

**Access and Application Rules**

**Overseas Acquiring Interface (create\_forex\_trade)  
Appendix Documentation**

**Version No.: 1.0**

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Table of Contents

[1 Documentation Description 3](#_Toc359846643)

[1.1 Documentation Description 3](#_Toc359846644)

[1.2 Business Terms 3](#_Toc359846645)

[2 Accountability 4](#_Toc359846646)

[3 Technical Access Rules 4](#_Toc359846647)

[4 Interface Application Rules 10](#_Toc359846648)

[5 Testing Process Rules 13](#_Toc359846649)

# Documentation Description

## Documentation Description

This documentation is an appendix to the *Overseas Acquiring Interface (create\_forex\_trade)*, which elaborates the matters needing attention in the technology accessing and application process to help Merchant prevent risks from happening.

If you have any questions after reading, please contact relevant Technical Support of Alipay for assistance.

## Business Terms

Table 1-1 Business Terms

|  |  |
| --- | --- |
| Terms | Explanation |
| Directional Payment | The payee is designated in advance and the payment for corresponding transaction must be transferred to the designated account of the payee. |
| Return | After processing the received data, Alipay returns the processing result to Merchant’s website. |
| Express Login | Express login product has the following major functions:   * Users can use Alipay’s express login service on Merchant’s website and Merchant can have access to delivery address and other logistics information owned by Alipay; * If a user uses Alipay express login service on a merchant’s website, he/she does not have to log in to Alipay when making payment. |
| Sensitive Word | Words with sensitive political tendency, violence tendency, unhealthy or uncivilized flavor. |
| Request | The process of sending the to-be-transmitted data to the recipient through HTTP protocol. |
| Special Characters | Special characters used as escape sequence of url or as separators in the interface parameter, including #, %, &, +, ^, |, etc.. |

# Accountability

Merchant should be aware that the rules involved in this documentation relate to preventive measures against major risks that may occur when accessing and using Alipay interface. In the course of accessing and using Alipay interface, Merchant is required to conform to the interface technical documentation (Overseas Acquiring Interface ((create\_forex\_trade).pdf), code examples, this documentation (Overseas Acquiring Interface ((create\_forex\_trade) Access and Application Rules) and other interface-related materials provided by Alipay, failing which Merchant shall be responsible for all risks and fund losses or extended risks and losses arising therefrom.

# Technical Access Rules

Table 2-1 Technical Access Rules

| Type | Rules | Reason |
| --- | --- | --- |
| Account | The partner ID and security verification code key must be consistent with the signup information. | Avoid abnormal interface operation or fund loss |
| Log in to global.alipay.com to check the PID and KEY information. Query transaction and refunding can be performed on the platform. See the following for operating details:    If you forget Login password or pay the password and you could not get back them, you could send your request of payment password reset to global.service@alipay.com <mailto:global.service@alipay.com> & global@alipay.com <mailto:global@alipay.com> (Payment password involves fund management; to protect Merchant interests, please use your signed own account email). | Alipay Merchant manages the back-end and may retrieve and manage Alipay orders |
| The privacy of the partner ID and security verification code key msut be protected. | Prevent the signup account information being stolen and avoid fund loss, malicious utilization, etc. |
| Upon completion of test, the test account should be changed to signup account immediately.  Online account:  PID: 2088111956092332  KEY: 136nflj7uu24i7v6cheubmpy0uav4tdx  Currency: USD, GBP, SGD  Buyer account:  Test buyer ID:  Alipay payment test account: alipay\_test@alipay.com  Login password: alipay  Payment password: alipay1  Tips  1. This payment test account is for integration period, cannot charge back the service fee, hence pls modify the test amount to a smaller value such as 0.01  (sandbox): | When test account is used, 1% commission fee shall be deducted. |
| Security | https request must be used at the interface | Prevent the request parameter from being disclosed |
| The notice IP of Alipay is **110.75.225.0/24  （ 110.75.225.1---110.75.225.255）、110.75.242.0/24（110.75.242.1---110.75.242.255）**, which is not an address used by Merchant to access Alipay, but an exit address used by Alipay to send notice to Merchant. | If IP whitelist is put on Merchant website (i.e. IP filtering), the notice IP addess of Alipay should be added to the whitelist. |
| Merchant must access Alipay interface by means of DNS resolution, and without the setting of DNS cache and the binding of Alipay IP. If for the sake of Merchant’s security Alipay IP must be bond, Filing must be made to the Technical Support of Alipay. | Any change to Alipay IP address will prevent Merchant from sending request to or access Alipay, which may lead to malfunction of Merchant service. |
| Signature | All request parameters should be sequenced in the format of parameter name=parameter value and in the lexicographic order (size of ascii value) of the first characters. In case of identical first characters, the second character should be considered, and so on. The to-be-signed character strings should be spliced in the form of “Parameter Name 1=Parameter Value 1 & Parameter Name 2=Parameter Value 2 &…&Parameter Name N=Parameter Value N”. | Avoid abnormal operation of the interface |
| When signing the request parameters, these parameters must come from the request paramters list, excluding sign and sign\_type. | Avoid abnormal operation of the interface |
| When signing the request parameters, if parameters in the request parameters list that can be null are used, the value of these paramters must not be null or of null value. | Avoid abnormal operation of the interface |
| When the character is changed to byte stream upon signing, the designated character set should be consistent with \_input\_charset; if \_input\_charset parameter is transmitted, this parameter should also be contained in the to-be-signed data. | Avoid abnormal operation of the interface |
| The to-be-signed data should be the original data of the parameter, not the value following url encoding. For example: digital signature is required on the request parameter email when an interface is called, then the to-be-signed parameters should be email=test@msn.com rather than email=test%40msn.com. | Avoid abnormal operation of the interface |
| Parameter configuration | Paramters that cannot be null must be included in the request paramters list. | Avoid abnormal operation of the interface |
| When Merchant needs to transfer RMB amount, it is only required to replace total\_fee with rmb\_fee. Alipay will automatically convert the RMB amount requested by Merchant into foreign currency amount and inform Merchant of the foreign currency amount. In this case, currency parameter should still be Merchant’s clearing currency and must not be set as CNY or RMB. | If the price on Merchant website is given in RMB, this method may be used to make sure the amount of payment made by buyer is consistent with the labelled price. |
| seller\_id, seller\_name, and seller\_industry are parameters that must be transmitted by Payment Institution Merchant. According to Alipay agreement, Payment Institution is obliged to provide Alipay the detailed information of their sub-merchants and Non-payment Institutions may set these three parameters at their own options. | If Payment Institution does not transmit these three parameters, error will be reported at the interface. |
| At least one of the many parameters that can be null and should be multichotomous must be included in the request parameters list. | Avoid abnormal operation of the interface |
| It is required to be configured according to the format requirement for parameters in the request parameters list. | Avoid abnormal operation of the interface |
| The request parameter \_input\_charset (coding format) must not be null and should be involved in the signature operation. | Avoid abnormal operation of the interface |
| The request parameter timeout\_rule (timeout) can be used only when the custom timeout function is enabled. Please contact the Technical Support of Alipay to enable the function of this interface. All applicable timeout values include: 5m, 10m, 15m, 30m, 1h, 2h, 3h, 5h, 12h (m-minute, h-hour,) | Avoid reporting of interface error code SELF\_TIMEOUT\_NOT\_SUPPORT |
| The request parameter auth\_token (authorization token code) can be used only when the express login function (express-login) is enabled and auth\_token is properly set. Please consult your customer manager for more details about express login. | Save User from repeated login to Alipay when making payment |
| No sensitive words should be used in the value information of request parameters such as subjet and body. | Avoid abnormal operation of the interface |
| The set request parameter notify\_url must be a path address that can be normally accessible on the internet. | Avoid the failure of Alipay’s active notification to be received from Merchant website |
| The set request parameter return\_url must not address like <http://localhost/> and must be server ip address or domain name type. (e.g. 127.0.0.1) | Prevent the current page from stopping at Alipay transaction completion prompt page after successful payment. |
| The set request parameter return\_url must not be address that contains special characters like “!”. | Prevent the current page from stopping at Alipay transaction completion prompt page after successful payment. |
| Interface structure | Alipay gateway must be used to send the request information to Alipay. Request gateway: <https://mapi.alipay.com/gateway.do>. | Avoid being cheated by phishing website |
| For request sent to Alipay, the request parameters include not only parameters involved in the signature but also parameters like sign and sign\_type. | Avoid abnormal operation of the interface |
| If the request sent to Alipay is transmitted with “form”, the form must be compiled as per the following requirements:   * The value of action must be “https://mapi.alipay.com/gateway.do?\_input\_charset=the value”, such as: <https://mapi.alipay.com/gateway.do?_input_charset=utf-8>。 It is not allowed to make a complete request link address, i.e. it is prohibited to put the data of request parameters requested for Alipay following https://mapi.alipay.com/gateway.do?; * All parameters requested for Alipay must be contained between <form> and </form>. Format of each parameter: <input type="hidden" name="parameter name" value="parameter value" />; * In a lot of request parameters, request parameter \_input\_charset (coding format) must be included in the form, i.e. form must include<input type="hidden" name="\_input\_charset" value="parameter value">; * The data contained between <form> and </form> can only be parameters requested for Alipay and must not include other data that is named by Merchant and not included in the request parameters list in the interface technical document; * Method attribute of form: get or post. | * Avoid error report when requesting Alipay; error code: ILLEGAL\_SIGN; * In win7 system, if the browser is IE8 or above, jumping to Alipay may fail and the current page turns blank when the request link is sent out. |
| Data transmission | https protocol must be used, which support submission by means of get, post or httpclient. | Avoid abnormal operation of the interface |
| Notify return verification | If the set notification path and triggering conditions are available, the received parameter notify\_id must be used to request Alipay again and check if the verification result is sent by Alipay. Request link:  https://mapi.alipay.com/gateway.do?partner=partner ID&notify\_id=value of notify ID | Verify if the request comes from Alipay |
| When signing the notification parameters, these parameters must be from parameters returned upon Alipay notification, excluding sign and sign\_type in the parameters list, and should be sequenced in the format of parameter name=parameter value and in the lexicographic order (size of ascii value) of the first characters. In case of identical first characters, the second character should be considered, and so on. The to-be-signed character strings should be spliced in the form of “Parameter Name 1=Parameter Value 1 & Parameter Name 2=Parameter Value 2 &…&Parameter Name N=Parameter Value N”. The value of signature result shall be compared with that of received parameter “sign”. | Verify returned signature |
| Return data processing | Alipay sends notification to Merchant. Upon receiving notification data from Alipay, Merchant must return character string “success” to Alipay and must not return other redundant characters. | If the information returned by Merchant to Alipay is not “success”, Alipay will send the notification for not less than 8 times.  🕮 Note：  Once Merchant returns the pure character string “success” to Alipay after receiving asynchronous notification, Alipay will not send asynchronous notification to Marchant again. Otherwise, Alipay will send notification as scheduled. |
| Make sure the set notification path is generally accessible on the internet. | Avoid the failure to receive notification from Alipay |
| All returned result data must be processed. | Enable Merchant to learn about the use of interface and carry on follow-up service operations. |
| It is required to judge if the service logic processing program after the payment request is sent is repeatedly operated | Prevent Merchant’s service operations from being repeatedly performed so as to avoid fund loss, such as repeated charging, repeated payment, etc.. |
| It is suggested that each payment transaction be recorded in the log database on Merchant website in the form of log. | Check or track the service status whenever necessary. |
| Access environment | Cannot embed interface into iframe | Avoid abnormal operation of the interface |
| Error code processing | Please visit <http://help.alipay.com/support/234878-235357/0-235357.htm?sh=Y&info_type=9> for common error code problems. | The link contains solutions to common error code problems. |
| In case of special error codes (e.g. UNKNOWN\_EXCEPTION, GENERIC\_FAILURE, and SYSTEM\_ERROR), it is required to stop all follow-up operations or contact Alipay Technical Support for assistance. | In this case, the request may have been submitted to Alipay, but the Alipay system fails to give responses, and the response may be automatically given and the request submitted through the recovery mechanism. |
| In case of error codes like “TRADE\_BUYER\_NOT\_MATCH”, the payment account is inconsistent with the original account, please use the original account or establish a new payment transaction. | In this case, Buyer account is inconsistent or Buyer uses several accounts. The payment account must be consistent with the account used for purchase (account for transaction establishment). |
| In case of error codes like “TRADE\_PRICE\_NOT\_MATCH” and “TRADE\_TOTALFEE\_NOT\_MATCH”, there may be changes to the commodity price or total price, please establish a new payment transaction. | In this case, there may be changes in the commodity price. (e.g. beyond the promotional period, etc.) |
| If the transaction status turns to “TRADE\_CLOSED”, the transaction may be time out. | Transaction automatically closed when exceeding the time limit |
| Self-help compiling of interface code rules | If the interface is not intergated using the code samples provided by Alipay, the sections of technical documents relating to signature mechanism and notification return data processing, and the technical access rules, interface application rules and testing process rules in this documentation must be complied with in compiling the interface code suitable for Merchant website. | Avoid abnormal operation of the interface |

## 4 Interface Application Rules

Table 4-1 Interface Application Rules

| Type | Specification Points | Reason |
| --- | --- | --- |
| Service operations | The interface will support the repeated calls on the condition that the basic transaction information (Buyer, Seller, transaction amount, timeout, etc.) is consistent in repeated calls and the transaction payment is not completed. | Avoid repeated payment and prevent the transaction information from being falsified  🕮 Notes:   * If Buyer, Seller or transaction amount is found inconsistent, the system will report errors and stop the payment transaction; * If the timeout is inconsistent, the transaction status will be “waiting for payment from Buyer”, but the system will report errors when Buyer makes the payment. |
| Alipay now notifies Partner in two ways: request/response mode and active backend notification. The request/response mode will be interrupted due to the immediate closing of the browser when Buyer completes the payment. It is suggested that Partner builds the logic of order renewal on brower asynchronous notification. | Avoid chargeback due to Buyer’s individual behavior. If Partner cannot integrate active server notifications, the single\_trade\_query interface must be integrated to identify the paid orders. |
| Exchange rate downloading (forex\_rate\_file) interface can directly provide Partner the exchange rate of the day in Alipay’s Cooperative Bank and the exchange rate will remain unchanged on the same day and will not change in real time. |  |
| Alipay will bear the losses incurred by the fluctuations in exchange rate. Alipay will only use the exchange rate for the moment when the transaction takes place. Merchant has no need to worry about the fluctuations in exchange rate in subsequent settlement and refund due to time inconsistency. | 🕮 Notes：   * If Buyer takes exchange rate X as the exchange rate for the transaction of the day, Alipay will upon processing the refund read the exchange rate X of that day from the backend database. The exchange rate X will be used for exchange settlement with Buyer. No exchange rate difference will be charged against Merchant. |
| Buyer’s Alipay account must not be the same with that of Seller. | Avoid error report, such as error code: BUYER\_SELLER\_EQUAL. |
| In overseas acquiring transaction, Buyer is not allowed to change the price after the establishment of transaction. | Affect the payment of the same transaction. |
| For each successful refund, Alipay will return to Merchant an XML message which contains the result of refund request. If the result is T, Alipay will process this refund in an asynchronous manner.  Caution：   * Alipay supports part of the multiple refunds. * Alipay will return the fund to Buyer’s account within a period of T+1, so the refund is not made realtime, and must wait for processing by Alipay system in batches. | Currently, Alipay refund interface is classified into batch refund interface and single refund interface. Partner may decide which to develop according to their actual needs. |
| Single\_trade\_query interface can request the detailed information of a transaction from Alipay system via Merchant order number and Partner can confirm the status of an order via the interface. | Used as remedy for the asynchronous notification sent from Alipay system to Partner system due to network communication problems. |
| Transactions must not be closed on the Alipay management platform and can only be closed via the external interface. The closing time of a transaction can be controlled through the custom timeout parameter. | Custom timeout closing of transaction order. |
| Generally, asynchronous notification is 3 seconds later than synchronous notification. But due to the influence of network environment, processing speed of the server, etc., the asynchronous notification is sometimes faster than the synchronous notification. So, data lock of the database should be used by Merchant to avoid the repeated updating of orders. | Time of asynchronous and synchronous notification for direct payment |
| It is suggested that Merchant should not jump to the payment gateway using the redirectional function without access records, such as window.open, location.replace, and other functions similar to js. It is strongly recommended that the form shall be used for data submission. | Regulate the code application rules and reduce the number of popup controls that may intercept payment (leading to lowered payment success rate) |
| After Seller launches the refund operation, the payment will be returned in the same channel as the payment is made by Buyer. For example, if Buyer makes payment with the balance in Alipay account, the payment shall be returned to the Alipay account; if Buyer makes payment with debit card, to the debit card; if Buyer makes payment with credit card, to the credit card. | The payment will be returned in the same channel as the payment is made by Buyer. |

## 5 Testing Process Rules

## 5.1 Whole Process of Alipay Service

Table 3-2 Testing Process Rules

| Steps | Debugging | Note |
| --- | --- | --- |
| **Server Configuration Requirements in Windows Environment (linux environment):**  The configuration of Java 1.6 or above level operating environment and WEB container in line with the servlet2.4 specifications are recommended. | | |
| **Step 1:** dubug the interface separately on the local machine. | * Pay * Return | Maintain good configuration of the interface and do not put it on Merchant website project. |
| **Step 2:** debug the interface separately on the server. | * Pay * Return * Notify | If the debugging on the local machine has no problems, put it on the server for debugging. |
| **Step 3:** integrate the interface into website project. | None | Link and integrate the debugged interface with the business process of the Merchant website project. |
| **Step 4:** debug the integrated website project on local machine. | * Whole business operation process * Payment * Back * Subsequent business implementation | Debug on the local machine the interface having been linked to the website project. |
| **Step 5:** debug the integrated website projects on the server. | * Whole business operation process * Pay * Return * Notify * Follow-up service operation | If the debugging on local machine has no problems, put it on the server for debugging. |

## 5.2 Assessment before Going Live

#### Please complete the following form and email it to the Technical Support for assessment after full completion of the development process so as to ensure correct integration by Partner.