

International Credit Card Payment API Specification

Service Name:

alipay.trade.direct.forcard.pay

Version: 1.0



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1 Introduction

1.1 Overview

The function that Foreign Card Payment provides is, through Alipay channel, one international credit card account owner is able to remit directly to an Alipay account owner. The currency of both buyer and seller is CNY.

1.2 Reader

This document is meant for web developer, maintenance staff and manager with substantial website development capability, who understands not only at least one of following programming language, ASP, PHP, JAVA and ASP.net, but also the SQL database language.

1.3 Glossary

Figure 1-1 Glossary of Terms

Term	Description
СТИ	Alipay risk inspection system
Return	The Website Synchronous Redirect Mode. Under this mode, after the buyer finish the payment, the Alipay website redirects back to the partner website and returns the result data to partner synchronously and automatically.
Notify	The Server Asynchronous Response Mode. Under this mode, after the trade status changes, the Alipay server posts the notification to the partner server asynchronously and initiatively.
Anti-phishing	"Phishing" utilize deceptive email and forged website for scams, victims usually end up reveal personal financial information, like credit card number, account name, password and social security number, etc. Cause damage. Anti-phishing is to prevent it happening.
Profit Sharing (Interchange)	Sharing Profit is to share a part of transaction funds with other accounts
Red Envelopes	Alipay Red Envelopes containing cash which can be used in some transaction.



Term	Description				
Cartoon	Alipay cartoon connects user account with bank cards, transfer funds without opening online banking, and enjoy Alipay "Examine Before Payment" grantee.				
Request	The process of transmitting data using HTTP protocol.				
International Credit Card	Worldwide credit card, which includes VISA, Mastercard and JCB etc.				
International Credit Card Payment	No need to login Alipay, redirect to International Credit Card system to make the payment. Partner decides to select which kind of card.				

1.4 Technical Service

When developing or using Alipay API, if any problem or question occurs, click this URL and fill out the form, submit it and Alipay Tech staff will contact you and solve the problem.

https://b.alipay.com/support/helperApply.htm?action=supportHome

Alipay API integration Forum:

http://club.alipay.com/thread.php?fid=703

In this forum, you may download information, search for solution, or post for help.

• Customer Hotline: 0571-88158090

2 Function Demo

Step 1: Access to the International Credit Card Receipt Platform and input the card information and the logistics information as Figure 2-1 shows.



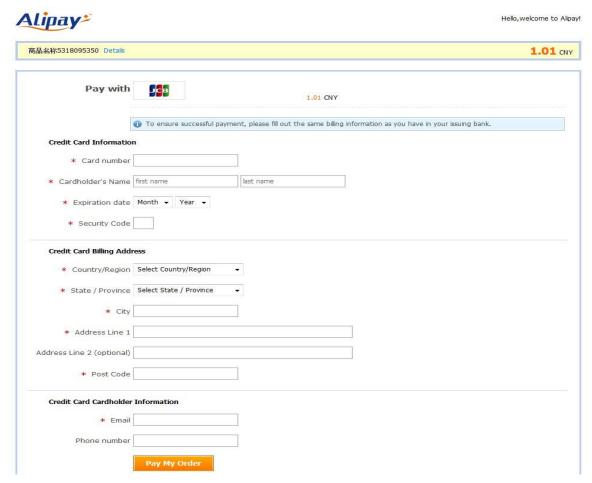


Figure 2-1 International Credit Card Charging Platform

Step 2: Click the button <Pay My Order> and then access to 3D checking module to verify the 3D verification code to accomplish the payment.





Figure 2-2 Charging Platform

Step 3: Complete the payment. Check the following figure.



Figure 2-3 Alipay shows Payment Success

Step 4: Redirect back to partner website

Return_url parameter is passed to Alipay, which has been involved in the request during request construction. When request is processed, Alipay will go to a



payment success page and soon redirect back to partner website included in return_url.

3 Interaction Mode

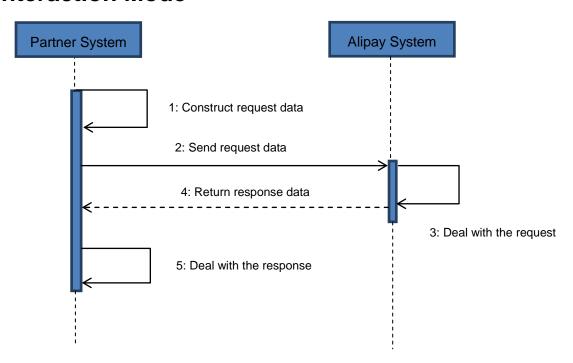


Figure 3-1 Request/Response Interaction Mode

(1) Construct Request Data

Partner, based on Alipay API specification, generate a data set and the signature through programming.

(2) Send Request Data

Send data set to Alipay system through the way of page re-direction or posting form.

(3) Alipay deal with the request

When receiving the data set, Alipay perform a set of security validation before dealing with these data.

(4) Return response data

Alipay will response the processed data to partner in the following two manners:

 The program reconstructs the URL link automatically, then the buyer current page redirects automatically and synchronously to the partner



pre-set URL address with response data(Parameter name: return_url, if partner does not set it, this operation will be ignored.).

 Alipay server posts the notification to the partner server asynchronously and initiatively (Parameter name: notify_url, if partner does not set it, this operation will be ignored.)

(5) Partner deal with the response

After partner receive the response data from return page (the parameter return_url identified) or notify page (the parameter notify_url identified), its own business logic (i.e. acquire token, order update) can be continued.

4 Request Parameters Description

4.1 Definition

Request parameters are sent to Alipay for data transmission, which can help Alipay to carryout data processing.

4.2 List of Parameters

Figure 4-1 Request Parameters Description

Paramet er	Paramete r Name	Type(byte length)	Description	Optional	Example
Basic Paran	neters				
service	API Name	String	API name	N	alipay.trade.d irect.forcard.p ay
partner	Partner ID	String(16)	A unique partner ID to identify a contracted Alipay Account. A 16 digit number starts with 2088	N	20881010119 13539
_input_cha rset	Encode Charset	String	The charset on partner website like utf-8、gbk、gb2312 etc.	N	gbk



Paramet er	Paramete r Name	Type(byte length)	Description	Optional	Example
sign_type	Sign Type	String	DSA, RSA or MD5, capital letter	N	MD5
sign	Sign	String	Refer to Chapter 8 "Signature Algorithm"	N	7d314d22efb a4f336fb1876 97793b9d2
notify_url	Notify URL	String(190)	The URL for receiving Asynchronous Notification from Alipay server.	Y	http://api.test. alipay.net/atin terface/receiv e_return.htm
return_url	Return URL	String(200)	The URL the partner set, which the Alipay page redirects to after the trade, it provides the result data synchronously.	Y	http://api.test. alipay.net/atin terface/receiv e_return.htm
anti_phishi ng_key	Anti-Phish ing Key	string	Use time inquiry API to acquire encrypted Alipay timestamp If partner activated anti phishing IP checking, this parameter must be set.	Y	587FE3D285 8E6B01E301 04656E7805 E2
exter_invok e_ip	External Invoke IP	String(15)	User IP when the trade is created. If partner activated anti phishing IP checking, this parameter must be set, for verification.	Y	128.214.222. 111
Business Pa	arameters				
out_trade_ no	Out Trade Number	String(64)	A unique number to identify a transaction in partner system	N	68431922806 47118
subject	Subject	String(256)	Goods name/trade name/order name/order key words etc.	N	Apple
defaultban k	Default Bank	String	Bank Code, please refer to Chapter 11.5 "List of Banks".	N	boc-visa



Paramet er	Paramete r Name	Type(byte length)	Description	Optional	Example
extend_par am	Extend Paramete r	string	To send specific business information. It is valid only if partner pre-set the meaning of this parameter with Alipay. Parameter format: parameter name1^value 1 parameter name 2^value2 ······ Segregated by " " Please refer to Chapter 11.6 "Extend Parameters" Notice: Case insensitive.	Y	CUSTOMER _ID^4206211 97800000000 CUSTOMER _FIRST_NA ME^张 CUSTOMER _LAST_NAM E^三 CUSTOMER _EMAIL^1234 5@163.com CUSTOMER _PHONE^05 711234567 T RAVELDATA _COMPLETE _ROUTE^上 海-杭州 TRAVELDAT A_DEPARTU RE_DATETI ME^2011090 7
seller_logo n_id	Seller Account	String(100)	Partner Alipay Account Partner Information Priority: seller_id> seller_logon_id At least one of seller_id and seller_logon_id must be set.	Y	alipay-test01 @alipay.com
seller_id	Seller ID	String(16)	A unique partner ID to identify a contracted Alipay Account. A 16 digit number starts with 2088	Y	20880020070 18966
price	Price	Number	Unit: RMB Yuan. Value Range [0.01, 100000000.00], accurate to two decimal places. Rule: total_fee can be replaced by both price and quantity. Both price and quantity should be null when total_fee is set and vice versa.	Y	10.00



Paramet er	Paramete r Name	Type(byte length)	Description	Optional	Example
total_fee	Total Fee	Number	Total Amount of the transaction, Unit: RMB Yuan. Value Range [0.01, 100000000.00], accurate to two decimal places. If the parameter currency is CNY or currency is null, the currency of total_fee is RMB, and the unit is RMB-Yuan. Otherwise, the amount is for foreign currency and this parameter must be set.	Y	100
quantity	Quantity	Number	total_fee can be replaced by both price and quantity. Both price and quantity should be null when total_fee is set and vice versa.	Y	1
body	Body	String(1000)	Detail description about a transaction, if there are multiple items involved, accumulate together into body.	Y	Gundam MKII, Miniature Bracelet
show_url	Show URL	String(400)	The hyperlink for goods show on the cashier page.	Y	http://www.36 0buy.com/pro duct/113714. html
royalty_typ e	Royalty Type	String(2)	Now only one type:10 (royalty from seller to third party) Royalty type must be set after setting royalty_parameters.	Y	10



Paramet er	Paramete r Name	Type(byte length)	Description	Optional	Example
royalty_par ameters	Royalty Paramete rs	String	Type 1: Recipient email 1^Amount 1^Description 1 Recipient email 2^Amount 2^Description2 Or Payer email^Recipient email 1^Amount 1^Description 1 Payer email^Recipient email 2^Amount 2^Description2 Type 2: Recipient email 1^Amount 1^Description 1 Payer email 1^Recipient email 2^Amount 2^Description2 Payer email 2^ Recipient email 3^Amount 3^Description3 Type 3: Recipient email 1^Amount 1^Description 1 Payer email 1^Recipient email 2^Amount 2^Description2 Recipient email 3^Amount 3^Description3 Maxim 10 parameters at a time and they are segregated by " ". Description contains no more than1000 bytes. For the same level royalty: payer email must be the same as seller email. Rules: Recipient can pay for other recipients after he received money (the money recipient received must be more than or equal to it pays).	Y	maomao1@y ahoo.cn^1.00 ^yours maom ao2@yahoo.c n^2.00^yours
extra_com mon_para m	External Common Paramete r	String(100)	If this parameter is sent during user requests, it should be sent back during response.	Y	Hello, this is a test



Paramet er	Paramete r Name	Type(byte length)	Description	Optional	Example
it_b_pay	Expiration Time	String(3)	Set time limit for an unfinished transaction, if expired, the transaction will be closed automatically. Value Range: 1m~15d m: minute, h: hour, d: day, 1c: current day (no matter when the transaction is created, will be closed on 24:00 that day) The value should be an integer. For instance, 1.5h is not valid, should be replaced by 90m. Please contact technical support if you want to set expiration time.	Y	1h
currency	Currency	String	 Currency. If total_fee is not null and the value of this parameter currency is not CNY, the transaction is foreign currency transaction. If the value is CNY, the transaction is RMB transaction. Now, if the value of the parameter default_bank is boc-visa or boc-master, the currency must be USD. If the value of default_bank is boc-jcb, the currency must be CNY or null (default CNY). 	Y	USD



Note:

This API recieve https request only;

Parameter body, subject, extra_common_param cannot contain special characters like #, %, &, +, sensitive words, can not use some forigen language which AliWangWang does not support (Koren, Thai, Arabic and etc.)

Please sign each request according to Chapter 9 "Signature Algoritems", only signed request will be processed by Alipay.com;

This API can be used repeatedly, as long as basic information (Partner, User, Transaction Amount) is consistent, and transaction isn't finished.

4.3 Example

https://mapi.alipay.com/gateway.do?body=%E5%A4%96%E5%8D%A1%E6%9 4%B6%E5%8D%95%E7%94%A8%E6%88%B7%E8%AF%B4%E6%98%8E%E 4%B9%A6&subject=%E5%A4%96%E5%8D%A1%E7%BA%AF%E7%BD%91% E5%85%B3%E5%95%86%E5%93%81&default bank=boc-visa&sign type=MD 5¬ify_url=http%3A%2F%2Fapi.test.alipay.net%2Fatinterface%2Freceive_not ify.htm&out trade no=7247403357177973&return url=http%3A%2F%2Fapi.tes t.alipay.net%2Fatinterface%2Freceive return.htm&sign=838e02b70b0b9f95af4 ed580baf7852c& input charset=UTF-8&total fee=100&service=alipay.trade.dir ect.forcard.pay&partner=2088102115004977&seller_logon_id=yuebin%40alitest .com

Notice:

Example for referene is your only, Alipay gateway is https://mapi.alipay.com/gateway.do

5 Synchronous Response Parameters **Description**

5.1 Definition

After Alipay finish processing request data, it will notify partner website by posting response data by the way of redirection. The response data of such procedure are these response parameters.



5.2 List of Parameters

Figure 5-1 Synchronous Response Parameters Description

Parameter	Paramet er Name	Type(byt e length)	Description	Optional	Example
Basic Paramete	ers				
is_success	Success mark	String(1)	Indicate whether the API has been called successfully, it does not indicate the result of business	N	Т
sign_type	Sign Type	String	DSA, RSA or MD5, capital letter	N	MD5
sign	Sign	String	Refer to Chapter 8 "Signature Algorithm"	N	7d314d22efba 4f336fb18769 7793b9d2
Business Para	meters				
out_trade_no	Out Trade Number	String(64)	A unique number to identify a transaction in partner system.	Υ	68431922806 47118
subject	Subject	String(256)	Subject's title, trade name, order title, order key name. This parameter has a maximum length of 128 character	Y	Glove
payment_type	Paymen t Type	String(4)	Default value is 1.	Y	1
exterface	Exterfac e	String	Indicate which API returned this link	Y	alipay.trade.di rect.forcard.pa y
trade_no	Trade Number	String(64)	The unique trade number in Alipay system. Length from 16 to 64.	Y	20081023032 10710



Parameter	Paramet er Name	Type(byt e length)	Description	Optional	Example
trade_status	Trade Status	String	The status of this transaction. Successful status must be one of following two: TRADE_FINISHED (for General Instant Payment) TRADE_SUCCESS (for Advanced Instant Payment)	Υ	TRADE_SUC CESS
notify_id	Notify ID	String	Alipay Notify ID, partner may use this ID to verify the request is valid or not.	Y	RqPnCoPT3K 9%2Fvwbh3I %2BODmZS9 o4qChHwPW baS7UMBJpU nBJlzg42y9A8 gQlzU6m3fOh G
notify_time	Notify Time	Date	Notify Time (Alipay showed time) Format: yyyy-MM-dd HH:mm:ss。	Y	2008-10-23 13:17:39
notify_type	Notify Type	String	Notify Type	Y	trade_status_ sync
seller_email	Seller Email	String(100)	Partner Alipay Account Partner Information Priority: seller_id>seller_account_na me>seller_email. At least one of seller_id, seller_account_name and seller_email must be set.	Y	alipay-test01 @alipay.com
buyer_email	Buyer Email	String(100	Buyer Alipay Account Buyer Information Priority: buyer_id>buyer_account_n ame>buyer_email.	Y	tstable01@ali pay.com
seller_id	Seller ID	String(16)	A unique partner ID to identify a contracted Alipay Account. A 16 digit number starts with 2088	Y	20880020070 18966



Parameter	Paramet er Name	Type(byt e length)	Description	Optional	Example
buyer_id	Buyer ID	String(16)	A unique buyer ID to identify a contracted Alipay Account. A 16 digit number starts with 2088	Υ	20880020070 18955
total_fee	Total Fee	Number	Total Amount of the transaction, Unit: RMB Yuan。 Value Range [0.01, 100000000.00], accurate to two decimal places.	Y	100
body	Body	String(100 0)	Detail description about a transaction, if there are multiple items involved, accumulate together into body.	Υ	Gundam MKII, Miniature Bracelet
extra_common _param	External Commo n Paramet er	String(100	If this parameter is sent during user requests, it should be sent back during response.	Υ	Hello, this is a test
bank_seq_no	Bank Sequen ce Number	String(64)	Bank Sequence Number Only for the partner who contract the Bank Payment API and Pseudo Bank Payment API.	Υ	 CMB : 92200317 30 CCB : 20100329 00000085 9967
currency	Currenc y	String	Currency. If total_fee is not null and the value of this parameter currency is not CNY, the transaction is foreign currency transaction. If the value is CNY, the transaction is RMB transaction.	Y	USD



Parameter	Paramet er Name	Type(byt e length)	Description	Optional	Example
forex_total_fee	Total Fee of Foreign Currenc y Transac tion	String	 If the transaction is foreign currency transaction, the value is same as total_fee in request parameters. If the transaction is RMB transaction, this parameter should not be set. 	Y	200

5.3 Example

http://www.xxx.com/alipay/return_url.php?is_success=T&sign=b1af584504b8e8 45ebe40b8e0e733729&sign_type=MD5&body=Hello&buyer_email=xinjie_xj%4 0163.com&buyer_id=2088101000082594&exterface=create_direct_pay_by_use r&out_trade_no=6402757654153618&payment_type=1&seller_email=chao.che_nc1%40alipay.com&seller_id=2088002007018916&subject=%E5%A4%96%E9 %83%A8FP&total_fee=10.00&trade_no=2008102303210710&trade_status=TR_ADE_FINISHED¬ify_id=RqPnCoPT3K9%252Fvwbh3l%252BODmZS9o4qC_hHwPWbaS7UMBJpUnBJlzg42y9A8gQlzU6m3fOhG¬ify_time=2008-10-23+13%3A17%3A39¬ify_type=trade_status_sync&extra_common_param=%E4%BD%A0%E5%A5%BD%EF%BC%8C%E8%BF%99%E6%98%AF%E6%B5%8B%BE8%AF%95%E5%95%86%E6%88%B7%E7%9A%84%E5%B9%BF%E5%91%8A%E3%80%82&bank_seq_no=%E6%8B%9B%E8%A1%8C%E7%9A%84%E5%BD%A2%E5%A6%829220031730%3B%0D%0A%E5%BB%BA%E8%A1%8C%E7%9A%84%E5%BD%A2%E5%A6%829220031730%3B%0D%0A%E5%BB%BA%E8%A1%8C%E7%9A%84%E5%BD%A2%E5%A6%8220100329000000859967

Notice:

This Example is for your referene only, Alipay gateway is https://mapi.alipay.com/gateway.do



6 Asynchronous Response Parameters Description

6.1 Definition

When Alipay finish processing partner's requests, it will notify partner system initiatively by server with this data set. This set of data is the Asynchronous Response Parameters.

6.2 List of Parameters

Figure 6-1 Asynchronous Response Parameters Description

		_	·		
Param eter	Parame ter Name	Type(byte length)	Description	Optional	Example
Basic Par	ameters				
notify_ti me	Notify Time	Date	Notify Time (Alipay showed time) Format: yyyy-MM-dd HH:mm:ss。	Y	2008-10-23 13:17:39
notify_ty pe	Notify Type	String	Notify Type	Y	trade_status_sync
notify_id	Notify ID	String	Alipay Notify ID, partner may use this ID to verify the request is valid or not.	Y	RqPnCoPT3K9%2F vwbh3l%2BODmZS 9o4qChHwPWbaS7 UMBJpUnBJlzg42y9 A8gQlzU6m3fOhG
sign_typ e	Sign Type	String	DSA, RSA or MD5, capital letter	N	MD5
sign	Sign	String	Refer to Chapter 8 "Signature Algorithm"	N	7d314d22efba4f336f b187697793b9d2
Business	Parameters	<u> </u>			
out_trad e_no	Out Trade Number	String(64)	A unique number to identify a transaction in partner system	N	6843192280647118



Param eter	Parame ter Name	Type(byte length)	Description	Optional	Example
subject	Subject	String(256)	Subject's title, trade name, order title, order key name. This parameter has a maximum length of 128 character	Y	Glove
payment _type	Payme nt Type	String(4)	Value range refer to appendix "11.6 Payment Type" Default Value: 1 (purchase commodity)	N	1
trade_no	Trade Number	String(64)	The unique trade number in Alipay system. Length from 16 to 64.	Y	2008102303210710
trade_st atus	Trade Status	String	The status of this transaction. Successful status must be one of following two: TRADE_FINISHED (for General Instant Payment) TRADE_SUCCESS (for Advanced Instant Payment)	Y	TRADE_SUCCESS
gmt_cre ate	GMT Create	Date	Time when transaction is created. Format: yyyy-MM-dd HH:mm:ss	Y	2008-10-22 20:49:31
gmt_pay ment	GMT Payme nt	Date	Time when transaction is paid by user. Format: yyyy-MM-dd HH:mm:ss	Y	2008-10-22 20:49:50
gmt_clos e	GMT Close	Date	Time when transaction is closed Format: yyyy-MM-dd HH:mm:ss	Y	2008-10-22 20:49:46



Param eter	Parame ter Name	Type(byte length)	Description	Optional	Example
refund_s tatus	Refund Status	String	Value range refer to Chapter 11.3 "Refund Status"	Y	REFUND_SUCCES S
gmt_refu nd	GMT Refund	Date	Time when transaction is refunded Format: yyyy-MM-dd HH:mm:ss	Y	2008-10-29 19:38:25
seller_e mail	Seller Email	String(100)	Partner Alipay Account Partner Information Priority: seller_id>seller_account_ name>seller_email. At least one of seller_id, seller_account_name and seller_email must be set.	Y	alipay-test01@alipay .com
buyer_e mail	Buyer Email	String(100)	Buyer Alipay Account Buyer Information Priority: buyer_id>buyer_account_ name>buyer_email.	Y	tstable01@alipay.co m
seller_id	Seller ID	String(16)	A unique partner ID to identify a contracted Alipay Account. A 16 digit number starts with 2088	Y	2088002007018966
buyer_id	Buyer ID	String(16)	A unique buyer ID to identify a contracted Alipay Account. A 16 digit number starts with 2088	Y	2088002007018955
price	Price	Number	Unit: RMB Yuan. Value Range [0.01, 100000000.00], accurate to two decimal places. Rule: total_fee can be replaced by both price and quantity. Both price and quantity should be null when total_fee is set and vice versa.	Y	10.00



Param eter	Parame ter Name	Type(byte length)	Description	Optional	Example
total_fee	Total Fee	Number	Total Amount of the transaction, Unit: RMB Yuan, Value Range [0.01, 10000000000.00], accurate to two decimal places.	Y	100
quantity	Quantit y	Number	total_fee can be replaced by both price and quantity. Both price and quantity should be null when total_fee is set and vice versa.	Υ	1
body	Body	String(100 0)	Detail description about a transaction, if there are multiple items involved, accumulate together into body.	Y	Gundam MKII, Miniature Bracelet
discount	Discou nt	Number	Alipay will add the value of the discount on the trade amount, this parameter is negative, if there is a discount	Y	-5
is_total_f ee_adjus t	Is Total Fee Adjust	String(1)	Is total fee adjusted	Y	N
use_cou pon	Use Coupon	String(1)	Whether coupon is used in transaction	Y	N
extra_co mmon_p aram	Externa I Commo n Parame ter	String(100)	If this parameter is sent during user requests, it should be sent back during response.	Y	Hello, this is a test
bank_se q_no	Bank Sequen ce Number	String(64)	Bank Sequence Number Only for the partner who contract the Bank Payment API and Pseudo Bank Payment API.	Y	• CMB : 9220031730 • CCB : 2010032900000 0859967



Param eter	Parame ter Name	Type(byte length)	Description	Optional	Example
out_cha nnel_typ e	Payme nt Channe Is Info	String	The payment channels w.r.t this payment. Format: Channel 1 Channel 2 Each channel is segregated by " ". Please refer to Chapter 12.11 "Channel Types and Card Types"	Y	OPTIMIZED_MOTO BALANCE
out_cha nnel_am ount	Payme nt Channe Is Amount s Info	String	The amount of each payment channel. Format: Amount 1 Amount 2 Each amount is segregated by " ".	Y	90.00 10.00
error_co de	Error Code	String(102 4)	Error code of the errors checked from the item_orders_info parameters. Error codes are segregated by " ". Please refer to Chapter 11.1 "International Credit Card Payment Error Code" and Chapter 11.2 "System Error Code"	Y	ILLEGAL_SIGN
currency	Currenc y	String	 Currency. If total_fee is not null and the value of this parameter currency is not CNY, the transaction is foreign currency transaction. If the value is CNY, the transaction is RMB transaction. 	Y	USD



Param eter	Parame ter Name	Type(byte length)	Description	Optional	Example
forex_tot al_fee	Total Fee of Foreign Currenc y Transa ction	String	 If the transaction is foreign currency transaction, the value is same as total_fee in request parameters. If the transaction is RMB transaction, this parameter should not be set. 	Y	200

6.3 Example

http://www.xxx.com/alipay/notify url.php?trade no=2008102203208746&out tra de no=3618810634349901&discount=-5&payment type=1&subject=iphone%E 6%89%8B%E6%9C%BA&body=Hello&price=10.00&quantity=1&total fee=10.0 0&trade status=TRADE FINISHED&refund status=REFUND SUCCESS&selle r_email=chao.chenc1%40alipay.com&seller_id=2088002007018916&buyer_id= 2088002007013600&buyer_email=13758698870&gmt_create=2008-10-22+20 %3A49%3A31&is_total_fee_adjust=N&gmt_payment=2008-10-22+20%3A49%3 A50&gmt close=2008-10-22+20%3A49%3A46&gmt refund=2008-10-29+19%3 A38%3A25&use coupon=N¬ify time=2009-08-12+11%3A08%3A32¬ify type=%E4%BA%A4%E6%98%93%E7%8A%B6%E6%80%81%E5%90%8C%E 6%AD%A5%E9%80%9A%E7%9F%A5%28trade status sync%29¬ify id=7 0fec0c2730b27528665af4517c27b95&sign_type=DSA&sign= p_w_l h_j0b_gd aejia7n_ko4_m%252Fu_w_jd3_nx_s_k_mxus9_hoxg_y_r_lunli_pmma29_t_g% 253D%253D&extra_common_param=%E4%BD%A0%E5%A5%BD%EF%BC% 8C%E8%BF%99%E6%98%AF%E6%B5%8B%E8%AF%95%E5%95%86%E6% 88%B7%E7%9A%84%E5%B9%BF%E5%91%8A%E3%80%82&bank seq no= %E6%8B%9B%E8%A1%8C%E7%9A%84%E8%AE%A2%E5%8D%95%E5%8 F%B7%E5%BD%A2%E5%A6%829220031730%3B%0D%0A%E5%BB%BA%E 8%A1%8C%E7%9A%84%E5%BD%A2%E5%A6%8220100329000000859967

Notice:

This Example is for your referene only, Alipay gateway is https://mapi.alipay.com/gateway.do



7 Processing Response Data

7.1 Features of Website Synchronous Redirect Mode

- (1) After successfully finish the payment, the buyer will see an Alipay trade-sucess page, this page will stay for a few seconds and automatically redirect to the page partner named. (return_url)
- (2) Parameters in this page can be acquired with GET method, like request.QueryString("out_trade_no")、\$_GET['out_trade_no'].
- (3) Redirection only occurs once right after the buyer finished the payment.
- (4) In this mode, Alipay will not invoke partner page initiatively, rather using redirecting function of programming to make the user page redirect to the partner page.
- (5) Not only on sever, this mode can also be tested on local computer.
- (6) Return URL has a time limit, it would expire after one minute, which will cause verification failure.
- (7) When partner is configuring return_url, it is wrong to add custom parameters. For example

Wrong: http://www.alipay.com/alipay/return_url.php?xx=11

Right: http://www.alipay.com/alipay/return_url.php

(8) Due to Alipay will try to validate the return_url, so do not set it on local host. For instance:

Wrong:

http://localhost/alipay/return_url.php http://localhost:80/alipay/return_url.php

• Right:

http://www.xxx.comalipay/return_url.php http://121.1.1.255alipay/return_url.php



7.2 Features of Sever Asynchronous Response Mode

- (1) Make sure the Notification Page (notify_url) is absolutely blank, without space, html tag, or any error message threw from the program system.
- (2) Parameters in this page can be acquired with GET method, like request.Form("out_trade_no"), \$_POST['out_trade_no'].
- (3) This response will be used, if Alipay initiatively notify.
- (4) Alipay will notify when there is a real transaction in Alipay system and the status of that transaction has changed. (In Instant Payment service "Pending for payment" does not trigger notification).
- (5) Interaction between servers, unlike interaction between websites which is visible, is usually not displayable.
- (6) When the first time a transaction status is changed (in Instant Payment service is when transaction finished), not only page would redirect to partner website but also would Alipay notify partner system
- (7) After program is executed, the page must print "success" (without quote). If not, Alipay server would keep re-sending notification, until over 24 hour 22 minutes Generally, there are 8 notifications within 25 hours (Frequency: 2m,10m,15m,1h,2h,6h,15h)
- (8) After program is executed, there would not be redirection operation on the page, for Alipay would not recognize a "success" string, so it would be regarded as an error, and Alipay system would keep sending notification.
- (9) cookies, session would be invalid on this page, which means these data would not be captured.
- (10) The configuration and testing of this system must be on a server, via internet
- (11) The main effect of this mood is to present transaction lost, so even redirection failed, the order in partner system still update.
- (12) As long as the partner receives the sever asynchronous response and prints "success", the parameter notify_id would be invalid. It means when Alipay send same asynchronous notification (include the re-sending notifications because of no "success"), the parameter notify_id would not change.



7.3 Notification Trigger Condition

Figure 7-1 Notification Trigger Condition

Trigger Condition	Description	Default Value
TRADE_FINISHED	Transaction Finished	true
TRADE_SUCCESS	Payment Success	true
WAIT_BUYER_PAY	Transaction Created	false
TRADE_CLOSED	Transaction Closed	false

Note:

Partners may apply to Alipay for confirguration to set in what circumstances to trigger a notification.

7.4 Partner Business Process Cautions

When Alipay complete a transaction, it will return back to, and notify partner website. Partner can acquire synchronous response data with GET method or asynchronous response data with POST method, and validate it with partner's business logic. Thus, partner need to determine whether the same operation has been done before. Otherwise, partner has to take the risk of the lost.

- (1) After the completion of a transaction, partner may call batch refund API, Alipay system will send a notification to partner, detail information please refer to Batch Refund API Specification
- (2) When a partner use refund service, system will sent a notification includes parameter refund_status and gmt_refund to partner



8 Signature Algorithms

8.1 Generate Pre-sign string

8.1.1 Parameters to sign

In the list of request parameters, all of them need to be signed except sign sign_type . (in some case even sign_type also need to be signed)

In the list of response parameters, all of them need to be signed except sign, sign_type.

8.1.2 Generate Pre-sign string

For following data set:

```
string[] parameters={
    "service=create_direct_pay_by_user",
    "partner=2088101568338364",
    "_input_charset=gbk",
    "return_url= http://www.test.com/alipay/return_url.asp",
    "out_trade_no=6741334835157966",
    "subject=贝尔金护院式",
    "payment_type=1 ",
    "seller_email=alipay-test01@alipay.com",
    "total_fee=100"
};
```

Rearrange parameters in the data set alphabetically

And connect rearranged parameters with &:

This is the pre-sign string



Notice:

Notice:

- Parameters without a value, can be excluded from sign;
- Charset in sign must be consistent with the charset used previously
- If _input_charset is passed, it also shall be signed.
- According to HTTP protocol, special character like &,@ needs to do URL encoding, therefore the request receiver can get correct value. In this situation, pre-sign string shall be the original value instead of encoded one. For example: calling a particular API need to sign the parameter email, the pre-sign string shall be email=test@msn.com, rather than email=test%40msn.com.

8.2 Signature Generation

8.2.1 MD5 Signature

Private Key is necessary for MD5 signature. The MD5 private key is the 32-byte string which is composed of English letters and numbers. Partner can log on the Merchant Service Center (https://b.alipay.com) to install the digital certificate and click "Trade Security Code" ("交易安全 校验码") in the menu of "Technical Service" ("技术服务") to check the private key.

Sign for request

After the partner receives the pre-sign string during requesting, the private key should be appended to the pre-sign string to generate the new string. Then this new string would be calculated with the MD5 signature algorithm by the MD5 signature function. Thus, the result 32-byte string is the signature result string. (the value is given to parameter "sign")

Signature Verification for response

After receiving the pre-sign string during responding from Alipay system, the next step is the same as the procedure of Sign for request. When the 32-byte signature result string is generated, it



should be verified whether the value is equal to the value of the parameter "sign". If equal, the verification would be passed.

8.2.2 DSA, RSA Signature

Both private key and public key are necessary for DSA or RSA signature. Both private key and public key are generated with OPENSSL by partner. Partner and Alipay need to exchange their own public key. Therefore, partner uses Alipay public key and partner private key.

Sign for request

After the partner receives the pre-sign string during requesting, the partner private key and the pre-sign string are used in the RSA or DSA signature algorithm by the RSA or DSA signature function to get the result string. (the value is given to parameter "sign")

Signature Verification for response

After receiving the pre-sign string during responding from Alipay system, the Alipay public key, the pre-sign string and the parameter "sign" are used in the RSA or DSA signature asymmetric algorithm by the RSA or DSA signature function to accomplish the signature verification.

9 How to Verify Alipay Request

Purpose

Validate a notification is from Alipay Server, ensure the authenticity of the response data.

Mechanism

Acquire the parameter notify ID (notify_id), assemble it into a URL according to Alipay requirement, e.g.:

https://mapi.alipay.com/gateway.do?service=notify_verify&partner=2088002396 712354¬ify_id=RqPnCoPT3K9%252Fvwbh3I%252BFioE227%252BPfNMl8j wyZqMliXQWxhOCmQ5MQO%252FWd93rvCB%252BaiGq



Through this request URL, partner can acquire result data from Alipay server with the method of programming to simulate the http request interacting with Alipay server.

If returned information is true, verification success, otherwise fail.

10 Suggestions and Improvements

If you have any suggestions or complaints, please click on the following URL and post them, we will try to improve this document w.r.t your feedback.

http://club.alipay.com/read.php?tid=8684674&fid=703

11 Appendix

11.1 International Credit Card Payment Error Code

Figure 11-1 International Credit Card Payment Error Code

Error Code
SELLER_NOT_IN_SPECIFIED_SELLERS
TRADE_SELLER_NOT_MATCH
TRADE_BUYER_NOT_MATCH
ILLEGAL_FEE_PARAM
SUBJECT_MUST_NOT_BE_NULL
TRADE_PRICE_NOT_MATCH
TRADE_QUANTITY_NOT_MATCH
TRADE_TOTALFEE_NOT_MATCH
TRADE_NOT_ALLOWED_PAY
DIRECT_PAY_WITHOUT_CERT_CLOSE
FAIL_CREATE_CASHIER_PAY_ORDER



Error Code
ILLEGAL_EXTRA_COMMON_PARAM
ILLEGAL_PAYMENT_TYPE
NOT_SUPPORT_GATEWAY
BUYER_SELLER_EQUAL
SELLER_NOT_EXIST
ILLEGAL_ARGUMENT
TRADE_NOT_FOUND
TRADE_GOOD_INFO_NOT_FOUND
BUYER_EMAIL_ID_MUST_NULL
PRODUCT_NOT_ALLOWED
ROYALTY_RECEIVER_NOT_IN_SPECIFIED_ACCOUNTS
ROYALTY_LENGTH_ERROR
DEFAULT_BANK_INVALID
DIS_NOT_SIGN_PROTOCOL
SELF_TIMEOUT_NOT_SUPPORT
ILLEGAL_OUTTIME_ARGUMENT
EBANK_CERDIT_GW_RULE_NOT_OPEN
DIRECTIONAL_PAY_FORBIDDEN
SELLER_ENABLE_STATUS_FORBID
ROYALTY_SELLER_ENABLE_STATUS_FORBID
ROYALTY_SELLER_NOT_CERTIFY
ROYALTY_FORAMT_ERROR
ROYALTY_TYPE_ERROR



Error Code
ROYALTY_RECEIVE_EMAIL_NOT_EXIST
ROYALTY_RECEIVE_EMAIL_NOT_CERTIFY
ROYALTY_PAY_EMAIL_NOT_EXIST
TAOBAO_ANTI_PHISHING_CHECK_FAIL
SUBJECT_HAS_FORBIDDENWORD
PAY_CHECK_FAIL
BODY_HAS_FORBIDDENWORD
NEED_CTU_CHECK_PARAMETER_ERROR
NEED_CTU_CHECK_NOT_ALLOWED
BUYER_NOT_EXIST
HAS_NO_PRIVILEGE
ILLEGAL_SIGN
ILLEGAL_DYN_MD5_KEY
ILLEGAL_ENCRYPT
ILLEGAL_ARGUMENT
ILLEGAL_SERVICE
ILLEGAL_PARTNER
ILLEGAL_EXTERFACE
ILLEGAL_PARTNER_EXTERFACE
ILLEGAL_SECURITY_PROFILE
ILLEGAL_AGENT
ILLEGAL_SIGN_TYPE
ILLEGAL_CHARSET



Error Code
ILLEGAL_CLIENT_IP
ILLEGAL_DIGEST_TYPE
ILLEGAL_DIGEST
ILLEGAL_FILE_FORMAT
ILLEGAL_ENCODING
ILLEGAL_REQUEST_REFERER
ILLEGAL_ANTI_PHISHING_KEY
ANTI_PHISHING_KEY_TIMEOUT
ILLEGAL_EXTER_INVOKE_IP
ILLEGAL_NUMBER_FORMAT
ILLEGAL_INTEGER_FORMAT
ILLEGAL_MONEY_FORMAT
ILLEGAL_DATA_FORMAT
REGEXP_MATCH_FAIL
ILLEGAL_LENGTH
PARAMTER_IS_NULL
NAVIGATION_INCOME_OF_ROYALTY_ACCOUNT
INTERNATIONAL_CARD_NOT_SUPPORT
INTERNATIONAL_CARD_DEFAULTBANK_IS_NULL
INTERNATIONAL_CARD_EXTENDPARAMETER_PARSE_ERROR
(Sorry,the transaction failed.(NO.w11))
INTERNATIONAL_CARD_PAYMETHOD_ERROR
INTERNATIONAL_OLD_INTERFACE



rro			

INTERNATIONAL_NO_REFUND_TIME_LIMIT

FORIGEN_CURRENCY_NOT_ALLOW_ROYALTY

FOREX_CARD_ALLOW_CURRENCY_NOT_EXISTS

FOREX_CARD_NOT_ALLOW_THIS_CURRENCY

FORIGEN_CURRENCY_RATE_NOT_EXISTS

FORIGEN_CURRENCY_NOT_ALLOW_BUYER_FEE

FORIGEN_CURRENCY_TOTAL_FEE_NOT_NULL

FORIGEN_CURRENCY_DECIMAL_NUM_NOT_EXISTS

FORIGEN_CURRENCY_TOTAL_FEE_NOT_MATCH_DECIMAL_NUM

11.2 System Error Code



Notice:

When System Error Code occurs, please contact technique support to solve the problem.

Figure 11-2 System Error Code

SYSTEM_ERROR SESSION_TIMEOUT ILLEGAL_TARGET_SERVICE ILLEGAL_ACCESS_SWITCH_SYSTEM ILLEGAL_SWITCH_SYSTEM EXTERFACE_IS_CLOSED



11.3 Refund Status

Figure 11-3 Refund Status

Status	Description
REFUND_SUCCESS	Refund success: • For Full refund: trade_status= TRADE_CLOSED, and refund_status=REFUND_SUCCESS • For partial refund: trade_status= TRADE_SUCCESS, and refund_status=REFUND_SUCCESS
REFUND_CLOSED	Refund Closed

11.4 Transaction Status

Figure 11-4 Transaction Status

Status	Description	
WAIT_BUYER_PAY	Transaction awaits user payment	
TRADE_CLOSED	 Unpaid transactions closed after a period of time Transactions closed after a full refund. 	
TRADE_SUCCESS	Transaction complete, and available for refund	
TRADE_PENDING	Pending Transaction	
TRADE_FINISHED	 Transaction success and passed expire date, not refundable Transaction success and not refundable 	

11.5 List of Banks

Figure 11-5 List of Banks

Bank Code	Bank Descrition
boc-visa	VISA



Bank Code	Bank Descrition
boc-master	MASTERCARD
boc-jcb	JCB
Tips: 1. B2B stands for business bank	

11.6 Extend Parameters

2. More banks are joining in

Figure 11-6 List of extend parameters

Parameter	Paramete r Name	Type(byt e length)	Descriotion	Industry	Optional
customer_id	Customer ID	String(20)	ID number or Passpord ID number.	Traveling, Hotel, Car Rental	N
customer_fi rst_name	Customer First Name	String(30)	Customer's first name.	Traveling, Hotel, Car Rental	N
customer_la st_name	Customer Last Name	String(30)	Customer's last name.	Traveling, Hotel, Car Rental	N
customer_e mail	Customer Email	String(255)	Customer's email.	Traveling, Hotel, Car Rental	N
customer_p hone	Customer Phone	String(15)	Customer's phone number	Traveling, Hotel, Car Rental	N
traveldata_c omplete_ro ute	Travel Data with Complete Route	String(255)	Departure-Arrival	Traveling	N



Parameter	Paramete r Name	Type(byt e length)	Descriotion	Industry	Optional
traveldata_ departure_d atetime	Travel Data with Departure Time	String(25)	Departure time or check in time. Format: yyyy-MM-dd HH:mm a z (HH for hour, a for a.m ,p for p.m, z for time zone, e.g, GMT stands for Greenwich mean time) For instance: 2011-03-20 11:30pm GMT	Traveling, Hotel, Car Rental	N
traveldata_I eg_origin	Travel Data of Departure Code	String(3)	Departure Code, e.g: EWR (EWR stands for New York)	Traveling	N
traveldata_l eg_destinati on	Travel Data of Arrival Code	String(3)	Arrival Code, e.g. EWR (EWR stands for New York)	Traveling	N
traveldata_j ourneytype	Travel Data of Journey Type	String(32)	Singleroundtrip	Traveling	N
passengerty pe	Passenge r Type	String(32)	Refer to Chapter 11.7 "Passenger Types"	Traveling	N
passenger_ status	Passenge r Status	String(32)	 0: No-Common Passenger 1: Common Passenger 2: Golden Common Passenger 3: Platinum Common Passenger 	Air Traveling	N (with common passenger)
ship_to_cou ntry	Ship to Country	String(2)	ISO standard, e.g US.	Goods, Purchase	N
ship_to_stat e	Ship to State	String(2)	ISO standard for the states of US and Canada, e.g IL	Goods, Purchase	N
ship_to_city	Ship to City	String(50)	Shipment City	Goods, Purchase	N
ship_to_stre et1	Ship to Street 1	String(60)	Shipment Street 1	Goods, Purchase	N



Parameter	Paramete r Name	Type(byt e length)	Descriotion	Industry	Optional
ship_to_stre et2	Ship to Street 2	String(60)	Shipment Street 2	Goods, Purchase	N
ship_to_pho nenumber	Ship to Phone Number	String(15)	Shipment Phone Number	Goods, Purchase	N
ship_to_pos talcode	Ship to Postal Code	String(10)	Shipment Postal Code	Goods, Purchase	N
ship_to_shi pmethod	Ship Method	String(10)	Please refer to Chapter 11.8 "Shipment Methods"	Goods, Purchase	N
ship_to_first name	Ship to First Name	String(60)	Receiver's first name.	Goods, Purchase	N
ship_to_last name	Ship to Last Name	String(60)	Receiver's last name	Goods, Purchase	N
product_na me	Product Name	String(30)	The Description of goods.	All	N
logistics_co st	Logistics Cost	String(10)	Logistics cost. Unit: RMB	Goods	N
registration _name	Registrati on Name	String(30)	Customer's registration name on seller's website.	All	N (with account system)
registration _email	Registrati on Email	String(30)	Customer's registration email on seller's website.	All	N (with account system)
registration _phone	Registrati on Phone	String(15)	Customer's registration phone number on seller's website.	All	N (with account system)
buyerid_per iod	Buyer ID Period	String(15)	The period of customer's registration. Unit: Day.	All	Υ



11.7 Passenger Types

Figure 11-7 Passenger Types

Type Code	Туре
ADT	Adult
CNN	Child
INF	Infant
YTH	Youth
STU	Student
SCR	Old
MIL	Military

11.8 Shipment Methods

Figure 11-8 Shipment Methods

Shipment Method Code	Logistics Company		
0	China post		
1	Hongkong post		
2	EMS		
3	DHL		
4	Fedex		
5	TNT		
6	UPS		
7	Others		