swiftpass

Merchant API Documentation

Alipay Web Pay Interface

Document version: 1.5.4

API version: 2.0

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Document Changes		
Time	**Version**	**Description**
2018-10-25	1.0	First draft
2018-11-01	1.1	Request URL is changed to https://gateway.wepayez.com/pay/gateway
2019-06-12	1.2	Update SHA256 & RSA signature algorithm.
2021-02-01	1.4.2	Update description
2022-06-02	1.4.3	Add channel_id
2022-07-06	1.5	Update description of fields mch_id, device_info, time_start, time_expire, trade_state, etc.
2022-07-06	1.5	Add the precautions for using the query interface
2022-08-16	1.5.1	Added swiftpass gateway request timeout description
2022-08-16	1.5.1	Add parameter "sign_agentno"
2022-08-16	1.5.1	Modify the description of the parameter "Body"
2022-09-26	1.5.2	Added the demo of Aggregator Mode and deleted “channel id”
2022-12-28	1.5.3	Update description of fields trade_type, fee_type, local_fee_type, local_total_fee, order_fee,etc
2023-01-18	1.5.3	Delete description about close order.
2023-02-18	1.5.3	Added new cover sheet and update sign type MD5; Updated the field openid;
2023-03-15	1.5.4	Added Retrieve refund result interface

1 Introduction

1.1 Abstract

QR Pay is a payment method which means merchants integrate with the Third Party's API and generate a QR Code to show customers for each transaction. Then customers use Alipay to scan the QR Code generated by merchants to complete the payment.

QR Pay can be applied in both on-line and off-line payment scenes, like off-line vending machine with screen, off-line cashier, on-line mall on PC and etc.

1.2 Audience

This document is provided to technical and business staff of merchants for reference.

2 Program Overview

2.1 Industry Background

Alipay payment is a payment service function which is provided based on Alipay application, and meanwhile it provides the commercial tenants with such support functions as sales, marketing analysis and management of account. Customers could complete a payment by scanning QR code, being scanned payment QR code or other payment methods.

2.2 Business realization process

2.2.2 Business of Web pay

Usage scenario:

Step (1): Buyer will see an Alipay button when in merchant's website. They can press the button to select Alipay to pay. Merchant generate an QR Code following Alipay rule then display it in its website/screen. As shown in Figure 1&2.

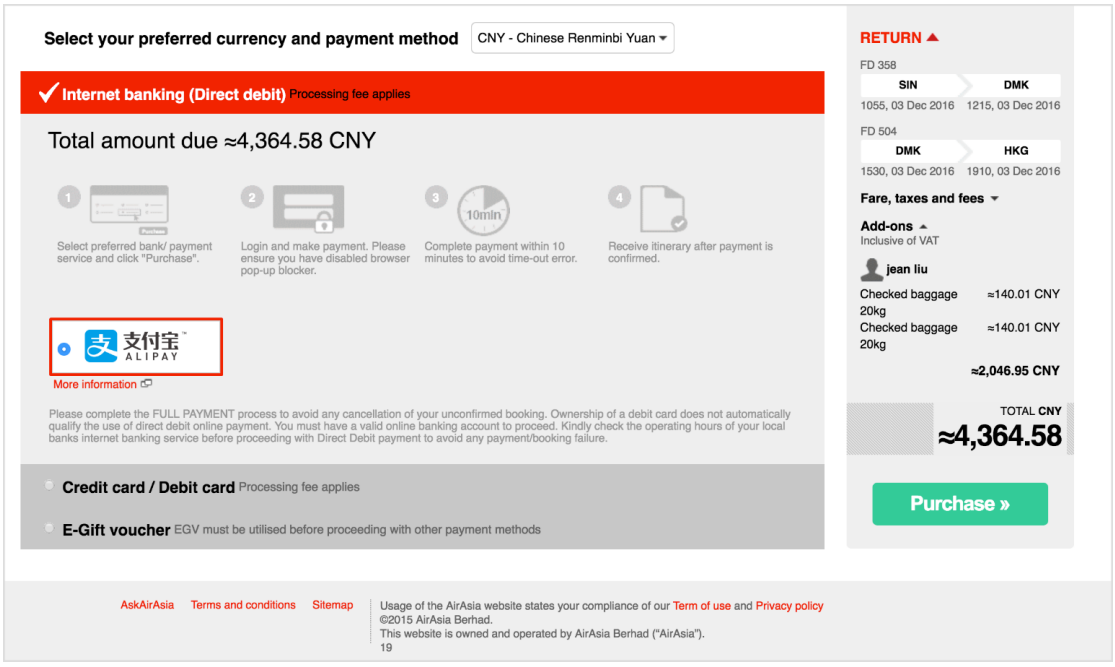


Figure 1

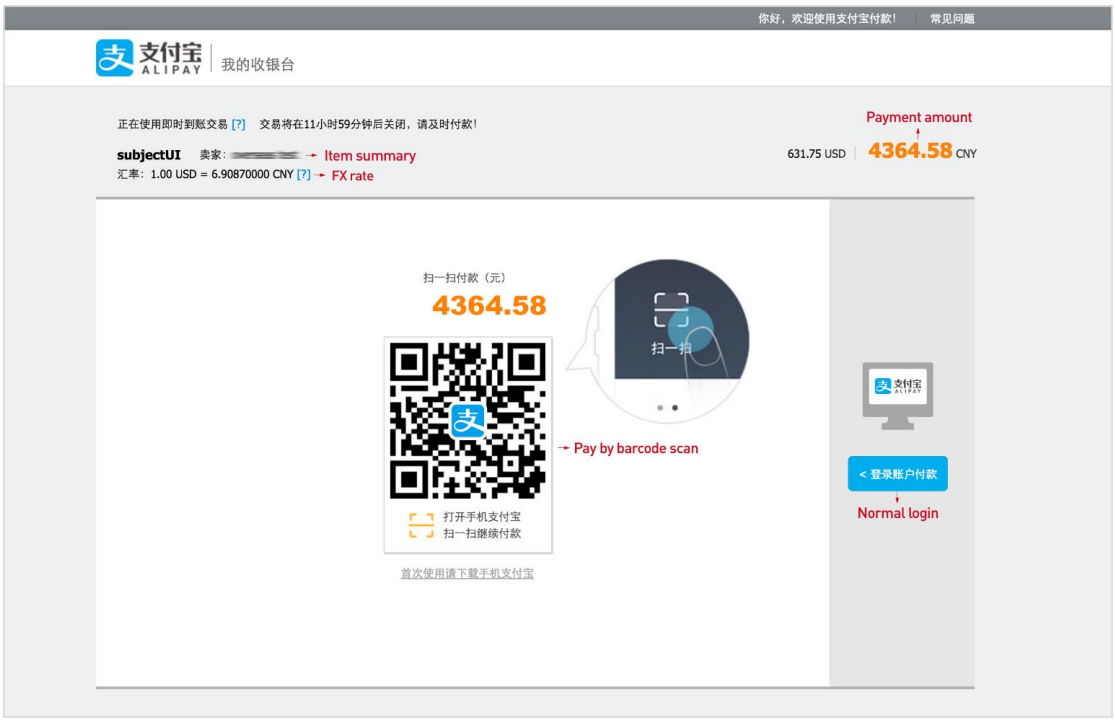


Figure 2

Step (2):The payer scans the QR Code with their Alipay to access the Merchants' product data and proceeds with the transaction. As shown in Figure 3

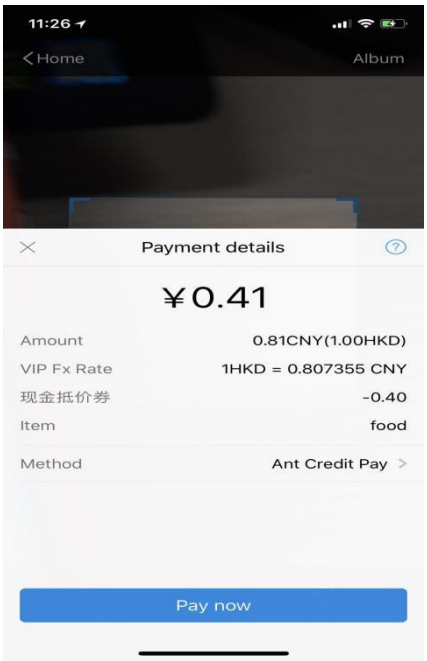


Figure 3

Step (3): The payer confirms their transaction and enters their payment password. As shown in Figure 4

Step (4): The payer is prompted of a successful payment after completing their payment. As shown in Figure 5

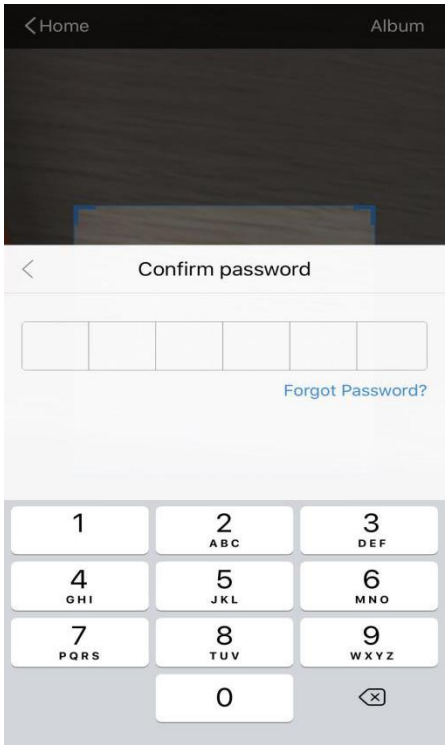
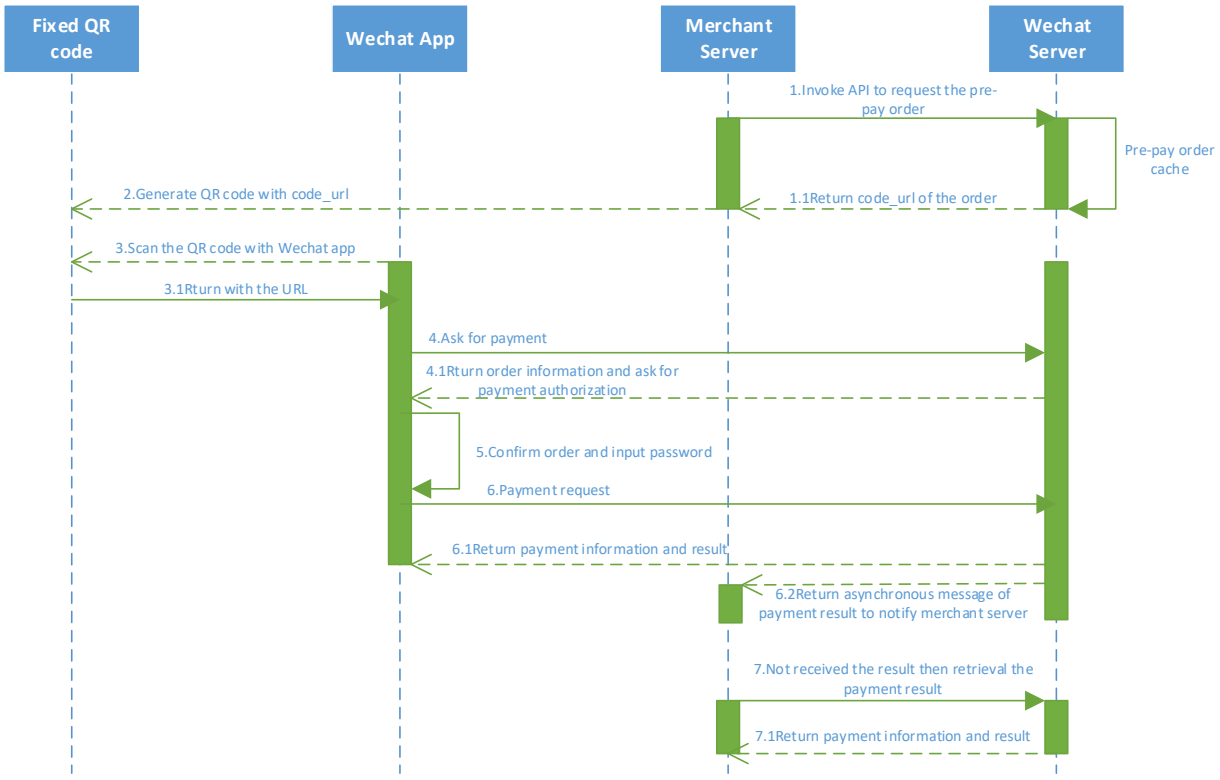


Figure4

Figure5

Time sequence of interface calls:

After the merchant generates an order, the QR code pay interface will be invoked to obtain code_url, and this URL will generate QR code, and after the user scans the QR code, the payment could be invoked.



3 Data Format

3.1 Request data

Used HTTPS POST protocol. To ensure security, transfer data must be signed.

```
<xml>
<service><![CDATA[pay.alipay.webpay.intl]]></service>
<version>2.0</version>
<charset><![CDATA[UTF-8]]></charset>
<sign_type><![CDATA[SHA256]]></sign_type>
<mch_id>7551000001</mch_id>
<out_trade_no><![CDATA[755100000169306196F]]></out_trade_no>
<device_info><![CDATA[69306196F]]></device_info>
<body><![CDATA[Payment]]></body>
<total_fee>50000</total_fee>
<mch_create_ip><![CDATA[124.79.127.180]]></mch_create_ip>
<payment_inst><![CDATA[ALIPAYCN]]></payment_inst>
<notify_url><![CDATA[https://xxxxxxxx/notification]]></notify_url
>
```

```
<callback_url><![CDATA[https://xxxxxxn/xxxx]]></callback_url>
<time_start>20230210180432</time_start>
<time_expire>20230210181932</time_expire>
<nonce_str>1676023472</nonce_str>
<sign><![CDATA[19CFC6852A8AF4C2292E02287D4FA240DC73D7EC8AE403B423
B982918C7623E4]]></sign>
</xml>
```

3.2 XML data format

Used Standard XML protocol. First-level node only. No nested nodes.

Protocol error return:

```
<xml>
<status>500</status>
<message><![CDATA[SYSERR]]></message>
</xml>
```

Successful response:

```
<xml>
<charset><![CDATA[UTF-8]]></charset>
<mch_id>7551000001</mch_id>
<nonce_str><![CDATA[20230210180433]]></nonce_str>
<pay_url><![CDATA[https://pay.wepayez.com/pay/webpay?token_id=755
1000001b1189f704ba&service=pay.alipay.webpay.intl]]></pay_url>
<result_code><![CDATA[0]]></result_code>
<sign><![CDATA[20C01C839D370F558D5F898B658F13EC]]></sign>
<sign_type><![CDATA[MD5]]></sign_type>
<status><![CDATA[0]]></status>
<version><![CDATA[2.0]]></version>
</xml>
```

Normal error return:

```
<xml>
<status>0</status>
<message><![CDATA[OK]]></message>
<mch_id><![CDATA[10000100]]></mch_id>
<device_info><![CDATA[1000]]></device_info>
<nonce_str><![CDATA[sthBJ9QyUG6vkrjJ]]></nonce_str>
<sign><![CDATA[6277A96D7875D4FF23AA7B6A4C3046AB]]></sign>
<result_code>1</result_code>
<err_code><![CDATA[AUTHCODE_EXPIRE]]></err_code>
```

```
<err_code_des><![CDATA[二維碼已過期，請刷新再試]]></err_code_des>
</xml>
```

The field named status return ‘0’: successful. Other value means fail.

4 Digital Signature

To ensure the authenticity and integrity of transmissible data, we need to verify the signed data after it being received.

There are two steps in digital signature.

Follow the rules to connect the original string that needs to be signed;

Calculate the result of signature according to specific algorithm and key.

Generally, the failed result will not be signed.

4.1 Original string of signature

The original string of signature will be assembled into character string according to the following modes no matter whether it is request or response:

1. Besides the sign field, all parameter fields will be ranked in ascending order according to the ASCII of the field name and then connected in the format of QueryString (i.e. key1=value1&key2=value2…), and the null value will not transfer and will not participate in formation of string of signature.
2. In the original string of signature, both the field name and field value will adopt original values and will not conduct URL Encode.
3. The response or notification information returned by platform might increase parameters due to upgrading, and this case should be allowed when the response signature is verified.

Example:

Calling an interface with following fields:

```
<xml>
<body><![CDATA[測試支付]]></body>
<mch_create_ip><![CDATA[127.0.0.1]]></mch_create_ip>
<mch_id><![CDATA[101520000465]]></mch_id>
<nonce_str><![CDATA[1409196838]]></nonce_str>
<notify_url><![CDATA[http://227.0.0.1:9001/javak/]]></notify_url>
<out_trade_no><![CDATA[141903606228]]></out_trade_no>
<service><![CDATA[pay.alipay.webpay.intl]]></service>
<sign><![CDATA[94B0F11B228BA9DDA2E20E3A9C8B3A2F]]></sign>
<total_fee><![CDATA[1]]></total_fee>
</xml>
```

The signature field sequence:

```
body=測試支付
&mch_create_ip=127.0.0.1&mch_id=101520000465&nonce_str=1409196838
&notify_url=http://227.0.0.1:9001/javak/&out_trade_no=14190360622
8&service=pay.alipay.webpay.intl&total_fee=1
```

4.2 Method of signature

SHA256 & RSA signature are supported

Signature is a kind of abstract generation algorithm, and if the content of communication keys of the merchant is added to the back of the original string of signature and then signature operation is made, then the abstract character string formed is the signature result. In order to facilitate the comparison, the signature result is uniformly converted to the uppercase letter.

Notes: the coded character set appointed when converting the character string into the byte stream at signing should be in accordance with parameter charset.

SHA256 signature calculation formula:

sign =SHA256(“The signature field sequence strings”&key=“signature key”). toUpperCase

Example:

There are XML afferent parameters:

```
<xml>
<auth_code>135187250012923035</auth_code>
<body>test</body>
<charset>UTF-8</charset>
<mch_create_ip>127.0.0.1</mch_create_ip>
<mch_id>127530000052</mch_id>
<nonce_str>1542940680925</nonce_str>
<out_trade_no>1542940643087</out_trade_no>
<service>unified.trade.micropay</service>
<sign>10F2F6DC0D5E008B967CC3C86FC58179686B4EE42F4F68B4A7668501B60
30C29</sign>
<sign_type>SHA256</sign_type>
<total_fee>2</total_fee>
<version>2.0</version>
</xml>
```

Merchant signature key： 18e0a2ad5d5571af14b855fcf33091f4

i:the first step of which is to connect the original string(string1) that needs signature according to certain rules:

```
auth_code=135187250012923035&body=test&charset=UTF-
8&mch_create_ip=127.0.0.1&mch_id=127530000052&nonce_str=154294068
0925&out_trade_no=1542940643087&service=
unified.trade.micropay&total_fee=1
```

ii:the second step of which is to choose SHA256 and keys to calculate the result of signature(sign):

```
sign
=SHA256(string1&key=18e0a2ad5d5571af14b855fcf33091f4).toUpperCase
=SHA256(auth_code=135187250012923035&body=test&charset=UTF-
8&mch_create_ip=127.0.0.1&mch_id=127530000052&nonce_str=154294068
0925&out_trade_no=1542940643087&service=
unified.trade.micropay&total_fee=1&key=
18e0a2ad5d5571af14b855fcf33091f4).toUpperCase()
="10F2F6DC0D5E008B967CC3C86FC58179686B4EE42F4F68B4A7668501B6030C2
9"
```

RSA signature calculation formula:

The RSA algorithm has always been the most widely used "asymmetric encryption algorithm". By adding the content of the RSA private key of the

merchant communication after the original string is signed, the result string is the result of the RSA operation.

Note: The set of coded characters specified when converting a string to a byte stream at signature should match the parameter charset. The RSA key pair is generated by the merchant. You need to upload the public key to the merchant portal and download the SwiftPass public key for the response.

Sign = RSA (request parameter string, merchant RSA private key)

Description: The name of the platform signature algorithm: RSA_1_256, corresponding to the standard signature algorithm name: SHA256WithRSA, the length of the RSA key is required to be 2048.

sign =**RSA("The signature field sequence strings"&key="signature private key"). toUpperCase**

Example:

There are XML afferent parameters:

```
<xml>
<out_trade_no><![CDATA[6057113230875088]]></out_trade_no>
<nonce_str><![CDATA[wNzpaD0sN17KI80yBQwINNHfmOIeNqap]]></nonce_st
r>
<time_expire><![CDATA[]]></time_expire>
<mch_create_ip><![CDATA[127.0.0.1]]></mch_create_ip>
<sign_type><![CDATA[RSA_1_256]]></sign_type>
<total_fee><![CDATA[1]]></total_fee>
<notify_url><![CDATA[http://www.baidu.cn/notify.aspx]]></notify_u
rl>
<body><![CDATA[Test pay]]></body>
<version><![CDATA[1.0]]></version>
<mch_id><![CDATA[102532336411]]></mch_id>
<time_start><![CDATA[]]></time_start>
<attach><![CDATA[Additional information]]></attach>
<service><![CDATA[pay.alipay.native]]></service>
<sign><![CDATA[SE008JDir0uwOuBy8d48SmdfG37PyGvhtqu8pDTO0DpdNkgkLu
egNsb6SaL/dEfzuO35bwAVwiKSc9m9xBKohGJEMtzRm3tLNnpQ0BDpLlYNWQkr0JN
3JAjy6wk1icSmfbjXgEvWCcx17MUe59NfIl0JRR3MgFg/ySYq2cT4U/o6WJisxtIb
re0ZPM66WL8l5gAzosJW3Gwr+B8fkRyOckF4w64i0TM20xoSHGEa8w1utOFik5wvx
yPHb/JcjhRyrBnb2LFZy5Rq3XzZLW6FaK1gunWnjK5+4NiNuHDgm7CKZPp8BphA/q
nJtAMGfexEZ8J4z9ktyywDK8b8VWJ5ow==]]>
</sign>
```

```
</xml>
```

Merchant RSA Private key:

```
MIIEvQIBADANBgkqhkiG9w0BAQEFAASCBKcwggSjAgEAAoIBAQCfU8v4BUr81SKm/H0ah
bdQZjEpO8nMyk+xuYSatHwnU4//m47R+4G2YB4Z6PHsJi4+ScfJpQutFhKrFwTXZ6TDqL
vaqZDDkJq5G271g+PmrzFp7f40/E9m0qjeL64RJra0rZql23dvPW4vVomMRgRcoPOn0YW
Vp+M6T5PaFgE4M8dh4lMZz57gVwOdd08F99Z92f3QgZtEjI+/EXvMenXxb/aRofNkt+Wd
k2ELJ6MIP0d9UU5v3WgLuuNv5QnQYzj/RMr8GD+wrDYiNQJxsaTmE/OEJggsumhD4eYY5
YlRy2EIN504cujYVKU1wOSZgq9oJCynGR0aPuQWx58IHxEtAgMBAAECggEAHfEFd8qm2P
TE2lTAvec7F+TcgD84IUAz0dZnURtx6YIOoZ5+LH/zVG6juYLJU/Oo5RPAc+iMVS68u2J
MCp7zm8Ft7B3JkrbuHLNHGuR6Q7PQuXN8PkDcOxqDmZ2kPJzl4PZvBZRE0abdug+tMatG
zpGAuJzrWcB/N0oVIvrXp9PnOqfo/Y5nxmpOFCImJppIS3AL1pftNtQZo9G15CPHDYtpU
bXPtD2MjjW4OLxKuPRoHSwUgo6LW9XSwNXfcuK+lbzLL0BhlWD9IV/+yCEUEblN87yxxf
hpQFaAhXj5W+B3YsMOZuK93+XMOpYmw8EpUDMObOnvwb0NSHUrV2RUAQKBgQDTojlnNS1
e7+tjPzFtOhGPj1uCBPAEIeHAcnPgd80bEiujxMLCnGaAvmnTrMu4Xo0e5fAP4F7R6UD+
IUsfr3CAAu7CadQ49TW+SovAvciy9AZuSVVIwynu6QdYgFyPKe1LZYAEq5k+mB1Vh5q0R
oxMNAA5pGYKg8+4MmmsJi7X7QKBgQDAunCOqIiH128bs/1VRIhDpzuRW5Qr/SRbO2saVg
5RSHnO/nGT2OuxSTTkc8yrx7qd9SmAxXl5kR238DhMOQOnRBomldmVtAJuJgrdQyt0wXf
eQVQqshqCUaE/xhEbpSCdbPSZbKZZdplV0y6O5vXIhxw+1qAvXLcxw46s3R92QQKBgQCl
Q+ejywkVPDILHMwSSehwvThufkCYWYUbbcVDowpOe5AMoZidtNju7MNjg2rLHTsCx/kBz
Or+7THNwl4R7kTiEmg09cO+fu5rHXepGgtig+GJukaZPZ6/bMZJvGOLgOhHmomwG/jdwp
gVtIGBCh6BW5JZcSImT+ykIOoYfvDRuQKBgCgwOHxnBGFfORoLxE3dhpSk8LT05cbueIB
VuZW6UC3+8PeK82AjIbLMUy04QHupoG6Dyu3BP/1rl0jd3L94PBzLBLD7Gm4vJTqW0Dkn
Yo5sMXS1JrnofcKjBv7nbHXZTx3EtJSxpVaOdpcA/HpsCuCP3AH2e1yk9sZ3wu6lBYSBA
oGACYM60j1CVRNSZxUNRgiwfWzS69qI1eezPc7xQEganpVBI9SZcTNp1kpDKmQikXJ4Yb
5XWn12HCY/sFeBW6Su3ruNqxvg1XiUPbH6A6nxd5B3QX0mS9+wDm6ONysPLRdKbfFO0md
P4CeyuGPdvDIMXP4dJdLhMUL4pcJLI0B7gBE=
```

i: the first step of which is to connect the original string(string1) that needs signature according to certain rules:

```
attach=Additional information&body=Test pay
&mch_create_ip=127.0.0.1&mch_id=102532336411&nonce_str=wNzpaD0sN1
7KI80yBQwINNHfmOIeNqapnotify_url=http://www.baidu.cn/notify.aspx&
out_trade_no=6057113230875088&service=pay.alipay.native&sign_type
=RSA_1_256&total_fee=1&version=1.0
```

ii: the second step of which is to choose RSA and keys to calculate the result of signature(sign):

```
sign=RSA(string1, Merchant RSA Private key)==RSA(attach=Additional
information&body=Test
pay&mch_create_ip=127.0.0.1&mch_id=102532336411&nonce_str=wNzpaD0
sN17KI80yBQwINNHfmOIeNqapnotify_url=http://www.baidu.cn/notify.as
px&out_trade_no=6057113230875088&service=pay.alipay.native&sign_t
```

ype=RSA_1_256&total_fee=1&version=1.0,MIIEvQIBADANBgkqhkiG9w0BAQE
FAASCBKcwggSjAgEAAoIBAQCfU8v4BUr81SKm/H0ahbdQZjEpO8nMyk+xuYSatHwn
U4//m47R+4G2YB4Z6PHsJi4+ScfJpQutFhKrFwTXZ6TDqLvaqZDDkJq5G271g+Pmr
zFp7f40/E9m0qjeL64RJra0rZql23dvPW4vVomMRgRcoPOn0YWVp+M6T5PaFgE4M8
dh4lMZz57gVwOdd08F99Z92f3QgZtEjI+/EXvMenXxb/aRofNkt+Wdk2ELJ6MIP0d
9UU5v3WgLuuNv5QnQYzj/RMr8GD+wrDYiNQJxsaTmE/OEJggsumhD4eYY5YlRy2EI
N504cujYVKU1wOSZgq9oJCynGR0aPuQWx58IHxEtAgMBAAECggEAHfEFd8qm2PTE2
lTAvec7F+TcgD84IUAz0dZnURtx6YIOoZ5+LH/zVG6juYLJU/Oo5RPAc+iMVS68u2
JMCp7zm8Ft7B3JkrbuHLNHGuR6Q7PQuXN8PkDcOxqDmZ2kPJzl4PZvBZRE0abdug+
tMatGzpGAuJzrWcB/N0oVIvrXp9PnOqfo/Y5nxmpOFCImJppIS3AL1pftNtQZo9G1
5CPHDYtpUbXPtD2MjjW4OLxKuPRoHSwUgo6LW9XSwNXfcuK+lbzLL0BhlWD9IV/+y
CEUEblN87yxxfhpQFaAhXj5W+B3YsMOZuK93+XMOpYmw8EpUDMObOnvwb0NSHUrV2
RUAQKBgQDTojlnNS1e7+tjPzFtOhGPj1uCBPAEIeHAcnPgd80bEiujxMLCnGaAvmn
TrMu4Xo0e5fAP4F7R6UD+IUsfr3CAAu7CadQ49TW+SovAvciy9AZuSVVIwynu6QdY
gFyPKe1LZYAEq5k+mB1Vh5q0RoxMNAA5pGYKg8+4MmmsJi7X7QKBgQDAunCOqIiH1
28bs/1VRIhDpzuRW5Qr/SRbO2saVg5RSHnO/nGT2OuxSTTkc8yrx7qd9SmAxXl5kR
238DhMOQOnRBomldmVtAJuJgrdQyt0wXfeQVQqshqCUaE/xhEbpSCdbPSZbKZZdpl
V0y6O5vXIhxw+1qAvXLcxw46s3R92QQKBgQClQ+ejywkVPDILHMwSSehwvThufkCY
WYUbbcVDowpOe5AMoZidtNju7MNjg2rLHTsCx/kBzOr+7THNwl4R7kTiEmg09cO+f
u5rHXepGgtig+GJukaZPZ6/bMZJvGOLgOhHmomwG/jdwpgVtIGBCh6BW5JZcSImT+
ykIOoYfvDRuQKBgCgwOHxnBGFfORoLxE3dhpSk8LT05cbueIBVuZW6UC3+8PeK82A
jIbLMUy04QHupoG6Dyu3BP/1rl0jd3L94PBzLBLD7Gm4vJTqW0DknYo5sMXS1Jrno
fcKjBv7nbHXZTx3EtJSxpVaOdpcA/HpsCuCP3AH2e1yk9sZ3wu6lBYSBAoGACYM60
j1CVRNSZxUNRgiwfWzS69qI1eezPc7xQEganpVBI9SZcTNp1kpDKmQikXJ4Yb5XWn
12HCY/sFeBW6Su3ruNqxvg1XiUPbH6A6nxd5B3QX0mS9+wDm6ONysPLRdKbfFO
0mdP4CeyuGPdvDIMXP4dJdLhMUL4pcJLI0B7gBE=”)=
SE008JDir0uwOuBy8d48SmdfG37PyGvhtqu8pDTO0DpdNkgkLuegNsb6SaL/dEfzu
O35bwAVwiKSc9m9xBKohGJEMtzRm3tLNnpQ0BDpLlYNWQkr0JN3JAjy6wk1icSmfb
jXgEvWCcx17MUe59NfIl0JRR3MgFg/ySYq2cT4U/o6WJisxtIbre0ZPM66WL8

5 Mechanism to Supplement Order

Notes: in respect of the back-end notification interactive mode, if the response of the merchant received by platform is not pure character string “success” or if the response is given after 5 seconds, then the notification will be deemed as unsuccessful, and platform will adopt certain strategies (the interval of notification: 0/15/15/30/180/1800/1800/1800/1800/3600 Unit: seconds) to re-initiate notification intermittently, to improve the success rate of notification, but platform will not guarantee the final success of notification. Because there

is the case where the back-end notification will be resent, the same notification might be sent to the merchant system many times. The merchant system must be able to process the repeated notification in a right way. The method recommended by platform is to first examine the status of the corresponding business data upon receiving the notification to judge whether the notification has been disposed, and in case it hasn't been dispose, it will be disposed otherwise, and if it has been disposed, the pure character string "success" will be returned directly. Before status examination and disposal of business data are conducted, data lock should be adopted for concurrency control to avoid data chaos caused by repeated data interposition in the function.

6 Web Pay Interface

6.1 Web pay

6.1.1 Business function

The QR code payment request need to be initialized. The request is for generating QR code to make transactions of QR Code Pay.

6.1.2 Interactive mode

Request: Background request interaction mode

Return& Notification: Background request interaction mode + Background notifies interaction mode

6.1.3 Request Parameters

Request URL: https://gateway.wepayez.com/pay/gateway

POST request with content of XML

Field Name	Required	Type	Description
Normal Parameters			
service	Yes	String(32)	Interface type. Value : pay.alipay.webpay.intl
version	No	String(8)	Version number. default value : 2.0
charset	No	String(8)	Value : UTF-8
sign_type	No	String(16)	MD5: MD5 SHA256 : SHA256 RSA: RSA_1_256 Default value: MD5
mch_id	Yes	String(32)	Merchant ID, Specifies an unique id assigned by platform. Only Store ID or Ordinary Merchant ID is valid.
groupno	No	String（32）	Master merchant ID
out_trade_no	Yes	String(32)	The unique trade reference(merchant order id of 5-32 bits) in merchant's system. Letter, number and underline are allowed. Case-sensitive
device_info	Yes	String(32)	Specifies a Terminal device id. You can query based on this field on the swiftpass merchant platform
body	Yes	String(128)	Description of merchants' goods.Can upload 128 English, 42 Chinese
attach	No	String(127)	Merchant additional information.
total_fee	Yes	Int	Integral number is allowed only. The unit of the fee is the minimal unit of the local currency.
mch_create_ip	Yes	String(16)	Specifies the machine IP that calls the API.
supplier	No	String(16)	This value will be shown in the merchant name of Alipay cashier desk

notify_url	Yes	String(255)	Specifies the callback address for receiving platform payment notifications. Should be absolute path and ensure platform accessible. i.e. http://wap.tenpay.com/tenpay.asp
callback_url	Yes	String(255)	Access the url when the transaction completed.
time_start	No	String(14)	Order created date. Format: yyyyMMddHHmmss. i.e.20091225091010. GMT+8 Beijing Time. Alipay can set the time range from 1 minute to 15 days, if not uploading, the default is 2 hours
time_expire	No	String(14)	Order timeout date. Format: yyyyMMddHHmmss. i.e.20091225091010. GMT+8 Beijing Time. Alipay can set the time range from 1 minute to 15 days, if not uploading, the default is 2 hours
op_user_id	No	String(32)	Specifies the Operator ID. This field shows mch_id by default.
goods_tag	No	String(32)	Specifies the label of goods, which is a parameter in the coupon feature for businesses.
nonce_str	Yes	String(32)	Included in platform payment API protocols to ensure unpredictability for signatures. 32 characters or fewer.
sign	Yes	String(344)	Please refer to section 4 ‘Digital Signature’.
payment_inst	No	String(10)	Used to determine the type of wallet used for payment: If the price currency is not HKD, this field is not passed; If the quoted currency is HKD, please send ALIPAYHK/ALIPAYCN, ALIPAYHK: local wallet; ALIPAYCN: cross-border wallet
sign_agentno	No	String(32)	When the merchant is represented by the channel, the agency channel number is sent, and the corresponding sign needs to be signed with the channel's sign_key

Demo

```
<xml>

<body><![CDATA[changyoyo]]></body>
```

<charset><![CDATA[UTF-8]]></charset>

<device_info><![CDATA[changyoyo]]></device_info>

<mch_create_ip><![CDATA[58.33.106.38]]></mch_create_ip>

<mch_id><![CDATA[181520234234]]></mch_id>

<nonce_str><![CDATA[HFfP43tL2i]]></nonce_str>

<notify_url><![CDATA[http://58.33.106.38:8080/api/ali/resultNotify]]></notify_url>

<out_trade_no><![CDATA[20220926113000000000]]></out_trade_no>

<sign_agentno><![CDATA[1231231]]></sign_agentno>

<payment_inst><![CDATA[AlipayHK]]></payment_inst>

<service><![CDATA[pay.alipay.webpay.intl]]></service>

<sign><![CDATA[B0ECE637F82C135BD39C12E8F51443CEE08FF4A8C8FC2764D90D8770805216D1]]></sign>

<sign_type><![CDATA[SHA256]]></sign_type>

<time_expire><![CDATA[20220926114000]]></time_expire>

<time_start><![CDATA[20220926113000]]></time_start>

<total_fee><![CDATA[1]]></total_fee>

<version><![CDATA[2.0]]></version>

</xml>

6.1.4 Response result

Data return in real time with XML format

Field Name	Required	Type	Description
version	Yes	String(8)	Version number. default value : 2.0
charset	Yes	String(8)	Value : UTF-8
sign_type	Yes	String(16)	MD5: MD5 SHA256 : SHA256 RSA: RSA_1_256 Default value: MD5
status	Yes	String(16)	“0” : success. Others value : fail.

			Specifies communicating label (not transaction label). The status of a transaction is determined by the value of result_code.
message	No	String(128)	Return message. Only return when the signature verification invalid.
The following fields will returned when status is “0”			
result_code	Yes	String(16)	“0” : success. Others value : fail.
groupno	No	String（32）	Master merchant ID
mch_id	Yes	String(32)	Merchant ID, Specifies an unique id assigned by platform. Only Store ID or Ordinary Merchant ID is valid.
device_info	No	String(32)	Specifies a Terminal device id. You can query based on this field on the swiftpass merchant platform
nonce_str	Yes	String(32)	Included in platform payment API protocols to ensure unpredictability for signatures. 32 characters or fewer.
err_code	No	String(32)	Reference error code
err_msg	No	String (128)	Error information description
sign	Yes	String(344)	Please refer to section 4 ‘Digital Signature’.
sign_agentno	No	String(32)	When the merchant is represented by the channel, the agency channel number is sent, and the corresponding sign needs to be signed with the channel's sign_key
The following fields will returned when status and result_code both are “0”			
pay_url	Yes	String(64)	Its used for Web Pay, merchant use the link to display the QR Code in its website.

6.2 Notification interface

6.2.1 Notification request parameters

The notification URL is the parameter notify_url submitted in section 6.1. And after the payment is completed, platform will send related payment and user information to the URL. And the merchant needs to receive and dispose such information.

When interaction of the back-end notification is being made, if the response received by platform from the merchant is not pure character string “success” or if the response is given after 5 seconds, then it will be deemed as unsuccessful by platform, and platform will adopt certain strategies **(the interval of notification: 0/15/15/30/180/1800/1800/1800/1800/3600 Unit: seconds)** to intermittently re-initiate notification to do its best to improve the rate of success of notification, but the final success of notification will not be guaranteed.

Because there is the case where the back-end notification will be resent, the same notification might be sent to the merchant system many times. The merchant system must be able to process the repeated notification in a right way.

The method recommended by platform is to first examine the status of the corresponding business data upon receiving the notification to judge whether the notification has been disposed, and in case it hasn’t been dispose, it will be disposed otherwise, and if it has been disposed, the pure character string success will be returned directly. Before status examination and disposal of business data are conducted, data lock should be adopted for concurrency control to avoid data chaos caused by repeated data interposition in the function.

Notices: After the back-end of the merchant has received the parameters of notification. It’s required to verify out_trade_no and total_fee in notification received according to the order number and amount of order

of their own business system. And the status of order in the database will only be allowed to update after the verification is consistent. Suggestion: After creating an order and initiating payment, if the payment success notification request is not received within 5 minutes, it is recommended to initiate an order query interface, which is queried every 5 seconds, for a total of 12 queries.

The back-end notification will return by POST mode through notify_url which sent in payment request.

(Notify in XML format)

Field Name	Required	Type	Description
version	Yes	String(8)	Version number. default value : 2.0
charset	Yes	String(8)	Value : UTF-8
sign_type	Yes	String(16)	MD5: MD5 SHA256 : SHA256 RSA: RSA_1_256 Default value: MD5
status	Yes	String(16)	“0” : success. Others value : fail. Specifies communicating label (not transaction label). The status of a transaction is determined by the value of result_code.
message	No	String(128)	Return message. Only return when the signature verification invalid.
The following fields will returned when status is “0”			
result_code	Yes	String(16)	“0” : success. Others value : fail.
groupno	No	String（32）	Master merchant ID
mch_id	Yes	String(32)	Merchant ID, Specifies an unique id assigned by platform. Only Store ID or Ordinary Merchant ID is valid.

device_info	No	String(32)	Specifies a Terminal device id. You can query based on this field on the swiftpass merchant platform
nonce_str	Yes	String(32)	Included in platform payment API protocols to ensure unpredictability for signatures. 32 characters or fewer.
err_code	No	String(32)	Reference error code
err_msg	No	String (128)	Error information description
sign	Yes	String(34 4)	Please refer to section 4 'Digital Signature'.
sign_agentno	No	String(32)	When the merchant is represented by the channel, the agency channel number is sent, and the corresponding sign needs to be signed with the channel's sign_key
The following fields will returned when status and result_code both are "0"			
trade_type	Yes	String(32)	Value: pay.alipay.webpay.intl
openid	No	String(12 8)	It is the only user identification under the current appid.
pay_result	Yes	Int	Payment result. "0": success. Others fail.
pay_info	No	String(64)	Payment result information. Payment successful return null.
transaction_id	Yes	String(32)	platform order number
out_transaction_ id	Yes	String(32)	order number provided by the third-party （Alipay）
out_trade_no	Yes	String(32)	Specifies an order number created by a merchant's system, which is consistent with request.
total_fee	Yes	Int	Specifies the total amount.Integral number is allowed only. The unit of the fee is the minimal unit of the local currency.
local_total_fee	No	Int	Local total order amount in Cent
order_fee	No	Int	Order amount in Cent

fee_type	No	String(8)	Complies with ISO 4217 standards.
local_fee_type	No	String(8)	Local currency type, three-letter code in accordance with ISO 4217
attach	No	String(127)	Specifies merchant's data package, which is returned as it is.
bank_type	Yes	String(16)	String states bank_type
time_end	Yes	String(14)	Specifies the transaction payment time in the format of yyyyMMddHHmmss, such as 20091225091010 for Dec 25, 2009 09:10:10.GMT+8 Beijing Time.

6.2.2 Response of notification

platform server will send notification, then post send XML data flow, the notify_url of the merchant will receive the result of notification, with the method of reception being as written in demo (for example, callback method in php, notify.aspx file in c#, TestPayResultSerlet method in java), and after the merchant conducts business disposal, the feedback of result of disposal needs to be given in the form of pure character string, with its content being as follows:

Returned results	Description
success	The disposal is successful, and after swiftpass system receives this result, no ongoing notification will be made.
fail or other character	The disposal fails, and if swiftpass receives this result or doesn't receive any result, then the system will resend the notification through the mechanism of supplementing order (for detail please see section 5).

6.3 Retrieve transaction result interface

6.3.1 Business function

Retrieve transaction result information with platform order number or merchant order number.

6.3.2 Interactive mode

Background interaction mode.

6.3.3 Request parameters

Request URL: https://gateway.wepayez.com/pay/gateway

POST request with content of XML

Field Name	Required	Type	Description
service	Yes	String(32)	Value : unified.trade.query
version	No	String(8)	Version number. default value : 2.0
charset	No	String(8)	Value : UTF-8
sign_type	No	String(16)	MD5: MD5 SHA256 : SHA256 RSA: RSA_1_256 Default value: MD5
mch_id	Yes	String(32)	Merchant ID, Specifies an unique id assigned by platform. Only Store ID or Ordinary Merchant ID is valid.
groupno	No	String（32）	Master merchant ID
out_trade_no	No	String(32)	The unique trade reference of merchant system. out_trade_no and transaction_id at least one required. transaction_id priority when both be filled.
transaction_i	No	String(32)	The unique trade reference of platform system. out_trade_no and transaction_id at least one required. transaction_id priority when both

d			be filled.
nonce_str	Yes	String(32)	Included in platform payment API protocols to ensure unpredictability for signatures. 32 characters or fewer.
sign	Yes	String(344)	Please refer to section 4 ‘Digital Signature’.
sign_agentno	No	String(32)	When the merchant is represented by the channel, the agency channel number is sent, and the corresponding sign needs to be signed with the channel's sign_key

6.3.4 Response parameters

Data return in real time with XML format

Field Name	Required	Type	Description
version	Yes	String(8)	Version number. default value : 2.0
charset	Yes	String(8)	Value : UTF-8
sign_type	Yes	String(16)	MD5: MD5 SHA256 : SHA256 RSA: RSA_1_256 Default value: MD5
status	Yes	String(16)	“0” : success. Others value : fail. Specifies communicating label (not transaction label). The status of a transaction is determined by the value of trade_state.
message	No	String(128)	Return message. Only return when the signature verification invalid.
The following fields will returned when status is “0”			
result_code	Yes	String(16)	“0” : success. Others value : fail.
mch_id	Yes	String(32)	Merchant ID, Specifies an unique id assigned by platform. Only Store ID or Ordinary Merchant ID is valid.
groupno	No	String（32）	Master merchant ID

device_info	No	String(32)	Specifies a Terminal device id. You can query based on this field on the swiftpass merchant platform
nonce_str	Yes	String(32)	Included in platform payment API protocols to ensure unpredictability for signatures. 32 characters or fewer.
err_code	No	String(32)	Reference error code
err_msg	No	String (128)	Error information description
sign	Yes	String(344)	Please refer to section 4 ‘Digital Signature’.
sign_agentno	No	String(32)	When the merchant is represented by the channel, the agency channel number is sent, and the corresponding sign needs to be signed with the channel's sign_key
The following fields will returned when status and result_code both are “0”			
trade_state	Yes	String(32)	SUCCESS:Payment successful REFUND:Order to be refunded NOTPAY:Order not paid PAYERROR:Payment failed (payment status failed to be returned by bank or other reasons)
The following fields will returned when trade_state is “SUCCESS”			
trade_type	Yes	String(32)	Value : pay.alipay.webpay.intl
openid	No	String(128)	It is the only user identification under the current appid.
transaction_id	Yes	String(32)	The unique trade reference of platform system.
out_transaction _id	Yes	String(32)	order number provided by the third-party（Alipay）
out_trade_no	Yes	String(32)	The unique trade reference of merchant system.
total_fee	Yes	Int	The total amount of the transaction.The unit of the fee is the minimal unit of the local currency.

coupon_fee	No	Int	Coupon amount. coupon_fee <= total_fee. total_fee - oupon_fee = cash pay amount
local_total_fee	No	Int	Local total order amount in Cent
order_fee	No	Int	Order amount in Cent
fee_type	No	String(8)	Complies with ISO 4217 standards.
local_fee_type	No	String(8)	Local currency type, three-letter code in accordance with ISO 4217
attach	No	String(127)	Specifies merchant's data package, which is returned as it is.
bank_type	No	String(16)	String states bank_type
bank_billno	No	String(32)	Bank order number. Null for Alipay payment.
time_end	Yes	String(14)	Specifies the transaction payment time in the format of yyyyMMddHHmmss, such as 20091225091010 for Dec 25, 2009 09:10:10. GMT+8 Beijing.

7 Refund&Query Interface

7.1 Refund interface

7.1.1 Business function

If the merchant initiate refund in respect of an order that has been successfully paid, then the result of the operation will be synchronously returned in the same dialogue.

I. Refund mode

Currently, the fund of the refund will follow the same route back to customers’account.

Notes: Generally the amount will be refunded to the bank account within 1 to 3 working days after the refund is initiated.

The different parts of refund of a same order need to be set with the same order number and the different out_refund_no. After a refund that fails is resubmitted, the original out_refund_no will be adopted. The total sum of refund couldn't surpass the amount actually paid by users (the amount of the cash coupon couldn't be refunded).

II. Restrictions of refund

When operating the refund, the merchant should pay attention to the restrictions of refund to avoid the request of refund that will not be successful, and the main restrictions of refund are as follows:

In platform system, only if the accumulative amount of refund doesn't surpass the total sum of payment for the transacted order, then the same order could be refunded for several times, and the refund application form number (there are such parameters in the refund interface) rather than the transaction order number shall be solely used to confirm one time of refund. The refund application form number is to be generated by the merchant, and so the merchant has to guarantee the uniqueness of the refund application form. In the process of refund, the merchant needs to pay special attention that only when the refund is confirmed to fail, then could another refund be re-initiated.

Currently most banks support full refund and partial refund, but there are a few banks that don't support full refund or partial refund or don't support refund. In such case the merchant could negotiate with the buyer to refund to the Alipay balance account.

Currently only refund interface without key is provided, and in case the merchant needs refund interface with key, please contact the business person.

7.1.2 Interactive mode

Background interaction mode

7.1.3 Request parameters

Request URL:https://gateway.wepayez.com/pay/gateway

POST request with content of XML

Field Name	Required	Type	Description
service	Yes	String(32)	Value : unified.trade.refund
version	No	String(8)	Version number. default value : 2.0
charset	No	String(8)	Value : UTF-8
sign_type	No	String(16)	MD5: MD5 SHA256 : SHA256 RSA: RSA_1_256 Default value: MD5
mch_id	Yes	String(32)	Merchant ID, Specifies an unique id assigned by platform. Only Store ID or Ordinary Merchant ID is valid.
groupno	No	String（32）	Master merchant ID
out_trade_no	No	String(32)	The unique trade reference of merchant system. out_trade_no and transaction_id at least one required. transaction_id priority when both be filled.
transaction_id	No	String(32)	The unique trade reference of platform system. out_trade_no and transaction_id at least one required. transaction_id priority when both be filled.
out_refund_no	Yes	String(32)	Specifies the internal refund number, which is unique in the system. A single transaction can be processed as multiple partial refunds, with the total sum of the partial refunds being equal to the original one. If the refund is not successful. The recall function should be used with same refund number to avoid duplication of refunds.

total_fee	Yes	Int	The total amount of the transaction. The unit of the fee is the minimal unit of the local currency.
refund_fee	Yes	Int	Refund amount. The unit of the fee is the minimal unit of the local currency.Partial refund can be supported.. Partial refund can be supported.
op_user_id	Yes	String(32)	Specifies the Operator ID. This field shows mch_id by default.
refund_channel	No	String(16)	Value : ORIGINAL. The money will refund back to where it came from.
nonce_str	Yes	String(32)	Included in platform payment API protocols to ensure unpredictability for signatures. 32 characters or fewer.
sign	Yes	String(344)	Please refer to section 4 ‘Digital Signature’.
sign_agentno	No	String(32)	When the merchant is represented by the channel, the agency channel number is sent, and the corresponding sign needs to be signed with the channel's sign_key

7.1.4 Response parameters

Data return in real time with XML format

Field Name	Required	Type	Description
version	Yes	String(8)	Version number. default value : 2.0
charset	Yes	String(8)	Value : UTF-8
sign_type	Yes	String(16)	MD5: MD5 SHA256 : SHA256 RSA: RSA_1_256 Default value: MD5
status	Yes	String(16)	“0” : success. Others value : fail. Specifies communicating label (not transaction label). The status of a transaction is determined by the value of result_code.
message	No	String(12	Return message. Only return when the signature verification

		8)	invalid.
The following fields will returned when status is “0”			
result_code	Yes	String(16)	“0” : success. Others value : fail.
groupno	No	String（32）	Master merchant ID
mch_id	Yes	String(32)	Merchant ID, Specifies an unique id assigned by platform. Only Store ID or Ordinary Merchant ID is valid.
device_info	No	String(32)	Specifies a Terminal device id. You can query based on this field on the swiftpass merchant platform
nonce_str	Yes	String(32)	Included in platform payment API protocols to ensure unpredictability for signatures. 32 characters or fewer.
err_code	No	String(32)	Reference error code
err_msg	No	String (128)	Error information description
sign	Yes	String(344)	Please refer to section 4 ‘Digital Signature’.
sign_agentno	No	String(32)	When the merchant is represented by the channel, the agency channel number is sent, and the corresponding sign needs to be signed with the channel's sign_key
The following fields will returned when status and result_code both are “0”			
trade_type	Yes	String(32)	Value: pay.alipay.webpay.intl
transaction_id	Yes	String(32)	The unique trade reference of platform system.
out_trade_no	Yes	String(32)	The unique trade reference of merchant system.
out_refund_no	Yes	String(32)	Specifies the internal refund number, which is unique in the merchant system.
refund_id	Yes	String(32)	Specifies the internal refund number, which is unique in the platform system.
refund_channel	Yes	String(16)	Value : ORIGINAL. The money will refund back to where it came from.

refund_fee	Yes	Int	Refund amount.The unit of the fee is the minimal unit of the local Currency. Partial refund can be supported.
coupon_refund_fee	No	Int	Coupon refund amount. coupon_refund_fee <= refund_fee. refund_fee - coupon_refund_fee = cash refund amount
local_total_fee	No	Int	Local total order amount in Cent
total_fee	Yes	Int	Total order amount in Cent
order_fee	No	Int	Order amount in Cent
fee_type	No	String(8)	Complies with ISO 4217 standards.
local_fee_type	No	String(8)	Local currency type, three-letter code in accordance with ISO 4217

7.2 Retrieve refund result interface

7.2.1 Request parameters

Request: https://gateway.wepayez.com/pay/gateway

POST request with content of XML

Field Name	Required	Type	Description
service	Yes	String(32)	Value: unified.trade.refundquery
version	No	String(8)	Version number. default value: 2.0
charset	No	String(8)	Encoding method. Default Value: UTF-8
sign_type	No	String(16)	MD5: MD5 SHA256 : SHA256;

			RSA: RSA_1_256 Default value: MD5
groupno	No	String（32）	Master merchant ID
mch_id	Yes	String(32)	Specifies a unique id assigned by platform. Only Store ID or Ordinary Merchant ID is valid.
out_trade_no	No	String(32)	The unique trade reference of merchant system. At least one of the out_trade_no and transaction_id should be exist in refund query request. transaction_id priority when both be filled.
transaction_id	No	String(32)	The unique trade reference of platform system. At least one of the out_trade_no and transaction_id should be exist in refund query request. transaction_id priority when both be filled.
out_refund_no	No	String(32)	Specifies the internal refund number, which is unique in the merchant system. At least one of the refund_id and out_refund_no should be existed in refund query request. refund_id priority when both be filled.
refund_id	No	String(32)	Specifies the internal refund number, which is unique in the platform system. At least one of the refund_id and out_refund_no should be existed in refund query request. refund_id priority when both be filled.
nonce_str	Yes	String(32)	Included in platform payment API protocols to ensure unpredictability for signatures. 32 characters or fewer.
sign	Yes	String(344)	Please refer to the section 4 ‘Digital Signature’.
sign_agentno	No	String(32)	When the merchant is applied the Aggregator mode that the merchant will be represented by the channel, the agency channel number is sent, and the corresponding sign needs to be signed with the channel's sign_key.

7.2.2 Response parameters

Data return in real time with XML format

Field Name	Required	Type	Description

version	Yes	String(8)	Version number. default value: 2.0
charset	Yes	String(8)	Encoding method. Default Value: UTF-8
sign_type	Yes	String(16)	MD5: MD5 SHA256 : SHA256; RSA: RSA_1_256 Default value: MD5
status	Yes	String(16)	"0": success. Others value: fail. Specifies communicating label (not transaction label). The status of a transaction is determined by the value of result_code.
message	No	String(128)	Return message. Only return when the signature verification invalid.
The following fields will be returned when status is "0"			
result_code	Yes	String(16)	"0": success. Others value: fail.
groupno	No	String（32）	Master merchant ID
mch_id	Yes	String(32)	Specifies a unique id assigned by platform. Only Store ID or Ordinary Merchant ID is valid.
device_info	No	String(32)	Specifies a Terminal device id. (You can query based on this field on the swiftpass merchant platform)
nonce_str	Yes	String(32)	Included in platform payment API protocols to ensure unpredictability for signatures. 32 characters or fewer.
err_code	No	String(32)	Reference error code. It will be returned only when result_code is different from 0.
err_msg	No	String (128)	Error information description. It will be returned only when result_code is different from 0.
sign	Yes	String(344)	Please refer to the section 4 'Digital Signature'.
sign_agentno	No	String(32)	When the merchant is applied the Aggregator mode that the merchant will be represented by the channel, the agency channel number is sent, and the corresponding sign needs to be signed with the channel's sign_key.

The following fields will be returned when status and result_code both are “0”			
trade_type	Yes	String(32)	pay.alipay.webpay.intl
transaction_id	Yes	String(32)	Platform transaction ID, it’s unique ID in platform.
out_trade_no	Yes	String(32)	The unique trade reference of merchant system.
out_transaction_id	Yes	String(32)	Corresponding to the transaction number in the Alipay transaction history bill details
refund_count	Yes	Int	Specifies recorded refund counts.
out_refund_no_$n	Yes	String(32)	Merchant refund number. “$n” stands for refund order count, calculated from 0. Value taken from 0 to (total refund count – 1). E.g. out_refund_no_0, out_refund_no_1, etc.
refund_id_$n	Yes	String(32)	Specifies the internal refund number, which is unique in the platform system. “$n” stands for refund order count, calculated from 0. Value taken from 0 to (total refund count – 1). E.g. refund_id_0, refund_id_1, etc.
refund_channel_$n	Yes	String(16)	Value: ORIGINAL. The money will refund back to where it came from. “$n” stands for refund order count, calculated from 0. Value taken from 0 to (total refund count – 1). E.g. refund_channel_0, refund_channel_1, etc.
refund_fee_$n	Yes	Int	Refund amount. The unit of the fee is the minimal unit of the currency. Partial refund can be supported. “$n” stands for refund order count, value taken from 0 to (total refund count – 1). E.g. refund_fee_0, refund_fee_1, etc.
coupon_refund_fee_$n	No	Int	Coupon refund amount. coupon_refund_fee <= refund_fee. refund_fee - coupon_refund_fee = cash refund amount “$n” stands for refund order count, value taken from 0 to (total refund count – 1). E.g. coupon_refund_fee_0, coupon_refund_fee_1, etc.
cash_fee	No	Int	Cash amount of order, the unit of the fee is the minimal unit of the currency.
cash_fee_type	No	String(16)	Currency type, Complies with ISO 4217 standards

rate	No	String(16)	Exchange rate between user payment currency and merchant's settlement currency.
refund_time_$n	No	String(14)	Payment completion time. Format: yyyyMMddhhmmss，e.g. 9:10:10 on December 25, 2009 will be displayed as 20091225091010, the timezone is GMT+8 Beijing. The time is taken from merchant's server. Note: order creation time and timeout time must both be uploaded to take effect. "$n" stands for refund order count, value taken from 0 to (total refund count – 1). E.g. refund_time_0, refund_time_1, etc.
refund_status_$n	Yes	String(16)	Refund Status: SUCCESS: Refunded successfully. FAIL: Refund failed. PROCESSING: Refund is pending. NOTSURE: Require the Vendor to call the Submit Refund API again with the original refund number. CHANGE: Refund can't be processed as the Payer's bank card is either revoked or blocked. As a consequence, the refund will be transferred to the merchant's cash account. In this case, the refund must be processed offline via the help of the merchant's customer. "$n" stands for refund order count, value taken from 0 to (total refund count – 1). E.g. refund_status_0, refund_status_1, etc,
$n is the record number. It can be 0~ ($ refund_count -1). Example: There are 2 records of refund_count. The first record number should be "0" and the second one should be "1".			

8 Notes

1. The unit of any related amount is the minimal unit of the currency, and decimals are not allow.
2. notify_url means that platform server directly initiates request from back end to merchant's server, and when disposing, the merchant could not examine the user's cookie or session; the merchant's updating of DB and

other goods delivery procedure needs to be made after notify_url is completed to ensure that to supplement order after order fails will be successful.

3. notify_url means that it might have repeated notification and the merchant needs to do away with the repeated ones to avoid repeated goods delivery.
4. notify_url means the receive notification, and if the merchant disposes successfully or if the examined order has been disposed, then the successful disposal mark, the pure character string success needs to be returned, and the character string success is not case sensitive; if we don't receive the returned success, then our server will keep sending notification to you until three hours later; if it's assumed that all orders don't return success, then the load of notification of our server will be increase, and the worst case is that the notification normally sent to the merchants might delay; besides, we will urge you to perfect, and if you don't improve for a long time period, then the R&D or operation and maintenance technology staff will adopt control measures over the payment interface opened by your company. For the parameters sent in requesting interface in the document, if the one required to fill is given a yes, then it has to be sent (in case of lack, an error will be alarmed), and if the one required to fill is given a no, then it will be optional to be sent.
5. For the returned parameters, if the one required to fill is given a yes, then it has to be returned, and if the one required to fill is given a no, then it will be optional to be returned. Because of upgrading or configuration or other cases, the actually returned parameters might not be totally consistent with those in the document, and the actually received parameters shall prevail.
6. Other notes

   (1) The problem of capital and small letter of parameters

Please pay attention to the problem of capital and small letter required in the document, such as “after signature, the character of the character string needs to be converted to uppercase”.

(2) The problem of format of parameters

All introduced parameters are of the type of character string, and please pay attention to the specific requirements in different places of the document.

(3)The problem of time stamp

Please use Linux time stamp, and note that its format is character string.

(4) The problem of order number payment made by the same merchant

If the payment of order of the merchant fails, then it’s required to generate a new order number to re-initiate payment, and the original order number needs to be invoked for closing to avoid repeated payment; After an order is placed in the system, if the payment of users is time out, the system will exit and no longer accept the payment to avoid ongoing payment of users, and please invoke the close order interface.

Notes: after an order is generated, to immediately invoke the close order interface will not be allowed, because the shortest invocation interval is 5 minutes.

7. Request swiftpass gateway If there is no clear result of synchronization within 10 seconds, it can be considered that the transaction request has timed out

9 Error Code

Alipay:

Please check https://global.alipay.com/docs/ac/gr/error_code for details.

Error code	Description
ACCESS_FORBIDDEN	You have no permission to use the product. Check your agreement with Alipay.

	See ACCESS_FORBIDDEN for details.
AGREEMENT_NOT_EXIST	The related agreement does not exist.
	See AGREEMENT_NOT_EXIST for details.
ALIN10023	An order is being paid by a second payer.
	See ALIN10023 for details.
ALIN10070	The signature is incorrect. See ALIN10070 for details.
ALIN10129	In APP payment, the PID does not match the environment. For example, the PID is from production environment but is tested in sandbox environment.
	See ALIN10129 for details.
ALIN38173	The orderInfo string in the request is not parsed correctly. See ALIN38173 for details.
ALIN42282	The same external transaction number, out_trade_no, is used to repeatedly initiate requests, and the request parameters are inconsistent.
	See ALIN42282 for details.
ALIN43877	The merchant called Alipay domestic payment solution interface, but the buyer is trying to make payment in a foreign country (outside of China).
	See ALIN43877 for details.
ALIN43911	Transaction risks are detected at the user side.
	See ALIN43911 for details.
BEYOND_PAY_RESTRICTION	The balance payment amount exceeds the limit. Change to other payment method such as cash or credit card.
	See ALIN43911 for details.
	Insufficient balance for current operation. Top-up

BUYER_BALANCE_NOT_ENOUGH	the balance or link a bank card.
	See BUYER_BALANCE_NOT_ENOUGH for details.
BUYER_BANKCARD_BALANCE_NOT_ENOUGH	Insufficient bank balance for current operation. Top-up the balance or link a bank card.
	See BUYER_BANKCARD_BALANCE_NOT_ENOUGH for details.
BUYER_ENABLE_STATUS_FORBID	The buyer account is disabled because of identity or security reasons.
	See BUYER_ENABLE_STATUS_FORBID for details.
BUYER_NOT_EXIST	The buyer_identity_code value is incorrect.
	See BUYER_NOT_EXIST for details.
BUYER_NOT_MAINLAND_CERT	The user is not an eligible customers of the Alipay payment products that you use.
	See BUYER_NOT_MAINLAND_CERT for details.
BUYER_PAYMENT_AMOUNT_DAY_LIMIT_ERROR	The total payment amount for the buyer exceeded user daily max-amount limit. Change to other payment method such as cash or credit card.
	See BUYER_PAYMENT_AMOUNT_DAY_LIMIT_ERROR for details.
BUYER_PAYMENT_AMOUNT_MONTH_LIMIT_ERROR	The total payment amount for the buyer exceeded user monthly max-amount limit. Change to other payment method such as cash or credit card.
	See BUYER_PAYMENT_AMOUNT_MONTH_LIMIT_ERROR for details.
CONTACT_NO_MANDATORY	contact_no is not passed in the request parameters.
	See CONTACT_NO_MANDATORY for details.
CONTEXT_INCONSISTENT	The transaction information is inconsistent by the same out_trade_no. Check the request data.

	See CONTEXT_INCONSISTENT for details.
CURRENCY_NOT_SAME	The refund currency is inconsistent.
	See CURRENCY_NOT_SAME for details.
CURRENCY_NOT_SUPPORT	The currency is not supported. Check the agreement with Alipay.
	See CURRENCY_NOT_SUPPORT for details.
DATA_NOT_EXIST	The secondary merchant is not successfully registered.
	See DATA_NOT_EXIST for details.
DISCORDANT_REPEAT_REQUEST	The same out_return_no is used to initiate multiple refund requests, and the request parameters are inconsistent.
	See DISCORDANT_REPEAT_REQUEST for details.
DUPLICATE_PAY_CURRENCY_NOT_EQUAL	More than one payment requests share a same out_trade_no, and the parameter currency is not the same.
	See DUPLICATE_PAY_CURRENCY_NOT_EQUAL for details.
DUPLICATE_REQUEST	The registration request for the same PM / PMS is submitted already and is currently under review.
	See DUPLICATE_REQUEST for details.
EXCHANGE_AMOUNT_OR_CURRENCY_ERROR	The exchange amount or currency is incorrect. Check the amount and the currency parameter.
	See EXCHANGE_AMOUNT_OR_CURRENCY_ERROR for details.
EXIST_FORBIDDEN_WORD	Prohibited words are included in the transaction request.
	See EXIST_FORBIDDEN_WORD for details.
HAS_NO_PRIVILEGE	The contract of the PID expires or is terminated.

	See HAS_NO_PRIVILEGE for details.
ILLEGAL_ACCESS_SWITCH_SYSTEM	You are not allowed to access the system of this type. Contact Alipay Technical Support if needed.
ILLEGAL_ARGUMENT	The parameter is incorrect. Check each request parameter according to the API specification.
	See ILLEGAL_ARGUMENT for details.
ILLEGAL_CLIENT_IP	The client IP address is illegal. Check the Client IP address.
	See ILLEGAL_CLIENT_IP for details.
ILLEGAL_EXTERFACE	The Alipay API you call is incorrect.
	See ILLEGAL_EXTERFACE for details.
ILLEGAL_PARTNER	The partner ID is incorrect. Ensure the value of partner parameter matches the partner value provided by Alipay.
	See ILLEGAL_PARTNER for details.
ILLEGAL_PARTNER_EXTERFACE	The PID used in the request did not sign the corresponding contract.
	See ILLEGAL_PARTNER_EXTERFACE for details.
ILLEGAL_SECURITY_PROFILE	The matching private key configuration is not found.
	For the solution, see ILLEGAL_SECURITY_PROFILE.
ILLEGAL_SIGN	Errors exist in the signature.
	See Digital signature for details.
ILLEGAL_SIGN_TYPE	Alipay's request only supports three signing methods: MD5, RSA, and RSA2. If other values are passed to sign_type, this error will be returned.
	Please check if sign_type is one of MD5, RSA, RSA2, and check if the value is passed incorrectly.
	The parameter name is wrong, the parameter value

INVALID_PARAMETER	does not meet the requirements, and required parameters are not filled, and so on.
	See INVALID_PARAMETER for details.
INVALID_RECEIVE_ACCOUNT	Error exists in the receipt account information.
	See INVALID_RECEIVE_ACCOUNT for details.
INVALID_ROUNDED_AMOUNT	The refund with this amount may violate the rule that the calculated amount of both CNY and foreign currency should be fully or not fully refunded at the same time. Take a transaction with 0.07 CNY (0.01 USD) as an example. A refund with 0.06 CNY would not be accepted because this comes to a situation where there is 0.01 CNY (0 USD) left for this transaction.
	See INVALID_ROUNDED_AMOUNT for details.
LBS_GEOGRAPHIC_INFORMATION_INVALID	The actual country of the address defined by store_address does not match the country defined by store_country, or the address defined by store_address cannot be found on Google Map.
	See LBS_GEOGRAPHIC_INFORMATION_INVALID for details.
MCC_TYPE_ILLEGAL	MCC (parameter secondary_merchant_industry) is invalid.
	See MCC_TYPE_ILLEGAL for details.
MOBILE_PAYMENT_SWITCH_OFF	The Payment Code feature is disabled in the customer's Alipay app.
	See MOBILE_PAYMENT_SWITCH_OFF for details.
MORE_THAN_ALLOW_REFUND_FOREX_FEE	The principle of Alipay's split-refund is to return the original way. If a transaction involves refunding the split, and the refund amount exceeds the actual receipt amount of the account, this error code will be returned.
	See MORE_THAN_ALLOW_REFUND_FOREX_FE

	E for details.
NOT_CERTIFIED_USER	Buyer qualifications do not match.
	See NOT_CERTIFIED_USER for details.
NOT_PRIVATE_ACCOUNT_USER	The transaction can only be paid with the buyer's personal account, not the business account.
	See NOT_PRIVATE_ACCOUNT_USER for details.
NOT_SUPPORT_PAYMENT_INST	The Alipay Wallet version is not supported.
	See NOT_SUPPORT_PAYMENT_INST for details.
PARAM_ILLEGAL	The parameter is illegal. Modify the parameter according to the API document.
	For more information about this error code in certain interfaces, see PARAM_ILLEGAL.
PAYER_ENABLE_STATUS_FORBID	The buyer's Alipay account is deactivated and the real-name verification information cannot be sent to the customs.
	See PAYER_ENABLE_STATUS_FORBID for details.
PAYMENT_FAIL	The transaction failed.
	See PAYMENT_FAIL for details.
PAYMENT_REQUEST_HAS_RISK	The merchant status is abnormal, or the buyer's payment has risks, such as offsite payment or large payment.
	See PAYMENT_REQUEST_HAS_RISK for details.
PRODUCT_AMOUNT_LIMIT_ERROR	The transaction amount exceeded the limit.
	See PRODUCT_AMOUNT_LIMIT_ERROR for details.
PULL_MOBILE_CASHIER_FAIL	Failed to call the mobile cashier.
	See PULL_MOBILE_CASHIER_FAIL for details.
	The order for the refund request does not exist

PURCHASE_TRADE_NOT_EXIST	(status is TRADE_NOT_EXIST) or has not been paid (status is WAIT_BUYER_PAY).
	See PURCHASE_TRADE_NOT_EXIST for details.
QRCODE_HAS_BEEN_EXIST	The QR code already exists. Try again or Contact Alipay Technical Support if needed.
	See QRCODE_HAS_BEEN_EXIST for details.
REASON_TRADE_REFUND_FEE_ERR	Invalid refund amount.
	See REASON_TRADE_REFUND_FEE_ERR for details.
REFUND_CHARGE_ERROR	The refund is initiated before Alipay receive the payment from the user.
	See REFUND_CHARGE_ERROR for details.
REFUND_REQUEST_HAS_RISK	The merchant status is abnormal and transactions are not refundable.
	See REFUND_REQUEST_HAS_RISK for details.
REFUNDMENT_VALID_DATE_EXCEED	The transaction exceeded the valid refund period.
	See REFUNDMENT_VALID_DATE_EXCEED for details.
REGISTRATION_NO_MANDATORY	registration_no is not passed in the request parameters.
	See REGISTRATION_NO_MANDATORY for details.
REPEATED_REFUNDMENT_REQUEST	Duplicated refund request. Please do not refund repeatedly.
	See REPEATED_REFUNDMENT_REQUEST for details.
REQUEST_AMOUNT_EXCEED	The value of refund_amount or the total refund amount is more than the transaction amount.
	See REQUEST_AMOUNT_EXCEED for details.
	The amount exceeded the merchant industry single

RESTRICTED_MERCHANT_INDUSTRY	order amount limit.
	See RESTRICTED_MERCHANT_INDUSTRY for details.
RETURN_AMOUNT_ERROR	The refund amount in CNY, which is the value of return_rmb_amount, is less than 0.01 when converted to the settlement amount in foreign currency.
	See RETURN_AMOUNT_ERROR for details.
RETURN_AMOUNT_EXCEED	The total refund amount exceeds the amount actually paid for the transaction.
	See RETURN_AMOUNT_EXCEED for details.
SECONDARY_MERCHANT_ID_BLANK	No secondary merchant information was passed in the payment request.
	See SECONDARY_MERCHANT_ID_BLANK for details.
SECONDARY_MERCHANT_ID_INVALID	The parameter secondary_merchant_id passed in the request is incorrect.
	See SECONDARY_MERCHANT_ID_INVALID for details.
SECONDARY_MERCHANT_STATUS_ERROR	The secondary merchant status is abnormal.
	See SECONDARY_MERCHANT_STATUS_ERROR for details.
SELLER_BALANCE_NOT_ENOUGH	When refunding, the seller's account balance was insufficient and the refund failed.
	See SELLER_BALANCE_NOT_ENOUGH for details.
SELLER_NOT_EXIST	The parameter seller_id in the request is not consistent with partner. Or seller_email does not match partner.
	See SELLER_NOT_EXIST for details.
SOUNDWAVE_PARSER_FAIL	The payment code (buyer_identity_code) is invalid.

	See SOUNDWAVE_PARSER_FAIL for details.
SYSTEM_ERROR	Alipay system failed to process the request because of temporary internal glitch.
	See SYSTEM_ERROR for details.
TARGET_SYSTEM_ERROR	For interface alipay.acquire.overseas.spot.pay, parameter extend_info is not in JSON format.
	Make sure the format of extend_info is JSON.
TOTAL_FEE_EXCEED	The transaction amount exceeds the limit.
	See TOTAL_FEE_EXCEED for details.
TRADE_BUYER_NOT_MATCH	The buyer does not match.
	See TRADE_BUYER_NOT_MATCH for details.
TRADE_CANCEL_TIME_OUT	The cancellation request is beyond the opening hours.
	See TRADE_CANCEL_TIME_OUT for details.
TRADE_HAS_CLOSE	Payment or refund is not allowed for orders with a status of TRADE_CLOSED.
	See TRADE_HAS_CLOSE for details.
TRADE_HAS_FINISHED	The transaction is successfully paid and the refund period has expired. No payment or cancel request is allowed.
	See TRADE_HAS_FINISHED for details.
TRADE_HAS_SUCCESS	Already successful transactions are not allowed to initiate a payment again.
	See TRADE_HAS_SUCCESS for details.
TRADE_NOT_EXIST	The transaction does not exist.
	See TRADE_NOT_EXIST for details.
	The error might be caused by the following

TRADE_SETTLE_ERROR	reasons:
	Errors exist in split_fund_info. For example, the value of transOut is incorrect.
	Multiple partial refunds are requested within a same second.
	Network jitter occurs during the settlement.
	See TRADE_SETTLE_ERROR for details.
TRADE_STATUS_ERROR	The corresponding transaction status is not allowed for current operation.
	See TRADE_STATUS_ERROR for details.
UNKNOW	In the in-store payment, if the amount is small and confidential, payment is returned to SUCCESS. If the amount is large, the confirmation payment page will be invoked, and the return code is UNKNOW.
	See UNKNOW for details.
UNKNOW_ERROR	The service is temporarily unavailable.
	Try again later.
购汇金额或币种错误	The transaction amount in transaction currency is rounded to 0 in the settlement currency.
	See 购汇金额或币种错误 for details.
系统有点儿忙，一会儿再试试，或者可以在电脑上付款	The customer cannot use Alipay Global Payment Products.
	See 系统有点儿忙…… for details.