



# Online Payment Switching Gateway Technical Specification Version 1.6.1

**(For Malaysia Only)**

iPay88 Online Payment Switching Gateway (OPSG) is provided by **Mobile88.com Sdn. Bhd.** For more information, please visit [www.ipay88.com](http://www.ipay88.com)

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# 1 Introduction

## 1.1 ePayment

This document describes the following functionalities of iPay88's Online Payment Switching Gateway (OPSG) system:

- ePayment : Multiple payment methods for merchant e-commerce website
- Reports : Online view transaction report

## 1.2 Objective

Enable iPay88's OPSG merchant to perform multiple payment types for their customers to make online purchase(s).

## 1.3 Pre-requisite of Merchant Integration

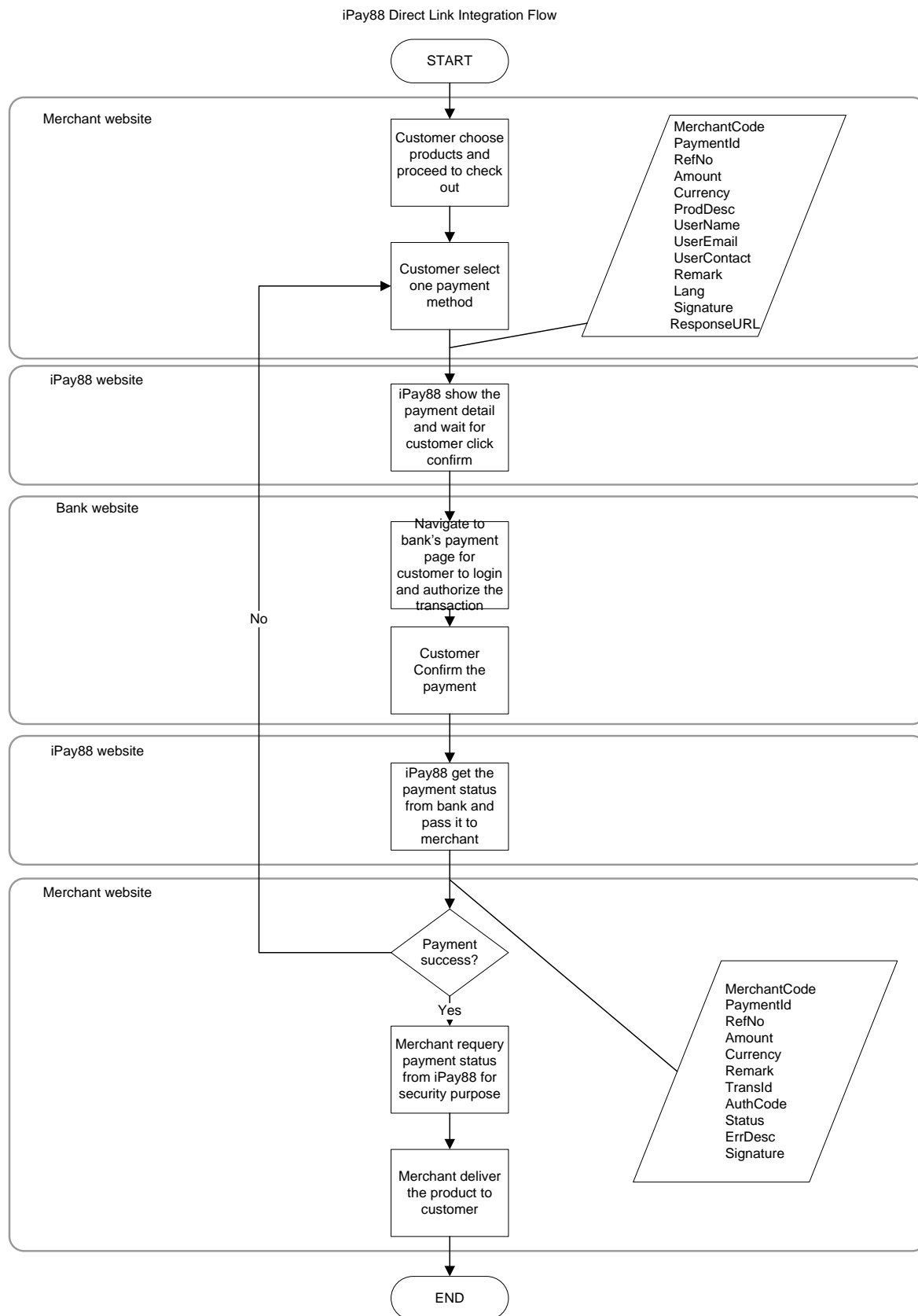
Follow the guidelines below before integration.

- **Merchant Code** and **Merchant Key** from iPay88 are required.
- Merchant to provide **Request URL** to iPay88 Support team.
- Registered Request URL must be either IP or domain based.  
**Note:** **LocalHost** is not allowed.

## Important Notice

- Test transaction must from registered **Request URL**.
- Test transaction with amount **MYR 1.00**.
- Response URL can be set in request page with **ResponseURL** field.
- Backend post URL can be set in request page with **BackendURL** field.
- Email notification is **NOT** guarantee by iPay88 OPSG as it is ISP dependant. (Refer section **4.3 Email Notification Disclaimer**)  
Email notification should not use as action identifier by merchant instead use **iPay88 Merchant Online Report** to check for payment status.
- Ensure a technical person is assigned by merchant before integration.
- Return a copy of completed Merchant Checklist to [techsupport@ipay88.com.my](mailto:techsupport@ipay88.com.my) before start integration(**Refer to APPENDIX A**).
- Merchant **must** notify iPay88 Support team the intended live date of merchant account minimum **3 working days** in advance.

## 1.4 Transaction Flow Diagram



## **1.5 Transaction Processing Step**

Step 1. Merchant sends HTTPs Post Request containing payment details to iPay88 OPSG payment page. Payment Details contain the following fields:

- MerchantCode
- PaymentId
- RefNo
- Amount
- Currency
- ProdDesc
- UserName
- UserEmail
- UserContact
- Remark
- Signature (refer to 3.1)
- Response URL
- Backend URL

Step 2. User views and confirms payment details entered in Step 1. For credit card payment, the user will need to key-in credit card information.

Step 3. User continues to fill in Username and Password at bank website (for non credit card payment)

Step 4. User selects the account to debit the payment. (for non credit card payment)

Step 5. User confirms the payment. If yes, go to next step. (for non credit card payment)

Step 6. User views and prints the payment detail. (for non credit card payment)

Step 7. Response is returned to the iPay88 OPSG website indicating a successful or failed transaction.

Step 8. iPay88 OPSG response back the payment status to merchant with a signature

Step 9. For successful payment transaction, the merchant needs to compare the signature from iPay88 OPSG. Refer to (3.2)

## **1.6 Rule, Limitation and Constraint**

- Service Hours: 7x24 exclude host down time

## 2 Merchant Integration

### 2.1 URL

#### **iPay88 OPSG payment posting URL (payment page)**

**URL:** <https://www.mobile88.com/epayment/entry.asp>

#### **iPay88 OPSG payment re-query**

**URL:** <https://www.mobile88.com/epayment/enquiry.asp>

Merchant **Request URL** : [provided by merchant before the integration]

**Definition:** Merchant Request URL is a checkout page at merchant website that submits the required parameter/value to iPay88 OPSG.

Merchant **Response URL** : [can be specify with **ResponseURL** in request page]

**Definition:** Response page URL is the page at merchant website that will receive payment status from iPay88 OPSG.

### 2.2 Logo

iPay88's OPSG allow merchant logo/banner to appear in payment page and email notification.

Merchant can provide the logo to iPay88 Support team and upload to merchant account.

The maximum allow size for the logo is 600 pixel (width) by 100 pixel (height) and the allow format are JPG, BMP, and GIF.

## 2.3 Payment Request Parameters

Merchant **HTTPS POST** payment request parameters to iPay88 OPSG

Field Name	Data Type	Size	M/O	Description
MerchantCode	String	20	M	The Merchant Code provided by iPay88 and use to uniquely identify the Merchant.
PaymentId	Integer		O	Refer to <a href="#">Appendix I.pdf</a> file for <b>MYR gateway</b> . Refer to <a href="#">Appendix II.pdf</a> file for <b>Multi-currency gateway</b> .
RefNo	String	20	M	Unique merchant transaction number / Order ID
Amount	Currency		M	Payment amount with two decimals and thousand symbols. <b>Example: 1,278.99</b>
Currency	String	5	M	Refer to <a href="#">Appendix I.pdf</a> file for <b>MYR gateway</b> . Refer to <a href="#">Appendix II.pdf</a> file for <b>Multi-currency gateway</b> .
ProdDesc	String	100	M	Product description
UserName	String	100	M	Customer name
UserEmail	String	100	M	Customer email for receiving receipt
UserContact	String	20	M	Customer contact number
Remark	String	100	O	Merchant remarks
Lang	String	20	O	Encoding type "ISO-8859-1" – English "UTF-8" – Unicode "GB2312" – Chinese Simplified "GD18030" – Chinese Simplified "BIG5" – Chinese Traditional
Signature	String	100	M	SHA1 signature (refer to 3.1)
ResponseURL	String	200	M	Payment response page
BackendURL	String	200	M	Backend response page URL (refer to 2.7)

### Legend:

M: Mandatory field

O: Optional field, value can be empty but parameter must exist

## 2.4 Sample HTML Source (Payment Request)

### HTTP POST method

#### Example

```
<HTML>
<BODY>
<FORM method="post" name="ePayment"
action="https://www.mobile88.com/ePayment/entry.asp">

<INPUT type="hidden" name="MerchantCode" value="M00003">
<INPUT type="hidden" name="PaymentId" value="">
<INPUT type="hidden" name="RefNo" value="A00000001">
<INPUT type="hidden" name="Amount" value="1.00">
<INPUT type="hidden" name="Currency" value="MYR">
<INPUT type="hidden" name="ProdDesc" value="Photo Print">
<INPUT type="hidden" name="UserName" value="John Tan">
<INPUT type="hidden" name="UserEmail" value="john@hotmail.com">
<INPUT type="hidden" name="UserContact" value="0126500100">
<INPUT type="hidden" name="Remark" value="">
<INPUT type="hidden" name="Lang" value="UTF-8">
<INPUT type="hidden" name="Signature" value="84dNMbfgjLMS42IqSTPqQ99cUGA=">
<INPUT type="hidden" name="ResponseURL"
value="http://www.YourResponseURL.com/payment/response.asp">
<INPUT type="hidden" name="BackendURL"
value="http://www.YourBackendURL.com/payment/backend_response.asp">

<INPUT type="submit" value="Proceed with Payment" name="Submit">
</FORM>
</BODY>
</HTML>
```

**Note:** Do not copy and paste the code above as it just a reference only



## 2.5 Payment Response Parameters

HTTPS POST response from iPay88 OPSG after performing payment

Field Name	Type (Size)	M/O	Description
MerchantCode	varchar(20)	M	The Merchant Code provided by iPay88 and use to uniquely identify the Merchant.
PaymentId	integer	M	Refer to <a href="#">Appendix I.pdf</a> file for <b>MYR gateway</b> . Refer to <a href="#">Appendix II.pdf</a> file for <b>Multi-currency gateway</b> .
RefNo	varchar(20)	M	Unique merchant transaction number / Order ID
Amount	currency	M	Payment amount with two decimals and thousand symbols. <b>Example: 1,278.99</b>
Currency	varchar(5)	M	Refer to <a href="#">Appendix I.pdf</a> file for <b>MYR gateway</b> . Refer to <a href="#">Appendix II.pdf</a> file for <b>Multi-currency gateway</b> .
Remark	varchar(100)	O	Merchant remarks
TransId	varchar(30)	O	iPay88 OPSG Transaction ID
AuthCode	varchar(20)	O	Bank's approval code
Status	varchar(1)	M	Payment status "1" – Success "0" – Fail
ErrDesc	varchar(100)	O	Payment status description (Refer to <a href="#">Appendix I.pdf</a> or <a href="#">Appendix II.pdf</a> )
Signature	varchar(100)	M	SHA1 signature (refer to 3.2)

### Legend:

M: Mandatory field

O: Optional field, value can be empty but parameter must exists

## 2.6 Sample HTML Source (Payment response)

### 2.6.1 ASP sample code

```
<%
MerchantCode      = Request.Form("MerchantCode")
PaymentId         = Request.Form("PaymentId")
RefNo             = Request.Form("RefNo")
Amount            = Request.Form("Amount")
eCurrency         = Request.Form("Currency")
Remark            = Request.Form("Remark")
TransId           = Request.Form("TransId")
AuthCode          = Request.Form("AuthCode")
eStatus           = Request.Form("Status")
ErrDesc           = Request.Form("ErrDesc")
Signature         = Request.Form("Signature")
%>
<Add your programming code here>

IF eStatus=1 THEN
    COMPARE Return Signature with Generated Response Signature
    // update order to PAID
    response.write "Thank you for payment."

ELSE
    // update order to FAIL
    response.write "Payment fail."
```

### 2.6.2 PHP sample code

```
<?PHP
$merchantcode     = $_REQUEST["MerchantCode"];
$paymentid        = $_REQUEST["PaymentId"];
$refno            = $_REQUEST["RefNo"];
$amount           = $_REQUEST["Amount"];
$currency         = $_REQUEST["Currency"];
$remark           = $_REQUEST["Remark"];
$transid          = $_REQUEST["TransId"];
$authcode         = $_REQUEST["AuthCode"];
$status           = $_REQUEST["Status"];
$errdesc          = $_REQUEST["ErrDesc"];
$signature        = $_REQUEST["Signature"];
PHP?>
<Add your programming code here>

IF ($estatus=1) {
    COMPARE Return Signature with Generated Response Signature
    // update order to PAID
    echo "Thank you for payment.";
}
ELSE {
    // update order to FAIL
    echo "Payment fail.";
```

## 2.7 Backend Post Feature

The Backend POST feature is server to server technology where it does not depend on the user's web browser to return payment response data to merchant website. With this feature implemented, your system still can get the payment status on the backend (asynchronously) even if the merchant normal response page fails to get status from iPay88 OPSG which may be due to a closed web browser, internet connection timeout and etc.

### Current Supported e-Commerce system with Backend Post

- OpenCart v1.5

#### Note

- This Backend post feature will **ONLY** return status if the transaction is a **payment success**. No status will return if the payment is failed.
- The Backend page should implement **checking** same like response page such as **signature checking**, and etc to prevent user hijack merchant system.
- The backend page should not have session related code so that merchant systems are still able accept payment status from iPay88 OPSG even if the user is logged out or the session is expired.
- You need to implement a **check to determine** either "response page" or "backend page" to update the order so it won't update order status in merchant system **more than 1 time**.  
**Note:** After receiving the payment success status, iPay88 OPSG will simultaneously return payment status to "response page" and "backend page".
- The backend page is **not** a replacement for the response page. You will still need to continue to use the normal response page as usual.

#### Implementation

On the merchant website, create another page to accept backend post response parameters from iPay88 OPSG.

The return backend post response parameters are **same** like normal response page parameters.

**(Refer to 2.5)**

On the request page, specify the backend post URL by using "**BackendURL**" parameter. **(Refer to 2.3)**

#### **Example:**

```
<input name="BackendURL" value="http://www.abc.com/backend\_response.asp">
```

*Continue next page...*

On the 'backend\_response.asp' page you need to write out the word '**RECEIVEOK**' only (without quote) as an acknowledgement once get the payment success status from iPay88 OPSG and update order status to success on merchant system. iPay88 OPSG will re-try send the payment status to the 'backend\_response.asp' page up to 3 times on different interval if no '**RECEIVEOK**' acknowledgement detected.

**Example:**

In ASP >> `response.write "RECEIVEOK"`

In PHP >> `echo "RECEIVEOK";`

**Note:**

1. Make sure just the word '**RECEIVEOK**' **only** on the backend page and without any HTML tag on the page.

## Sample (BackendURL Payment response)

### 2.7.1 ASP sample code

```
<%
MerchantCode      = Request.Form("MerchantCode")
PaymentId         = Request.Form("PaymentId")
RefNo             = Request.Form("RefNo")
Amount            = Request.Form("Amount")
eCurrency         = Request.Form("Currency")
Remark            = Request.Form("Remark")
TransId           = Request.Form("TransId")
AuthCode          = Request.Form("AuthCode")
eStatus           = Request.Form("Status")
ErrDesc           = Request.Form("ErrDesc")
Signature         = Request.Form("Signature")
%>
<Add your programming code here>

IF eStatus=1 THEN
    COMPARE Return Signature with Generated Response Signature
    // update order to PAID
    response.write "RECEIVEOK"
ELSE
    // update order to FAIL
```

### 2.7.2 PHP sample code

```
<?PHP
$merchantcode     = $_REQUEST["MerchantCode"];
$paymentid        = $_REQUEST["PaymentId"];
$refno            = $_REQUEST["RefNo"];
$amount           = $_REQUEST["Amount"];
$currency         = $_REQUEST["Currency"];
$remark           = $_REQUEST["Remark"];
$transid          = $_REQUEST["TransId"];
$authcode         = $_REQUEST["AuthCode"];
$status           = $_REQUEST["Status"];
$errdesc          = $_REQUEST["ErrDesc"];
$signature        = $_REQUEST["Signature"];
PHP?>
<Add your programming code here>

IF ($estatus=1) {
    COMPARE Return Signature with Generated Response Signature
    // update order to PAID
    echo "RECEIVEOK";
}
ELSE {
    // update order to FAIL
}
```

## 2.8 Re-query Payment Status Parameters (Response URL to enquiry.asp)

Merchant HTTPS POST re-query payment status parameters to iPay88 OPSG

Field Name	Type (Size)	M/O	Description
MerchantCode	varchar(20)	M	Merchant Code assigned by iPay88
RefNo	varchar(20)	M	Unique merchant transaction number / Order ID
Amount	Currency	M	Payment amount with two decimals

### Legend:

M: Mandatory field

O: Optional field, value can be empty but parameter must exists

Possible message reply on the page from iPay88 OPSG

Possible reply from iPay88 OPSG	Description
00	Successful payment
Invalid parameters	Parameters pass in incorrect
Record not found	Cannot found the record
Incorrect amount	Amount different
Payment fail	Payment fail
M88Admin	Payment status updated by iPay88 Admin(Fail)

## 2.8.1 Sample source code for re-query function in ASP

```
<%  
Function SendToiPayInq(byval MerchantCode, byval RefNo, byval Amount)  
  
Dim TryNo, thenQString, URL, strReturn  
    TryNo = 0  
  
QString = "MerchantCode=" & MerchantCode & "&RefNo=" & RefNo & _  
    "&Amount=" & Amount  
    URL = "https://www.mobile88.com/ePayment/enquiry.asp"  
    On Error Resume Next  
  
Do  
    Set xobj = Server.CreateObject ("Msxml2.ServerXMLHTTP.3.0")  
    xobj.setTimeouts 30000, 60000, 60000, 60000  
    xobj.open "POST", URL, false  
    xobj.setRequestHeader "Content-Type", "application/x-www-form-urlencoded"  
    xobj.send QString  
    TryNo = TryNo + 1  
Loop While xobj.status <> 200 and TryNo < 3  
  
If xobj.status <> 200 Then  
    SendToiPayInq = Err.Description & "(" & Err.Number & ")"  
Else  
    SendToiPayInq = xobj.responseText  
End If  
set xobj = nothing  
  
End Function  
  
%>
```

## 2.8.2 Sample source code for re-query function in PHP

```
<?PHP

function Requery($MerchantCode, $RefNo, $Amount){

$query = "https://www.mobile88.com/epayment/enquiry.asp?MerchantCode=" .
$MerchantCode . "&RefNo=" . $RefNo . "&Amount=" . $Amount;

$url = parse_url($query);
$host = $url["host"];
$path = $url["path"] . "?" . $url["query"];
$timeout = 1;
$fp = fsockopen ($host, 80, $errno, $errstr, $timeout);
if ($fp) {
    fputs ($fp, "GET $path HTTP/1.0\nHost: " . $host . "\n\n");
    while (!feof($fp)) {
        $buf .= fgets($fp, 128);
    }
    $lines = preg_split("\n", $buf);
    $Result = $lines[count($lines)-1];
    fclose($fp);
} else {
    # enter error handling code here
}
return $Result;

}
?>
```



### 3 Security Control

To enhance security, please go through the following steps at the merchant's payment status receiving page (Response URL):

- Check the HTTP\_REFERER value is from <https://www.mobile88.com> (*only applicable if the merchant web site is working with SSL Certificate*).
- Check the payment amount from iPay88 OPSG is match with yours.
- Compare the Signature from iPay88 OPSG with your own generated Signature.

#### Data Integrity and Security using Hash Signature

SHA1 hash is a security feature that enables your script to identify the results of a transaction are actually from the appropriate authorization source and also for iPay88 OPSG to make sure the integrity of data received on a transaction request.

Using the SHA1 algorithm, a unique signature or fingerprint of the transaction can be created. This mathematical algorithm used to construct this signature is designed in such a way that any change to the information used in the calculation of the signature will cause a completely different signature to be created.

Also, the information used in the calculation of the signature cannot be discovered through any analysis of the signature itself.

This is done by using information from your account. Every transaction that is processed through the system has a corresponding hash signature of the transaction created during the transaction process.

### 3.1 Request page signature

This signature must be included in the request of every transaction. This hash signature for a request is a hash of the following five fields:

1. **MerchantKey** (Provided by iPay88 OPSG and share between iPay88 and merchant only)
2. **MerchantCode**
3. **RefNo**
4. **Amount**
5. **Currency**

The fields must set in the following order,  
(MerchantKey & MerchantCode & RefNo & Amount & Currency)

**Example:**

MerchantKey = "apple"

MerchantCode = "M00003"

RefNo = "A00000001"

Amount = "1.00" (**Note:** Remove the "." and "," in the string before hash)

Currency = "MYR"

The hash would be calculated on the following string:

**appleM00003A00000001100MYR**

The resulting has signature value equals to (using SHA1 algorithm)

**84dNMbfgjLMS42IqSTPqQ99cUGA=**

To ensure the signature generated was correct, visit the link below for signature comparison.

<http://www.mobile88.com/epayment/testing/testsignature.asp>

## 3.2 *Response page signature*

If the Merchant request is successful the response message will contain as SHA1 hashed signature. The hash signature for the response is a hash of the following fields:

1. **MerchantKey** (Provided by iPay88 OPSG and share between iPay88 and merchant only)
2. **MerchantCode**
3. **PaymentId**
4. **RefNo**
5. **Amount**
6. **Currency**
7. **Status**

The fields must be set in the following order,  
(MerchantKey & MerchantCode & PaymentId & RefNo & Amount & Currency & Status)

### **For Example:**

MerchantKey = "apple"

MerchantCode = "M00003"

PaymentId = "2"

RefNo = "A00000001"

Amount = "1.00" (**Note:** Remove the "." and "," in the string before hash)

Currency = "MYR"

Status = "1"

The hash would be calculated on the following string:

**appleM000032A00000001100MYR1**

The resulting has signature value equals to (using SHA1 algorithm)

**MELU5sSgpBrmc2D6REjfrqUjplk=**

To ensure the signature generated was correct, visit the link below for signature comparison.

[http://www.mobile88.com/epayment/testing/testsignature\\_response.asp](http://www.mobile88.com/epayment/testing/testsignature_response.asp)

When iPay88 OPSG receives the request or transaction order from the merchant, it will check the hash value it generates to match with the value you as a merchant have included. When your script receives the results of the transaction, you can create the hash on your side and be sure that matches ours. As you will already know your Merchant Key and the Merchant Code, and will receive the Ref No which will then be presented to us. Do take note that the signature in the response will only be present if the transaction is not in error, that is, for approved and declined transactions.

A developer would then take the results of the transaction AFTER it has been returned to your site, and run the hash algorithm on the fields mentioned above. The only way that the results of a developer's procession can match the signature included with the transaction results is if the password used in the hash on the developer's end MATCHES the one used in the transaction.

The iPay88 OPSG Merchant Key is a shared secret (between merchant and iPay88 OPSG), and is one of the key pieces of information in the hash. One can be assured that if the signature generated on your end matched the one sent with the transaction, then the transaction has in fact been processed by our system, and has not been posted back to the merchant's server from any other location.

The iPay88 OPSG Merchant Key is generated by us that it's send to you. The key will only recreate if iPay88 OPSG suspects that the key is not secure or any fraud cases happen.

More information about the SHA1 hash algorithm, including sample implementation code, can be found in [RFC 3174](#) in [The Internet Engineering Task Force](#) web site.

### 3.2.1 Sample function code to generate iPay88 OPSG Signature

Using .NET you can use the available libraries to perform this:

```
Public Shared Function ComputeHash(ByVal Key As String) As String
    Dim objSHA1 As New SHA1CryptoServiceProvider()
    objSHA1.ComputeHash(system.Text.Encoding.UTF8.GetBytes(Key.ToCharArray))
    Dim buffer() As Byte = objSHA1.Hash
    Dim HashValue As String = System.Convert.ToBase64String(buffer)

    Return HashValue
End Function
```

Using PHP you can use the following code to perform this:

```
<?PHP
function iPay88_signature($source)
{
    return base64_encode(hex2bin(sha1($source)));
}

if (!function_exists('hex2bin'))
{
    function hex2bin($hexSource)
    {
        for ($i=0;$i<strlen($hexSource);$i=$i+2)
        {
            $bin .= chr(hexdec(substr($hexSource,$i,2)));
        }
        return $bin;
    }
}
?>
```

*\* Sample code can be found in the sample code folder include*

- **ASP**
- **VB.Net**
- **PHP**
- **Javascript**

*You may utilize the web service at*

*<http://www.mobile88.com/ePayment/Security/Security.aspx> to fit into your system*

## 4 Reports and Notification

### 4.1 *Objective*

Allow merchants to login and view the reports online

### 4.2 *Transaction Report*

Step 1. Merchant can visit iPay88 OPSG report page by keying-in :

**Report URL** : <http://www.mobile88.com/ePayment/report>

**Login** : [provided by iPay88 OPSG]

**Password** : [provided by iPay88 OPSG]

Step 2. After login, select transaction date

Step 3. The payment transaction report will display on the screen.

### 4.3 *Email Notification Disclaimer*

**Note:** Email notifications are **NOT** guaranteed by iPay88 OPSG as it is ISP dependent.

**Online Report is the primary channel to obtain transaction status. Email notification should not be taken as a replacement of the primary channel.**

E-mail transmissions cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of the email, which arise as a result of e-mail transmission. iPay88 accepts no liability for the content of the email, or for the consequences of any actions taken on the basis of the information provided, unless that information is subsequently confirmed in writing.

### 4.3.1 Customer Payment Receipt Email

Customers will receive a payment detail's email after successful payment.  
Below is the email sample:

**Subject:** iPay88 - Payment details (Ref# T0009378700)      **Date:** Thu, 26 Jan 2009 09:59:30 GMT  
**From:** iPay88 Sales (sales@ipay88.com.my)  
**To:** John Tan (john@hotmail.com)



Dear John Tan,

We are pleased to inform you that your online payment via **iPay88** is successful. Your credit card/bank account has been debited with **RM 1.00**.

Please note that **iPay88 / Mobile88.com** will be listed in your credit card/bank statement for this transaction.

#### Transaction Detail

**Order No:** A00000001  
**Transaction ID:** T0009378700  
**Transaction Date:** 26-1-2006 09:59:30 AM  
**Transaction Amount:** RM 1.00  
**Payment Type:** Credit Card  
**Product Description:** Photo Print

\*\*\*\*\*

Customer Support

If you have any questions about our product and services, please contact I & J Sdn Bhd directly at :

Tel No: 603-9999 0000

Fax No: 603-9999 0001

Email: [support@i&j.com](mailto:support@i&j.com)

\*\*\*\*\*

Please do not reply to this email as it was automatically generated.

If you found any fraudulent cases, please contact [iPay88.com](http://iPay88.com) Sdn Bhd immediately at

Tel: 603-9200 5555

Fax: 603-9200 3333

Email: support@ipay88.com.my

**\*iPay88 OPSG is an Online Payment Switching Gateway provided by Mobile88.com Sdn Bhd. For more information, please visit [www.ipay88.com](http://www.ipay88.com)**





### 4.3.2 Merchant Payment Notification Email

The Merchant will also receive a payment notification email after successful payment.

In order to ensure you are able received all our mail; do make sure you proceed with the following steps:

- From your mailbox, please white-list iPay88 OPSG mail address by adding **sales@ipay88.com.my** into your friend list.
- Also, please make sure your mailbox has not blacklisted our address which is the following **sales@ipay88.com.my**
- Allow us to serve you better by white listing our email address and domain **iPay88.com**. Please verify or allow your technical personnel (at the webhosting or email server) to verify the status of your email.

#### Below is the email sample:

**Subject:** iPay88 - Payment details (Ref# A00000001)      **Date:** Thu, 26 Jan 2006 09:59:30 GMT  
**From:** iPay88 Support (sales@ipay88.com.my)  
**To:** ABC Admin (admin@abc.com)

Dear I & J Admin,

RefNo : A00000001

One new payment has been collected for ABC Sdn Bhd.

Please check the payment report at [iPay88 Online Report](#)

#### Customer Detail

Name : Ali  
Email : [ali@hotmail.com](mailto:ali@hotmail.com)  
Contact : 0392005555

#### Transaction Detail

Payment ID : T0009378700  
Payment Date Time : 26-1-2006 09:59:30 AM  
Payment Amount : RM 1.00  
Payment Type : Credit Card  
Product Description : Photo Print  
Remark :

Sincerely,  
Your iPay88 Team

Tel: 603-92005555  
Fax: 603-92003333  
Email: [support@ipay88.com.my](mailto:support@ipay88.com.my)

## 5 iPay88 OPSG Integration FAQs

### 1. What method use to pass payment parameters value to iPay88 OPSG ?

By using the HTTP POST method.

### 2. What do I provide to iPay88 OPSG before the integration of a merchant account ?

Return a copy of completed Merchant Checklist to [techsupport@ipay88.com.my](mailto:techsupport@ipay88.com.my) and provide both the Request URL and Response URLs' of merchant website.

### 3. What are the merchant Request URL and Response URL ?

**Request URL** is a checkout page at merchant website that passes in iPay88 OPSG parameters to request payment page.

**Response URL** is a page at merchant website that accepts payment status from iPay88 OPSG after transaction.

### 4. How do I perform a payment testing during the integration stage ?

You can use any valid credit card for testing purpose. Details required are the credit card number, expiry date, CVV number and the card holder's name.

### 5. What transaction amount do I use for test payment ?

Use the following amount for the respective currency code.

Currency Code	Amount
MYR	1.00
USD	1.00
AUD	1.00
CAD	1.00
EUR	1.00
GBP	1.00
SGD	1.00
HKD	2.50
IDR	3000.00
INR	15.00
PHP	15.00
THB	15.00
TWD	15.00

## 6. What if I get an error message and is unable to reach iPay88 OPSG payment page ?

Below are the common error messages returned and its respective description:

ERROR MESSAGE	DESCRIPTION
Duplicate reference number	Do not re-use Reference Number that previously payment success for transaction.
Invalid merchant code	The merchant code does not exist or incorrect.
Invalid parameters	Some parameter posted to iPay88 OPSG is invalid or empty.
Overlimit per transaction	Payment amount exceeded the value per transaction that assigned to merchant account.
Payment not allowed	Payment method requested is not allowed for the merchant account.
Permission not allow	Referrer URL of transaction request is not same as registered with iPay88 OPSG.
Signature not match	Signature on request page which pass to iPay88 OPSG is incorrectly generated. Refer section 3.1 in iPay88 OPSG Technical Specification for more information about Signature for request page.
Status not approved	Merchant account was suspended or not active.

## 7. Why do I get 'The return page URL not exist' message display on web browser and is unable to see the iPay88 OPSG payment page ?

- a) Make sure the correct merchant code is used.
- b) Provide the Request URL to [techsupport@ipay88.com.my](mailto:techsupport@ipay88.com.my) before the integration.
- c) Make sure response URL is specify through ResponseURL field in request page or had updated in iPay88.

## 8. How do I ensure the integration is completed ?

- a) Make sure parameters are properly passed to iPay88 OPSG and success reach iPay88 OPSG payment page.
- b) Success receives payment status from iPay88 OPSG after perform test transaction.
- c) Make sure implemented security control on the merchant response page. Example:
  - Compare the Signature from iPay88 OPSG with the generated merchant response page.

9. How can I change the merchant information such as Request URL, contact number, company name and bank account number ?

Send an email to [support@ipay88.com.my](mailto:support@ipay88.com.my) to request for these changes.

10. What not to do after press “**Proceed Payment**” button at iPay88 OPSG payment page ?

- a) Do not disconnect your Internet connection.
- b) Do not close the web browser while transaction being process.
- c) Do not click “Back” button on web browser to avoid duplicate payment.

11. I am getting error description “Fail (Card issuing bank do not honor the transaction)” returned by iPay88 OPSG, what does it mean?

Please contact credit card issuer bank to check whether the card can be used for online purchases.

12. Is there any function from iPay88 OPSG where I can query payment status if my system did not get payment status return from iPay88 OPSG?

You can use the iPay88 OPSG Server Requery function to query the transaction status.

Please refer section **2.8** in iPay88 OPSG Technical Specification for more information about iPay88 server re-query.

## **APPENDIX A. MERCHANT CHECKLIST**



Online Payment Switching Gateway

Merchant Checklist				
Merchant Name:		Name of iPay88 Account Manager:		
Date:		Contact Info:		Name: Contact No: Email address:
Intended Live Date:		Status:		<input type="checkbox"/> Successful <input type="checkbox"/> Fail
	Description	Remarks	Status	
			Yes	No
1.	<b>Test Account Request</b>	Please fill up <b>this</b> section if test account is requested.  Purpose: Start Date: End Date: Assigned by:		
2.	<b>Pre-requisite and Merchant Expectation on Integration</b>	Before integration commencement please ensures the guidelines below are adhered.  1. Please register request URL on iPay88 before do integration/testing. Request URL :  ----- 2. Registered request URL must be either IP or domain based. Note: <b>LocalHost</b> is not allowed. 3. Testing transaction must from <b>registered URL</b> . 4. Test transaction with amount <b>MYR 1.00</b> . 5. Test transaction with credit card <b>ONLY</b> . 6. Response URL can be set in request page with <b>ResponseURL</b> field or provided on below. Response URL :  ----- 7. Backend post URL can be set in request page with <b>BackendURL</b> field. 8. Email notification is <b>NOT</b> guarantee as it ISP dependant.		
3.	<b>Technical Competencies</b>	Integration Competencies Required (at least one) <u>Programming Language</u> ASP.Net <input type="checkbox"/> PHP <input type="checkbox"/> ASP <input type="checkbox"/> Java <input type="checkbox"/>  <u>Database</u> MySQL <input type="checkbox"/> MS SQL <input type="checkbox"/>  <u>Others skill set</u> XML or Webservice <input type="checkbox"/>		



Online Payment Switching Gateway

4.	<b>Integration Info</b>	Please fill up <b>this</b> section Integration Start Date : ..... Integration End Date : ..... Target Live Date : ..... Staging/Test URL : ..... Production URL : ..... Merchant Technical contact no : ..... Merchant Technical email : ..... iPay88 Integration contact : .....		
5.	<b>Implemented iPay88 feature</b>	Please specific implemented feature in merchant system  Standard re-query <input type="checkbox"/> Webservice re-query <input type="checkbox"/> Backend post <input type="checkbox"/> Signature (via web services) <input type="checkbox"/>		
6.	<b>Merchant ID Requirement</b>	<b>iPay88</b> <input type="checkbox"/> <b>Own</b> <input type="checkbox"/>  If Own, list the intended Financial Provider, MID, Admin and UserID  1. 2. 3.		
7.	<b>Customisation Requirement</b>	If yes, please specify  Landing Pages showing Merchant's Name <input type="checkbox"/> Statement showing Merchant's Name <input type="checkbox"/> Transaction Verification <input type="checkbox"/> Report Requirement <input type="checkbox"/> Data Requirement <input type="checkbox"/> Others, please specify <input type="checkbox"/>  <please provide requirement document>	<input type="checkbox"/>	<input type="checkbox"/>



Online Payment Switching Gateway

Please tick on the section that completed.

- Test Account Request
- Prerequisites and Merchant Expectation on Integration
- Technical Competency
- Integration Info
- Implemented iPay88 feature
- Merchant ID Requirement
- Customization Requirement
  
- Integration Completed
- Live Merchant Activation
- Live Merchant Test Run
- Payment Collected

Signoff and Submitted by :

Remarks :

\_\_\_\_\_  
Signature:  
Name:  
Designation:  
Date: