

Face Recognition API Documentation Product Documentation



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Last updated : 2023-02-02 14:52:43

Release 5

Release time: 2023-02-02 14:50:01

Release updates:

Improvement to existing documentation.

New APIs:

- [DetectLiveFaceAccurate](#)

Deleted APIs:

- [ModifyPersonBaseInfo](#)

Release 4

Release time: 2022-01-28 15:39:50

Release updates:

Improvement to existing documentation.

New APIs:

- [DetectFaceAttributes](#)

New data structures:

- [AttributeItem](#)
- [Eye](#)
- [Eyebrow](#)
- [FaceDetailAttributesInfo](#)
- [FaceDetailInfo](#)
- [Hair](#)
- [Hat](#)

- [HeadPose](#)
- [Mouth](#)

Release 3

Release time: 2021-01-18 14:21:05

Release updates:

Improvement to existing documentation.

Deleted APIs:

- AnalyzeDenseLandmarks
- DetectFaceAttributes
- DetectLiveFaceAccurate

Modified APIs:

- [VerifyPerson](#)
 - **Modified input parameters:** **PersonId**

Deleted data structures:

- AttributeItem
- DenseFaceShape
- Eye
- Eyebrow
- FaceDetailAttributesInfo
- FaceDetailInfo
- Hair
- Hat
- HeadPose
- Mouth

Release 2

Release time: 2020-10-16 18:26:37

Release updates:

Improvement to existing documentation.

New APIs:

- [DetectLiveFaceAccurate](#)

Existing Release

Release time: 2020-09-03 20:45:30

Existing APIs/data structures are as follows:

Improvement to existing documentation.

Existing APIs:

- AnalyzeDenseLandmarks
- [AnalyzeFace](#)
- [CompareFace](#)
- [CopyPerson](#)
- [CreateFace](#)
- [CreateGroup](#)
- [CreatePerson](#)
- [DeleteFace](#)
- [DeleteGroup](#)
- [DeletePerson](#)
- [DeletePersonFromGroup](#)
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Existing data structures:

- [AttributeItem](#)
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- [DenseFaceShape](#)
- [Eye](#)
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- [FaceDetailInfo](#)
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- [FaceRect](#)
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- [GroupInfo](#)
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- [PersonExDescriptionInfo](#)
- [PersonGroupInfo](#)
- [PersonInfo](#)
- [Point](#)
- [Result](#)
- [ResultsReturnsByGroup](#)

Introduction

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Accurate recognition

Face Recognition has industry-leading accuracy and is record-breaking in international competitions. It achieved 99.80% accuracy in LFW 2017 and ranked 1st in terms of first-attempt recognition rate (83.29%) in the MegaFace million-scale dataset.

High stability

Face Recognition was tested by Tencent products' massive user base and complex use cases and is proven to be highly reliable and robust with a 99.9% availability rate.

Leading algorithms

Based on the 3rd generation Tencent YouTu Grandmother Model, Face Recognition was optimized by various training methods such as metric learning, transfer learning, and multi-task learning. Its customized fine-tuning or distilling models can meet performance and latency requirements in different use cases.

Ease of use

Face Recognition offers multiple APIs and offline SDKs which enable fast applications and devices integration and satisfy cloud and device demands.

Diverse use cases

Face Recognition is used in a wide variety of use cases such as face recognition access control and attendance, event sign-in, face recognition payment, and face recognition login.

Real-time response

Face Recognition features high concurrence, high throughput, and low latency. It can search and process millions of faces in hundreds of milliseconds, meeting your needs in real time.

API Category

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Face Detection and Analysis APIs

API Name	Feature
DetectFace	Detects and analyzes face
DetectFaceAttributes	Detects face and analyzes attributes

Facial Feature Localization APIs

API Name	Feature
AnalyzeFace	Performs facial feature localization

Face Comparison APIs

API Name	Feature
CompareFace	Compares faces

Group Management APIs

API Name	Feature
CreateGroup	Creates group
DeleteGroup	Deletes group
GetGroupInfo	Gets group information
GetGroupList	Gets group list
ModifyGroup	Modifies group

CreatePerson	Creates person
DeletePerson	Deletes person
DeletePersonFromGroup	Deletes person from group
GetPersonGroupInfo	Gets the group information of person
GetPersonBaseInfo	Gets the basic information of person
GetPersonList	Gets person list
GetPersonListNum	Gets person list length
ModifyPersonGroupInfo	Modifies person description
CopyPerson	Copies person
CreateFace	Adds face
DeleteFace	Deletes face

Face Search APIs

API Name	Feature
SearchFaces	Searches for face
SearchFacesReturnsByGroup	Searches for face with results returned by group
SearchPersons	Searches for person
SearchPersonsReturnsByGroup	Searches for person with results returned by group

Face Verification APIs

API Name	Feature
VerifyFace	Verifies face
VerifyPerson	Verifies person

Image-Based Liveness Detection (High Precision) APIs

API Name	Feature
DetectLiveFaceAccurate	Detects the liveness of faces in images (high precision)

Image-based Liveness Detection APIs

API Name	Feature
DetectLiveFace	Detects liveness based on image

Making API Requests

Request Structure

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1. Service Address

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

Note: For latency-sensitive businesses, we recommend that you specify the region in the domain name.

Tencent Cloud currently supports the following regions:

Hosted region	Domain name
Local access region (recommended, only for non-financial availability zones)	<code>iai.tencentcloudapi.com</code>
South China (Guangzhou)	<code>iai.ap-guangzhou.tencentcloudapi.com</code>
East China (Shanghai)	<code>iai.ap-shanghai.tencentcloudapi.com</code>
North China (Beijing)	<code>iai.ap-beijing.tencentcloudapi.com</code>
Southwest China (Chengdu)	<code>iai.ap-chengdu.tencentcloudapi.com</code>
Southwest China (Chongqing)	<code>iai.ap-chongqing.tencentcloudapi.com</code>
Hong Kong, Macao, Taiwan (Hong Kong, China)	<code>iai.ap-hongkong.tencentcloudapi.com</code>
Southeast Asia (Singapore)	<code>iai.ap-singapore.tencentcloudapi.com</code>
Southeast Asia (Bangkok)	<code>iai.ap-bangkok.tencentcloudapi.com</code>

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

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

Common parameters for Signature Algorithm v3

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

Parameter Name	Type	Required	Description
X-TC-Action	String	Yes	The name of the API for the desired operation. For the specific value, see description of common parameter <code>Action</code> in the input parameters in related API documentation. For example, the API for querying the CVM instance list is <code>DescribeInstances</code> .
X-TC-Region	String	Yes	Region parameter, which is used to identify the region to which the data you work with belongs. For values supported for an API, see the description of common parameter <code>Region</code> in the input parameters in related API documentation. This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even if it is passed.
X-TC-Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request is sent. For example, 1529223702. Note: If the difference between the UNIX timestamp and server time is greater than 5 minutes, a signature expiration error may occur.
X-TC-Version	String	Yes	API version of the action. For the valid values, see the description of the common parameter <code>Version</code> in the API documentation. For example, the valid version is 2017-03-12.
Authorization	String	Yes	The HTTP authentication request header, for example: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/Date/service/tc3_request;SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc96317 Here: - TC3-HMAC-SHA256: Signature method, currently fixed as this value; - Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date is UNIX time, and this value must match the value of X-TC-Timestamp (a co

			parameter) in UTC time format; service is the name of the product/service generally a domain name prefix. For example, a domain name cvm.tencent refers to the CVM product and the value would be cvm; - SignedHeaders: The headers that contains the authentication information type and host are the required headers; - Signature: Signature digest.
X-TC-Token	String	No	The token used for a temporary certificate. It must be used with a temporary key. You can obtain the temporary key and token by calling a CAM API. No token is required for a long-term key.

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

Example of an HTTP GET request structure:

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

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

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

```
https://cvm.tencentcloudapi.com/

Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request, SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b13162d9279b0855cfba6789a8edb4c
Content-Type: application/json
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

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

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


```
https://cvm.tencentcloudapi.com/
```

```
Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request,
SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b1316
2d9279b0855cfba6789a8edb4c
```

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

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

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

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

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

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

```
--58731222010402
```

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

```
0
```

```
--58731222010402
```

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

```
10
```

```
--58731222010402--
```

Common parameters for Signature Algorithm v1

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

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

Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request was initiated, for example, 1529223702. If the difference between the value and the current system time is too large, a signature expiration error may occur.
Nonce	Integer	Yes	A random positive integer used along with <code>Timestamp</code> to prevent replay attacks.
SecretId	String	Yes	The identifying SecretId obtained on the Cloud API Key page. A SecretId corresponds to a unique SecretKey which is used to generate the request signature (Signature).
Signature	String	Yes	Request signature used to verify the validity of this request. This is calculated based on the actual input parameters. For more information about how this is calculated, see the API authentication documentation.
Version	String	Yes	API version of the action. For the valid values, see the description of the common input parameter <code>Version</code> in the API documentation. For example, the version of CVM is 2017-03-12.
SignatureMethod	String	No	Signature method. Currently, only HmacSHA256 and HmacSHA1 are supported. The HmacSHA256 algorithm is used to verify the signature only when this parameter is specified as HmacSHA256. In other cases, the signature is verified with HmacSHA1.
Token	String	No	The token used for a temporary certificate. It must be used with a temporary key. You can obtain the temporary key and token by calling a CAM API. No token is required for a long-term key.

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

Example of an HTTP GET request structure:

```
https://cvm.tencentcloudapi.com/?Action=DescribeInstances&Version=2017-03-12&SignatureMethod=HmacSHA256&Timestamp=1527672334&Signature=37ac2f4fde00b0ac9bd9eadeb459b1bbbee224158d66e7ae5fcadb70b2d181d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKIDEXAMPLE
```

```
Host: cvm.tencentcloudapi.com
Content-Type: application/x-www-form-urlencoded
```

Example of an HTTP POST request structure:

```
https://cvm.tencentcloudapi.com/
```

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

```
Content-Type: application/x-www-form-urlencoded
```

```
Action=DescribeInstances&Version=2017-03-12&SignatureMethod=HmacSHA256&Timestamp=1527672334&Signature=37ac2f4fde00b0ac9bd9eadeb459b1bbee224158d66e7ae5fcadb70b2d181d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKIDEXAMPLE
```

Signature v3

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

Applying for Security Credentials

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

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

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

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

Using the Resources for Developers

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

TC3-HMAC-SHA256 Signature Algorithm

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

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

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

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

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

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

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

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

The signature calculation process is explained in detail below.

1. Concatenating the CanonicalRequest String

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

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

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

Field Name	Explanation
HTTPRequestMethod	HTTP request method (GET or POST). This example uses <code>POST</code> .
CanonicalURI	URI parameter. Slash ("/") is used for API 3.0.
CanonicalQueryString	<p>The query string in the URL of the originating HTTP request. This is always an empty string for POST requests, and is the string after the question mark (?) for GET requests. For example: <code>Limit=10&Offset=0</code>.</p> <p>Note: <code>CanonicalQueryString</code> must be URL-encoded, referencing RFC3986, the UTF8 character set. We recommend using the programming language library. All special characters must be encoded and capitalized.</p>
CanonicalHeaders	<p>Header information for signature calculation, including at least two headers of <code>host</code> and <code>content-type</code>. Custom headers can be added to participate in the signature process to improve the uniqueness and security of the request.</p> <p>Concatenation rules:</p> <ol style="list-style-type: none"> Both the key and value of the header should be converted to lowercase with the leading and trailing spaces removed, so they are concatenated in the format of <code>key:value\n</code> format; If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase). <p>The calculation result in this example is <code>content-type:application/json; charset=utf-8\nhost:cvm.tencentcloudapi.com\n</code>.</p> <p>Note: <code>content-type</code> must match the actually sent content. In some programming languages, a charset value would be added even if it is not specified. In this case, the request sent is different from the one signed, and the server will return an error indicating signature verification failed.</p>
SignedHeaders	<p>Header information for signature calculation, indicating which headers of the request participate in the signature process (they must each individually correspond to the headers in CanonicalHeaders). <code>Content-type</code> and <code>host</code> are required headers.</p> <p>Concatenation rules:</p> <ol style="list-style-type: none"> Both the key and value of the header should be converted to lowercase; If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase) and separated by semicolons (;). <p>The value in this example is <code>content-type;host</code></p>
HashedRequestPayload	Hash value of the request payload (i.e., the body, such as <code>{"Limit": 1, "Filter</code>

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

 in this example
 The pseudocode for calculation is
 Lowercase(HexEncode(Hash.SHA256(RequestPayload))) by SHA256 hashing the payload of the HTTP request, performing hexadecimal encoding, and finally converting the encoded string to lowercase letters. For GET requests, `RequestPayload` is always an empty string. The calculation result in this example is
 99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b4907

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

POST

/

content-type:application/json; charset=utf-8

host:cvm.tencentcloudapi.com

content-type;host

99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b4907

2. Concatenating the String to Be Signed

The string to sign is concatenated as follows:

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

Field Name	Explanation
Algorithm	Signature algorithm, which is currently always <code>TC3-HMAC-SHA256</code> .
RequestTimestamp	Request timestamp, i.e., the value of the common parameter <code>X-TC-Timestamp</code> in request header, which is the UNIX timestamp of the current time in seconds, such as <code>1551113065</code> in this example.
CredentialScope	Scope of the credential in the format of <code>Date/service/tc3_request</code> , including date, requested service and termination string (<code>tc3_request</code>). Date is a date in UTC time, whose value should match the UTC date converted by the common parameter X-TC-Timestamp ; <code>service</code> is the product name, which should match the domain name of the product called. The calculation result in this example is <code>2018-05-25/cvm/tc3_request</code> .

HashedCanonicalRequest

Hash value of the CanonicalRequest string concatenated in the steps above. The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(CanonicalRequest))). The calculation result in this example is

```
2815843035062fffd6f2a44ea8a34818b0dc46f024b8b3786976a3ad
```

Note:

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

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

```
TC3-HMAC-SHA256
1551113065
2019-02-25/cvm/tc3_request
2815843035062fffd6f2a44ea8a34818b0dc46f024b8b3786976a3adda7a
```

3. Calculating the Signature

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

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

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

2) Calculate the signature with the following pseudocode:

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

4. Concatenating the Authorization

The Authorization is concatenated as follows:

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

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

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

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

The following example shows a finished authorization header:

```
POST https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*****/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
Content-Type: application/json; charset=utf-8
Host: cvm.tencentcloudapi.com
```

```
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1551113065
X-TC-Region: ap-guangzhou

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

5. Signature Demo

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

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

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

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

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

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

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

Java

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

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

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

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

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

        // ***** Step 1: Concatenate the CanonicalRequest string *****
        String httpRequestMethod = "POST";
    }
}
```

```
String canonicalUri = "/";
String canonicalQueryString = "";
String canonicalHeaders = "content-type:application/json; charset=utf-8\n" + "host:" + host + "\n";
String signedHeaders = "content-type;host";

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

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

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

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

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

StringBuilder sb = new StringBuilder();
sb.append("curl -X POST https://").append(host)
.append(" -H \"Authorization: ").append(authorization).append("\")");
```

```

.append(" -H \"Content-Type: application/json; charset=utf-8\"")
.append(" -H \"Host: ").append(host).append("\"")
.append(" -H \"X-TC-Action: ").append(action).append("\"")
.append(" -H \"X-TC-Timestamp: ").append(timestamp).append("\"")
.append(" -H \"X-TC-Version: ").append(version).append("\"")
.append(" -H \"X-TC-Region: ").append(region).append("\"")
.append(" -d ").append(payload).append(" ");
System.out.println(sb.toString());
}
}

```

Python

```

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

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

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

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

```

```

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

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

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

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

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

```

Golang

```
package main

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

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

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

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

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

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

PHP


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

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

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

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

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

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

Ruby

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

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

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

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

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

puts canonical_request

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

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

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

puts 'curl -X POST ' + endpoint \
```

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

DotNet

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

NodeJS

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

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

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

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

function main(){

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

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

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

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

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

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

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

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

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

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

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


C++

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

using namespace std;

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

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

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

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

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

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

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

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

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

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

```
return output;
}

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

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

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

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

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

```

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

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

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

```

Signature Failure

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

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

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=zmmj35mikh6pM3V7sUEuX4wyYM%3D&Timestamp=1465185768&Version=2017-03-12
```

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

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

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

Java

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

```

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

```

Python

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

```

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

```

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

Golang

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

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

PHP

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

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

Ruby

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

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

DotNet

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

```

// long timestamp = ToTimestamp() / 1000;
// string requestTimestamp = timestamp.ToString();
Dictionary<string, string> param = new Dictionary<string, string>();
param.Add("Limit", "20");
param.Add("Offset", "0");
param.Add("InstanceIds.0", "ins-09dx96dg");
param.Add("Action", action);
param.Add("Nonce", "11886");
// param.Add("Nonce", Math.Abs(new Random().Next()).ToString());
param.Add("Timestamp", RequestTimestamp.ToString());
param.Add("Version", version);
param.Add("SecretId", SECRET_ID);
param.Add("Region", region);
SortedDictionary<string, string> headers = new SortedDictionary<string, string>(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 : 2020-07-02 16:02:15

Response for Successful Requests

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

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

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

Response for Failed Requests

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

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

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

Common Error Codes

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

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

Error Code	Description
MissingParameter	A parameter is missing.
NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
ResourceInUse	Resource is in use.
ResourceInsufficient	Insufficient resource.
ResourceNotFound	The resource does not exist.
ResourceUnavailable	Resource is unavailable.
UnauthorizedOperation	Unauthorized operation.
UnknownParameter	Unknown parameter.
UnsupportedOperation	Unsupported operation.
UnsupportedProtocol	HTTPS request method error. Only GET and POST requests are supported.
UnsupportedRegion	API does not support the requested region.

Face Detection and Analysis APIs

DetectFace

Last updated : 2023-02-27 15:22:53

1. API Description

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

This API is used to detect the position, attributes, and quality information of a face in the given image. The position information includes (x, y, w, h); the face attributes include gender, age, expression, beauty, glass, hair, mask, and pose (pitch, roll, yaw); and the face quality information includes the overall quality score, sharpness, brightness, and completeness.

The face quality information is mainly used to evaluate the quality of the input face image. When using the Face Recognition service, we recommend evaluating the quality of the input face image first to improve the effects of subsequent processing. Application scenarios of this feature include:

1. **Creating/Adding** a person in a group: this is to ensure the quality of the face information to facilitate subsequent processing.
2. **Face search**: this is to ensure the quality of the input image to quickly find the corresponding person.
3. **Face verification**: this is to ensure the quality of the face information to avoid cases where the verification incorrectly fails.
4. **Face fusion**: this is to ensure the quality of the uploaded face images to improve the fusion effect.

- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the `SignatureMethod` parameter to `TC3-HMAC-SHA256`.

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: DetectFace.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
MaxFaceNum	No	Integer	<p>Maximum number of processable faces. Default value: 1 (i.e., detecting only the face with the largest size in the image). Maximum value: 120.</p> <p>This parameter is used to control the number of faces in the image to be detected. The smaller the value, the faster the processing.</p>
MinFaceSize	No	Integer	<p>Minimum height and width of face in px. Default value: 34. We recommend keeping it at or above 34. Faces below the <code>MinFaceSize</code> value will not be detected.</p>
Image	No	String	<p>Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.</p>
Url	No	String	<p>Image URL. The image cannot exceed 5 MB in size after being Base64-encoded. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.</p>
NeedFaceAttributes	No	Integer	Whether the face attribute information (FaceAttributesInfo)

			<p>needs to be returned. 0: no; 1: yes. Default value: 0.</p> <p>If the value is not 1, it will be deemed as no need to return, and <code>FaceAttributesInfo</code> is meaningless in this case. The face attribute information of up to 5 largest faces in the image will be returned, and <code>FaceAttributesInfo</code> of the 6th and rest faces is meaningless.</p> <p>Extracting face attribute information is quite time-consuming. If face attribute information is not required, we recommend disabling this feature to speed up face detection.</p>
NeedQualityDetection	No	Integer	<p>Whether to enable quality detection. 0: no; 1: yes. Default value: 0.</p> <p>If the value is not 1, it will be deemed not to perform quality detection.</p> <p>The face quality score information of up to 30 largest faces in the image will be returned, and <code>FaceQualityInfo</code> of the 31st and rest faces is meaningless.</p> <p>We recommend enabling this feature for the face adding operation.</p>
FaceModelVersion	No	String	<p>Algorithm model version used by the Face Recognition service.</p> <p>Currently, <code>2.0</code> and <code>3.0</code> are supported.</p> <p>This parameter is <code>3.0</code> by default starting from April 2, 2020. If it is left empty for accounts that used this API, <code>2.0</code> will be used by default.</p> <p>The parameter can be set only to <code>3.0</code> for accounts that purchase the service after November 26, 2020.</p> <p>Different algorithm model versions correspond to different face recognition algorithms. The 3.0 version has a better overall effect than the legacy version and is recommended.</p>
NeedRotateDetection	No	Integer	<p>Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.</p>

3. Output Parameters

Parameter Name	Type	Description
ImageWidth	Integer	Width of requested image.
ImageHeight	Integer	Height of requested image.
FaceInfos	Array of FaceInfo	Face information list, including face coordinate information, attribute information (if needed), and quality score information (if needed).
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Detecting and analyzing faces

Input Example

```
https://iai.tencentcloudapi.com/?Action=DetectFace
&MaxFaceNum=1
&MinFaceSize=40
&Url=http://test.image.myqcloud.com/testB.jpg
&NeedFaceAttributes=0
&NeedQualityDetection=0
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "ImageWidth": 640,
    "ImageHeight": 440,
    "FaceInfos": [
      {
        "X": 156,
        "Y": 129,
        "Width": 196,
        "Height": 196,
        "FaceAttributesInfo": {
```

```
"Gender": 0,
"Age": 0,
"Expression": 0,
"Hat": false,
"Glass": false,
"EyeOpen": true,
"Mask": false,
"Hair": {
  "Length": 0,
  "Bang": 0,
  "Color": 0
},
"Pitch": 0,
"Yaw": 0,
"Roll": 0,
"Beauty": 0
},
"FaceQualityInfo": {
  "Score": 0,
  "Sharpness": 0,
  "Brightness": 0,
  "Completeness": {
    "Eyebrow": 0,
    "Eye": 0,
    "Nose": 0,
    "Cheek": 0,
    "Mouth": 0,
    "Chin": 0
  }
}
},
],
"FaceModelVersion": "3.0",
"RequestId": "a574102d-1b86-48a7-a08b-6a741a8fedb6"
}
}
```

Example2 Detecting and analyzing faces - 2

Input Example

```
https://iai.tencentcloudapi.com/?Action=DetectFace
&MaxFaceNum=1
&MinFaceSize=40
&Url=http://test.image.myqcloud.com/testA.jpg
&NeedFaceAttributes=1
```

```
&NeedQualityDetection=1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "ImageWidth": 640,
    "ImageHeight": 440,
    "FaceInfos": [
      {
        "X": 156,
        "Y": 129,
        "Width": 196,
        "Height": 196,
        "FaceAttributesInfo": {
          "Gender": 99,
          "Age": 51,
          "Expression": 99,
          "Hat": false,
          "Glass": false,
          "EyeOpen": true,
          "Mask": true,
          "Hair": {
            "Length": 1,
            "Bang": 1,
            "Color": 0
          },
          "Pitch": 17,
          "Yaw": 5,
          "Roll": -2,
          "Beauty": 71
        },
        "FaceQualityInfo": {
          "Score": 63,
          "Sharpness": 73,
          "Brightness": 47,
          "Completeness": {
            "Eyebrow": 99,
            "Eye": 99,
            "Nose": 99,
            "Cheek": 52,
            "Mouth": 99,
            "Chin": 47
          }
        }
      }
    ]
  }
}
```

```
}  
],  
"FaceModelVersion": "3.0",  
"RequestId": "bcde47b5-e6d8-446e-a538-bcecffbe306a"  
}  
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation	Operation failed.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.

FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
FailedOperation.UnKnowError	An internal error occurred.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.

InvalidParameterValue.FaceModelVersionIllegal	The algorithm model version is invalid.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.

InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_</code> .
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.

InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.LowBalance	Insufficient balance.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

DetectFaceAttributes

Last updated : 2023-02-27 15:22:53

1. API Description

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

This API is used to detect the position, attributes, and quality information of a face in the given image. The position information includes (x, y, w, h); the face attributes include gender, age, expression, beauty, glass, hair, mask, and pose (pitch, roll, yaw); and the face quality information includes the overall quality score, sharpness, brightness, and completeness.

The face quality information is mainly used to evaluate the quality of the input face image. When using the Face Recognition service, we recommend evaluating the quality of the input face image first to improve the effects of subsequent processing. Application scenarios of this feature include:

1. [Creating/Adding](#) a person in a group: This is to ensure the quality of the face information to facilitate subsequent processing.
2. [Face search](#): This is to ensure the quality of the input image to quickly find the corresponding person.
3. [Face verification](#): This is to ensure the quality of the face information to avoid cases where the verification fails unexpectedly.
4. [Face fusion](#): This is to ensure the quality of the uploaded face images to improve the fusion effect.

- This API is an upgrade of [DetectFace](#); specifically:

1. This API can be used to specify the face attributes that need to be computed and returned, which avoids ineffective computation and reduces time consumption.
2. This API supports more detailed attribute items and will continue providing new features in the future.
Use this API for corresponding face detection and attribute analysis.

- Use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the parameter `SignatureMethod` to `TC3-HMAC-SHA256`.

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: DetectFaceAttributes.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
MaxFaceNum	No	Integer	Maximum number of processable faces. Default value: 1 (i.e., detecting only the face with the largest size in the image). Maximum value: 120. This parameter is used to control the number of faces in the image to be detected. The smaller the value, the faster the processing.
Image	No	String	Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
Url	No	String	Image URL. The image cannot exceed 5 MB in size after being Base64-encoded. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a

			<p>Tencent Cloud URL can guarantee higher download speed and stability.</p> <p>The download speed and stability of non-Tencent Cloud URLs may be low.</p> <p>PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.</p>
FaceAttributesType	No	String	<p>Whether to return attributes such as age, gender, and emotion.</p> <p>Valid values (case-insensitive): None, Age, Beauty, Emotion, Eye, Eyebrow, Gender, Hair, Hat, Headpose, Mask, Mouth, Moustache, Nose, Shape, Skin, Smile.</p> <p><code>None</code> indicates that no attributes need to be returned, which is the default value; that is, if the <code>FaceAttributesType</code> attribute is empty, the values of all attributes will be <code>0</code>.</p> <p>You need to combine the attributes into a string and separate them by comma. The sequence of the attributes is not limited. For more information on the attributes, see the output parameters as described below.</p> <p>The face attribute information of up to 5 largest faces in the image will be returned, and <code>AttributesInfo</code> of the 6th and rest faces is meaningless.</p>
NeedRotateDetection	No	Integer	<p>Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image is not rotated, do not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.</p>
FaceModelVersion	No	String	<p>Algorithm model version used by the Face Recognition service. You can enter only <code>3.0</code> for this API.</p>

3. Output Parameters

Parameter Name	Type	Description
ImageWidth	Integer	Width of requested image.

ImageHeight	Integer	Height of requested image.
FaceDetailInfos	Array of FaceDetailInfo	Face information list.
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Detecting faces and analyzing attributes

Input Example

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

{
  "Url": "http://test.image.myqcloud.com/testA.jpg",
  "FaceAttributesType": "eye"
}
```

Output Example

```
{
  "Response": {
    "ImageWidth": 550,
    "ImageHeight": 366,
    "FaceModelVersion": "3.0",
    "FaceDetailInfos": [
      {
        "FaceRect": {
          "X": 375,
          "Y": 37,
          "Width": 63,
          "Height": 82
        },
        "FaceDetailAttributesInfo": {
          "Age": 0,
```

```
"Beauty": 0,
"Emotion": {
  "Type": 0,
  "Probability": 0
},
"Eye": {
  "Glass": {
    "Type": 0,
    "Probability": 0.99936753511429
  },
  "EyeOpen": {
    "Type": 0,
    "Probability": 0.99949336051941
  },
  "EyelidType": {
    "Type": 1,
    "Probability": 0.75467920303345
  },
  "EyeSize": {
    "Type": 2,
    "Probability": 0.59152442216873
  }
},
"Eyebrow": {
  "EyebrowDensity": {
    "Type": 0,
    "Probability": 0
  },
  "EyebrowCurve": {
    "Type": 0,
    "Probability": 0
  },
  "EyebrowLength": {
    "Type": 0,
    "Probability": 0
  }
},
"Gender": {
  "Type": 0,
  "Probability": 0
},
"Hair": {
  "Length": {
    "Type": 0,
    "Probability": 0
  },
  "Bang": {
```

```
"Type": 0,
"Probability": 0
},
"Color": {
"Type": 0,
"Probability": 0
}
},
"Hat": {
"Style": {
"Type": 0,
"Probability": 0
},
"Color": {
"Type": 0,
"Probability": 0
}
},
"HeadPose": {
"Pitch": 0,
"Yaw": 0,
"Roll": 0
},
"Mask": {
"Type": 0,
"Probability": 0
},
"Mouth": {
"MouthOpen": {
"Type": 0,
"Probability": 0
}
},
"Moustache": {
"Type": 0,
"Probability": 0
},
"Nose": {
"Type": 2,
"Probability": 0.75233882665634
},
"Shape": {
"Type": 0,
"Probability": 0
},
"Skin": {
"Type": 0,
```

```
"Probability": 0
},
"Smile": 0
}
}
],
"RequestId": "b2c154b9-4620-4d37-8fd1-f6af3748f998"
}
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.

FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.RpcFail	The RPC call failed.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
FailedOperation.UnKnowError	An internal error occurred.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.FaceModelVersionIllegal	The algorithm model version is invalid.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.

ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

Facial Feature Localization APIs

AnalyzeFace

Last updated : 2023-02-27 15:22:51

1. API Description

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

This API is used to perform facial feature localization (aka facial keypoint localization) on a given image and calculate 90 facial keypoints that make up the contour of the face, including eyebrows (8 points on the left and 8 on the right), eyes (8 points on the left and 8 on the right), nose (13 points), mouth (22 points), face contour (21 points), and eyeballs or pupils (2 points).

- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the

`SignatureMethod` parameter to `TC3-HMAC-SHA256` .

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: AnalyzeFace.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
Mode	No	Integer	Detection mode. 0: detect all faces that appear; 1: detect the

			largest face. Default value: 0. The facial feature localization information (facial keypoints) of up to 10 faces can be returned.
Image	No	String	Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
Url	No	String	Image URL. The image cannot exceed 5 MB in size after being Base64-encoded. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
FaceModelVersion	No	String	Algorithm model version used by the Face Recognition service. Currently, <code>2.0</code> and <code>3.0</code> are supported. This parameter is <code>3.0</code> by default starting from April 2, 2020. If it is left empty for accounts that used this API, <code>2.0</code> will be used by default. The parameter can be set only to <code>3.0</code> for accounts that purchase the service after November 26, 2020. Different algorithm model versions correspond to different face recognition algorithms. The 3.0 version has a better overall effect than the legacy version and is recommended.
NeedRotateDetection	No	Integer	Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the

image will not be rotated, do not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.

3. Output Parameters

Parameter Name	Type	Description
ImageWidth	Integer	Width of requested image.
ImageHeight	Integer	Height of requested image.
FaceShapeSet	Array of FaceShape	Specific information of facial feature localization (facial keypoints).
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Performing facial feature localization

Input Example

```
https://iai.tencentcloudapi.com/?Action=AnalyzeFace
&Mode=0
&Url=http://test.image.myqcloud.com/testA.jpg
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "ImageWidth": 550,
    "ImageHeight": 366,
    "FaceShapeSet": [
      {
        "FaceProfile": [
          {
            "X": 63,
```

```
"Y": 335
},
{
  "X": 63,
  "Y": 374
},
{
  "X": 66,
  "Y": 412
},
{
  "X": 74,
  "Y": 450
},
{
  "X": 85,
  "Y": 487
},
{
  "X": 100,
  "Y": 522
},
{
  "X": 121,
  "Y": 554
},
{
  "X": 147,
  "Y": 582
},
{
  "X": 176,
  "Y": 608
},
{
  "X": 208,
  "Y": 627
},
{
  "X": 245,
  "Y": 634
},
{
  "X": 282,
  "Y": 627
},
{
```

```
"X": 315,  
"Y": 607  
},  
{  
"X": 344,  
"Y": 582  
},  
{  
"X": 370,  
"Y": 554  
},  
{  
"X": 391,  
"Y": 522  
},  
{  
"X": 405,  
"Y": 487  
},  
{  
"X": 416,  
"Y": 449  
},  
{  
"X": 423,  
"Y": 411  
},  
{  
"X": 427,  
"Y": 372  
},  
{  
"X": 426,  
"Y": 334  
}  
],  
"LeftEye": [  
{  
"X": 114,  
"Y": 333  
},  
{  
"X": 128,  
"Y": 345  
},  
{  
"X": 146,
```

```
"Y": 349
},
{
  "X": 165,
  "Y": 347
},
{
  "X": 183,
  "Y": 341
},
{
  "X": 169,
  "Y": 325
},
{
  "X": 150,
  "Y": 318
},
{
  "X": 130,
  "Y": 321
}
],
"RightEye": [
  {
    "X": 378,
    "Y": 331
  },
  {
    "X": 364,
    "Y": 343
  },
  {
    "X": 345,
    "Y": 348
  },
  {
    "X": 327,
    "Y": 346
  },
  {
    "X": 309,
    "Y": 340
  },
  {
    "X": 322,
    "Y": 323
```

```
},
{
  "X": 341,
  "Y": 316
},
{
  "X": 361,
  "Y": 319
}
],
"LeftEyeBrow": [
  {
    "X": 79,
    "Y": 280
  },
  {
    "X": 108,
    "Y": 275
  },
  {
    "X": 138,
    "Y": 274
  },
  {
    "X": 168,
    "Y": 277
  },
  {
    "X": 198,
    "Y": 279
  },
  {
    "X": 173,
    "Y": 256
  },
  {
    "X": 139,
    "Y": 251
  },
  {
    "X": 105,
    "Y": 256
  }
],
"RightEyeBrow": [
  {
    "X": 410,
```



```
"Y": 277
},
{
  "X": 380,
  "Y": 273
},
{
  "X": 350,
  "Y": 272
},
{
  "X": 320,
  "Y": 275
},
{
  "X": 290,
  "Y": 277
},
{
  "X": 315,
  "Y": 255
},
{
  "X": 349,
  "Y": 249
},
{
  "X": 384,
  "Y": 254
}
],
"Mouth": [
  {
    "X": 173,
    "Y": 522
  },
  {
    "X": 193,
    "Y": 541
  },
  {
    "X": 217,
    "Y": 554
  },
  {
    "X": 244,
    "Y": 558
  }
]
```

```
},  
{  
"X": 272,  
"Y": 554  
},  
{  
"X": 297,  
"Y": 541  
},  
{  
"X": 317,  
"Y": 522  
},  
{  
"X": 291,  
"Y": 517  
},  
{  
"X": 264,  
"Y": 512  
},  
{  
"X": 245,  
"Y": 517  
},  
{  
"X": 225,  
"Y": 512  
},  
{  
"X": 199,  
"Y": 517  
},  
{  
"X": 196,  
"Y": 528  
},  
{  
"X": 220,  
"Y": 532  
},  
{  
"X": 244,  
"Y": 535  
},  
{  
"X": 269,
```

```
"Y": 532
},
{
  "X": 293,
  "Y": 528
},
{
  "X": 293,
  "Y": 525
},
{
  "X": 269,
  "Y": 527
},
{
  "X": 245,
  "Y": 530
},
{
  "X": 221,
  "Y": 528
},
{
  "X": 197,
  "Y": 525
}
],
"Nose": [
  {
    "X": 244,
    "Y": 428
  },
  {
    "X": 245,
    "Y": 341
  },
  {
    "X": 231,
    "Y": 367
  },
  {
    "X": 217,
    "Y": 392
  },
  {
    "X": 203,
    "Y": 418
```

```
},
{
  "X": 187,
  "Y": 448
},
{
  "X": 217,
  "Y": 464
},
{
  "X": 245,
  "Y": 468
},
{
  "X": 272,
  "Y": 464
},
{
  "X": 302,
  "Y": 448
},
{
  "X": 287,
  "Y": 417
},
{
  "X": 273,
  "Y": 392
},
{
  "X": 259,
  "Y": 366
}
],
"LeftPupil": [
  {
    "X": 188,
    "Y": 303
  }
],
"RightPupil": [
  {
    "X": 201,
    "Y": 304
  }
]
}
```

```
],  
"FaceModelVersion": "3.0",  
"RequestId": "a8eb4545-a154-4f86-9510-57a8be9cae0c"  
}  
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered

	out.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
FailedOperation.UnKnowError	An internal error occurred.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.FaceModelVersionIllegal	The algorithm model version is invalid.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5

	fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.

InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_</code> .
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.

InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

Face Comparison APIs

CompareFace

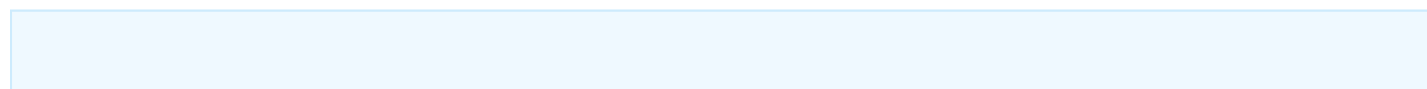
Last updated : 2023-02-27 15:22:54

1. API Description

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

This API is used to calculate the similarity of faces in two images and return the face similarity score.

If you need to judge "whether the person in the image is someone specified" in scenarios such as face login, i.e., checking whether the person in a given image is someone with a known identity, we recommend using the [VerifyFace](#) or [VerifyPerson](#) API.



- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the `SignatureMethod` parameter to `TC3-HMAC-SHA256`.

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: CompareFace.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
ImageA	No	String	Base64-encoded data of image A, which cannot exceed 5

			<p>MB.</p> <p>The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats.</p> <p>If there are multiple faces in the image, only the face with the largest size will be selected.</p> <p>PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.</p>
ImageB	No	String	<p>Base64-encoded data of image B, which cannot exceed 5 MB.</p> <p>The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats.</p> <p>If there are multiple faces in the image, only the face with the largest size will be selected.</p> <p>PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.</p>
UrlA	No	String	<p>URL of image A. The image cannot exceed 5 MB in size after being Base64-encoded.</p> <p>The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats.</p> <p>Either <code>Url</code> or <code>Image</code> of image A must be provided; if both are provided, only <code>Url</code> will be used.</p> <p>We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability.</p> <p>The download speed and stability of non-Tencent Cloud URLs may be low.</p> <p>If there are multiple faces in the image, only the face with the largest size will be selected.</p> <p>PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.</p>
UrlB	No	String	<p>URL of image B. The image cannot exceed 5 MB in size after being Base64-encoded.</p> <p>The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats.</p> <p>Either <code>Url</code> or <code>Image</code> of image B must be provided; if both are provided, only <code>Url</code> will be used.</p> <p>We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability.</p> <p>The download speed and stability of non-Tencent Cloud URLs may be low.</p> <p>If there are multiple faces in the image, only the face with the largest size will be selected.</p>

			PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
FaceModelVersion	No	String	<p>Algorithm model version used by the Face Recognition service.</p> <p>Currently, <code>2.0</code> and <code>3.0</code> are supported.</p> <p>This parameter is <code>3.0</code> by default starting from April 2, 2020. If it is left empty for accounts that used this API, <code>2.0</code> will be used by default.</p> <p>The parameter can be set only to <code>3.0</code> for accounts that purchase the service after November 26, 2020.</p> <p>Different algorithm model versions correspond to different face recognition algorithms. The 3.0 version has a better overall effect than the legacy version and is recommended.</p>
QualityControl	No	Integer	<p>Image quality control.</p> <p>0: no control.</p> <p>1: low quality requirement. The image has one or more of the following problems: extreme blurriness, covered eyes, covered nose, and covered mouth.</p> <p>2: average quality requirement. The image has at least three of the following problems: excessive brightness, excessive dimness, blurriness or average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>3: high-quality requirement. The image has one to two of the following problems: excessive brightness, excessive dimness, average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>4: very high-quality requirement. The image is optimal in all dimensions or only has a slight problem in one dimension.</p> <p>Default value: 0.</p> <p>If the image quality does not meet the requirement, the returned result will prompt that the detected image quality is unsatisfactory.</p>
NeedRotateDetection	No	Integer	<p>Whether to enable the support for rotated image recognition.</p> <p>0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do not enable this parameter, as the</p>

overall time consumption may increase by hundreds of milliseconds after it is enabled.

3. Output Parameters

Parameter Name	Type	Description
Score	Float	Face similarity score between two images. The returned similarity score varies by algorithm version. If you need to verify whether the faces in the two images are the same person, then the 0.1%, 0.01%, and 0.001% FARs on v3.0 correspond to scores of 40, 50, and 60, respectively. Generally, if the score is above 50, it can be judged that they are the same person. The 0.1%, 0.01%, and 0.001% FARs on v2.0 correspond to scores of 70, 80, and 90, respectively. Generally, if the score is above 80, it can be judged that they are the same person. If you need to verify whether the faces in the two images are the same person, we recommend using the <code>VerifyFace</code> API.
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Comparing faces

Input Example

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

{
  "UrlA": "http://test.image.myqcloud.com/testA.jpg",
  "UrlB": "http://test.image.myqcloud.com/testB.jpg"
}
```

Output Example

```
{
  "Response": {
    "Score": 0.999,
    "FaceModelVersion": "3.0",
    "RequestId": "a8eb4545-a154-4f86-9510-57a8be9cae0c"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.

FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.FaceQualityNotQualified	The face image quality does not meet the requirement.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.RpcFail	The RPC call failed.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
FailedOperation.UnKnowError	An internal error occurred.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the

	limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.FaceModelVersionIllegal	The algorithm model version is invalid.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.

InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.

InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and -%#@#&_.
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.QualityControlIllegal	Invalid <code>QualityControl</code> parameter.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.LowBalance	Insufficient balance.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

Group Management APIs

CreateGroup

Last updated : 2023-02-27 15:22:50

1. API Description

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

This API is used to create an empty group. If the group already exists, an error will be returned.

Custom description fields can be created as needed to describe persons in the group.

A maximum of 100,000 groups or 50 million faces can be created under one `APPID` .

The maximum number of faces that can be included in one group varies by algorithm model version (`FaceModelVersion`), which is 1 million for v2.0 or 3 million for v3.0.

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: CreateGroup.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupName	Yes	String	Group name, which is modifiable, must be unique, and can contain 1 to 60 characters.
GroupId	Yes	String	Group ID, which is unmodifiable, must be unique, and can contain letters, digits, and special symbols (-%#@#&_) of up

			to 64 B.
GroupExDescriptions.N	No	Array of String	<p>Custom group description field that describes the person attributes in the group, which will be applied to all persons in the group.</p> <p>Up to 5 ones can be created.</p> <p>Each custom description field can contain 1 to 30 characters.</p> <p>The custom description field must be unique in the group.</p> <p>Example: if you set the "custom description field" of a group to ["student ID", "employee ID", "mobile number"], then all the persons in the group will have description fields named "student ID", "employee ID", and "mobile number". You can enter content in the corresponding field to register a person's student ID, employee ID, and mobile number.</p>
Tag	No	String	Group remarks, which can contain 0 to 40 characters.
FaceModelVersion	No	String	<p>Algorithm model version used by the Face Recognition service.</p> <p>Currently, <code>2.0</code> and <code>3.0</code> are supported.</p> <p>This parameter is <code>3.0</code> by default starting from April 2, 2020. If it is left empty for accounts that used this API, <code>2.0</code> will be used by default.</p> <p>The parameter can be set only to <code>3.0</code> for accounts that purchase the service after November 26, 2020.</p> <p>Different algorithm model versions correspond to different face recognition algorithms. The 3.0 version has a better overall effect than the legacy version and is recommended.</p>

3. Output Parameters

Parameter Name	Type	Description
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating group

This example shows you how to create groups.

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreateGroup
&GroupName=Tencent Shenzhen Employee Group
&FaceModelVersion=3.0
&GroupId=TencentShenZhenEmployee
&Tag=Excludes interns
&GroupExDescriptions.0=Business Group
&GroupExDescriptions.1=Department name
&GroupExDescriptions.2=Group name
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "FaceModelVersion": "3.0",
    "RequestId": "e53ee4ec-9099-4b35-a129-21dd4820ff85"
  }
}
```

Example2 Creating group - 2

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreateGroup
&GroupName=Building 1, Zhuyuan Dormitory of XXX University
&GroupId=ZhuYuanDormitoryNo1
&FaceModelVersion=3.0
&Tag=All are girls
&GroupExDescriptions.0=School name
&GroupExDescriptions.1=Major
&GroupExDescriptions.2=Grade
&GroupExDescriptions.3=Student ID
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "FaceModelVersion": "3.0",
    "RequestId": "1695f3dd-b668-479e-8b87-f37de371a8ec"
  }
}
```

Example3 Sample error

This example shows the error that will occur if a group ID already exists.

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreateGroup
&GroupName=Tencent Shenzhen Employee Group
&GroupId=TencentShenZhenEmployee
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "76ec6e41-37d6-4ab9-abef-48ef0c6ab175"
  }
}
```

Example4 Sample error - 2

This example shows the error that will occur if there are Chinese characters in a group ID.

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreateGroup
&GroupName=Tencent Shenzhen Employee Group
&GroupId=Tencent Employees in Shenzhen
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "8125dda4-2905-4e02-88bd-79a93a660ad2"
  }
}
```

```
}  
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.

FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.FaceModelVersionIllegal	The algorithm model version is invalid.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.

InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom

	description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.

ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.LowBalance	Insufficient balance.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

DeleteGroup

Last updated : 2023-02-27 15:22:49

1. API Description

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

This API is used to delete a group and all persons in it. Meanwhile, all face information corresponding to the persons will be deleted. If a person exists in multiple groups at the same time, deleting a group will not delete the person, but the custom description field information in the group will be deleted. Custom description field information in other groups will not be affected.

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: DeleteGroup.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupId	Yes	String	Group ID, which is the <code>GroupId</code> in the <code>CreateGroup</code> API.

3. Output Parameters

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

locating a problem.

4. Example

Example1 Deleting group

This example shows you how to delete a specified group and all its members.

Input Example

```
https://iai.tencentcloudapi.com/?Action=DeleteGroup
&GroupId=ZhuYuanDormitoryNo1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "2ff7181c-ef20-4f02-b4ed-13924b381368"
  }
}
```

Example2 Sample error

This example shows the error that will occur if a group ID does not exist.

Input Example

```
https://iai.tencentcloudapi.com/?Action=DeleteGroup
&GroupId=ZhuYuanDormitory
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "878b225f-d3a4-4aa0-a849-3df415ac61a9"
  }
}
```

5. Developer Resources

SDK

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- [Tencent Cloud SDK 3.0 for Python](#)
- [Tencent Cloud SDK 3.0 for Java](#)
- [Tencent Cloud SDK 3.0 for PHP](#)
- [Tencent Cloud SDK 3.0 for Go](#)
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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.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.

FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).

InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain

	only letters, <code>-</code> , <code>_</code> , and digits.
<code>InvalidParameterValue.PersonExDescriptionsNameTooLong</code>	The name of the person's custom description field exceeds the length limit.
<code>InvalidParameterValue.PersonExistInGroup</code>	The ID of the corresponding person is already in the group.
<code>InvalidParameterValue.PersonFaceNumExceed</code>	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
<code>InvalidParameterValue.PersonGenderIllegal</code>	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
<code>InvalidParameterValue.PersonIdAlreadyExist</code>	The person ID already exists. It must be unique.
<code>InvalidParameterValue.PersonIdIllegal</code>	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
<code>InvalidParameterValue.PersonIdNotExist</code>	The person ID does not exist.
<code>InvalidParameterValue.PersonIdTooLong</code>	The person ID field exceeds the length limit.
<code>InvalidParameterValue.PersonNameIllegal</code>	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
<code>InvalidParameterValue.PersonNameTooLong</code>	The person name exceeds the length limit.
<code>InvalidParameterValue.SearchPersonsExceed</code>	The number of persons searched for exceeds the limit.
<code>InvalidParameterValue.UploadFaceNumExceed</code>	Up to four faces can be uploaded at a time.
<code>InvalidParameterValue.UrlIllegal</code>	Invalid URL format.
<code>LimitExceeded.ErrorFaceNumExceed</code>	The number of faces exceeds the limit.
<code>MissingParameter.ErrorParameterEmpty</code>	A required parameter is empty.
<code>ResourceUnavailable.Delivering</code>	The resource is being shipped.
<code>ResourceUnavailable.Freeze</code>	The account is frozen.
<code>ResourceUnavailable.InArrears</code>	The account is in arrears.
<code>ResourceUnavailable.NotExist</code>	The billing status is unknown. Please check whether the service has been activated in the console.

ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

GetGroupInfo

Last updated : 2023-02-27 15:22:49

1. API Description

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

This API is used to get the group information.

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: GetGroupInfo.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupId	Yes	String	Group ID, which is the <code>GroupId</code> in the <code>CreateGroup</code> API.

3. Output Parameters

Parameter Name	Type	Description
GroupName	String	Group name
GroupId	String	Group ID
GroupExDescriptions	Array of	Custom group description field

	String	
Tag	String	Group remarks
FaceModelVersion	String	Algorithm model version used for face recognition.
CreationTimestamp	Integer	Group creation time and date (<code>CreationTimestamp</code>), whose value is the number of milliseconds between the UNIX epoch time and the group creation time.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting group information

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetGroupInfo
&GroupId=aaa
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "GroupName": "aaa",
    "GroupId": "aaa",
    "GroupExDescriptions": [
      "24"
    ],
    "Tag": "fdsaf",
    "FaceModelVersion": "3.0",
    "CreationTimestamp": 1559530931613,
    "RequestId": "6faa05d0-287b-464e-8755-cf3e8d0c703d"
  }
}
```

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](#)
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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.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.

GetGroupList

Last updated : 2023-02-27 15:22:48

1. API Description

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

This API is used to get the list of groups.

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: GetGroupList.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
Offset	No	Integer	Starting number. Default value: 0.
Limit	No	Integer	Number of returned results. Default value: 10. Maximum value: 1000.

3. Output Parameters

Parameter Name	Type	Description
GroupInfos	Array of	Returned group information

	GroupInfo	
GroupNum	Integer	Total number of groups 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 group list

This example shows you how to get the group list.

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetGroupList
&Offset=0
&Limit=10
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "GroupInfos": [
      {
        "GroupName": "Tencent Shenzhen Employees",
        "GroupId": "TencentShenZhenEmployee",
        "GroupExDescriptions": [
          "Business group",
          "Department name",
          "Group name"
        ],
        "Tag": "Excluding interns",
        "FaceModelVersion": "3.0",
        "CreationTimestamp": 1592210245686
      },
      {
        "GroupName": "Dormitory Building #1, Zhuyuan Campus, XX University",
        "GroupId": "ZhuYuanDormitoryNo1",
        "GroupExDescriptions": [
          "School name",
          "Major",

```



```
"Grade",
"Student ID"
],
"Tag": "Female only"
"FaceModelVersion": "3.0",
"CreationTimestamp": 1594552117118
}
],
"GroupNum": 2,
"RequestId": "72102087-a18d-4225-9ae9-87ef49e9f63e"
}
}
```

Example2 Sample error - 2

The number of returned results cannot be above 1,000.

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetGroupList
&Offset=0
&Limit=1001
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "a6bb57de-773b-45e4-9e1c-c30ef48eba85"
}
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please

	retry.
InternalServerError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.

InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.

InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and -%#@#&_.
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

ModifyGroup

Last updated : 2023-02-27 15:22:47

1. API Description

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

This API is used to modify the name, tag, and custom description field of a group.

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: ModifyGroup.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupId	Yes	String	Group ID, which is the <code>GroupId</code> in the <code>CreateGroup</code> API.
GroupName	No	String	Group name
GroupExDescriptionInfos.N	No	Array of GroupExDescriptionInfo	Custom description field of the group to be modified, which is a <code>key-value</code> pair.
Tag	No	String	Group remarks

3. Output Parameters

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

4. Example

Example1 Modifying group

This example shows you how to modify the name, tag, and custom description field of a group.

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyGroup
&GroupId=ZhuYuanDormitoryNo1
&GroupName=Dormitory Building #1, Zhuyuan Campus, XX University
&Tag=Graduates
&GroupExDescriptionInfos.0.GroupExDescriptionIndex=0
&GroupExDescriptionInfos.0.GroupExDescription=School
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "da051f16-0400-49d4-9832-2cfd3b51866f"
  }
}
```

Example2 Modifying group - 2

This example shows you how to modify the name, remarks, and custom description fields of a group.

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyGroup
&GroupId=TencentShenZhenEmployee
&GroupName=Tencent Shenzhen In-Service Employee Group
&Tag=Includes interns
```

```
&GroupExDescriptionInfos.0.GroupExDescriptionIndex=1
&GroupExDescriptionInfos.0.GroupExDescription=Department
&GroupExDescriptionInfos.1.GroupExDescriptionIndex=2
&GroupExDescriptionInfos.1.GroupExDescription=Project team
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "98381738-509f-4749-8a66-dbf54247333d"
  }
}
```

Example3 Sample error

The group name must be unique.

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyGroup
&GroupId=TencentShenZhenEmployee
&GroupExDescriptionInfos.0.GroupExDescriptionIndex=0
&GroupExDescriptionInfos.0.GroupExDescription=Department
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "4b483679-3f08-4a7c-b827-4a6332dc030f"
  }
}
```

Example4 Sample error - 2

This example shows the error that will occur if a group name already exists.

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyGroup
&GroupId=TencentShenZhenEmployee
&GroupName=Dormitory Building #1, Zhuyuan Campus, XX University
&<Common request parameters>
```


Output Example

```
{
  "Response": {
    "RequestId": "2dcce170-30cf-4078-9b3c-309362fbad21"
  }
}
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.

FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description

	field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.

InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_</code> .
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.

ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

CreatePerson

Last updated : 2023-02-27 15:22:50

1. API Description

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

This API is used to create a person and add face, name, gender, and other related information.

- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the `SignatureMethod` parameter to `TC3-HMAC-SHA256`.

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: CreatePerson.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupId	Yes	String	ID of the group to join, which is the <code>GroupId</code> in the <code>CreateGroup</code> API.

PersonName	Yes	String	Person name, which can contain 1 to 60 characters and is modifiable and repeatable.
PersonId	Yes	String	Person ID, which is unmodifiable, must be unique under a Tencent Cloud account, and can contain letters, digits, and special symbols (-%#@#&_) of up to 64 B.
Gender	No	Integer	0: empty; 1: male; 2: female.
PersonExDescriptionInfos.N	No	Array of PersonExDescriptionInfo	Content of person description field, which is a <code>key-value</code> pair, can contain 0 to 60 characters, and is modifiable and repeatable.
Image	No	String	Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
Url	No	String	Image URL. The image cannot exceed 5 MB in size after being Base64-encoded. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.

UniquePersonControl	No	Integer	<p>This parameter is used to control the judgment whether the face contained in the image in <code>Image</code> or <code>Url</code> corresponds to an existing person in the group.</p> <p>If it is judged that a duplicate person exists in the group, no new person will be created, and information of the suspected duplicate person will be returned.</p> <p>Otherwise, the new person will be created.</p> <p>0: do not judge, i.e., the person will be created no matter whether a duplicate person exists in the group.</p> <p>1: low duplicate person judgment requirement (1% FAR);</p> <p>2: average duplicate person judgment requirement (0.1% FAR);</p> <p>3: high duplicate person judgment requirement (0.01% FAR);</p> <p>4: very high duplicate person judgment requirement (0.001% FAR).</p> <p>Default value: 0.</p> <p>Note: the higher the requirement, the lower the probability of duplicate person. The FARs corresponding to different requirements are for reference only and can be adjusted as needed.</p>
QualityControl	No	Integer	<p>Image quality control.</p> <p>0: no control.</p> <p>1: low quality requirement. The image has one or more of the following problems: extreme blurriness, covered eyes, covered nose, and covered mouth.</p> <p>2: average quality requirement. The image has at least three of the following problems: excessive brightness, excessive dimness, blurriness or average blurriness, covered eyebrows, covered cheeks,</p>

			<p>and covered chin.</p> <p>3: high-quality requirement. The image has one to two of the following problems: excessive brightness, excessive dimness, average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>4: very high-quality requirement. The image is optimal in all dimensions or only has a slight problem in one dimension.</p> <p>Default value: 0.</p> <p>If the image quality does not meet the requirement, the returned result will prompt that the detected image quality is unsatisfactory.</p>
NeedRotateDetection	No	Integer	<p>Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.</p>

3. Output Parameters

Parameter Name	Type	Description
FaceId	String	Unique ID of face image.
FaceRect	FaceRect	Position of detected face frame. Note: this field may return null, indicating that no valid values can be obtained.
SimilarPersonId	String	<code>PersonId</code> of suspected duplicate person.

		This parameter is meaningful only if the <code>UniquePersonControl</code> parameter is not 0 and there is a suspected duplicate person in the group.
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Creating person

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreatePerson
&GroupId=ZhuYuanDormitoryNo1
&PersonName=Junly
&PersonId=2001
&Gender=1
&Url=http://test.image.myqcloud.com/testB.jpg
&PersonExDescriptionInfos.0.PersonExDescriptionIndex=0
&PersonExDescriptionInfos.0.PersonExDescription=School of Computer Science
&PersonExDescriptionInfos.1.PersonExDescriptionIndex=1
&PersonExDescriptionInfos.1.PersonExDescription=Software Engineering
&PersonExDescriptionInfos.2.PersonExDescriptionIndex=2
&PersonExDescriptionInfos.2.PersonExDescription=Class of 2015
&PersonExDescriptionInfos.3.PersonExDescriptionIndex=3
&PersonExDescriptionInfos.3.PersonExDescription=3150808
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "FaceId": "3454816969590585885",
    "SimilarPersonId": "",
    "FaceRect": {
      "X": 172,
      "Y": 122,
      "Width": 178,
      "Height": 228
    },
    "FaceModelVersion": "3.0",
    "RequestId": "738a2fb0-bd4b-4cf6-9c91-18d50978d76b"
```

```
}  
}
```

Example2 Creating person - 2

This example shows you how to create persons.

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreatePerson  
&GroupId=TencentShenZhenEmployee  
&PersonName=evanliao  
&PersonId=1001  
&Gender=1  
&Url=http://test.image.myqcloud.com/testA.jpg  
&PersonExDescriptionInfos.0.PersonExDescriptionIndex=0  
&PersonExDescriptionInfos.0.PersonExDescription=Cloud & Smart Industries Group  
&PersonExDescriptionInfos.1.PersonExDescriptionIndex=1  
&PersonExDescriptionInfos.1.PersonExDescription=AI Product Center  
&PersonExDescriptionInfos.2.PersonExDescriptionIndex=2  
&PersonExDescriptionInfos.2.PersonExDescription=Face Recognition Products Group  
&<Common request parameters>
```

Output Example

```
{  
  "Response": {  
    "FaceId": "3454816969590585881",  
    "SimilarPersonId": "",  
    "FaceRect": {  
      "X": 172,  
      "Y": 122,  
      "Width": 178,  
      "Height": 228  
    },  
    "FaceModelVersion": "3.0",  
    "RequestId": "269a6bc0-0016-47e8-a63d-517ce4052b0e"  
  }  
}
```

Example3 Sample error

This example shows the error that will occur if a person ID already exists.

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreatePerson
&GroupId=ZhuYuanDormitoryNo1
&PersonName=Cheng
&PersonId=1001
&Gender=2
&Url=http://test.image.myqcloud.com/testD.jpg
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "76dedef7-af27-4a20-9064-c5ef3133926d"
  }
}
```

Example4 Sample error - 2

This example shows the error that will occur if a group ID does not exist.

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreatePerson
&GroupId=ShenZhenCitizen
&PersonName=Siccy
&PersonId=3001
&Gender=2
&Url=http://test.image.myqcloud.com/testC.jpg
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "dfa512fc-fd07-4bf1-a292-cb497b620857"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.CreateFaceConcurrent	Faces cannot be added concurrently.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.FaceQualityNotQualified	The face image quality does not meet the requirement.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.

FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.

InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check

	the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.QualityControlIllegal	Invalid <code>QualityControl</code> parameter.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UniquePersonControlIllegal	Invalid <code>UniquePersonControl</code> parameter.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.

MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.LowBalance	Insufficient balance.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

DeletePerson

Last updated : 2023-02-27 15:22:49

1. API Description

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

This API is used to delete a person from all groups. Meanwhile, all face information of the person will be deleted.

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: DeletePerson.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
PersonId	Yes	String	Person ID, which is the <code>PersonId</code> in the <code>CreatePerson</code> API.

3. Output Parameters

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

4. Example

Example1 Deleting person

This example shows you how to delete a specified person.

Input Example

```
https://iai.tencentcloudapi.com/?Action=DeletePerson
&PersonId=2001
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "4b609b7c-7a9a-4ea0-be8b-1fb638c2ceca"
  }
}
```

Example2 Sample error

This example shows the error that will occur if a person ID does not exist.

Input Example

```
https://iai.tencentcloudapi.com/?Action=DeletePerson
&PersonId=3001
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "4b9c1bdc-86eb-413f-8c74-15bcf4466cd5"
  }
}
```

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.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.CreateFaceConcurrent	Faces cannot be added concurrently.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.

FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.

InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.

InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and -%#@#&_.
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.

ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

DeletePersonFromGroup

Last updated : 2023-02-27 15:22:49

1. API Description

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

This API is used to remove a person from a specified group. This operation only affects the group. If the person exists only in the group, the person will be deleted, and all face information of the person will also be deleted.

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: DeletePersonFromGroup.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
PersonId	Yes	String	Person ID, which is the <code>PersonId</code> in the <code>CreatePerson</code> API.
GroupId	Yes	String	Group ID, which is the <code>GroupId</code> in the <code>CreateGroup</code> API.

3. Output Parameters

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

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

4. Example

Example1 Deleting person from group

This example shows you how to delete a person from a group. This operation only affects the group.

Input Example

```
https://iai.tencentcloudapi.com/?Action=DeletePersonFromGroup
&PersonId=1001
&GroupId=TencentShenZhenEmployee
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "f9b22bbc-c94d-4287-a2ab-fa68f7bbaf3"
  }
}
```

Example2 Sample error

This example shows the error that will occur if the specified person is not in the group.

Input Example

```
https://iai.tencentcloudapi.com/?Action=DeletePersonFromGroup
&PersonId=3001
&GroupId=ZhuYuanDormitoryNo1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "b9d9641d-3de2-4a6f-a728-36a3b66e7bd0"
  }
}
```

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
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.CreateFaceConcurrent	Faces cannot be added concurrently.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.

FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.

InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description

	field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.

ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

GetPersonGroupInfo

Last updated : 2023-02-27 15:22:48

1. API Description

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

This API is used to get the information of a specified person, including group, description, etc.

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: GetPersonGroupInfo.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
PersonId	Yes	String	Person ID, which is the <code>PersonId</code> in the <code>CreatePerson</code> API.
Offset	No	Integer	Starting number. Default value: 0.
Limit	No	Integer	Number of returned results. Default value: 10. Maximum value: 100.

3. Output Parameters

--	--	--

Parameter Name	Type	Description
PersonGroupInfos	Array of PersonGroupInfo	List of groups containing this person and their description fields
GroupNum	Integer	Total number of groups Note: this field may return null, indicating that no valid values can be obtained.
FaceModelVersion	String	Algorithm model version used by the Face Recognition service. 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 group information of person

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonGroupInfo
&PersonId=2001
&Offset=0
&Limit=10
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "GroupNum": "1",
    "PersonGroupInfos": [
      {
        "GroupId": "ZhuYuanDormitoryNo1",
        "PersonExDescriptions": [
          "School of Computer Science",
          "Software Engineering",
          "Class of 2015",
          "3150108080"
        ]
      }
    ]
  }
},
```

```
"FaceModelVersion": "3.0",
"RequestId": "671f0a1d-2b35-47c4-b9d1-b18053f71a04"
}
}
```

Example2 Getting the group information of person - 2

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonGroupInfo
&PersonId=1001
&Offset=0
&Limit=10
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "GroupNum": "1",
    "PersonGroupInfos": [
      {
        "GroupId": "TencentShenZhenEmployee",
        "PersonExDescriptions": [
          "Cloud & Smart Industries Group",
          "Big Data and AI Products Center",
          "Face Recognition Products Group"
        ]
      }
    ],
    "FaceModelVersion": "3.0",
    "RequestId": "b7a505ad-4a85-42da-97b3-886c7999fb76"
  }
}
```

Example3 Sample error

This example shows the error that will occur if a person ID does not exist.

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonGroupInfo
&PersonId=1002
&Offset=0
```

```
&Limit=10
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "98330f25-eb2e-432a-a30c-3830774210c1"
  }
}
```

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.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in

	the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalServerError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain

	only letters, <code>-</code> , <code>_</code> , and digits.
<code>InvalidParameterValue.GroupExDescriptionsNameTooLong</code>	The name of the group's custom description field exceeds the length limit.
<code>InvalidParameterValue.GroupFaceNumExceed</code>	The number of faces in the group exceeds the limit.
<code>InvalidParameterValue.GroupIdAlreadyExist</code>	The group ID already exists. It must be unique.
<code>InvalidParameterValue.GroupIdIllegal</code>	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
<code>InvalidParameterValue.GroupIdNotExist</code>	The group ID does not exist.
<code>InvalidParameterValue.GroupIdTooLong</code>	The group ID exceeds the length limit.
<code>InvalidParameterValue.GroupIdsExceed</code>	The list of groups passed in exceeds the limit.
<code>InvalidParameterValue.GroupNameAlreadyExist</code>	The group name already exists. It must be unique.
<code>InvalidParameterValue.GroupNameIllegal</code>	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
<code>InvalidParameterValue.GroupNameTooLong</code>	The group name exceeds the length limit.
<code>InvalidParameterValue.GroupNumExceed</code>	The number of groups exceeds the limit. If you need more, please contact us.
<code>InvalidParameterValue.GroupNumPerPersonExceed</code>	The number of groups exceeds the limit. One person can be added to up to 100 groups.
<code>InvalidParameterValue.GroupTagIllegal</code>	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
<code>InvalidParameterValue.GroupTagTooLong</code>	The group remarks field exceeds the length limit.
<code>InvalidParameterValue.ImageEmpty</code>	Empty image.
<code>InvalidParameterValue.LimitExceed</code>	The number of returned results exceeds the limit.
<code>InvalidParameterValue.NoFaceInGroups</code>	There are no faces in the specified group.
<code>InvalidParameterValue.NoFaceInPhoto</code>	There are no faces in the image.

InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.

LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

GetPersonBaseInfo

Last updated : 2023-02-27 15:22:48

1. API Description

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

This API is used to get the information of a specified person, including name, gender, face, etc.

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: GetPersonBaseInfo.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
PersonId	Yes	String	Person ID, which is the <code>PersonId</code> in the <code>CreatePerson</code> API.

3. Output Parameters

Parameter Name	Type	Description
PersonName	String	Person name
Gender	Integer	Person gender. 0: empty; 1: male; 2: female.

FaceIds	Array of String	List of the IDs of included faces
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Getting the basic information of person

This example shows you how to get the information of the specified person, including name, gender, and face.

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonBaseInfo
&PersonId=1001
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "PersonName": "EvanLiao",
    "Gender": 1,
    "FaceIds": [
      "2873640802022644880",
      "2875186538564559728"
    ],
    "RequestId": "9568a077-0710-40d2-9d6a-b9483d3f2051"
  }
}
```

Example2 Sample error

This example shows the error that will occur if a person ID does not exist.

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonBaseInfo
&PersonId=1002
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "98b4a0bc-802b-4764-9701-bc0c6c544395"
  }
}
```

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.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already

	in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalServerError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.

InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom

	description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.

ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

GetPersonList

Last updated : 2023-02-27 15:22:47

1. API Description

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

This API is used to get the list of persons in a specified group.

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: GetPersonList.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupId	Yes	String	Group ID, which is the <code>GroupId</code> in the <code>CreateGroup</code> API.
Offset	No	Integer	Starting number. Default value: 0.
Limit	No	Integer	Number of returned results. Default value: 10. Maximum value: 1000.

3. Output Parameters

Parameter Name	Type	Description

PersonInfos	Array of PersonInfo	Returned person information
PersonNum	Integer	Number of persons in the group Note: this field may return null, indicating that no valid values can be obtained.
FaceNum	Integer	Number of faces in the group Note: this field may return null, indicating that no valid values can be obtained.
FaceModelVersion	String	Algorithm model version used for face recognition. 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 person list

This example shows you how to get the list of persons in a specified group.

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonList
&GroupId=ZhuYuanDormitoryNo1
&Offset=0
&Limit=10
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "PersonInfos": [
      {
        "PersonName": "Junly",
        "PersonId": "2001",
        "Gender": 1,
        "PersonExDescriptions": [
          "School of Computer Science",
          "Software Engineering",
        ]
      }
    ]
  }
}
```



```
"Class of 2015",
"3150108080"
],
"FaceIds": [
"2877244861637985315"
],
"CreationTimestamp": 1594642823572
}
],
"PersonNum": 1,
"FaceNum": 1,
"FaceModelVersion": "3.0",
"RequestId": "337d1bb5-3f88-4681-9291-5194f478f0d1"
}
}
```

Example2 Getting person list - 2

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonList
&GroupId=TencentShenZhenEmployee
&Offset=0
&Limit=10
&<Common request parameters>
```

Output Example

```
{
"Response": {
"PersonInfos": [
{
"PersonName": "evanliao",
"PersonId": "1001",
"Gender": 1,
"PersonExDescriptions": [
"Cloud & Smart Industries Group",
"Big Data and AI Products Center",
"Face Recognition Products Group"
],
"FaceIds": [
"2877242150180891493"
],
"CreationTimestamp": 1594642823572
}
}
}
```

```
],  
"PersonNum": 1,  
"FaceNum": 1,  
"FaceModelVersion": "3.0",  
"RequestId": "aa292f16-27d9-423b-9048-cdd43f6e4156"  
}  
}
```

Example3 Sample error

The group ID does not exist.

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonList  
&GroupId=ZhuYuanDormitory  
&Offset=0  
&Limit=10  
&<Common request parameters>
```

Output Example

```
{  
"Response": {  
"RequestId": "b7c0cd81-d621-465f-8fd6-86a6b49e67be"  
}  
}
```

5. Developer Resources

SDK

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.

InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One

	person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It

	can contain only letters, digits, and -%#@#&_.
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

GetPersonListNum

Last updated : 2023-02-27 15:22:47

1. API Description

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

This API is used to get the number of persons in a specified group.

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: GetPersonListNum.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupId	Yes	String	Group ID, which is the <code>GroupId</code> in the <code>CreateGroup</code> API.

3. Output Parameters

Parameter Name	Type	Description
PersonNum	Integer	Number of persons
FaceNum	Integer	Number of faces
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for

locating a problem.

4. Example

Example1 Getting person list length

This example shows you how to get the number of persons in a specified group.

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonListNum
&GroupId=TencentShenZhenEmployee
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "PersonNum": 2,
    "FaceNum": 2,
    "RequestId": "18fb1e31-0d33-4371-9f41-b1fd59e0c781"
  }
}
```

Example2 Sample error

This example shows the error that will occur if a group ID does not exist.

Input Example

```
https://iai.tencentcloudapi.com/?Action=GetPersonListNum
&GroupId=Tencent
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "2865a458-4db1-46bd-ae52-b7507c9f4e62"
  }
}
```


5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.

FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).

InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain

	only letters, <code>-</code> , <code>_</code> , and digits.
<code>InvalidParameterValue.PersonExDescriptionsNameTooLong</code>	The name of the person's custom description field exceeds the length limit.
<code>InvalidParameterValue.PersonExistInGroup</code>	The ID of the corresponding person is already in the group.
<code>InvalidParameterValue.PersonFaceNumExceed</code>	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
<code>InvalidParameterValue.PersonGenderIllegal</code>	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
<code>InvalidParameterValue.PersonIdAlreadyExist</code>	The person ID already exists. It must be unique.
<code>InvalidParameterValue.PersonIdIllegal</code>	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
<code>InvalidParameterValue.PersonIdNotExist</code>	The person ID does not exist.
<code>InvalidParameterValue.PersonIdTooLong</code>	The person ID field exceeds the length limit.
<code>InvalidParameterValue.PersonNameIllegal</code>	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
<code>InvalidParameterValue.PersonNameTooLong</code>	The person name exceeds the length limit.
<code>InvalidParameterValue.SearchPersonsExceed</code>	The number of persons searched for exceeds the limit.
<code>InvalidParameterValue.UploadFaceNumExceed</code>	Up to four faces can be uploaded at a time.
<code>InvalidParameterValue.UrlIllegal</code>	Invalid URL format.
<code>LimitExceeded.ErrorFaceNumExceed</code>	The number of faces exceeds the limit.
<code>MissingParameter.ErrorParameterEmpty</code>	A required parameter is empty.
<code>ResourceUnavailable.Delivering</code>	The resource is being shipped.
<code>ResourceUnavailable.Freeze</code>	The account is frozen.
<code>ResourceUnavailable.InArrears</code>	The account is in arrears.
<code>ResourceUnavailable.NotExist</code>	The billing status is unknown. Please check whether the service has been activated in the console.

ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

ModifyPersonGroupInfo

Last updated : 2023-02-27 15:22:47

1. API Description

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

This API is used to modify the description of a specified person in a group.

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: ModifyPersonGroupInfo.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupId	Yes	String	Group ID, which is the <code>GroupId</code> in the <code>CreateGroup</code> API.
PersonId	Yes	String	Person ID, which is the <code>PersonId</code> in the <code>CreatePerson</code> API.
PersonExDescriptionInfos.N	Yes	Array of PersonExDescriptionInfo	Custom description field of the person to be modified, which is a <code>key-value</code> pair.

3. Output Parameters

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

4. Example

Example1 Modifying person description

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyPersonGroupInfo
&GroupId=ZhuYuanDormitoryNo1
&PersonId=2001
&PersonExDescriptionInfos.0.PersonExDescriptionIndex=3
&PersonExDescriptionInfos.0.PersonExDescription=3150108080
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "77e11a2d-0fc0-4fba-ab25-016e998221c3"
  }
}
```

Example2 Modifying person description - 2

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyPersonGroupInfo
&GroupId=TencentShenZhenEmployee
&PersonId=1001
&PersonExDescriptionInfos.0.PersonExDescriptionIndex=1
&PersonExDescriptionInfos.0.PersonExDescription=Big Data and AI Products Center
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "77e11a2d-0fc0-4fba-ab25-016e998221c3"
  }
}
```

Example3 Sample error

This example shows the error that will occur if a subscript is invalid.

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyPersonGroupInfo
&GroupId=TencentShenZhenEmployee
&PersonId=1001
&PersonExDescriptionInfos.0.PersonExDescriptionIndex=-1
&PersonExDescriptionInfos.0.PersonExDescription=AI Lab
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "f944657d-6260-4a2e-a4d8-9c1845f39e56"
  }
}
```

5. Developer Resources

SDK

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Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the

	limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.

InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>

InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

ModifyPersonBaseInfo

Last updated : 2022-01-28 15:42:43

1. API Description

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

This API is used to modify the information of a person, including name, gender, etc. The changes of person name and gender will be synced to all the groups that contain the person.

We recommend you to use API Explorer

[Try it](#)

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

2. Input Parameters

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

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

Parameter Name	Required	Type	Description
Action	Yes	String	Common parameter. The value used for this API: ModifyPersonBaseInfo.
Version	Yes	String	Common parameter. The value used for this API: 2020-03-03.
Region	Yes	String	Common parameter. For more information, please see the list of regions supported by the product.
PersonId	Yes	String	Person ID, which is the <code>PersonId</code> in the <code>CreatePerson</code> API.
PersonName	No	String	Name of the person to be modified
Gender	No	Integer	Gender of the person to be modified. 1: male; 2: female.

3. Output Parameters

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

4. Example

Example1 Modifying the basic information of person

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyPersonBaseInfo
&PersonId=2001
&PersonName=JunlyWang
&Gender=1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "6e2a0fb7-7c9e-45c7-abf1-338457d1def7"
  }
}
```

Example2 Modifying the basic information of person - 2

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyPersonBaseInfo
&PersonId=1001
&PersonName=EvanLiao
&Gender=1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "6e2a0fb7-7c9e-45c7-abf1-338457d1def7"
  }
}
```

Example3 Sample error

This example shows the error that will occur if the gender of a person is incorrectly set.

Input Example

```
https://iai.tencentcloudapi.com/?Action=ModifyPersonBaseInfo
&PersonId=1001
&Gender=-1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "f40bf659-0283-4773-abe8-945f643d5015"
  }
}
```

5. Developer Resources

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Command Line Interface

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6. Error Code

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

Error Code	Description
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.

InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One

	person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It

	can contain only letters, digits, and -%#@#&_.
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

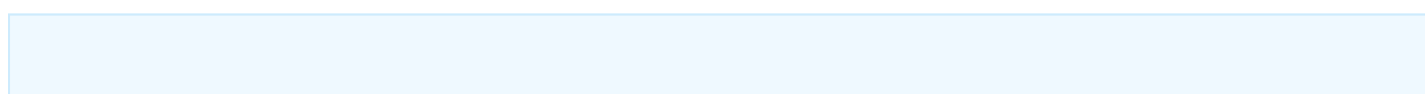
CopyPerson

Last updated : 2023-02-27 15:22:51

1. API Description

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

This API is used to copy a person in a group to another group (without copying the description). One person can exist in up to 100 groups at the same time.



- Note: in the case that the version of the algorithm model was 2.0 when the person was created, the copy operation will fail if the target group is not of algorithm model 2.0.

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: CopyPerson.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
PersonId	Yes	String	Person ID, which is the <code>PersonId</code> in the <code>CreatePerson</code> API.
GroupIds.N	Yes	Array of String	List of groups to join. The array element value is the <code>GroupId</code> in the <code>CreateGroup</code> API.

3. Output Parameters

Parameter Name	Type	Description
SucGroupNum	Integer	Number of groups successfully added to.
SucGroupIds	Array of String	List of groups successfully added to.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Copying person

Input Example

```
https://iai.tencentcloudapi.com/?Action=CopyPerson
&PersonId=2001
&GroupIds.0=TencentShenZhenEmployee
&GroupIds.1=ShenZhenCitizen
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "SucGroupNum": 2,
    "SucGroupIds": [
      "ShenZhenCitizen",
      "TencentShenZhenEmployee"
    ],
    "RequestId": "9841c008-e597-4356-a8d5-c47a246abd8d"
  }
}
```

Example2 Sample error

Input Example

```
https://iai.tencentcloudapi.com/?Action=CopyPerson
&PersonId=1001
&GroupIds.0=TencentShenZhenEmployee
&GroupIds.1=ZhuYuanDormitoryNo1
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "8ecfa566-68a9-4eb5-a6da-95ba9be26947"
  }
}
```

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.AcrossVersionsError	This operation cannot be performed across algorithm model versions.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.CreateFaceConcurrent	Faces cannot be added concurrently.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalServerError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.

InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length

	limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It

	can contain only letters, <code>-</code> , <code>_</code> , and digits.
<code>InvalidParameterValue.PersonNameTooLong</code>	The person name exceeds the length limit.
<code>InvalidParameterValue.SearchPersonsExceed</code>	The number of persons searched for exceeds the limit.
<code>InvalidParameterValue.UploadFaceNumExceed</code>	Up to four faces can be uploaded at a time.
<code>InvalidParameterValue.UrlIllegal</code>	Invalid URL format.
<code>LimitExceeded.ErrorFaceNumExceed</code>	The number of faces exceeds the limit.
<code>MissingParameter.ErrorParameterEmpty</code>	A required parameter is empty.
<code>ResourceUnavailable.Delivering</code>	The resource is being shipped.
<code>ResourceUnavailable.Freeze</code>	The account is frozen.
<code>ResourceUnavailable.InArrears</code>	The account is in arrears.
<code>ResourceUnavailable.NotExist</code>	The billing status is unknown. Please check whether the service has been activated in the console.
<code>ResourceUnavailable.Recover</code>	The resource has been repossessed.
<code>ResourceUnavailable.StopUsing</code>	The service has been suspended for the account.
<code>ResourceUnavailable.UnknownStatus</code>	The billing status is unknown.
<code>ResourcesSoldOut.ChargeStatusException</code>	The billing status is exceptional.
<code>UnsupportedOperation.UnknowMethod</code>	Unknown method name.

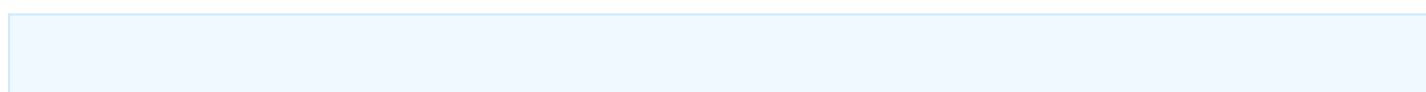
CreateFace

Last updated : 2023-02-27 15:22:51

1. API Description

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

This API is used to add a set of face images to a person. One person can have up to 5 images. If a person exists in multiple groups, the images will be added to all those groups for the person.



- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the `SignatureMethod` parameter to `TC3-HMAC-SHA256`.

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: CreateFace.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
PersonId	Yes	String	Person ID, which is the <code>PersonId</code> in the <code>CreatePerson</code> API.
Images.N	No	Array of String	Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats.

			<p>A person can have up to 5 face images.</p> <p>If there are multiple faces in the image, only the face with the largest size will be selected.</p> <p>PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.</p>
Urls.N	No	Array of String	<p>Image URL. The image cannot exceed 5 MB in size after being Base64-encoded.</p> <p>The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats.</p> <p>Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used.</p> <p>We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability.</p> <p>The download speed and stability of non-Tencent Cloud URLs may be low.</p> <p>PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.</p> <p>A person can have up to 5 face images.</p> <p>If there are multiple faces in the image, only the face with the largest size will be selected.</p>
FaceMatchThreshold	No	Float	<p>Only faces whose similarity to an existing face of the person is above the value of <code>FaceMatchThreshold</code> can be added successfully.</p> <p>Default value: 60. Value range: [0,100].</p>
QualityControl	No	Integer	<p>Image quality control.</p> <p>0: no control.</p> <p>1: low quality requirement. The image has one or more of the following problems: extreme blurriness, covered eyes, covered nose, and covered mouth.</p> <p>2: average quality requirement. The image has at least three of the following problems: excessive brightness, excessive dimness, blurriness or average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>3: high-quality requirement. The image has one to two of the following problems: excessive brightness, excessive dimness, average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>4: very high-quality requirement. The image is optimal in all dimensions or only has a slight problem in one dimension.</p> <p>Default value: 0.</p> <p>If the image quality does not meet the requirement, the</p>

			returned result will prompt that the detected image quality is unsatisfactory.
NeedRotateDetection	No	Integer	Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.

3. Output Parameters

Parameter Name	Type	Description
SucFaceNum	Integer	Number of successfully added faces
SucFaceIds	Array of String	List of IDs of successfully added faces
RetCode	Array of Integer	Adding result for each face image. -1101: no face detected; -1102: image decoding failed; -1601: the image quality control requirement is not met; -1604: the face similarity is not above <code>FaceMatchThreshold</code> . Other non-zero values: algorithm service exception. The order of <code>RetCode</code> values is the same as the order of <code>Images</code> or <code>Urls</code> in the input parameter.
SucIndexes	Array of Integer	Indexes of successfully added faces. The order of indexes is the same as the order of <code>Images</code> or <code>Urls</code> in the input parameter. For example, if there are 3 URLs in <code>Urls</code> , and the second URL fails, then the value of <code>SucIndexes</code> will be [0,2].
SucFaceRects	Array of <code>FaceRect</code>	Frame positions of successfully added faces. The order is the same as the order of <code>Images</code> or <code>Urls</code> in the input parameter.
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Adding faces

This example shows you how to add a group of face images to a person.

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreateFace
&PersonId=1001
&Urls.0=http://test.image.myqcloud.com/testA.jpg
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "SucFaceNum": 1,
    "SucFaceIds": [
      "2875186538564559728"
    ],
    "RetCode": [
      0
    ],
    "SucIndexes": [
      0
    ],
    "SucFaceRects": [
      {
        "X": 135,
        "Y": 42,
        "Width": 98,
        "Height": 136
      }
    ],
    "FaceModelVersion": "3.0",
    "RequestId": "07d63403-a199-4bbe-b9e0-692356ac738d"
  }
}
```

Example2 Sample error

This example shows the error that will occur if a person has more than 5 face images.

Input Example

```
https://iai.tencentcloudapi.com/?Action=CreateFace
&PersonId=1001
&Urls.0=http://test.image.myqcloud.com/testB.jpg
&Urls.1=http://test.image.myqcloud.com/testC.jpg
&Urls.2=http://test.image.myqcloud.com/testD.jpg
&Urls.3=http://test.image.myqcloud.com/testE.jpg
&Urls.4=http://test.image.myqcloud.com/testF.jpg
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "44506f79-2191-49bc-997b-748a566d781c"
  }
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.CreateFaceConcurrent	Faces cannot be added concurrently.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.

FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.FaceMatchThresholdIllegal	Invalid <code>FaceMatchThreshold</code> parameter.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.

InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person

	exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and -%#@#&_.
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, -, _, and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.QualityControlIllegal	Invalid <code>QualityControl</code> parameter.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.

ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

DeleteFace

Last updated : 2023-02-27 15:22:50

1. API Description

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

This API is used to delete the face images of a person. If the person has only one face image, an error will be returned.

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: DeleteFace.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
PersonId	Yes	String	Person ID, which is the <code>PersonId</code> in the <code>CreatePerson</code> API.
FaceIds.N	Yes	Array of String	List of IDs of the faces to be deleted. The array element value is the <code>FaceId</code> returned by the <code>CreateFace</code> API.

3. Output Parameters

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

SucDeletedNum	Integer	Number of successfully deleted faces
SucFaceIds	Array of String	List of IDs of successfully deleted faces
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Deleting faces

This example shows you how to delete the face images under a person.

Input Example

```
https://iai.tencentcloudapi.com/?Action=DeleteFace
&PersonId=1001
&FaceIds.0=2875186538564559728
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "SucDeletedNum": 1,
    "SucFaceIds": [
      "2875186538564559728"
    ],
    "RequestId": "38f96439-d5ea-48ea-899b-44a284708f6b"
  }
}
```

Example2 Sample error

This example shows the error that will occur if a person ID does not exist.

Input Example

```
https://iai.tencentcloudapi.com/?Action=DeleteFace
&PersonId=5001
&FaceIds.0=2875186538564559728
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "RequestId": "e2b603e5-51d0-4a8a-8319-2df026ae7518"
  }
}
```

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.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.CreateFaceConcurrent	Faces cannot be added concurrently.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.

FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.

InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check

	the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.

MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

Face Search APIs

SearchFaces

Last updated : 2023-02-27 15:50:37

1. API Description

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

This API is used to recognize top K persons in one or more groups who are similar to the person in a given image and rank the similarity in descending order.

Up to 10 faces in an image can be recognized at a time, and up to 100 groups can be searched in at a time.

The maximum number of faces in groups that can be searched for at a time is subject to the algorithm model version (`FaceModelVersion`) of groups, which is 1 million for v2.0 or 3 million for v3.0.

This API recognizes each face image of a person as an independent one. By contrast, the [SearchPersons](#) and [SearchPersonsReturnsByGroup](#) APIs fuse the features of all face images of a person; for example, if a person has 4 face images, they will fuse the features of the 4 face images and generate the summarized facial features of the person to make the search more accurate.

This API should be used together with [Group Management APIs](#).

- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the parameter `SignatureMethod` to `TC3-HMAC-SHA256` .
- You cannot search for groups using different algorithm model versions (`FaceModelVersion`) at a time.

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: SearchFaces.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupIds.N	Yes	Array of String	List of groups to be searched in (up to 100). The array element value is the <code>GroupId</code> in the <code>CreateGroup</code> API. You cannot search for groups using different algorithm model versions (<code>FaceModelVersion</code>) at a time.
Image	No	String	Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
Url	No	String	Image URL. The image cannot exceed 5 MB in size after being Base64-encoded. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
MaxFaceNum	No	Integer	Maximum number of recognizable faces. Default value: 1 (i.e., detecting only the face with the largest size in the image). Maximum value: 10. <code>MaxFaceNum</code> is used to control the number of faces to be searched for if there are multiple faces in the input image to be recognized. For example, if the input image in <code>Image</code> or <code>Url</code> contains multiple faces and <code>MaxFaceNum</code> is 5, top 5 faces with the largest size in the image will be recognized.

Parameter Name	Required	Type	Description
MinFaceSize	No	Integer	Minimum height and width of face in px. Default value: 34. Face images whose value is below 34 cannot be recognized. We recommend setting this parameter to 80.
MaxPersonNum	No	Integer	Number of the most similar persons returned for one single recognized face image. Default value: 5. Maximum value: 100. For example, if <code>MaxFaceNum</code> is 1 and <code>MaxPersonNum</code> is 8, information of the top 8 most similar persons will be returned. The greater the value, the longer the processing time. We recommend setting a value below 10.
NeedPersonInfo	No	Integer	Whether to return person details. 0: no; 1: yes. Default value: 0. Other values will be considered as 0 by default.
QualityControl	No	Integer	Image quality control. 0: no control. 1: low quality requirement. The image has one or more of the following problems: extreme blurriness, covered eyes, covered nose, and covered mouth. 2: average quality requirement. The image has at least three of the following problems: excessive brightness, excessive dimness, blurriness or average blurriness, covered eyebrows, covered cheeks, and covered chin. 3: high-quality requirement. The image has one to two of the following problems: excessive brightness, excessive dimness, average blurriness, covered eyebrows, covered cheeks, and covered chin. 4: very high-quality requirement. The image is optimal in all dimensions or only has a slight problem in one dimension. Default value: 0. If the image quality does not meet the requirement, the returned result will prompt that the detected image quality is unsatisfactory.
FaceMatchThreshold	No	Float	In the output parameter <code>Score</code> , the result will be returned only if the result value is above the <code>FaceMatchThreshold</code> value. Default value: 0.

Parameter Name	Required	Type	Description
NeedRotateDetection	No	Integer	Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.

3. Output Parameters

Parameter Name	Type	Description
Results	Array of Result	Recognition result.
FaceNum	Integer	Number of faces included in searched groups.
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Searching for face

Input Example

```
https://iai.tencentcloudapi.com/?Action=SearchFaces
&Url=http://test.image.myqcloud.com/testA.jpg
&MaxFaceNum=1
&MinFaceSize=40
&MaxPersonNum=5
&GroupIds.0=TencentShenZhenEmployee
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "Results": [
      {
        "RetCode": 0,
        "Candidates": [
          {
            "PersonId": "1001",
            "FaceId": "2875093635484912302",
            "PersonName": "Jerry",
            "Gender": 0,
            "Score": 100,
            "PersonGroupInfos": [
              {
                "GroupId": "abc",
                "PersonExDescriptions": [
                  "description1",
                  "description2"
                ]
              }
            ]
          }
        ],
        "FaceRect": {
          "X": 370,
          "Y": 46,
          "Width": 75,
          "Height": 75
        }
      },
      {
        "FaceNum": 1,
        "FaceModelVersion": "3.0",
        "RequestId": "57b42b73-b978-45b9-8095-8f50e9642d35"
      }
    ]
  }
}
```

Example2 Sample error

`MaxFaceNum` cannot be above 10.

Input Example

```
https://iai.tencentcloudapi.com/?Action=SearchFaces
&Url=http://test.image.myqcloud.com/testA.jpg
&MaxFaceNum=11
```



```
&GroupIds.0=TencentShenZhenEmployee  
&<Common request parameters>
```

Output Example

```
{  
  "Response": {  
    "RequestId": "f04ba2f3-532c-4207-9caa-6e818ded7fb9"  
  }  
}
```

Example3 Sample error - 2

This example shows the error that will occur if an image URL is incorrect.

Input Example

```
https://iai.tencentcloudapi.com/?Action=SearchFaces  
&Url=http://test.image.myqcloud.com/testA  
&GroupIds.0=TencentShenZhenEmployee  
&<Common request parameters>
```

Output Example

```
{  
  "Response": {  
    "RequestId": "527ecffe-4c6a-47c9-8217-4dd2e3f018da"  
  }  
}
```

5. Developer Resources

SDK

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

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.AcrossVersionsError	This operation cannot be performed across algorithm model versions.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.

Error Code	Description
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalServerError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.FaceMatchThresholdIllegal	Invalid <code>FaceMatchThreshold</code> parameter.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.

Error Code	Description
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.

Error Code	Description
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_</code> .
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.QualityControlIllegal	Invalid <code>QualityControl</code> parameter.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.

Error Code	Description
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

SearchFacesReturnsByGroup

Last updated : 2023-02-27 15:22:52

1. API Description

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

This API is used to recognize top K persons in one or more groups who are similar to the person in a given image, display the results **by group**, and rank the similarity within each group in descending order.

Up to 10 faces in the image can be recognized at a time, and cross-group search is supported.

The maximum number of faces in groups that can be searched for at a time is subject to the group's algorithm model version (`FaceModelVersion`), which is 1 million for v2.0 or 3 million for v3.0.

This API recognizes each face image of a person as an independent one. By contrast, the [SearchPersons](#) and [SearchPersonsReturnsByGroup](#) APIs fuse the features of all face images of a person; for example, if a person has 4 face images, they will fuse the features of the 4 face images and generate the summarized facial features of the person to make the search more accurate.

This API should be used together with [Group Management APIs](#).

- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the `SignatureMethod` parameter to `TC3-HMAC-SHA256` .

- You cannot search for groups using different algorithm model versions (`FaceModelVersion`) at a time.

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: SearchFacesReturnsByGroup.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupIds.N	Yes	Array of String	List of groups to be searched in (up to 60). The array element value is the <code>GroupId</code> in the <code>CreateGroup</code> API. You cannot search for groups using different algorithm model versions (<code>FaceModelVersion</code>) at a time.
Image	No	String	Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
Url	No	String	Image URL. The image cannot exceed 5 MB in size after being Base64-encoded. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
MaxFaceNum	No	Integer	Maximum number of recognizable faces. Default value: 1 (i.e., detecting only the face with the largest size in the image). Maximum value: 10. <code>MaxFaceNum</code> is used to control the number of faces to be searched for if there are multiple faces in the input

			<p>image to be recognized.</p> <p>For example, if the input image in <code>Image</code> or <code>Url</code> contains multiple faces and <code>MaxFaceNum</code> is 5, top 5 faces with the largest size in the image will be recognized.</p>
MinFaceSize	No	Integer	<p>Minimum height and width of face in px. Default value: 34. A value below 34 will affect the search accuracy. We recommend setting this parameter to 80.</p>
MaxPersonNumPerGroup	No	Integer	<p>Detected faces, which is corresponding to the maximum number of returned most matching persons. Default value: 5. Maximum value: 10.</p> <p>For example, if <code>MaxFaceNum</code> is 3, <code>MaxPersonNumPerGroup</code> is 5, and the <code>GroupIds</code> length is 3, up to 45 ($3 * 5 * 3$) persons will be returned.</p>
NeedPersonInfo	No	Integer	<p>Whether to return person details. 0: no; 1: yes. Default value: 0. Other values will be considered as 0 by default.</p>
QualityControl	No	Integer	<p>Image quality control.</p> <p>0: no control.</p> <p>1: low quality requirement. The image has one or more of the following problems: extreme blurriness, covered eyes, covered nose, and covered mouth.</p> <p>2: average quality requirement. The image has at least three of the following problems: excessive brightness, excessive dimness, blurriness or average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>3: high-quality requirement. The image has one to two of the following problems: excessive brightness, excessive dimness, average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>4: very high-quality requirement. The image is optimal in all dimensions or only has a slight problem in one dimension.</p> <p>Default value: 0.</p> <p>If the image quality does not meet the requirement, the returned result will prompt that the detected image quality is unsatisfactory.</p>
FaceMatchThreshold	No	Float	<p>In the output parameter <code>Score</code>, the result will be returned only if the result value is greater than or equal to the <code>FaceMatchThreshold</code> value.</p>

			Default value: 0. Value range: [0.0,100.0).
NeedRotateDetection	No	Integer	Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.

3. Output Parameters

Parameter Name	Type	Description
FaceNum	Integer	Number of faces included in searched groups.
ResultsReturnsByGroup	Array of ResultsReturnsByGroup	Recognition result.
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Searching for faces with results returned by group

Input Example

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

{
  "Url": "http://test.image.myqcloud.com/testA.jpg",
```

```
"MaxPersonNumPerGroup": "5",
"GroupIds": [
  "TencentShenZhenEmployee"
],
"MaxFaceNum": "1",
"MinFaceSize": "40"
}
```

Output Example

```
{
  "Response": {
    "FaceNum": 1,
    "ResultsReturnsByGroup": [
      {
        "GroupCandidates": [
          {
            "Candidates": [
              {
                "PersonGroupInfos": [
                  {
                    "GroupId": "abc",
                    "PersonExDescriptions": [
                      "description1",
                      "description2"
                    ]
                  }
                ]
              }
            ]
          },
          {
            "PersonId": "1001",
            "Gender": 0,
            "PersonName": "John Smith",
            "Score": 100,
            "FaceId": "2875093635484912302"
          }
        ],
        "GroupId": "Group1"
      }
    ],
    "FaceRect": {
      "Y": 46,
      "X": 370,
      "Height": 1,
      "Width": 1
    },
    "RetCode": 0
  }
}
```

```
],  
"RequestId": "57b42b73-b978-45b9-8095-8f50e9642d35",  
"FaceModelVersion": "3.0"  
}  
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.AcrossVersionsError	This operation cannot be performed across algorithm model versions.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.

FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalServerError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.FaceMatchThresholdIllegal	Invalid <code>FaceMatchThreshold</code> parameter.

InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length

	limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It

	can contain only letters, <code>-</code> , <code>_</code> , and digits.
<code>InvalidParameterValue.PersonNameTooLong</code>	The person name exceeds the length limit.
<code>InvalidParameterValue.QualityControlIllegal</code>	Invalid <code>QualityControl</code> parameter.
<code>InvalidParameterValue.SearchPersonsExceed</code>	The number of persons searched for exceeds the limit.
<code>InvalidParameterValue.UploadFaceNumExceed</code>	Up to four faces can be uploaded at a time.
<code>InvalidParameterValue.UrlIllegal</code>	Invalid URL format.
<code>LimitExceeded.ErrorFaceNumExceed</code>	The number of faces exceeds the limit.
<code>MissingParameter.ErrorParameterEmpty</code>	A required parameter is empty.
<code>ResourceUnavailable.Delivering</code>	The resource is being shipped.
<code>ResourceUnavailable.Freeze</code>	The account is frozen.
<code>ResourceUnavailable.InArrears</code>	The account is in arrears.
<code>ResourceUnavailable.NotExist</code>	The billing status is unknown. Please check whether the service has been activated in the console.
<code>ResourceUnavailable.Recover</code>	The resource has been repossessed.
<code>ResourceUnavailable.StopUsing</code>	The service has been suspended for the account.
<code>ResourceUnavailable.UnknownStatus</code>	The billing status is unknown.
<code>ResourcesSoldOut.ChargeStatusException</code>	The billing status is exceptional.
<code>UnsupportedOperation.UnknowMethod</code>	Unknown method name.

SearchPersons

Last updated : 2023-02-27 15:22:52

1. API Description

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

This API is used to recognize top K persons in one or more groups who are similar to the person in a given image and rank the similarity in a descending order.

Up to 10 faces in an image can be recognized at a time, and up to 100 groups can be searched in at a time.

The maximum number of faces in groups that can be searched for at a time is subject to the group's algorithm model version (`FaceModelVersion`), which is 1 million for v2.0 or 3 million for v3.0.

This API fuses the features of all face images of a person; for example, if a person has 4 face images, it will fuse the features of the 4 face images and generate the summarized facial features of the person to make the person search (i.e., judging whether the face image to be recognized is of a specified person) more accurate. By contrast, the [SearchFaces](#) and [SearchFacesReturnsByGroup](#) APIs recognize each face image of a person as an independent one for search.

- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the `SignatureMethod` parameter to `TC3-HMAC-SHA256` .
- This feature is available only to groups whose algorithm model version (`FaceModelVersion`) is 3.0.

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: SearchPersons.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupIds.N	Yes	Array of String	List of groups to be searched in (up to 100). The array element value is the <code>GroupId</code> in the <code>CreateGroup</code> API.
Image	No	String	Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. If there are multiple faces in the image, only the face with the largest size will be selected. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
Url	No	String	Image URL. The image cannot exceed 5 MB in size after being Base64-encoded. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
MaxFaceNum	No	Integer	Maximum number of recognizable faces. Default value: 1 (i.e., detecting only the face with the largest size in the image). Maximum value: 10. <code>MaxFaceNum</code> is used to control the number of faces to be searched for if there are multiple faces in the input image to be recognized. For example, if the input image in <code>Image</code> or <code>Url</code> contains multiple faces and <code>MaxFaceNum</code> is 5, top 5 faces with the largest size in the image will be recognized.
MinFaceSize	No	Integer	Minimum height and width of face in px. Default value: 34. A value below 34 will affect the search accuracy. We recommend setting this parameter to 80.

MaxPersonNum	No	Integer	<p>Number of the most similar persons returned for one single recognized face image. Default value: 5. Maximum value: 100.</p> <p>For example, if <code>MaxFaceNum</code> is 1 and <code>MaxPersonNum</code> is 8, information of the top 8 most similar persons will be returned.</p> <p>The greater the value, the longer the processing time. We recommend setting a value below 10.</p>
QualityControl	No	Integer	<p>Image quality control.</p> <p>0: no control.</p> <p>1: low quality requirement. The image has one or more of the following problems: extreme blurriness, covered eyes, covered nose, and covered mouth.</p> <p>2: average quality requirement. The image has at least three of the following problems: excessive brightness, excessive dimness, blurriness or average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>3: high-quality requirement. The image has one to two of the following problems: excessive brightness, excessive dimness, average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>4: very high-quality requirement. The image is optimal in all dimensions or only has a slight problem in one dimension.</p> <p>Default value: 0.</p> <p>If the image quality does not meet the requirement, the returned result will prompt that the detected image quality is unsatisfactory.</p>
FaceMatchThreshold	No	Float	<p>In the output parameter <code>Score</code>, the result will be returned only if the result value is greater than or equal to the <code>FaceMatchThreshold</code> value. Default value: 0. Value range: [0.0,100.0).</p>
NeedPersonInfo	No	Integer	<p>Whether to return person details. 0: no; 1: yes. Default value: 0. Other values will be considered as 0 by default.</p>
NeedRotateDetection	No	Integer	<p>Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do not enable this parameter, as the</p>

overall time consumption may increase by hundreds of milliseconds after it is enabled.

3. Output Parameters

Parameter Name	Type	Description
Results	Array of Result	Recognition result.
PersonNum	Integer	Number of the persons included in searched groups. If the quality of all faces in the input image does not meet the requirement, 0 will be returned.
FaceModelVersion	String	Algorithm model version used for face recognition. 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 Searching for person

Input Example

```
https://iai.tencentcloudapi.com/?Action=SearchPersons
&Url=http://test.image.myqcloud.com/testA.jpg
&MaxFaceNum=2
&MinFaceSize=40
&MaxPersonNum=3
&GroupIds.0=TencentShenZhenEmployee
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "Results": [
      {
        "RetCode": 0,
```

```
"Candidates": [  
  {  
    "PersonId": "person1",  
    "FaceId": "",  
    "Score": 100,  
    "PersonName": null,  
    "Gender": null,  
    "PersonGroupInfos": null  
  },  
  {  
    "PersonId": "person2",  
    "FaceId": "",  
    "Score": 60,  
    "PersonName": null,  
    "Gender": null,  
    "PersonGroupInfos": null  
  },  
  {  
    "PersonId": "person3",  
    "FaceId": "",  
    "Score": 50,  
    "PersonName": null,  
    "Gender": null,  
    "PersonGroupInfos": null  
  }  
],  
"FaceRect": {  
  "X": 139,  
  "Y": 59,  
  "Width": 124,  
  "Height": 162  
},  
{  
  "RetCode": 0,  
  "Candidates": [  
    {  
      "PersonId": "person2",  
      "FaceId": "",  
      "Score": 100,  
      "PersonName": null,  
      "Gender": null,  
      "PersonGroupInfos": null  
    },  
    {  
      "PersonId": "person1",  
      "FaceId": "",
```

```
"Score": 60,
"PersonName": null,
"Gender": null,
"PersonGroupInfos": null
},
{
"PersonId": "person3",
"FaceId": "",
"Score": 20,
"PersonName": null,
"Gender": null,
"PersonGroupInfos": null
}
],
"FaceRect": {
"X": 328,
"Y": 70,
"Width": 119,
"Height": 162
}
}
],
"PersonNum": 5,
"FaceModelVersion": "3.0",
"RequestId": "c4608852-ff60-4a01-8dc3-367f6046baaf"
}
}
```

Example2 Sample error

This example shows the error that will occur if an image URL is incorrect.

Input Example

```
https://iai.tencentcloudapi.com/?Action=SearchPersons
&Url=http://test.image.myqcloud.com/testA
&GroupIds.0=TencentShenZhenEmployee
&<Common request parameters>
```

Output Example

```
{
"Response": {
"RequestId": "527ecffe-4c6a-47c9-8217-4dd2e3f018da"
}
}
```

5. Developer Resources

SDK

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.AcrossVersionsError	This operation cannot be performed across algorithm model versions.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.

FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.FaceMatchThresholdIllegal	Invalid <code>FaceMatchThreshold</code> parameter.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.ImageEmptyError	Empty image.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.QualityControlIllegal	Invalid <code>QualityControl</code> parameter.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UnsupportedGroupFaceModelVersion	This operation is not supported by algorithm model v2.0 or below.

InvalidParameterValue.UrlIllegal	Invalid URL format.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.ChargeStatusException	The account is in arrears.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.GetAuthInfoError	Failed to get the authentication information.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.LowBalance	Insufficient balance.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.NotReady	The service is not activated.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

SearchPersonsReturnsByGroup

Last updated : 2023-02-27 15:22:52

1. API Description

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

This API is used to recognize top K persons in one or more groups who are similar to the person in a given image, display the results **by group**, and rank the similarity within each group in a descending order.

Up to 10 faces in the image can be recognized at a time, and cross-group search is supported.

The maximum number of faces in groups that can be searched for at a time is subject to the group's algorithm model version (`FaceModelVersion`), which is 1 million for v2.0 or 3 million for v3.0.

This API fuses the features of all face images of a person; for example, if a person has 4 face images, it will fuse the features of the 4 face images and generate the summarized facial features of the person to make the person search (i.e., judging whether the face image to be recognized is of a specified person) more accurate. By contrast, the [SearchFaces](#) and [SearchFacesReturnsByGroup](#) APIs recognize each face image of a person as an independent one for search.

- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the `SignatureMethod` parameter to `TC3-HMAC-SHA256` .
- This feature is available only to groups whose algorithm model version (`FaceModelVersion`) is 3.0.

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: SearchPersonsReturnsByGroup.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
GroupIds.N	Yes	Array of String	List of groups to be searched in (up to 60). The array element value is the <code>GroupId</code> in the <code>CreateGroup</code> API.
Image	No	String	Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
Url	No	String	Image URL. The image cannot exceed 5 MB in size after being Base64-encoded. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
MaxFaceNum	No	Integer	Maximum number of recognizable faces. Default value: 1 (i.e., detecting only the face with the largest size in the image). Maximum value: 10. <code>MaxFaceNum</code> is used to control the number of faces to be searched for if there are multiple faces in the input image to be recognized. For example, if the input image in <code>Image</code> or <code>Url</code> contains multiple faces and <code>MaxFaceNum</code> is 5, top 5 faces with the largest size in the image will be recognized.
MinFaceSize	No	Integer	Minimum height and width of face in px. Default value:

			34. A value below 34 will affect the search accuracy. We recommend setting this parameter to 80.
MaxPersonNumPerGroup	No	Integer	<p>Detected faces, which is corresponding to the maximum number of returned most matching persons. Default value: 5. Maximum value: 10.</p> <p>For example, if <code>MaxFaceNum</code> is 3, <code>MaxPersonNumPerGroup</code> is 5, and the <code>GroupIds</code> length is 3, up to 45 ($3 * 5 * 3$) persons will be returned.</p>
QualityControl	No	Integer	<p>Image quality control.</p> <p>0: no control.</p> <p>1: low quality requirement. The image has one or more of the following problems: extreme blurriness, covered eyes, covered nose, and covered mouth.</p> <p>2: average quality requirement. The image has at least three of the following problems: excessive brightness, excessive dimness, blurriness or average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>3: high-quality requirement. The image has one to two of the following problems: excessive brightness, excessive dimness, average blurriness, covered eyebrows, covered cheeks, and covered chin.</p> <p>4: very high-quality requirement. The image is optimal in all dimensions or only has a slight problem in one dimension.</p> <p>Default value: 0.</p> <p>If the image quality does not meet the requirement, the returned result will prompt that the detected image quality is unsatisfactory.</p>
FaceMatchThreshold	No	Float	<p>In the output parameter <code>Score</code>, the result will be returned only if the result value is above the <code>FaceMatchThreshold</code> value. Default value: 0.</p>
NeedPersonInfo	No	Integer	<p>Whether to return person details. 0: no; 1: yes. Default value: 0. Other values will be considered as 0 by default.</p>
NeedRotateDetection	No	Integer	<p>Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do</p>

			not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.
--	--	--	--

3. Output Parameters

Parameter Name	Type	Description
PersonNum	Integer	Number of the persons included in searched groups. If the quality of all faces in the input image does not meet the requirement, 0 will be returned.
ResultsReturnsByGroup	Array of ResultsReturnsByGroup	Recognition result.
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Searching for person with results returned by group

Input Example

```
https://iai.tencentcloudapi.com/?Action=SearchPersonsReturnsByGroup
&Url=http://test.image.myqcloud.com/testA.jpg
&MaxFaceNum=1
&MinFaceSize=40
&MaxPersonNumPerGroup=5
&GroupIds.0=TencentShenZhenEmployee
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "ResultsReturnsByGroup": [
      {
        "RetCode": 0,
```

```
"FaceRect": {
  "X": 375,
  "Y": 37,
  "Width": 63,
  "Height": 82
},
"GroupCandidates": [
  {
    "GroupId": "TencentShenZhenEmployee",
    "Candidates": [
      {
        "PersonId": "testtest3",
        "FaceId": "",
        "Score": 100,
        "PersonName": null,
        "Gender": null,
        "PersonGroupInfos": null
      }
    ]
  }
],
"PersonNum": 1,
"FaceModelVersion": "3.0",
"RequestId": "c8a06ec5-ecb4-4dd7-a8c8-ce5e675495c2"
}
```

Example2 Sample error

Input Example

```
https://iai.tencentcloudapi.com/?Action=SearchPersonsReturnsByGroup
&Url=http://test.image.myqcloud.com/testB.jpg
&MaxFaceNum=1
&MinFaceSize=40
&MaxPersonNumPerGroup=5
&GroupIds.0=TencentShenZhenEmployee
&<Common request parameters>
```

Output Example

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

```
"RequestId": "527ecffe-4c6a-47c9-8217-4dd2e3f018da"  
}  
}
```

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.AcrossVersionsError	This operation cannot be performed across algorithm model versions.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.

FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.FaceMatchThresholdIllegal	Invalid <code>FaceMatchThreshold</code> parameter.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (-%#@#&_).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdNotExists	The corresponding group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.QualityControlIllegal	Invalid <code>QualityControl</code> parameter.

InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UnsupportedGroupFaceModelVersion	This operation is not supported by algorithm model v2.0 or below.
InvalidParameterValue.UrlIllegal	Invalid URL format.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.ChargeStatusException	The account is in arrears.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.LowBalance	Insufficient balance.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.NotReady	The service is not activated.
ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

Face Verification APIs

VerifyPerson

Last updated : 2023-02-27 15:22:51

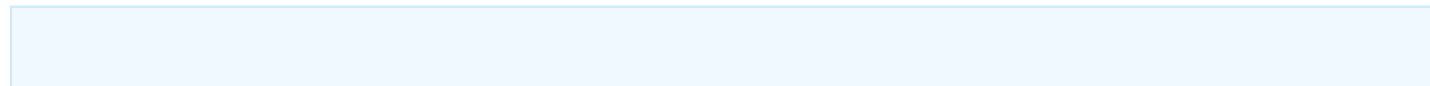
1. API Description

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

This API is used to judge whether a person in an image corresponds to a given `PersonId` . For more information on `PersonId` , please see [Group Management APIs](#).

This API fuses the features of all face images of a person; for example, if a person has 4 face images, it will fuse the features of the 4 face images and generate the summarized facial features of the person to make the person verification (i.e., judging whether the face image to be recognized is of a specified person) more accurate.

The face verification APIs judge whether a person is someone specified whose information is stored in a group, and the "someone" may have multiple face images. By contrast, the face comparison APIs judge the similarity between two faces.



- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the `SignatureMethod` parameter to `TC3-HMAC-SHA256` .
- This feature is available only to groups whose algorithm model version (`FaceModelVersion`) is 3.0.

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: VerifyPerson.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
PersonId	Yes	String	ID of the person to be verified. For more information on <code>PersonId</code> , please see the group management APIs.
Image	No	String	Base64-encoded data of the image. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. If there are multiple faces in the image, only the face with the largest size will be selected. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
Url	No	String	Image URL The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low. If there are multiple faces in the image, only the face with the largest size will be selected. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
QualityControl	No	Integer	Image quality control. 0: no control. 1: low quality requirement. The image has one or more of the following problems: extreme blurriness, covered eyes, covered nose, and covered mouth. 2: average quality requirement. The image has at least three of the following problems: excessive brightness, excessive dimness, blurriness or average blurriness, covered eyebrows, covered cheeks, and covered chin. 3: high-quality requirement. The image has one to two of the following problems: excessive brightness, excessive dimness, average blurriness, covered eyebrows, covered cheeks, and covered chin. 4: very high-quality requirement. The image is optimal in all

			<p>dimensions or only has a slight problem in one dimension. Default value: 0.</p> <p>If the image quality does not meet the requirement, the returned result will prompt that the detected image quality is unsatisfactory.</p>
NeedRotateDetection	No	Integer	<p>Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.</p>

3. Output Parameters

Parameter Name	Type	Description
Score	Float	Similarity between given face image and <code>PersonId</code> . If there are multiple faces under the <code>PersonId</code> , their information will be fused for verification.
IsMatch	Boolean	Whether the person in the image matches the <code>PersonId</code> .
FaceModelVersion	String	Algorithm model version used for face recognition in the group where the <code>Person</code> is, which is set when the group is created.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Verifying person

Input Example

```
https://iai.tencentcloudapi.com/?Action=VerifyPerson
&Url=http://test.image.myqcloud.com/testA.jpg
&PersonId=11111111
&<Common request parameters>
```

Output Example

```
{
  "Response": {
    "Score": 100,
    "IsMatch": true,
    "FaceModelVersion": "3.0",
    "RequestId": "a8eb4545-a154-4f86-9510-57a8be9cae0c"
  }
}
```

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.FaceQualityNotQualified	The face image quality does not meet the requirement.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the

	<code>MinFaceSize</code> value, and the face is filtered out.
<code>FailedOperation.ImageDecodeFailed</code>	Image decoding failed.
<code>FailedOperation.ImageDownloadError</code>	An error occurred while downloading the image.
<code>FailedOperation.ImageFacedetectFailed</code>	Face detection failed.
<code>FailedOperation.ImageResolutionExceed</code>	The image resolution is too high.
<code>FailedOperation.ImageResolutionTooSmall</code>	The image short edge resolution is smaller than 64.
<code>FailedOperation.ImageSizeExceed</code>	The size of the Base64-encoded image cannot exceed 5 MB.
<code>FailedOperation.RequestLimitExceeded</code>	The request frequency exceeds the limit.
<code>FailedOperation.RequestTimeout</code>	The backend service timed out.
<code>FailedOperation.ServerError</code>	The algorithm service is exceptional. Please retry.
<code>InternalError</code>	Internal error.
<code>InvalidParameter.InvalidParameter</code>	Invalid parameter.
<code>InvalidParameterValue.ImageEmpty</code>	Empty image.
<code>InvalidParameterValue.NoFaceInGroups</code>	There are no faces in the specified group.
<code>InvalidParameterValue.NoFaceInPhoto</code>	There are no faces in the image.
<code>InvalidParameterValue.PersonIdIllegal</code>	The person ID contains invalid characters. It can contain only letters, digits, and <code>-%@#&_.</code>
<code>InvalidParameterValue.PersonIdNotExist</code>	The person ID does not exist.
<code>InvalidParameterValue.PersonIdTooLong</code>	The person ID field exceeds the length limit.
<code>InvalidParameterValue.QualityControlIllegal</code>	Invalid <code>QualityControl</code> parameter.
<code>InvalidParameterValue.UnsupportedGroupFaceModelVersion</code>	This operation is not supported by algorithm model v2.0 or below.
<code>InvalidParameterValue.UrlIllegal</code>	Invalid URL format.

LimitExceeded	The quota limit is reached.
ResourceUnavailable.ChargeStatusException	The account is in arrears.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.GetAuthInfoError	Failed to get the authentication information.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.LowBalance	Insufficient balance.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.NotReady	The service is not activated.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

VerifyFace

Last updated : 2023-02-27 15:22:52

1. API Description

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

This API is used to judge whether a person in an image corresponds to a given `PersonId` . For more information on `PersonId` , please see [Group Management APIs](#).

The `VerifyFace` API judges whether a person is someone specified whose information is stored in a group, and there may be multiple face images of "someone". By contrast, the [CompareFace](#) API judges the similarity between two faces.

This API recognizes each face image of a person as an independent one. By contrast, the [VerifyPerson](#) API fuses the features of all face images of a person; for example, if a person has 4 face images, the `VerifyPerson` API will fuse the features of the 4 face images and generate the summarized facial features of the person to make the person verification (i.e., judging whether the face image to be recognized is of a specified person) more accurate.

- Please use the signature algorithm v3 to calculate the signature in the common parameters, that is, set the parameter `SignatureMethod` to `TC3-HMAC-SHA256` .

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: VerifyFace.

Version	Yes	String	Common Params . The value used for this API: 2020-03-03.
Region	No	String	Common Params . This parameter is not required for this API.
PersonId	Yes	String	ID of the person to be verified. For more information on <code>PersonId</code> , please see the group management APIs.
Image	No	String	Base64-encoded image data, which cannot exceed 5 MB. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. If there are multiple faces in the image, only the face with the largest size will be selected. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
Url	No	String	Image URL. The image cannot exceed 5 MB in size after being Base64-encoded. The long side cannot exceed 4,000 px for images in JPG format or 2,000 px for images in other formats. Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used. We recommend storing the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low. If there are multiple faces in the image, only the face with the largest size will be selected. PNG, JPG, JPEG, and BMP images are supported, while GIF images are not.
QualityControl	No	Integer	Image quality control. 0: no control. 1: low quality requirement. The image has one or more of the following problems: extreme blurriness, covered eyes, covered nose, and covered mouth. 2: average quality requirement. The image has at least three of the following problems: excessive brightness, excessive dimness, blurriness or average blurriness, covered eyebrows, covered cheeks, and covered chin. 3: high-quality requirement. The image has one to two of the following problems: excessive brightness, excessive dimness, average blurriness, covered eyebrows, covered cheeks, and covered chin. 4: very high-quality requirement. The image is optimal in all dimensions or only has a slight problem in one dimension.

			<p>Default value: 0.</p> <p>If the image quality does not meet the requirement, the returned result will prompt that the detected image quality is unsatisfactory.</p>
NeedRotateDetection	No	Integer	<p>Whether to enable the support for rotated image recognition. 0: no; 1: yes. Default value: 0. When the face in the image is rotated and the image has no EXIF information, if this parameter is not enabled, the face in the image cannot be correctly detected and recognized. If you are sure that the input image contains EXIF information or the face in the image will not be rotated, do not enable this parameter, as the overall time consumption may increase by hundreds of milliseconds after it is enabled.</p>

3. Output Parameters

Parameter Name	Type	Description
Score	Float	<p>Similarity between given face image and <code>PersonId</code> . If there are multiple faces under the <code>PersonId</code> , the score of the highest similarity will be returned.</p> <p>The returned similarity score varies by algorithm version.</p> <p>If you need to verify whether the faces in the two images are the same person, then the 0.1%, 0.01%, and 0.001% FARs on v3.0 correspond to scores of 40, 50, and 60, respectively. Generally, if the score is above 50, it can be judged that they are the same person.</p> <p>The 0.1%, 0.01%, and 0.001% FARs on v2.0 correspond to scores of 70, 80, and 90, respectively. Generally, if the score is above 80, it can be judged that they are the same person.</p>
IsMatch	Boolean	<p>Whether the person is the one in the image. The fixed threshold score is 60. If you want to adjust the threshold more flexibly, you can take the returned <code>Score</code> parameter value for judgment.</p>
FaceModelVersion	String	<p>Algorithm model version used for face recognition in the group where the <code>Person</code> is, which is set when the group is created.</p>
RequestId	String	<p>The unique request ID, which is returned for each request. RequestId is required for locating a problem.</p>

4. Example

Example1 Verifying a face

Input Example

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

{
  "Url": "http://test.image.myqcloud.com/testA.jpg",
  "PersonId": "11111111"
}
```

Output Example

```
{
  "Response": {
    "Score": 100,
    "IsMatch": true,
    "FaceModelVersion": "3.0",
    "RequestId": "a8eb4545-a154-4f86-9510-57a8be9cae0c"
  }
}
```

5. Developer Resources

SDK

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

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

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

Command Line Interface

- [Tencent Cloud CLI 3.0](#)

6. Error Code

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

Error Code	Description
AuthFailure.InvalidAuthorization	Authentication failed.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.FaceQualityNotQualified	The face image quality does not meet the requirement.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.

FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestTimeout	The backend service timed out.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
InternalServerError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.

InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.

InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and -%#@#&_.
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.QualityControlIllegal	Invalid <code>QualityControl</code> parameter.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.

ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

Image-based Liveness Detection (High Precision) APIs

DetectLiveFaceAccurate

Last updated : 2023-02-27 15:22:46

1. API Description

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

This API is used to detect the liveness of faces in images uploaded by users and determine whether these images are photographed.

Compared with normal Image-based Liveness Detection services, this API enhances the defense capability against attacks from HD screens, printed photos, and 3D masks, as well as improves attack blocking four to five times the competing products, while maintaining high accuracy. It also supports face verification in different use cases, and satisfies the image-based liveness detection needs on mobile or PCs, making it ideal for liveness detection applications in various industries.

Pay-as-you-go billing officially started for this API at 00:00, August 1, 2022. For more information, see [Billing Overview](#).

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: DetectLiveFaceAccurate.
Version	Yes	String	Common Params . The value used for this API: 2020-03-03.

Region	No	String	Common Params . This parameter is not required for this API.
Image	No	String	<p>Base64-encoded image data, which cannot exceed 5 MB.</p> <p>The long side cannot exceed 4,000 px for images in .jpg format or 2,000 px for images in other formats.</p> <p>The recommended image aspect ratio is 3:4 (generally, the aspect ratio of images taken by mobile phones).</p> <p>The face must be greater than 100*100 px in size.</p> <p>Supported image formats are PNG, JPG, JPEG, and BMP. GIF is currently not supported.</p>
Url	No	String	<p>Image URL. The image cannot exceed 5 MB in size after being Base64-encoded.</p> <p>The long side cannot exceed 4,000 px for images in .jpg format or 2,000 px for images in other formats.</p> <p>Either <code>Url</code> or <code>Image</code> must be provided; if both are provided, only <code>Url</code> will be used.</p> <p>The recommended image aspect ratio is 3:4 (generally, the aspect ratio of images taken by mobile phones).</p> <p>The face must be greater than 100*100 px in size.</p> <p>We recommend you store the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.</p> <p>Supported image formats are PNG, JPG, JPEG, and BMP. GIF is currently not supported.</p>
FaceModelVersion	No	String	Algorithm model version used for face recognition. Valid value: <code>3.0</code> .

3. Output Parameters

Parameter Name	Type	Description
Score	Float	Liveness score. Value range: [0, 100]. You can set several thresholds such as 5, 10, 40, 70 and 90 to determine whether the image is photographed. We recommend you use the threshold of 40.
FaceModelVersion	String	Algorithm model version used for face recognition.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Detecting the liveness of faces in images (high precision)

Input Example

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

{
  "Url": "http://test.image.myqcloud.com/testA.jpg"
}
```

Output Example

```
{
  "Response": {
    "Score": 99,
    "FaceModelVersion": "3.0",
    "RequestId": "048a5eb3-f7a9-4c1f-a982-00e90b6b892c"
  }
}
```

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.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the <code>MinFaceSize</code> value, and the face is filtered out.
FailedOperation.GroupInDeletedState	The current group is being deleted. Please wait.
FailedOperation.GroupPersonMapExist	The ID of the corresponding person is already in the group.
FailedOperation.GroupPersonMapNotExist	The ID of the corresponding person is not in the group.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageDownloadError	An error occurred while downloading the image.
FailedOperation.ImageFacedetectFailed	Face detection failed.
FailedOperation.ImageResolutionExceed	The image resolution is too high.
FailedOperation.ImageResolutionTooSmall	The image short edge resolution is smaller than 64.
FailedOperation.ImageSizeExceed	The size of the Base64-encoded image cannot exceed 5 MB.
FailedOperation.RequestLimitExceeded	The request frequency exceeds the limit.
FailedOperation.RequestTimeout	The backend service timed out.

FailedOperation.RpcFail	The RPC call failed.
FailedOperation.SearchFacesExceed	The number of faces searched for exceeds the limit.
FailedOperation.ServerError	The algorithm service is exceptional. Please retry.
FailedOperation.UnKnowError	An internal error occurred.
InternalError	Internal error.
InvalidParameter.InvalidParameter	Invalid parameter.
InvalidParameterValue.AccountFaceNumExceed	The number of faces in the account exceeds the limit.
InvalidParameterValue.DeleteFaceNumExceed	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.
InvalidParameterValue.FaceModelVersionIllegal	The algorithm model version is invalid.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.

InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.
InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description

	field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.
InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and -%#@#&_.
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.Recover	The resource has been repossessed.

ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.

Data Types

Last updated : 2023-02-27 15:22:54

AttributeItem

Face attribute information

Used by actions: DetectFaceAttributes.

Name	Type	Description
Type	Integer	Attribute value
Probability	Float	Probability of recognizing <code>Type</code> , which indicates the probability of correct recognition. Value range: [0,1].

Candidate

Most matching candidate recognized

Used by actions: SearchFaces, SearchFacesReturnsByGroup, SearchPersons, SearchPersonsReturnsByGroup.

Name	Type	Description
PersonId	String	Person ID
FaceId	String	Face ID, which is valid only when returned by the <code>SearchFaces</code> or <code>SearchFacesReturnsByGroup</code> API. User search APIs use facial feature fusion to search for users, for which this field is meaningless.
Score	Float	Match score of candidate. In a face base library containing 10,000 faces, the 1%, 0.1%, and 0.01% FARs correspond to scores of 70, 80, and 90, respectively; In a face base library containing 100,000 faces, the 1%, 0.1%, and 0.01% FARs correspond to scores of 80, 90, and 100, respectively; In a face base library containing 300,000 faces, the 1% and 0.1% FARs correspond to scores of 85 and 95, respectively. Generally, the score of 80 is suitable for most scenarios. We

		recommend choosing an appropriate score based on the actual situation, preferably no more than 90.
PersonName	String	Person name Note: this field may return null, indicating that no valid values can be obtained.
Gender	Integer	Person gender Note: this field may return null, indicating that no valid values can be obtained.
PersonGroupInfos	Array of PersonGroupInfo	List of groups containing this person and their description fields Note: this field may return null, indicating that no valid values can be obtained.

Eye

Eye information

Used by actions: DetectFaceAttributes.

Name	Type	Description
Glass	AttributeItem	Whether glasses are worn. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: no glasses; 1: general glasses; 2: sunglasses.
EyeOpen	AttributeItem	Whether the eyes are open. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: open; 1: closed.
EyelidType	AttributeItem	Whether the person has double eyelids. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: no; 1: yes.
EyeSize	AttributeItem	Eye size. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: small eyes; 1: general eyes; 2: big eyes.

Eyebrow

Eyebrow information

Used by actions: DetectFaceAttributes.

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Name	Type	Description
EyebrowDensity	AttributeItem	Eyebrow thickness. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: light; 1: thick.
EyebrowCurve	AttributeItem	Eyebrow curve. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: flat; 1: curved.
EyebrowLength	AttributeItem	Eyebrow length. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: short; 1: long.

FaceAttributesInfo

Face attributes, including gender, age, expression,

beauty, glass, mask, hair, and pose (pitch, roll, yaw). Valid information will be returned only if

`NeedFaceAttributes` is set to 1. The face attribute information of up to 5 largest faces in the image will be returned, and `FaceAttributesInfo` of the 6th and rest faces is meaningless.

Used by actions: DetectFace.

Name	Type	Description
Gender	Integer	Gender. The gender is female for the value range [0,49] and male for the value range [50,100]. The closer the value to 0 or 100, the higher the confidence. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless.
Age	Integer	Age. Value range: [0,100]. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless.
Expression	Integer	Expression. Value range: [0 (normal)-50 (smile)-100 (laugh)]. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless.
Glass	Boolean	Whether glasses are present. Valid values: true, false. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless.
Pitch	Integer	Vertical offset in degrees. Value range: [-30,30]. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless.

		We recommend selecting images in the [-10,10] range for adding faces.
Yaw	Integer	Horizontal offset in degrees. Value range: [-30,30]. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless. We recommend selecting images in the [-10,10] range for adding faces.
Roll	Integer	Horizontal rotation in degrees. Value range: [-180,180]. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless. We recommend selecting images in the [-20,20] range for adding faces.
Beauty	Integer	Beauty. Value range: [0,100]. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless.
Hat	Boolean	Whether hat is present. Valid values: true, false. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless. Note: this field may return null, indicating that no valid values can be obtained.
Mask	Boolean	Whether mask is present. Valid values: true, false. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless. Note: this field may return null, indicating that no valid values can be obtained.
Hair	FaceHairAttributesInfo	Hair information, including length, bang, and color. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless. Note: this field may return null, indicating that no valid values can be obtained.
EyeOpen	Boolean	Whether the eyes are open. Valid values: true, false. As long as there is more than one eye closed, <code>false</code> will be returned. If <code>NeedFaceAttributes</code> is not 1 or more than 5 faces are detected, this parameter will still be returned but meaningless. Note: this field may return null, indicating that no valid values can be obtained.

FaceDetailAttributesInfo

Face attribute information. According to the types specified in `FaceAttributesType`, the following face attributes will be returned: Age, Beauty,

Emotion, Eye, Eyebrow, Gender,

Hair, Hat, Headpose, Mask, Mouth, Moustache,

Nose, Shape, Skin, Smile, etc.

If no types are specified in `FaceAttributesType`, the details returned by `FaceDetailAttributesInfo` will be meaningless.

Used by actions: DetectFaceAttributes.

Name	Type	Description
Age	Integer	Age. Value range: [0,65], where 65 indicates 65 years old or above. If <code>FaceAttributesType</code> does not include <code>Age</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Beauty	Integer	Beauty score. Value range: [0,100]. If <code>FaceAttributesType</code> does not include <code>Beauty</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Emotion	AttributeItem	Emotion, including relaxed, happy, surprised, angry, sad, disgusted, and scared. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: relaxed; 1: happy; 2: surprised; 3: angry; 4: sad; 5: disgusted; 6: scared. If <code>FaceAttributesType</code> does not include <code>Emotion</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Eye	Eye	Eye information, including whether glasses are worn, whether eyes are closed, whether the person has double eyelids, and the eye size. If <code>FaceAttributesType</code> does not include <code>Eye</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Eyebrow	Eyebrow	Eyebrow information, including whether the eyebrows are thick, curved, or long. If <code>FaceAttributesType</code> does not include <code>Eyebrow</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Gender	AttributeItem	Gender information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: male; 1: female. If <code>FaceAttributesType</code> does not include <code>Gender</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Hair	Hair	Hair information, including length, bang, and color.

		If <code>FaceAttributesType</code> does not include <code>Hair</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Hat	Hat	Hat information, including whether a hat is worn, hat style, and hat color. If <code>FaceAttributesType</code> does not include <code>Hat</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
HeadPose	HeadPose	Pose information, including the face pitch, yaw, and roll. If <code>FaceAttributesType</code> does not include <code>Headpose</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Mask	AttributeItem	Mask information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: no mask; 1: the mask is worn and does not cover the face; 2: the mask is worn and covers the chin; 3: the mask is worn and covers the mouth; 4: the mask is worn properly. If <code>FaceAttributesType</code> does not include <code>Mask</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Mouth	Mouth	Mouth information, including whether the mouth is open and the lip thickness. If <code>FaceAttributesType</code> does not include <code>Mouth</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Moustache	AttributeItem	Beard information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: no beard; 1: beard detected. If <code>FaceAttributesType</code> does not include <code>Moustache</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Nose	AttributeItem	Nose information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: upturned nose; 1: aquiline nose; 2: general nose; 3: bulbous nose. If <code>FaceAttributesType</code> does not include <code>Nose</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Shape	AttributeItem	Face shape information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: square; 1: triangular; 2: oval; 3: heart-shaped; 4: round. If <code>FaceAttributesType</code> does not include <code>Shape</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
Skin	AttributeItem	Skin color information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: yellow; 1: brown; 2: black; 3: white. If <code>FaceAttributesType</code> does not include <code>Skin</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.

Smile	Integer	Smile level. Value range: [0,100]. If <code>FaceAttributesType</code> does not include <code>Smile</code> or more than 5 faces are detected, this parameter will still be returned but meaningless.
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FaceDetailInfo

Face information list.

Used by actions: DetectFaceAttributes.

Name	Type	Description
FaceRect	FaceRect	Position of the detected face frame.
FaceDetailAttributesInfo	FaceDetailAttributesInfo	Face attribute information. According to the types specified in <code>FaceAttributesType</code> , the following face attributes will be returned: age (Age), beauty score (Beauty), emotion (Emotion), eye information (Eye), eyebrow information (Eyebrow), gender (Gender), hair information (Hair), hat information (Hat), pose (Headpose), mask information (Mask), mouth information (Mouse), beard information (Moustache), nose information (Nose), face shape (Shape), skin color (Skin), and smile information (Smile), etc. If no types are specified in <code>FaceAttributesType</code> , the detailed items returned by <code>FaceDetailAttributesInfo</code> will be meaningless.

FaceHairAttributesInfo

Hair information in face attributes.

Used by actions: DetectFace.

Name	Type	Description
Length	Integer	0: shaved head, 1: short hair, 2: medium hair, 3: long hair, 4: braid Note: this field may return null, indicating that no valid values can be obtained.
Bang	Integer	0: with bangs, 1: no bangs Note: this field may return null, indicating that no valid values can be obtained.

Color	Integer	0: black, 1: golden, 2: brown, 3: gray Note: this field may return null, indicating that no valid values can be obtained.
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FaceInfo

Face information list.

Used by actions: DetectFace.

Name	Type	Description
X	Integer	Horizontal coordinate of the top-left vertex of the face frame. The face frame encompasses the facial features and is extended accordingly. If it is larger than the image, the coordinates will be negative. If you want to capture a complete face, you can set the negative coordinates to 0 if the <code>completeness</code> score meets the requirement.
Y	Integer	Vertical coordinate of the top-left vertex of the face frame. The face frame encompasses the facial features and is extended accordingly. If it is larger than the image, the coordinates will be negative. If you want to capture a complete face, you can set the negative coordinates to 0 if the <code>completeness</code> score meets the requirement.
Width	Integer	Face frame width.
Height	Integer	Face frame height.
FaceAttributesInfo	FaceAttributesInfo	Face attributes, including gender, age, expression, beauty, glass, mask, hair, and pose (pitch, roll, yaw). Valid information will be returned only if <code>NeedFaceAttributes</code> is set to 1.
FaceQualityInfo	FaceQualityInfo	Face quality information, including score, sharpness, brightness, and completeness. Valid information will be returned only if <code>NeedFaceDetection</code> is set to 1. Note: this field may return null, indicating that no valid values can be obtained.

FaceQualityCompleteness

Completeness of facial features, which assesses the completeness of the eyebrows, eyes, nose, cheeks, mouth, and chin.

Used by actions: DetectFace.

Name	Type	Description
Eyebrow	Integer	Eyebrow completeness. Value range: [0,100]. The higher the score, the higher the completeness. Reference range: [0,80], which means incomplete. Note: this field may return null, indicating that no valid values can be obtained.
Eye	Integer	Eye completeness. Value range: [0,100]. The higher the score, the higher the completeness. Reference range: [0,80], which means incomplete. Note: this field may return null, indicating that no valid values can be obtained.
Nose	Integer	Nose completeness. Value range: [0,100]. The higher the score, the higher the completeness. Reference range: [0,60], which means incomplete. Note: this field may return null, indicating that no valid values can be obtained.
Cheek	Integer	Cheek completeness. Value range: [0,100]. The higher the score, the higher the completeness. Reference range: [0,70], which means incomplete. Note: this field may return null, indicating that no valid values can be obtained.
Mouth	Integer	Mouth completeness. Value range: [0,100]. The higher the score, the higher the completeness. Reference range: [0,50], which means incomplete. Note: this field may return null, indicating that no valid values can be obtained.
Chin	Integer	Chin completeness. Value range: [0,100]. The higher the score, the higher the completeness. Reference range: [0,70], which means incomplete. Note: this field may return null, indicating that no valid values can be obtained.

FaceQualityInfo

Face quality information, including score, sharpness, brightness, and completeness. Valid information will be returned only if `NeedFaceDetection` is set to 1.

Used by actions: DetectFace.

Name	Type	Description
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Score	Integer	<p>Quality score. Value range: [0,100]. It comprehensively evaluates whether the image quality is suitable for face recognition; the higher the score, the higher the quality. In normal cases, you only need to use <code>Score</code> as the overall quality standard score. Specific item scores such as <code>Sharpness</code>, <code>Brightness</code>, <code>Completeness</code> are for reference only.</p> <p>Reference range: [0,40]: poor; [40,60]: fine; [60,80]: good; [80,100]: excellent.</p> <p>We recommend selecting images with a score above 70 for adding faces.</p> <p>Note: this field may return null, indicating that no valid values can be obtained.</p>
Sharpness	Integer	<p>Sharpness. Value range: [0,100]. It evaluates the sharpness of the image. The higher the score, the sharper the image.</p> <p>Reference range: [0,40]: very blurry; [40,60]: blurry; [60,80]: fine; [80,100]: sharp.</p> <p>We recommend selecting images with a score above 80 for adding faces.</p> <p>Note: this field may return null, indicating that no valid values can be obtained.</p>
Brightness	Integer	<p>Brightness. Value range: [0,100]. The brighter the image, the higher the score.</p> <p>Reference range: [0,30]: dark; [30,70]: normal; [70,100]: bright.</p> <p>We recommend selecting images in the [30,70] range for adding faces.</p> <p>Note: this field may return null, indicating that no valid values can be obtained.</p>
Completeness	FaceQualityCompleteness	<p>Completeness of facial features, which assesses the completeness of the eyebrows, eyes, nose, cheeks, mouth, and chin.</p> <p>Note: this field may return null, indicating that no valid values can be obtained.</p>

FaceRect

Position of detected face frame

Used by actions: `CreateFace`, `CreatePerson`, `DetectFaceAttributes`, `SearchFaces`, `SearchFacesReturnsByGroup`, `SearchPersons`, `SearchPersonsReturnsByGroup`.

Name	Type	Description
X	Integer	Horizontal coordinate of the top-left vertex of face frame. The face frame encompasses the facial features and is extended accordingly. If it is larger than the image, the coordinates will be negative. If you want to capture a complete face, you can set the negative coordinates to 0 if the completeness score meets the requirement.
Y	Integer	Vertical coordinate of the top-left vertex of face frame. The face frame encompasses the facial features and is extended accordingly. If it is larger than the image, the coordinates will be negative. If you want to capture a complete face, you can set the negative coordinates to 0 if the completeness score meets the requirement.
Width	Integer	Face width
Height	Integer	Face height

FaceShape

Specific information of facial feature localization (facial keypoints).

Used by actions: AnalyzeFace.

Name	Type	Description
FaceProfile	Array of Point	21 points that describe the face contour.
LeftEye	Array of Point	8 points that describe the left eye.
RightEye	Array of Point	8 points that describe the right eye.
LeftEyeBrow	Array of Point	8 points that describe the left eyebrow.
RightEyeBrow	Array of Point	8 points that describe the right eyebrow.
Mouth	Array of Point	22 points that describe the mouth.
Nose	Array of Point	13 points that describe the nose.
LeftPupil	Array of Point	1 point that describes the left pupil.
RightPupil	Array of Point	1 point that describes the right pupil.

GroupCandidate

Recognition result items by group

Used by actions: SearchFacesReturnsByGroup, SearchPersonsReturnsByGroup.

Name	Type	Description
GroupId	String	Group ID.
Candidates	Array of Candidate	Most matching candidate recognized

GroupExDescriptionInfo

Custom description field of the group to be modified, which is a `key-value` pair.

Used by actions: ModifyGroup.

Name	Type	Required	Description
GroupExDescriptionIndex	Integer	Yes	Custom group description field index, whose value starts from 0. Note: this field may return null, indicating that no valid values can be obtained.
GroupExDescription	String	Yes	Content of the custom group description field to be updated

GroupInfo

Returned group information

Used by actions: GetGroupList.

Name	Type	Description
GroupName	String	Group name
GroupId	String	Group ID
GroupExDescriptions	Array of String	Custom group description field Note: this field may return null, indicating that no valid values can be obtained.

Tag	String	Group remarks Note: this field may return null, indicating that no valid values can be obtained.
FaceModelVersion	String	Algorithm model version used for face recognition. Note: this field may return null, indicating that no valid values can be obtained.
CreationTimestamp	Integer	Group creation time and date (<code>CreationTimestamp</code>), whose value is the number of milliseconds between the UNIX epoch time and the group creation time. The UNIX epoch time is 00:00:00, Thursday, January 1, 1970, Coordinated Universal Time (UTC). For more information, please see the UNIX time document. Note: this field may return null, indicating that no valid values can be obtained.

Hair

Hair information

Used by actions: DetectFaceAttributes.

Name	Type	Description
Length	AttributeItem	Hair length information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: bald, 1: short hair, 2: medium hair, 3: long hair, 4: braid.
Bang	AttributeItem	Bang information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: no bang; 1: bang detected.
Color	AttributeItem	Hair color information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: black; 1: golden; 2: brown; 3: gray.

Hat

Hat information

Used by actions: DetectFaceAttributes.

Name	Type	Description
Style	AttributeItem	Hat wearing status information. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: no hat; 1: general hat; 2: helmet; 3: security guard hat.
Color	AttributeItem	Hat color. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: no hat; 1: red; 2: yellow; 3: blue; 4: black; 5: gray; 6: mixed colors.

HeadPose

Pose information.

Used by actions: DetectFaceAttributes.

Name	Type	Description
Pitch	Integer	Pitch. Value range: [-30,30].
Yaw	Integer	Yaw. Value range: [-30,30].
Roll	Integer	Roll. Value range: [-180,180].

Mouth

Mouth information

Used by actions: DetectFaceAttributes.

Name	Type	Description
MouthOpen	AttributeItem	Whether the mouth is open. The <code>Type</code> values of the <code>AttributeItem</code> include: 0: closed; 1: open.

PersonExDescriptionInfo

Custom description field of the person to be modified, which is a `key-value` pair.

Used by actions: CreatePerson, ModifyPersonGroupInfo.

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Name	Type	Required	Description
PersonExDescriptionIndex	Integer	Yes	Person description field index, whose value starts from 0. Note: this field may return null, indicating that no valid values can be obtained.
PersonExDescription	String	Yes	Content of the person description field to be updated

PersonGroupInfo

List of groups containing this person and their description fields

Used by actions: GetPersonGroupInfo, SearchFaces, SearchFacesReturnsByGroup, SearchPersons, SearchPersonsReturnsByGroup.

Name	Type	Description
GroupId	String	ID of the group that contains this person
PersonExDescriptions	Array of String	Content of person description field

PersonInfo

Returned person information

Used by actions: GetPersonList.

Name	Type	Description
PersonName	String	Person name
PersonId	String	Person ID
Gender	Integer	Person gender
PersonExDescriptions	Array of String	Content of person description field
FaceIds	Array of String	List of contained face images
CreationTimestamp	Integer	Person creation time, measured in the number of milliseconds elapsed

since the Unix epoch

The Unix epoch is 00:00:00, Thursday, January 1, 1970, Coordinated Universal Time (UTC). For more information, please see the Unix time document.

Point

Coordinates

Used by actions: AnalyzeFace.

Name	Type	Description
X	Integer	X coordinate
Y	Integer	Y coordinate

Result

Face recognition result

Used by actions: SearchFaces, SearchPersons.

Name	Type	Description
Candidates	Array of Candidate	Most matching candidate recognized
FaceRect	FaceRect	Position of detected face frame
RetCode	Integer	The status return code for the face image detected. Valid values: <code>0</code> - normal; <code>-1601</code> - the image does not meet the quality requirements, in which case <code>Candidate</code> is empty; <code>-1604</code> - the face similarity is not higher than <code>FaceMatchThreshold</code> .

ResultsReturnsByGroup

Recognition result.

Used by actions: SearchFacesReturnsByGroup, SearchPersonsReturnsByGroup.

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Name	Type	Description
FaceRect	FaceRect	Position of detected face frame
GroupCandidates	Array of GroupCandidate	Recognition result.
RetCode	Integer	Status return code of detected face image. 0: normal. -1601: the image quality control requirement is not met; in this case, <code>Candidate</code> is empty.

Error Codes

Last updated : 2023-02-02 17:27:17

Feature Description

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

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

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

Error Code List

Common Error Codes

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

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

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

Service Error Codes

Successful API calls and failed calls with the InvalidParameterValue.NoFaceInPhoto error code will incur charges.

Error Code	Description
FailedOperation.AcrossVersionsError	This operation cannot be performed across algorithm model versions.
FailedOperation.ConflictOperation	The operations conflict. Do not operate on the same person simultaneously.
FailedOperation.CreateFaceConcurrent	Faces cannot be added concurrently.
FailedOperation.DuplicatedGroupDescription	The custom description field must be unique in the group.
FailedOperation.FaceQualityNotQualified	The face image quality does not meet the requirement.
FailedOperation.FaceSizeTooSmall	The face frame size is smaller than the

	<code>MinFaceSize</code> value, and the face is filtered out.
<code>FailedOperation.GroupInDeletedState</code>	The current group is being deleted. Please wait.
<code>FailedOperation.GroupPersonMapExist</code>	The ID of the corresponding person is already in the group.
<code>FailedOperation.GroupPersonMapNotExist</code>	The ID of the corresponding person is not in the group.
<code>FailedOperation.ImageDecodeFailed</code>	Image decoding failed.
<code>FailedOperation.ImageDownloadError</code>	An error occurred while downloading the image.
<code>FailedOperation.ImageFacedetectFailed</code>	Face detection failed.
<code>FailedOperation.ImageResolutionExceed</code>	The image resolution is too high.
<code>FailedOperation.ImageResolutionTooSmall</code>	The image short edge resolution is smaller than 64.
<code>FailedOperation.ImageSizeExceed</code>	The size of the Base64-encoded image cannot exceed 5 MB.
<code>FailedOperation.RequestLimitExceeded</code>	The request frequency exceeds the limit.
<code>FailedOperation.RequestTimeout</code>	The backend service timed out.
<code>FailedOperation.RpcFail</code>	The RPC call failed.
<code>FailedOperation.SearchFacesExceed</code>	The number of faces searched for exceeds the limit.
<code>FailedOperation.ServerError</code>	The algorithm service is exceptional. Please retry.
<code>FailedOperation.UnKnowError</code>	An internal error occurred.
<code>InvalidParameter.InvalidParameter</code>	Invalid parameter.
<code>InvalidParameterValue.AccountFaceNumExceed</code>	The number of faces in the account exceeds the limit.
<code>InvalidParameterValue.DeleteFaceNumExceed</code>	The number of faces to be deleted exceeds the limit. Every person must have at least one face image.

InvalidParameterValue.FaceMatchThresholdIllegal	Invalid <code>FaceMatchThreshold</code> parameter.
InvalidParameterValue.FaceModelVersionIllegal	The algorithm model version is invalid.
InvalidParameterValue.GroupExDescriptionsExceed	The array length of the group's custom description fields exceeds the limit. Up to 5 fields can be created.
InvalidParameterValue.GroupExDescriptionsNameIdentical	The name of the group's custom description field must be unique.
InvalidParameterValue.GroupExDescriptionsNameIllegal	The name of the group's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupExDescriptionsNameTooLong	The name of the group's custom description field exceeds the length limit.
InvalidParameterValue.GroupFaceNumExceed	The number of faces in the group exceeds the limit.
InvalidParameterValue.GroupIdAlreadyExist	The group ID already exists. It must be unique.
InvalidParameterValue.GroupIdIllegal	The group ID contains invalid characters. It can contain only letters, digits, and special symbols (<code>-%@#&_</code>).
InvalidParameterValue.GroupIdNotExist	The group ID does not exist.
InvalidParameterValue.GroupIdNotExists	The corresponding group ID does not exist.
InvalidParameterValue.GroupIdTooLong	The group ID exceeds the length limit.
InvalidParameterValue.GroupIdsExceed	The list of groups passed in exceeds the limit.
InvalidParameterValue.GroupNameAlreadyExist	The group name already exists. It must be unique.
InvalidParameterValue.GroupNameIllegal	The group name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupNameTooLong	The group name exceeds the length limit.
InvalidParameterValue.GroupNumExceed	The number of groups exceeds the limit. If you need more, please contact us.
InvalidParameterValue.GroupNumPerPersonExceed	The number of groups exceeds the limit. One person can be added to up to 100 groups.

InvalidParameterValue.GroupTagIllegal	The group remarks field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.GroupTagTooLong	The group remarks field exceeds the length limit.
InvalidParameterValue.ImageEmpty	Empty image.
InvalidParameterValue.ImageEmptyError	Empty image.
InvalidParameterValue.LimitExceed	The number of returned results exceeds the limit.
InvalidParameterValue.NoFaceInGroups	There are no faces in the specified group.
InvalidParameterValue.NoFaceInPhoto	There are no faces in the image.
InvalidParameterValue.OffsetExceed	The starting number is too large. Please check the length of the array to be requested.
InvalidParameterValue.PersonExDescriptionInfosExceed	The array length of the person's custom description fields exceeds the limit. Up to 5 fields are allowed.
InvalidParameterValue.PersonExDescriptionsNameIdentical	The name of the person's custom description field must be unique.
InvalidParameterValue.PersonExDescriptionsNameIllegal	The name of the person's custom description field contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonExDescriptionsNameTooLong	The name of the person's custom description field exceeds the length limit.
InvalidParameterValue.PersonExistInGroup	The ID of the corresponding person is already in the group.
InvalidParameterValue.PersonFaceNumExceed	The number of face images for the person exceeds the limit. One person can have up to 5 face images.
InvalidParameterValue.PersonGenderIllegal	An error occurred while setting person gender. 0: empty; 1: male; 2: female.
InvalidParameterValue.PersonIdAlreadyExist	The person ID already exists. It must be unique.

InvalidParameterValue.PersonIdIllegal	The person ID contains invalid characters. It can contain only letters, digits, and -%#@#&_.
InvalidParameterValue.PersonIdNotExist	The person ID does not exist.
InvalidParameterValue.PersonIdTooLong	The person ID field exceeds the length limit.
InvalidParameterValue.PersonNameIllegal	The person name contains invalid characters. It can contain only letters, <code>-</code> , <code>_</code> , and digits.
InvalidParameterValue.PersonNameTooLong	The person name exceeds the length limit.
InvalidParameterValue.QualityControlIllegal	Invalid <code>QualityControl</code> parameter.
InvalidParameterValue.SearchPersonsExceed	The number of persons searched for exceeds the limit.
InvalidParameterValue.UniquePersonControlIllegal	Invalid <code>UniquePersonControl</code> parameter.
InvalidParameterValue.UnsupportedGroupFaceModelVersion	This operation is not supported by algorithm model v2.0 or below.
InvalidParameterValue.UploadFaceNumExceed	Up to four faces can be uploaded at a time.
InvalidParameterValue.UrlIllegal	Invalid URL format.
LimitExceeded.ErrorFaceNumExceed	The number of faces exceeds the limit.
MissingParameter.ErrorParameterEmpty	A required parameter is empty.
ResourceUnavailable.ChargeStatusException	The account is in arrears.
ResourceUnavailable.Delivering	The resource is being shipped.
ResourceUnavailable.Freeze	The account is frozen.
ResourceUnavailable.GetAuthInfoError	Failed to get the authentication information.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.LowBalance	Insufficient balance.
ResourceUnavailable.NotExist	The billing status is unknown. Please check whether the service has been activated in the console.
ResourceUnavailable.NotReady	The service is not activated.

ResourceUnavailable.Recover	The resource has been repossessed.
ResourceUnavailable.StopUsing	The service has been suspended for the account.
ResourceUnavailable.UnknownStatus	The billing status is unknown.
ResourcesSoldOut.ChargeStatusException	The billing status is exceptional.
UnsupportedOperation.UnknowMethod	Unknown method name.