Payment Asia
Integration Guide

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3002, ENTERPRISE SQUARE 3, 39 WANG CHIU ROAD, KOWLOON BAY, HONG KONG
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Content

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REVISION HISTORY

Revision	Date	Description
2.0	2015-11-24	Initial Document Template
2.01	2015-11-27	Update signature_string
2.02	2015-12-09	Add IP whitelist
2.1	2015-01-04	Add required and optional fields for credit card
2.11	2016-02-04	Update credit card description

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PAYMENT REQUEST

Payment Request URL
https://www.pa-sys.com/v2/payment

Payment Request Method
Parameters must be sent via HTTP POST method

Payment Request Parameters

I.   General parameters
General parameters are common to all gateways.

Parameter	Type	Required	Description
merchant_id	Number (8)	required	Merchant ID
success_url	Text (255)	required	Shopper will be redirected to this URL after the payment is completed. Attention: Verify payment status using Data Feed URL instead of "success_url"
fail_url	Text (255)	required	Shopper will be redirected to this URL after payment failed
merchant_ref	Text (30)	required	Merchant's Order Reference Number, it must be unique and start with the "merchant reference title" plus a "_". e.g. abced_12345
amount	Number (8,2)	required	Amount to be processed
currency	Text (3)	required	The currency of the payment. i.e. RMB(CUP Only supports RMB) HKD (Alipay supports HKD and USD) (See Appendix: Currency Code)
lang	Text (2)	optional	The language of payment page: "en" – English (default)

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			"tc" - Traditional Chinese "sc" – Simplified Chinese
gateway	Text (30)	optional	Gateway i.e. "cup" – China Union Pay (default) "credit-card-checkout" – Credit Card Payment Page "credit-card-api" – Credit Card API "alipay" – Alipay Append suffix "-test" to switch to Test gateway, e.g. China Union Pay Integration Gateway is "cup-test"
remark	Text (255)	optional	A remark field for you to store additional data that will not show on the transaction web page.
customer_email	Text (255)	optional	Payment receipt will be sent to customer email
customer_name	Text (255)	optional	Customer name
customer_tel	Text (255)	optional	Customer contact phone number
product_name	Text (255)	optional; Alipay is required	Product name of this transaction
bank	Text (255)	optional	Bank code
charset	Text (255)	optional	Default value is utf8
sign_type	Text (255)	optional	The method to prepare sign_msg : md5(default) sha1
sign_msg	Text (255)	optional	See method to prepare sign_msg

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II. Additional parameters for credit card
   Followed by general parameters, credit card gateway requires additional parameters below.

Parameter	Type	Required	Description
card_number	Text (16)	optional; API is required	Credit Card number
card_cardholder	Text (255)		Card holder's Name
card_expiry_month	Text (2)		Month of expiry date, e.g. "01"
card_expiry_year	Text (4)		Year of expiry date, e.g. "2025"
card_cvv	Text (3)		CVV2, CVC2
card_country	Text (2)		Country Code (see Apendix: Country Code)
billing_first_name	Text (50)	optional; API is required	First name of billing contact
billing_last_name	Text (50)		Last name of billing contact
billing_email	Text (150)		Email of billing contact
billing_tel	Text (25)		Phone number of billing contact
billing_street1	Text (100)		Line 1 of billing address
billing_street2	Text (100)		Line 2 of billing address
billing_city	Text (50)		City of billing address
billing_state	Text (50)		State of billing address
billing_country	Text (2)		Country of billing (see Apendix: Country Code)
billing_postal_code	Text (10)		Postal code of billing address
shipping_first_name	Text (50)	optional; API is required	First name of shipping contact
shipping_last_name	Text (50)		Last name of shipping contact
shipping_email	Text (150)		Email of shipping contact
shipping_tel	Text (25)		Phone number of shipping contact
shipping_street1	Text (100)		Line 1 of shipping address
shipping_street2	Text (100)		Line 2 of shipping address
shipping_city	Text (50)		City of shipping address

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shipping_state	Text (50)		State of shipping address
shipping_country	Text (2)		Country of shipping (see Apendix:Country Code)
shipping_postal_code	Text (10)		Postal code of shipping address

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SAMPLE SUBMISSION FORM

China Union Pay or Alipay Sample Form

```
<form action=" https://www.pa-sys.com/v2/payment" method="POST">
   <input type="hidden" name="merchant_id" value="10000211"/>
   <input type="hidden" name="gateway" value="cup"/>
   <input type="hidden" name="merchant_ref" value="test1_gjexmUBmkV"/>
   <input type="hidden" name="success_url"
value="http://world.onlineshop.com/result/success"/>
   <input type="hidden" name="fail_url"
value="http://world.onlineshop.com/result/fail"/>
   <input type="hidden" name="currency" value="RMB"/>
   <input type="hidden" name="lang" value="en"/>
   <input type="hidden" name="customer_email" value="man.chan1234567@gmail.com"/>
   <input type="hidden" name="customer_name" value="陈大文"/>
   <input type="hidden" name="customer_tel" value="+86 1234567890"/>
   <input type="hidden" name="amount" value="35"/>
   <input type="hidden" name="remark" value="test gateway"/>
   <input type="hidden" name="charset" value="utf8"/>
   <input type="hidden" name="sign_type" value="md5"/>
   <input type="hidden" name="product_name" value="白色 T-shirt"/>
   <input type="hidden" name="sign_msg" value="805929eb77687f97ee5d605ade857334"/>
   <input type="submit" value="Submit" />
</form>
```

Credit Card Sample Form

```
<form action="https://www.pa-sys.com/v2/payment" method="POST">
     <input type="hidden" name="merchant_id" value="10000211"/>
     <input type="hidden" name="gateway" value="credit-card-checkout"/>
     <input type="hidden" name="merchant_ref" value="test1_z8bbdjO2tQ"/>
     <input type="hidden" name="success_url"
value="http://world.onlineshop.com/result/success"/>
     <input type="hidden" name="fail_url"
value="http://world.onlineshop.com/result/fail"/>
     <input type="hidden" name="currency" value="RMB"/>
     <input type="hidden" name="lang" value="en"/>
     <input type="hidden" name="customer_email" value="man.chan1234567@gmail.com"/>

     <input type="hidden" name="customer_name" value="陈大文"/>

     <input type="hidden" name="customer_tel" value="+86 1234567890"/>
     <input type="hidden" name="amount" value="35"/>
     <input type="hidden" name="remark" value="test gateway"/>
     <input type="hidden" name="charset" value="utf8"/>
     <input type="hidden" name="sign_type" value="md5"/>
     <input type="hidden" name="card_number" value="4907639999990022"/>
     <input type="hidden" name="card_cardholder" value="chan"/>
     <input type="hidden" name="card_expiry_month" value="12"/>
     <input type="hidden" name="card_expiry_year" value="2016"/>
     <input type="hidden" name="card_cvv" value="029"/>
     <input type="hidden" name="card_country" value="HK"/>
     <input type="hidden" name="bank" value="CCB"/>
     <input type="hidden" name="billing_first_name" value="大文"/>

     <input type="hidden" name="billing_last_name" value="陈"/>
     <input type="hidden" name="billing_email" value="man.chan1234567@gmail.com"/>
     <input type="hidden" name="billing_tel" value="+86 1234567890"/>
     <input type="hidden" name="billing_street1" value="沙井街道辦北帝堂二路 23 号"/>

     <input type="hidden" name="billing_street2" value="宝安区"/>

     <input type="hidden" name="billing_city" value="深圳市"/>

     <input type="hidden" name="billing_state" value="广东省"/>

     <input type="hidden" name="billing_country" value="CN"/>
     <input type="hidden" name="billing_postal_code" value="518104"/>
     <input type="hidden" name="shipping_first_name" value="大文"/>

     <input type="hidden" name="shipping_last_name" value="陈"/>
     <input type="hidden" name="shipping_email" value="man.chan1234567@gmail.com"/>
     <input type="hidden" name="shipping_tel" value="+86 1234567890"/>
     <input type="hidden" name="shipping_street1" value="沙井街道辦北帝堂二路 23 号"/>
```

```
    <input type="hidden" name="shipping_street2" value="宝安区"/>

    <input type="hidden" name="shipping_city" value="深圳市"/>

    <input type="hidden" name="shipping_state" value="广东省"/>

    <input type="hidden" name="shipping_country" value="CN"/>
    <input type="hidden" name="shipping_postal_code" value="518104"/>

    <input type="hidden" name="product_name" value="白色 T-shirt"/>

    <input type="hidden" name="sign_msg" value="52371bc071e305d1d19f8bb0df078ad8"/>
</form>
```

PAYMENT RESPOND

Merchant is required to setup Data Feed URL at the merchant admin panel. In order to ensure merchant can receive the payment result notification, payment result will be sent via http POST from payment server directly to merchant's Data Feed URL.

This is independent with the action of redirect shoppers to success_url after payment is done. In case shoppers cannot be redirected successfully to your success_url, you can still receive payment result at your Data Feed URL.

Print out 2 characters 'OK' (without spacing or line(s) in front or after 'OK') in your Data Feed Page to notify us you have received the payment result.
To make sure data feed is sent from Payment Asia, merchant can setup security key in merchant panel. When data feed is received, parameter "token" is attached. Token = md5(merchant_ref + successcode + amount + security_key)
Encrypt values and compare parameter "token" to make sure both are the same.

RETURN PARAMETERS VIA DATA FEED URL

How to setup Data Feed URL?

Login to https://www.pa-sys.com/merchant/index.php and click "Merchant Information" -> "Merchant Management". Enter your Data Feed URL and press "Submit"

Remark on Data Feed URL

Redirection for data feed URL is also not recommended, HTTP response code should always be 200.

Inbound IP addresses whitelist

Data feed will be sent from below IP addresses:

54.65.135.62
54.178.141.71
52.74.12.233
52.76.43.191
59.188.27.79

Payment Response Method

Parameters will be sent via HTTP POST method

Return parameters

Parameter	Type	Description
successcode	Text (1)	"0" – Payment Success "1" – Payment Fail A value other than "0" or "1" means error.
orderRef	Text (30)	Merchant's Order Reference Number
transaction_num	Text (30)	Payment Reference Number
amount	Number	Transaction Amount
currCode	Text (3)	Currency of Transaction i.e. RMB,HKD,USD (see Appendix:Currency Code)
remark	Text (255)	Remark of transaction

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reason	Text	Reason of transaction if it failed
token	Text	md5 encrypted string.

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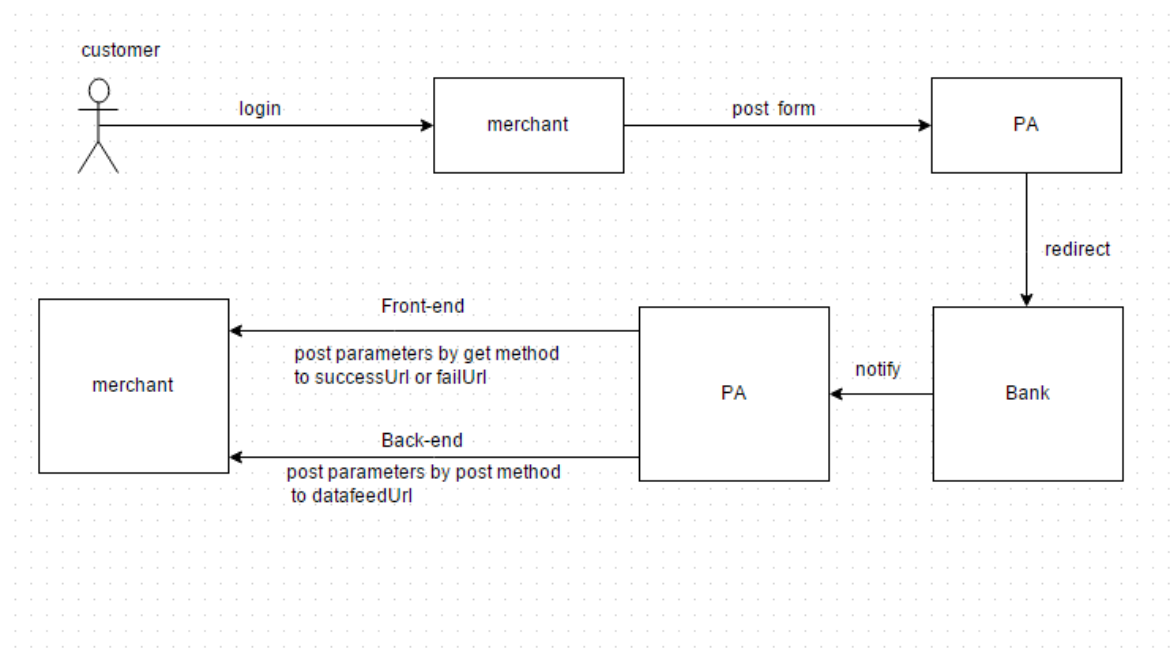**14** of **19**

SAMPLE DATA FEED PAGE

```php
<?php

   // Print out 'OK' to notify us you have received the payment result
   echo "OK";
   //compare security key
   $security_key = "paymentasia";
   If (md5($_POST['orderRef'] . $_POST['successcode'] . $_POST['amount'] .
   $security_key) == $_POST['token'])
   {
     if ($_POST['successcode'] == "0"){
       // Transaction Accepted
       // Add the Security Control here, to check the currency, amount with the
       merchant's order
       // reference from your database, if the order exist then accepted.
       // Update your database for Transaction Accepted and send email or notify your
       customer.
   }else{
     // Transaction Rejected
     // Update your database for Transaction Rejected
   }
  }

?>
```

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PAYMENT FLOW DIAGRAM

Firstly, customer login to merchant's website and input payment information, then merchant post form to PA. Secondly, PA will post payment information to bank and process two operations after receive message from bank. One is returning parameters to merchant's success_url or fail_url (merchant post by previous form) by get method according to whether payment is successful or not. Merchant can decide whether use these parameters and write front-end page to display to customer. The other one is returning parameters to datafeedUrl (merchant set on PA panel) by post method. There is a special parameter "token", which can make sure all parameters are returned by PA. Merchant can write back-end code like interacting with database or something like that.

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MONITOR PAYMENT

This snippet helps us monitor Payment Traffic for better Fraud Management. Please place the code below, before the </body> tag, and replace the information accordingly.

MERCHANT-ID   = YOUR MERCHANT ID
SUB-MERCHANT-ID = YOUR CLIENT'S ID
SESSION-ID   = SESSION-ID FROM YOUR WEB SERVER

```
<!—JAVASCRIPT —>
  <script>
      (function (e, n, o, t, s, a, c) {
          function i(i, r, m) {
              e.FraudManagementService = s, e[s] = e[s] || function () {
                  (e[s].q = e[s].q || []).push(arguments)
              }, e[s].l = 1 * new Date, c = n.createElement(o), a =
  n.getElementsByTagName(o)[0], c.async = 1, c.src = t + "?" + [encodeURIComponent(i),
  encodeURIComponent, encodeURIComponent(m)].join("&"), a.parentNode.insertBefore(c, a)
          }
          i("MERCHANT-ID", "SUB-MERCHANT-ID", "SESSION-ID")
  })(window, document, "script", "//fms.pa-sys.com/v2/analytics.js", "analytics");
  </script>
<!—END OF JAVASCRIPT —>
```

METHOD TO PREPARE SIGNATURE MESSAGE

According payment request table, join each name-value pair with "&" except sign_msg field and empty fields, alphabetic ascending order by the first different letter of the field name

Signature algorithm

a) Only the name-value pair has value can be concatenated in the string;

b) Each name-value pair should be joined with "&";

c) If the field content is Chinese characters, you must follow the specified character encoding;

d) At the end of the string should append merchant's security key.

e) Use the method which merchant setup in sign_type to encrypt the string

Example of signature (sign_type in md5):

signature_string =
amount=350&charset=utf8&currency=RMB&customer_email=man.chan@gmail.com&customer_name=陈大文&customer_tel=+86
1234567890&fail_url=http://world.onlineshop.com/result/fail&gateway=cup&lang=en&merchant_id=109
99999&merchant_ref=TTPG1_20151126145048&product_name=2015 秋冬新款毛衣
&remark=size :large&sign_type=md5&success_url=http://world.onlineshop.com/result/success&security_key=T5VMNR16PewisG3DHqW4tHHlzQ9Qbcxi;

sign_msg = md5 (**signature_string**);

Output is 85784944f1339c39dced7ed9f565006e;

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APENDIX

Country Code

Country Code(Alpha-2)	Country
CN	China
HK	Hong Kong
US	United States of America
CA	Canada
GB	United Kingdom of Great Britain and Northern Ireland
AU	Australia
KR	Korea (Republic of)
JP	Japan
SG	Singapore
NZ	New Zealand
CH	Switzerland
TH	Thailand

For more country code please see:
https://en.wikipedia.org/wiki/ISO_3166-1#Officially_assigned_code_elements

Currency Code

Currency Code (ISO)	Currency
HKD	Hong Kong Dollar
CNY	China Yuan Renminbi
CAD	Canadian Dollar
USD	United States Dollar
GBP	United Kingdom Pound
AUD	Australian Dollar
KRW	Korea (South) Won
JPY	Japan Yen
EUR	Euro Member Countries
SGD	Singapore Dollar
NZD	New Zealand Dollar
CHF	Switzerland Franc
THB	Thailand Baht

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