

Alibaba Cloud ID Verification

Development Guide

Issue: 20190827

Legal disclaimer

Alibaba Cloud reminds you to carefully read and fully understand the terms and conditions of this legal disclaimer before you read or use this document. If you have read or used this document, it shall be deemed as your total acceptance of this legal disclaimer.

1. You shall download and obtain this document from the Alibaba Cloud website or other Alibaba Cloud-authorized channels, and use this document for your own legal business activities only. The content of this document is considered confidential information of Alibaba Cloud. You shall strictly abide by the confidentiality obligations. No part of this document shall be disclosed or provided to any third party for use without the prior written consent of Alibaba Cloud.
2. No part of this document shall be excerpted, translated, reproduced, transmitted, or disseminated by any organization, company, or individual in any form or by any means without the prior written consent of Alibaba Cloud.
3. The content of this document may be changed due to product version upgrades, adjustments, or other reasons. Alibaba Cloud reserves the right to modify the content of this document without notice and the updated versions of this document will be occasionally released through Alibaba Cloud-authorized channels. You shall pay attention to the version changes of this document as they occur and download and obtain the most up-to-date version of this document from Alibaba Cloud-authorized channels.
4. This document serves only as a reference guide for your use of Alibaba Cloud products and services. Alibaba Cloud provides the document in the context that Alibaba Cloud products and services are provided on an "as is", "with all faults" and "as available" basis. Alibaba Cloud makes every effort to provide relevant operational guidance based on existing technologies. However, Alibaba Cloud hereby makes a clear statement that it in no way guarantees the accuracy, integrity, applicability, and reliability of the content of this document, either explicitly or implicitly. Alibaba Cloud shall not bear any liability for any errors or financial losses incurred by any organizations, companies, or individuals arising from their download, use, or trust in this document. Alibaba Cloud shall not, under any circumstances, bear responsibility for any indirect, consequential, exemplary, incidental, special, or punitive damages, including lost profits arising from the use

or trust in this document, even if Alibaba Cloud has been notified of the possibility of such a loss.

5. By law, all the content of the Alibaba Cloud website, including but not limited to works, products, images, archives, information, materials, website architecture, website graphic layout, and webpage design, are intellectual property of Alibaba Cloud and/or its affiliates. This intellectual property includes, but is not limited to, trademark rights, patent rights, copyrights, and trade secrets. No part of the Alibaba Cloud website, product programs, or content shall be used, modified, reproduced, publicly transmitted, changed, disseminated, distributed, or published without the prior written consent of Alibaba Cloud and/or its affiliates. The names owned by Alibaba Cloud shall not be used, published, or reproduced for marketing, advertising, promotion, or other purposes without the prior written consent of Alibaba Cloud. The names owned by Alibaba Cloud include, but are not limited to, "Alibaba Cloud", "Aliyun", "HiChina", and other brands of Alibaba Cloud and/or its affiliates, which appear separately or in combination, as well as the auxiliary signs and patterns of the preceding brands, or anything similar to the company names, trade names, trademarks, product or service names, domain names, patterns, logos, marks, signs, or special descriptions that third parties identify as Alibaba Cloud and/or its affiliates).
6. Please contact Alibaba Cloud directly if you discover any errors in this document.

Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus, page names, and other UI elements.	Click OK.
Courier font	It is used for commands.	Run the <code>cd / d C :/ windows</code> command to enter the Windows system folder.
<i>Italics</i>	It is used for parameters and variables.	<code>bae log list --instanceid Instance_ID</code>
[] or [a b]	It indicates that it is an optional value, and only one item can be selected.	<code>ipconfig [-all -t]</code>

Style	Description	Example
<code>{}</code> or <code>{a b}</code>	It indicates that it is a required value, and only one item can be selected.	<code>switch {stand slave}</code>

Contents



Legal disclaimer.....	I
Generic conventions.....	I
1 Connect client-premises servers to ID Verification.....	1
2 Make API requests.....	8

1 Connect client-premises servers to ID Verification

This topic describes how to connect servers on your premises to ID Verification.

Request parameters

You can connect your servers to ID Verification and make API requests to call ID Verification services. For more information, see [#unique_4](#). The following table lists the fields that you must pass to the `JSON` string of the `ServiceParameters` parameter.

Parameter	Type	Require	Description	Example
refFaceContent	String	Yes	<p>The base64 encoded ID photo. Do not include the prefix <code>data : image / jpeg ; base64</code> . The photo must be in the JPG format. Do not include newlines (<code>\r</code>) or carriage returns (<code>\n</code>).</p> <div> Note: We recommend that you use the built-in camera of your device to take photos.</div>	/9j/ 4AAQSkZJRg ABAQAAFAAU AAD...
authFaceContent	String	Yes	<p>The face photo encoded by using Base64. Do not include the prefix <code>data : image / jpeg ; base64</code> . The photo must be in the JPG format. Do not include newlines (<code>\r</code>) or carriage returns (<code>\n</code>).</p> <div> Note: We recommend that you use the built-in camera of your device to take photos.</div>	/9j/ 4AAQSkZJRg ABAQAAFAAU AAD...
resourceCode	String	Yes	The resource code of the country that the person being verified belongs to.	For example, 00840000 for Vietnam.

Response parameters

Parameter	Type	Required	Description	Example
Data	String	Yes	The facial recognition result.	{\" passed \": \" true \",...
Message	String	Yes	The status of the request.	OK
RequestId	String	Yes	The UID of the request.	0CE4BBEF-F149-490C-97CE-CBBD66E25D6C
Code	Integer	Yes	The response code. For more information, see Response codes .	200

- The code returned because the request is successfully sent to the API.

```
{
  " Data ": "{ \" passed \": \" true \", \" retCode \": \" OK_SUCCESS \", \" retCodeSub \": \" Z1140 \", \" retMessage \": \" Facial recognitio n passed ( Z1140 ) \", \" extInfo \": { \" result \": \" true \", \" score \": \" 100 . 0 \", \" faceAttack \": \" false \" } }",
  " Message ": " OK ",
  " RequestId ": " 0CE4BBEF - F149 - 490C - 97CE - CBBD66E25D 6C ",
  " Code ": 200
}
```

- Sample error response 1

```
{
  " Data ": "{ \" passed \": \" false \", \" retCode \": \" SYSTEM_ERR OR \", \" retCodeSub \": \" Z1141 \", \" retMessage \": \" resourceCo de value invalid \" }",
  " Message ": " system error ",
  " RequestId ": " 725E1B4E - 3E79 - 4FAB - AD52 - 1D09297CA5 4C ",
  " Code ": 500
}
```

Sample error response 2

```
{
  " Message ": " refFaceCon tent or authFaceCo ntent or resourceCo de is null ",
  " RequestId ": " C5E39498 - 2148 - 4DB4 - A54F - 77CC3BF0AB BF ",
  " Code ": 400
}
```

}

- The following table lists the descriptions of the `JSON` strings returned by the `Data` parameter.

Parameter	Type	Required	Description	Example
<code>passed</code>	String	Yes	When the system runs a facial recognition task, it returns one of the following results: <ul style="list-style-type: none"> - <code>false</code>: Facial recognition failed. - <code>true</code>: Facial recognition is passed. 	<code>true</code>
<code>retCode</code>	String	Yes	The response code. <ul style="list-style-type: none"> - <code>OK_SUCCESS</code>: The facial recognition request has been sent. - <code>SYSTEM_ERROR</code>: An error occurred in your servers. - <code>UNABLE_GET_IMAGE</code>: The data for comparison is unavailable. - <code>PROCESSING</code>: The photo cannot be parsed. Try again later. 	<code>OK_SUCCESS</code>
<code>retCodeSub</code>	String	Yes	The subcode in the response. You can use subcodes to troubleshoot errors. Do not use the subcodes in selection statements.	-
<code>retMessage</code>	String	Yes	The request status. Use it for troubleshooting only.	Facial recognition passed (Z1140)

Parameter	Type	Required	Description	Example
extInfo.result	String	Yes	The final result of ID verification. - false: Failed - true: Passed.	true
extInfo.score	String	Yes	The similarity between the face and the photo.	54.4566324452
extInfo.faceAttack	String	Yes	Determines whether it is a spoofing attack. For example, attacks that use pictures taken from authenticated pictures or videos to impersonate the real person. - false: Not a spoofing attack. - true: A spoofing attack.	false

Sample code

Java

```

import java . io . IOException ;
import java . util . HashMap ;
import java . util . Map ;
import com . alibaba . fastjson . JSON ;
import com . aliyuncs . CommonRequest ;
import com . aliyuncs . CommonResponse ;
import com . aliyuncs . DefaultAcsClient ;
import com . aliyuncs . IAcscClient ;
import com . aliyuncs . exceptions . ClientException ;
import com . aliyuncs . exceptions . ServerException ;
import com . aliyuncs . http . MethodType ;
import com . aliyuncs . http . ProtocolType ;
import com . aliyuncs . profile . DefaultProfile ;

public class IntlFaceVerifyTest {
    public static void main ( String [] args ) throws
    IOException {
        DefaultProfile profile = DefaultProfile . getProfile
        (" cn - shanghai ", "< your - access - key - id >", "< your - access
        - key - secret >");
        IAcscClient client = new DefaultAcsClient ( profile );

        CommonRequest request = new CommonRequest ();
        request . setMethod ( MethodType . POST );
        // Select the nearest region .

```

```

        request . setDomain (" saf . ap - southeast - 1 . aliyuncs .
com ");
        request . setVersion (" 2019 - 05 - 21 ");
        request . setAction (" ExecuteReq uest ");
        request . setProtoco l ( ProtocolTy pe . HTTPS );

        // ID Verificati on parameters .
        Map < String , Object > servicePar ams = new HashMap <
String , Object >();
        // Do not include this prefix : data : image / jpeg
; base64 . The photo must be in the JPG format . Do
not include newlines (\ r ) or carriage returns (\ n ).
        servicePar ams . put (" authFaceCo ntent ", "/ 9j /
4AAQSkZJRg ABAQAAFAAU AAD ...");
        // Do not include this prefix : data : image / jpeg
; base64 ,). The photo must be in the JPG format . Do
not include newlines (\ r ) or carriage returns (\ n ).
        servicePar ams . put (" refFaceCon tent ", "/ 9j /
4AAQSkZJRg ABAQAAFAAU AAD ...");
        // The resource code of the country that the
person being verified belongs to . For example , 00840000
for Vietnam .
        servicePar ams . put (" resourceCo de ", " 00840000 ");

        request . putQueryPa rameter (" ServicePar ameters ", JSON
. toJSONStri ng ( servicePar ams ));
        // The default value .
        request . putQueryPa rameter (" Service ", " intl_face_
verify ");

        try {
            CommonResp onse response = client . getCommonR
esponse ( request );
            System . out . println ( response . getData ());
        } catch ( ServerExce ption e ) {
            e . printStack Trace ();
        } catch ( ClientExce ption e ) {
            e . printStack Trace ();
        }
    }
}

```

PHP

```

<? php
include_on ce ' aliyun - openapi - php - sdk / aliyun - php - sdk -
core / Config . php ';
use saf \ Request \ V20180919 as saf ;

// Initialize the class .
$ iClientPro file = DefaultPro file :: getProfile (" cn - shanghai
", "< your - access - key - id >", "< your - access - key - secret
>");
$ client = new DefaultAcs Client ($ iClientPro file );

// Set parameters .
$ request = new saf \ ExecuteReq uestReques t ();
$ request -> setService (' intl_face_ verify ');
$ request -> setService Parameters ('{" authFaceCo ntent ": "/ 9j /
4AAQSkZJRg ABAQAAFAAU AAD ...", " resourceCo de ": " 00840000 ",
refFaceCon tent ": "/ 9j / 4AAQSkZJRg ABAQAAFAAU AAD ..."}');

// Initiate the request .

```

```
$ response = $ client -> getAcsResp onse ($ request );

print_r ("< br >");
print_r (" test ");
print_r ("\ r \ n ");
print_r ($ response );

print_r ($ client );

? >
```

Python

```
from aliynsdkc ore import client
from aliynsdks af . request . v20180919 import ExecuteReq
uestReques t

clt = client . AcsClient ('< your - access - key - id >', '< your -
access - key - secret >', ' cn - shanghai ')

# Set parameters .
request = ExecuteReq uestReques t . ExecuteReq uestReques t ()
request . set_accept _format (' json ')
request . set_versio n (" 2019 - 05 - 21 ")

request . add_query_ param (' Service ', ' intl_face_ verify ')
request . add_query_ param (' ServicePar ameters ', '{" authFaceCo
ntent ": "/ 9j / 4AAQSkZJRg ABAQAAFAAU AAD ...", " resourceCo de ":
" 00840000 ", " refFaceCon tent ": "/ 9j / 4AAQSkZJRg ABAQAAFAAU
AAD ..."}')

# Initiate the request .
response = clt . do_action_ with_excep tion ( request )
print ( response )
```

Golang

```
package main

import (
    "fmt"
    "github . com / aliyun / alibaba - cloud - sdk - go / services /
saf"
)

func main () {
    client, err := saf . NewClientW ithAccessK ey (" cn -
shanghai ", "< your - access - key - id >", "< your - access - key -
secret >")
    request := saf . CreateExec uteRequest Request ()
    // For more informatio n about the Service parameter
, see the Common request parameters table in the
Make API requests topic .
    request . Service = " intl_face_ verify "
    request . ServicePar ameters = `{" authFaceCo ntent ": "/ 9j /
4AAQSkZJRg ABAQAAFAAU AAD ...", " resourceCo de ": " 00840000 ",
refFaceCon tent ": "/ 9j / 4AAQSkZJRg ABAQAAFAAU AAD ..."}`
    request . Scheme = " https "
    response, err := client . ExecuteReq uest ( request )
    if err != nil {
        fmt . Print ( err . Error ())
    }
}
```

```
    fmt . Printf (" response code is %# v \ n ", response . Code
)
    fmt . Printf (" response date is %# v \ n ", response . Data
)
    fmt . Printf (" response message is %# v \ n ", response .
Message )
    fmt . Printf (" response requestId is %# v \ n ", response .
RequestId )
}
```

2 Make API requests

This topic describes how to make an API request.

Make API requests

Basic API information

- Service endpoint: `https://saf.ap-southeast-1.aliyuncs.com`.
- Protocol: HTTPS
- Method: POST



Note:

To facilitate development, Alibaba Cloud also provides Java, Python, PHP, C#, and Golang SDKs. These SDKs save you the need to concatenate and encode canonical query strings. For more information, see [Make API requests](#).

Request parameters

The following table lists the common request parameters.

Parameter	Type	Required	Description
Format	String	Yes	The value format of response parameters. Supported formats include <code>JSON</code> and <code>XML</code> . By default, values are in the <code>XML</code> format.
Version	String	Yes	The API version, with a date format of <code>YYYY-MM-DD</code> . The current version is <code>2019-05-21</code> .
AccessKeyId	String	Yes	The AccessKey ID issued by Alibaba Cloud for users to access services. For more information, see #unique_6 .
Signature	String	Yes	The signature string. For more information about the calculation of signatures, see Sign API requests .
SignatureMethod	String	Yes	The algorithm that is used to sign the signature. Currently, <code>HMAC-SHA1</code> is supported.

Parameter	Type	Required	Description
Timestamp	String	Yes	The timestamp of the API request. The timestamp follows the ISO 8601 format and the UTC time standard. The time format is <code>YYYY - MM - DDThh : mm : ssZ</code> . For example, <code>2014 - 7 - 29T12 : 00 : 00Z</code> specifies 20:00:00, July 29, 2014 (UTC +8).
SignatureVersion	String	Yes	The version of the signature algorithm. The current version is <code>1 . 0</code> .
SignatureNonce	String	Yes	The unique random number that is used to prevent network replay attacks. You must use different random numbers for different requests.
Action	String	Yes	The operation that you want to perform. Set this parameter to <code>ExecuteRequest</code> .
Service	String	Yes	The name of the service. Set this parameter to <code>intl_face_verify</code> .
ServiceParameters	String	Yes	The JSON string that contains service parameters. For more information, see the API reference of the specific service.

Response parameters

After you send an API request, the system returns a `RequestId` UID to you, no matter whether the request is successful or not. The descriptions of other response parameters may vary depending on the service. For more information, see the API reference of the specific service.

• Sample success response

```
{
  " Data ": "{\\" retCode \":\\" OK_SUCCESS \",...}",
  " Message ": " OK ",
  " RequestId ": " 0CE4BBEF - F149 - 490C - 97CE - CBBD66E25D 6C ",
  " Code ": 200
}
```

• Sample error response

```
- {
  " Data ": "{\\" retCode \":\\" SYSTEM_ERR OR \",...}",
```

```
    " Message ": " system error ",  
    " RequestId ": " 725E1B4E - 3E79 - 4FAB - AD52 - 1D09297CA5  
4C ",  
    " Code ": 500  
}  
  
- {  
    " Message ": " name parameter is null ",  
    " RequestId ": " C5E39498 - 2148 - 4DB4 - A54F - 77CC3BF0AB  
BF ",  
    " Code ": 400  
}
```

- Response codes

Response code	Response message
200	The response code returned because the request is successful.
400	The error code returned because the ServiceParameters parameter is invalid.
402	The error code returned because the number of queries that you can send every day has exceeded the specification. Network traffic is throttled.
403	The error code returned because the request did not have the required permissions. The target service is not activated or has expired.
404	The error code returned because the Service parameter is invalid.
500	The error code returned because an internal error has occurred.

**Notice:**

The response examples in this topic are formatted with line breaks or indents for a clear view. The actual response data is not formatted in the same manner as these examples.