeliveredCount	Integer	Number of delivered emails.
OpenedCount	Integer	Number of users (deduplicated) who opened emails.
ClickedCount	Integer	Number of recipients who clicked on links in emails.
BounceCount	Integer	Number of bounced emails.
UnsubscribeCount	Integer	Number of users who canceled subscriptions. Note: this field may return `null`, indicating that no valid values can be obtained.

Error Codes

Last updated：2023-01-09 14:52:25

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 si
gnature is correct."
},
"RequestId": "ed93f3cb-f35e-473f-b9f3-0d451b8b79c6"
}
}
```

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

Error Code List

Common Error Codes

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

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

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

Service Error Codes

Error Code	Description
FailedOperation.AttachContentToolarge	The attachments are too large. Make sure they do not exceed the size limit for a single attachment and the overall limit for all attachments.
FailedOperation.EmailAddrInBlacklist	The email address is in the blocklist.
FailedOperation.EmailContentToolarge	The email is too large. Remove some content.
FailedOperation.ExceedSendLimit	The number of emails exceeds the daily sending limit.
FailedOperation.ExceedTemplateLimit	The number of templates exceeds the upper limit.
FailedOperation.FrequencyLimit	You have sent too many emails to the same address in a short period.
FailedOperation.HighRejectionRate	The email has been blocked temporarily due to high rejection rate.

FailedOperation.IncorrectEmail	Incorrect email address.
FailedOperation.IncorrectSender	Incorrect sender format. Follow the sample in this document.
FailedOperation.InsufficientBalance	Insufficient balance or account in arrears.
FailedOperation.InsufficientQuota	Insufficient emails in plans.
FailedOperation.InvalidAttachName	Unsupported attachment name. Make sure it does not contain special characters. For details, see the attachment description.
FailedOperation.InvalidLimit	Reached the query limit (100).
FailedOperation.InvalidTemplateID	Invalid template ID or unavailable template.
FailedOperation.MissingEmailContent	Missing email content (`TemplateData` and `Simple` cannot be both empty).
FailedOperation.NoAttachPermission	No permission to send an email with attachments.
FailedOperation.NotAuthenticatedSender	Unable to send because the sender is not verified.
FailedOperation.NotSupportDate	You cannot query email records for this date. Only data within 90 days can be queried.
FailedOperation.ProtocolCheckErr	Incorrect protocol. Make sure the protocol is correct.
FailedOperation.ReceiverHasUnsubscribed	The recipient has unsubscribed.
FailedOperation.RejectedByRecipients	The message was rejected by the recipient.
FailedOperation.SendEmailErr	Email sending error. Please submit a ticket to us for troubleshooting.
FailedOperation.ServiceNotAvailable	The request has not taken effect. Try again.
FailedOperation.TemplateContentToolarge	The template size is too large. Reduce the size.
FailedOperation.TemporaryBlocked	The email has been blocked temporarily due to violations of rules.
FailedOperation.TooManyAttachments	Too many attachments. A single email supports up to 10 attachments.
FailedOperation.TooManyRecipients	Too many recipients. Set a maximum of 50 recipients at a time.

FailedOperation.UnsupportMailType	Unsupported email type.
FailedOperation.WithOutPermission	You can only send emails by using a template.
FailedOperation.WrongContentJson	The format of the `TemplateData` field is incorrect. Make sure it is in JSON format.
InvalidParameterValue.AttachContentIsWrong	Incorrect attachment content. Make sure the base64 content is correct.
InvalidParameterValue.BeginTimeBeforeNow	The start time cannot be earlier than the current time.
InvalidParameterValue.CreatedByOther	This sender domain has been created by another Tencent Cloud account.
InvalidParameterValue.EmailAddressIsNULL	The recipient or sender address is empty. Please check.
InvalidParameterValue.EmailContentIsWrong	Incorrect email content. Make sure TEXT/HTML base64 is correct.
InvalidParameterValue.IllegalEmailAddress	Invalid email address. Make sure the address format is correct.
InvalidParameterValue.IllegalSenderName	The sender alias is incorrect.
InvalidParameterValue.InvalidEmailIdentity	Invalid domain value.
InvalidParameterValue.InvalidSmtpPassWord	The password can contain 10-20 characters and must contain at least 2 unique digits, lowercase letters, and uppercase letters.
InvalidParameterValue.NoSuchSender	You don’t have the sender address. Check if it exists.
InvalidParameterValue.NotExistDomain	This sender domain does not exist. Create it first.
InvalidParameterValue.ReceiverDescIllegal	Invalid recipient group description. The description cannot contain special characters and must contain 1 to 300 characters.
InvalidParameterValue.ReceiverEmailInvalid	The recipient address is incorrect.
InvalidParameterValue.ReceiverNameIllegal	Invalid recipient group name. Check the name and its size.
InvalidParameterValue.RepeatCreation	This sender domain already exists. Do not create it again.
InvalidParameterValue.RepeatEmailAddress	This email address already exists. Do not create it again.
InvalidParameterValue.RepeatReceiverName	Duplicate recipient group name.

InvalidParameterValue.SubjectLengthError	The email subject must contain 1 to 100 characters.
InvalidParameterValue.TemplateContentIsNULL	The template resource is empty.
InvalidParameterValue.TemplateContentIsWrong	Incorrect template content. Make sure the Base64 content is correct.
InvalidParameterValue.TemplateDataError	Template parameters must be in JSON format.
InvalidParameterValue.TemplateDataInconsistent	The name of a template parameter variable is not the same as the original name.
InvalidParameterValue.TemplateNameIllegal	Invalid template name. Make sure the characters and length of the template name are valid.
InvalidParameterValue.TemplateNameIsNULL	The template name cannot be empty.
InvalidParameterValue.TemplateNotExist	The template does not exist. Please create a template.
InvalidParameterValue.TemplateNotMatchData	Template variables do not match recipient list parameters.
InvalidParameterValue.WrongDate	Incorrect search date. Make sure the date and its format are valid.
LimitExceeded.ExceedReceiverLimit	The number of recipient groups exceeded the limit.
LimitExceeded.ReceiverDetailCountLimit	The number of recipient addresses in the recipient group exceeds the limit.
LimitExceeded.ReceiverDetailRequestLimit	The number of recipient addresses requested exceeds the limit.
MissingParameter.CycleParamNecessary	For a recurring sending task, you must select the start time and recurrence.
MissingParameter.EmailsNecessary	The recipient email address is required.
MissingParameter.ReceiverIdNecessary	The recipient group ID is required.
MissingParameter.SendParamNecessary	Sender address, recipient group, and email template are required.
MissingParameter.TimedParamNecessary	For a scheduled sending task, you must select the start time.
OperationDenied	Operation denied.
OperationDenied.DomainNotVerified	Domain verification failed. Check whether the domain has passed verification.

OperationDenied.ExceedDomainLimit	The number of sender domains exceeds the upper limit.
OperationDenied.ExceedSenderLimit	The number of sender addresses exceeds the upper limit.
OperationDenied.ReceiverIsOperating	The recipient group is being uploaded. Try again later.
OperationDenied.ReceiverNotExist	The recipient group does not exist.
OperationDenied.ReceiverStatusError	The recipient group is empty or hasn't been completely uploaded.
OperationDenied.RepeatPassWord	The password cannot be the same as the last set password.
OperationDenied.SendAddressStatusError	The sender address does not exist or hasn't been approved.
OperationDenied.TemplateStatusError	The email template does not exist or hasn't been approved.