



API SPECIFICATION FOR MOLPAY INTEGRATION (Version 13.5)

Last updated on 24 Jan 2017





	<p>MOLPay Sdn Bhd (948015-X)</p>
   	<p>B-13-3A, Jalan Multimedia 7/AH, CityPark, i-City, 40000 Shah Alam, Selangor Darul Ehsan, Malaysia.</p> <p>+(603) - 5521 8438</p> <p>+(603) - 5521 8437</p> <p>support@molpay.com</p> <p>www.molpay.com</p>
	<p>Social Networks</p> <p>https://www.facebook.com/MOLPay</p> <p>https://twitter.com/molpay</p> <p>https://plus.google.com/+Molpay/</p> <p>https://www.instagram.com/molpay_com/</p> <p>https://www.youtube.com/user/MOLPaySB</p> <p>https://www.linkedin.com/company/molpay-sdn-bhd</p>
	<p>Developer Platforms</p> <p>https://github.com/MOLPay</p> <p>Mobile SDK, seamless and inpage checkout, and many shopping carts payment plugin/module/addon/extension are available</p>

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INTRODUCTION

Dealing with banks and 3rd party payment gateway suppliers are time-consuming and it might cost you a lot of money. We also understand that it's a hassle for those non-technical people to integrate even one kind of online payment method into their existing website. Thus MOLPay Sdn Bhd proudly presents MOLPay Secure Online Transaction service to cater your requirement.

MOLPay is a service to help merchant to sell online and expand rapidly to South-East Asia market. The service includes:

- Front-end
 - RWD or responsive web design payment page for online buyer to checkout
 - Secure 1-click payment using credit card tokenization technology, to ease the payment flow for returning purchase
 - Bcard redemption and rewarding loyalty program for buyers
 - Seamless integration to popup bank login page immediately
 - In-page checkout similar to Stripe and airbnb checkout flow that can seamlessly integrated with merchant system
 - Mobile SDK allows app developers to implement in-app payments
 - Channel switching is available for same currency channels
 - MOLPay CASH payment request which supports offline payment
 - Common shopping carts payment module, plugin, addon, or extension supported

- Back-end
 - Server-to-server Notification to ensure no missing status update
 - Callback to update merchant system on deferred status change
 - Merchant can login to control panel to track payment status
 - Scheduled report on daily/weekly/monthly basis to update merchant via email
 - Real-time visualized reports

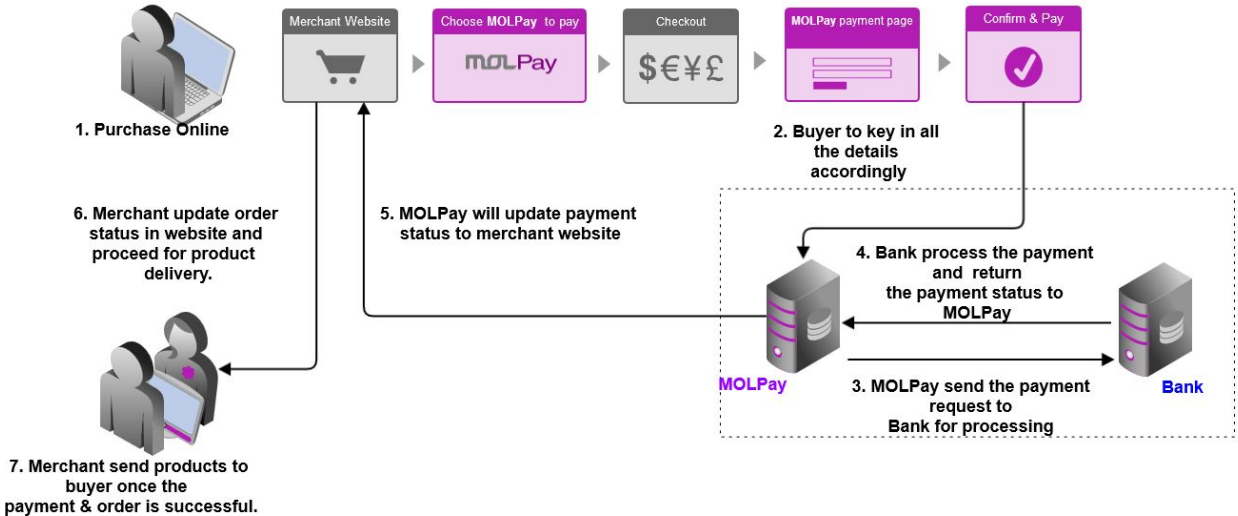
General information about this service could be found here:-

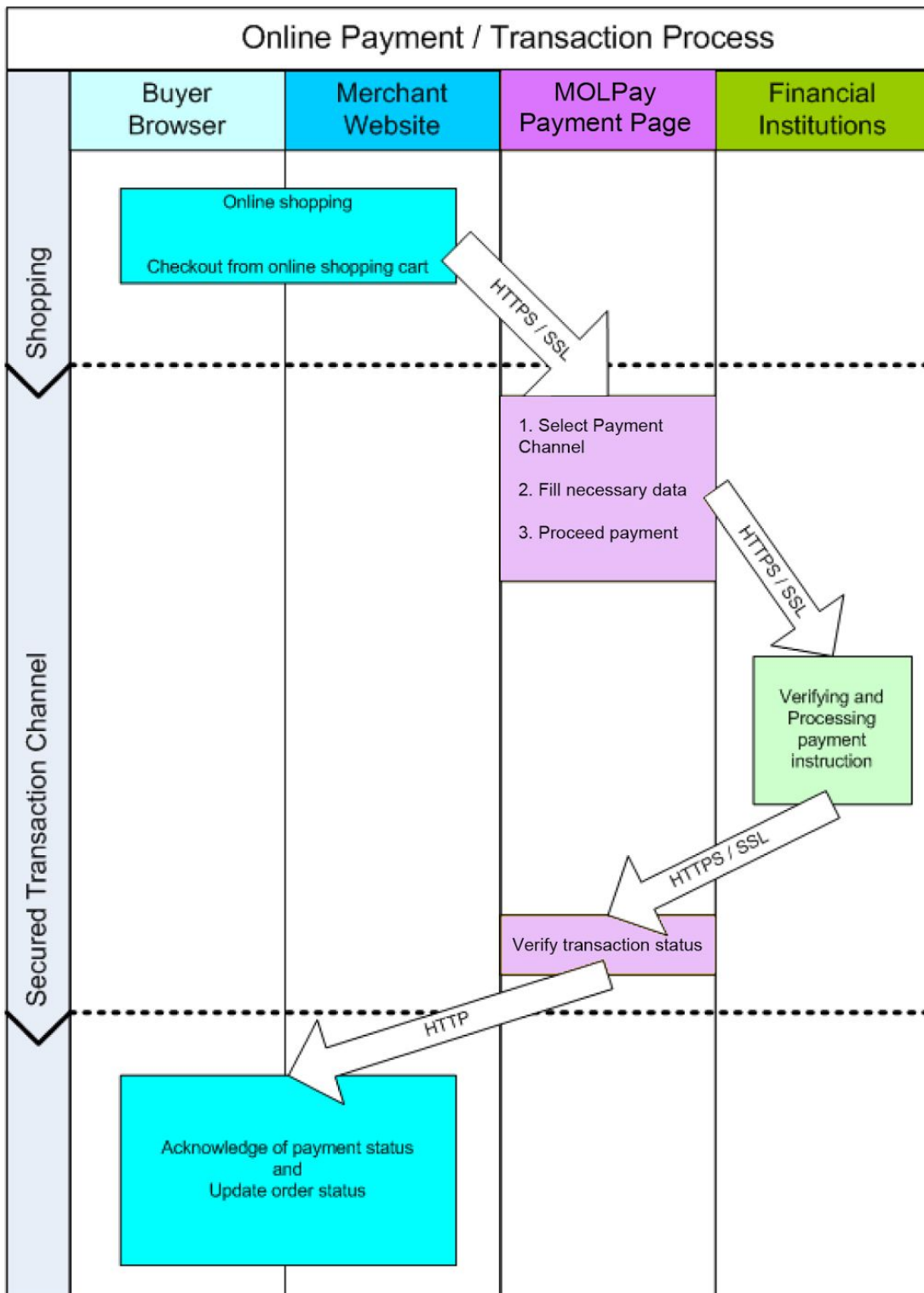
- <http://www.molpay.com>
- <https://www.facebook.com/MOLPay/info>
- <https://github.com/MOLPay>

PAYMENT FLOW OVERVIEW

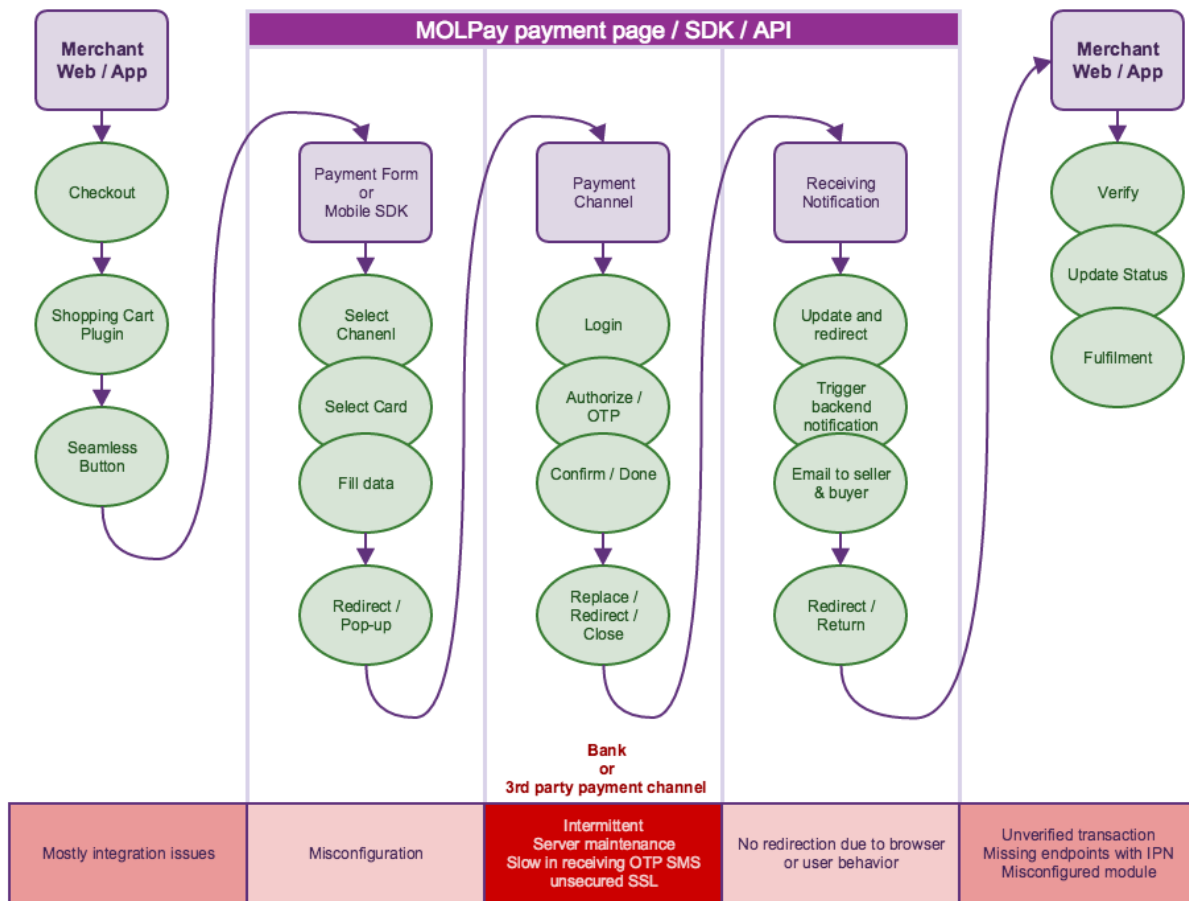
MOLPay provides hosted payment page service, so that merchant does not require costly and tech-savvy PCI-DSS compliance at merchant website or system. The integration is as simple as passing parameters via HTTPS **POST** or **GET** method from merchant to MOLPay payment page. Buyer will proceed their transaction on internet banking or any payment channel. Once completed, MOLPay will redirect buyer's front-end back to merchant system, using **POST** method.

IPN (instant payment notification) or **ACK** from merchant could be implemented to confirm the receiving of payment status update.





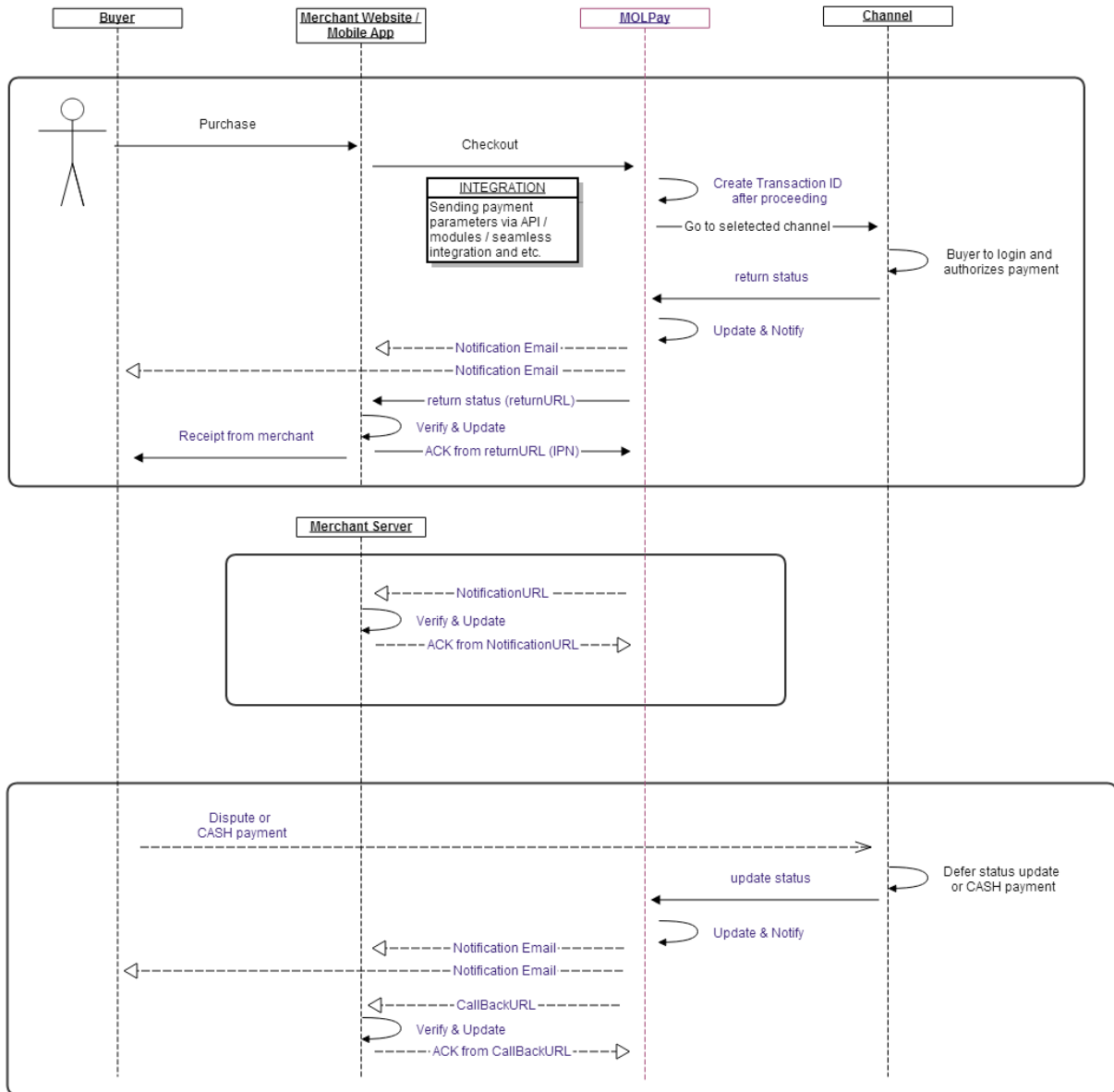
How to identify and report tech-related issue to MOLPay?



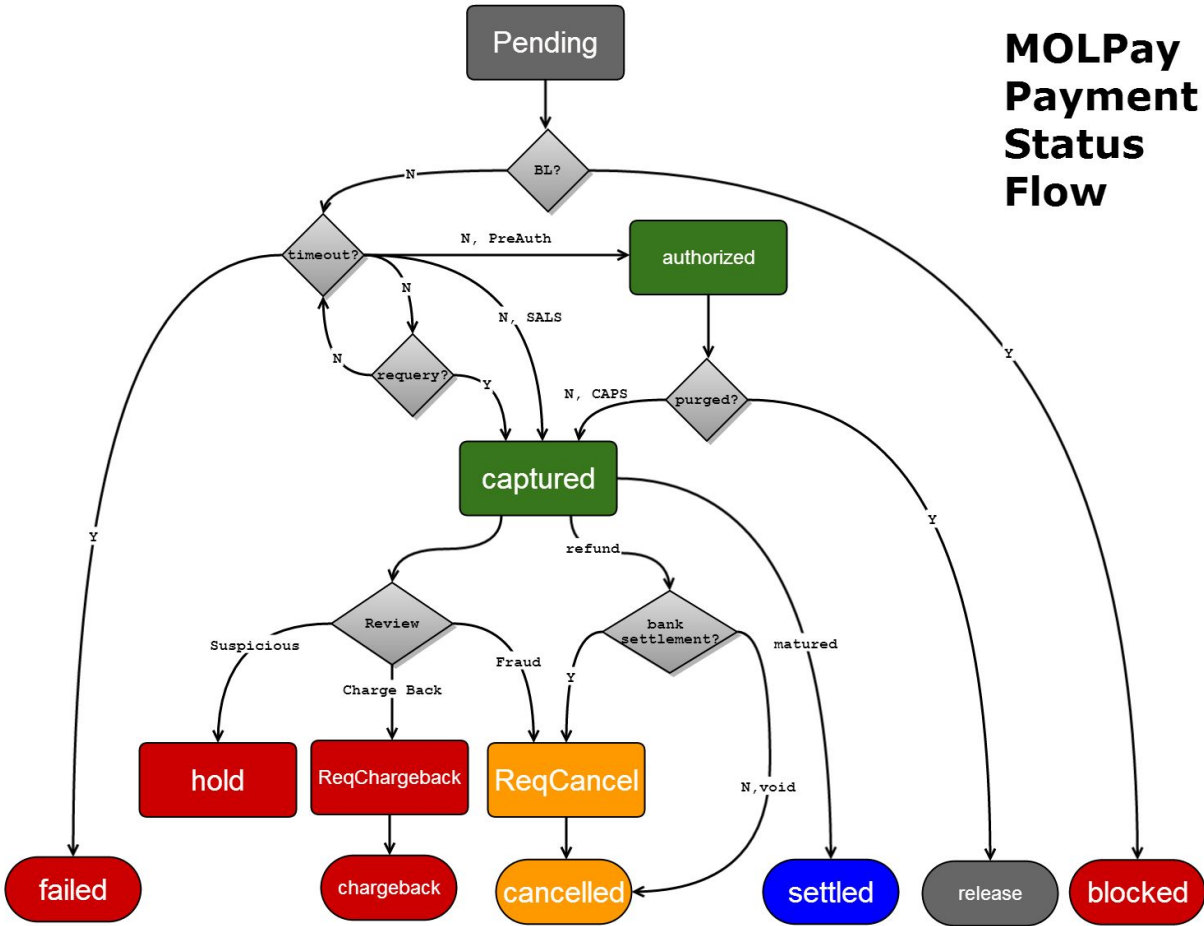
Merchant needs to prepare 3 simple and similar payment endpoint scripts to handle the payment notification from MOLPay:

1. **return URL**: front-end or browser redirection notification, which are normally not a 100% reliable and robust channel due to unexpected network connectivity issue or client-side behavior, such as browser application crashes;
2. **notification URL**: a server-to-server back-end webhook which is more robust and crucial, especially for mobile application;
3. **callback URL**: a special handler webhook to get notified on non-realtime payment status, such as “deferred status update”, change of payment status, or MOLPay CASH, which is not a realtime payment naturally.

After the normal payment flow, merchant can always send payment status query request, which is defined in **ReQuery** APIs (a.k.a PSQ, Payment Status Query).



MOLPay Payment Status Flow



SECURITY & DATA INTEGRITY

MOLPay system uses “*merchant ID*”, “*Verify Key*”(public key, a.k.a verification key) and “*Secret Key*”(private key) to generate encrypted hash string to ensure data integrity in the payment process.

Verify Key (Public Key)

MOLPay Verify Key is unique shared secret for MOLPay merchants to generate request to MOLPay. It is a key or seed for generating one-time hash data, which are known as “*vcode*” (merchant’s payment request to MOLPay) or some of the “*skey*” (APIs’ request from merchant to MOLPay).

How to get the verify key?

1. Logon to MOLPay Merchant Admin site
2. Go to Merchant Profile tab.
3. Scroll down until you see the word “Verify Key”
4. Get the value and use it on any functions that require it.

Multi-Payment Channel	<input type="checkbox"/> Enable (?) (iv)
Verify Key	<input type="text" value="XXXXXXXXXXXXXXXX"/>
Enable Verify Payment	<input type="checkbox"/> Tick to enable transaction amount and order number verification (?) (v)

XXXXXXXXXXXXXXXX is Merchant’s Verify Key provided by MOLPay. Please make sure it is at least 32 characters. Merchant may request to change the key when necessary.

Secret Key (Private Key)

MOLPay Secret Key is unique shared secret for MOLPay to generate response to merchant. It is a key or seed for generating one-time hash data, which are known as “*skey*” (in MOLPay payment response) or some of the “*VrfKey*” (APIs’ response from MOLPay). Merchant or developer is advised not to disclose this secret key to the public. Once the key is compromised, please contact MOLPay immediately to reset the key.

Merchants who are using MOLPay mobile xdk MUST use different strings for “*Verify Key*”(public key) and “*Secret Key*”(private key), respectively. Contact MOLPay support team to reset your keys whenever needed.

vcode (in payment request)

MOLPay **vcode** is to ensure the data integrity passed from merchant-end (either website or mobile APP) to MOLPay payment page to avoid man-in-the-middle (MITM) attack. It uses "Verify Key"(public key) for hashing purpose.

It becomes mandatory for each transaction if "Enable Verify Payment" is activated in merchant profile as shown:-

Enable Verify Payment	<input checked="" type="checkbox"/>	Tick to enable transaction amount and order number verification (v)
Notified Failure Transaction	<input type="checkbox"/>	Tick to receive a copy of failed transaction notification.
Targeted Market	<input type="checkbox"/>	Allow transaction made using Malaysia IP Address only

vcode was encrypted using MD5 encryption hash function and consists of the following information (must be set in the following orders) :

1. Transaction amount
2. MOLPay Merchant ID
3. Order ID
4. MOLPay Verify Key

Formula to generate **vcode**

$vcode = md5(\text{amount} \ \& \ \text{merchantID} \ \& \ \text{orderID} \ \& \ \text{verify_key})$

Example to generate **vcode** for PHP developer

```
<?php
$amount      = "27.60";
$merchantID  = "ACME";
$orderid     = "OD8842";
$verifykey   = "xxxxxxxxxxxxxxxxxxxx";
// Replace xxxxxxxxxxxxxxxxxxxx with your MOLPay Verify Key

// vcode formula
$vcode       = md5( $amount.$merchantID.$orderid.$verifykey );

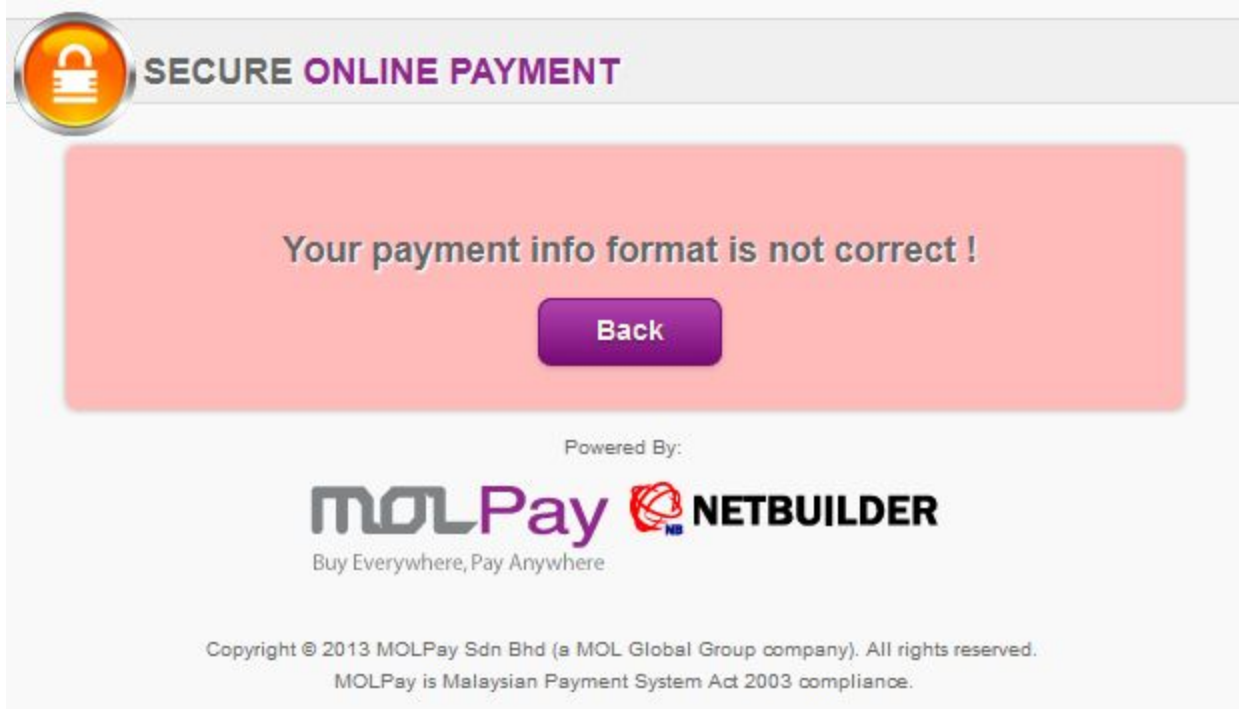
// output of the vcode based on above information equals to :
$vcode       = "ec7f2c6e85769728a5e9b75893ee6bc1";
?>
```

Verification tool for *vcode*

To verify whether the *vcode* generated is correct, merchant may check on this URL:-
<https://www.onlinepayment.com.my/MOLPay/query/vcode.php>

What happen if merchant passes in an incorrect *vcode*?

An error will be displayed on the payment page as shown:-



skkey (in payment response)

MOLPay **skkey** is a MOLPay generated returning hash string to ensure the payment result data integrity that passed to merchant system. Merchant MUST verify this hash string properly and also compare the order ID, currency, amount, and the payment date/time if possible, to protect self interest from being cheated by hacker/buyer. It uses "Secret Key"(private key) for hashing process.

Please note that there are other "**skkey**"s with different formula in **Merchant Request APIs'** parameter. Try not to confuse yourself with this payment response "**skkey**".

skkey was encrypted twice using MD5 encryption hash function and consists of the following information (must be set in the following orders) :

First hash string

1. Transaction ID
2. Order ID
3. Status
4. MOLPay Merchant ID (domain)
5. Amount
6. Currency

Final hash string

1. Payment Date/Time
2. MOLPay Merchant ID (domain)
3. First hash string
4. Approval Code
5. MOLPay Secret Key
6. extraP* (if applicable)

Formula to generate skkey

$pre_skkey = md5(txnID \& \ orderID \& \ status \& \ merchantID \& \ amount \& \ currency)$

$skkey = md5(paydate \& \ merchantID \& \ pre_skkey \& \ appcode \& \ secret_key \ [\& \ extraP])$

Example to generate skkey for PHP developer

```
<?php
$vkkey ="xxxxxxxxxx"; //Replace xxxxxxxxxxxx with your MOLPay Secret_Key

/*****
*Don't change below parameters
*****/
$tranID      =      $_POST['tranID'];
$orderid     =      $_POST['orderid'];
$status      =      $_POST['status'];
$merchant    =      $_POST['domain'];
```

```

$amount      =      $_POST['amount'];
$currency    =      $_POST['currency'];
$appcode     =      $_POST['appcode'];
$paydate     =      $_POST['paydate'];
$key         =      $_POST['skey']; //Security hashstring returned by MOLPay

/*****
* To verify the data integrity sending by MOLPay
*****/
$key0 = md5( $tranID.$orderid.$status.$merchant.$amount.$currency );
$key1 = md5( $paydate.$domain.$key0.$appcode.$vkey );
//key1 : Security key generated on Merchant system

if( $skey === $key1 ){
    // If matched, perform another extra checking before approved order
} elseif( $skey != $key1 ){
    // If unmatched, reject the order or merchant might send query to
    // MOLPay using Merchant requery to double check payment status
    // for that particular order.
} else {
    // error or exception case
}
?>

```

SIMULATION

Merchant should be provided a trial/test/sandbox account or developer account from MOLPay sales or support, in order to simulate the payment flow for transaction successful and failure cases.

Please note that “test_” account is for **SIT** purpose and only faked credit card channel is available. “_Dev” account has full range of production feature for advanced integration and **UAT** purpose.

A “Dev” or developer account is always ended in “_Dev” while a test account is with prefix “test_”.

Sandbox or Trial Account

- MOLPay sandbox or trial account provides only simple simulation on credit card payment for merchant to test successful and failure cases
- Many advanced features are not available in the sandbox environment
- MOLPay does not provide buyer testing account. Merchant needs to use own internet banking account to do the testing for these payment methods
- For credit card payment testing, it verifies credit card number algorithm (Luhn-10) and no actual transaction occurs between bank or payment gateway
- Sample for Visa and Mastercard card number for testing:

Pattern	MasterCard	Visa
Positive Test	5105105105105100 5555555555554444	4111111111111111 4012888888881881
Negative Test	5555555555554440	4111111111111110

Developer Account

For full feature integration and **UAT**, such as mobile XDK or seamless integration, please request “Developer” account or “Dev” account from MOLPay support team.

These accounts are all set with a short period of lifespan for integration and testing purpose only. No settlement are allowed in these accounts.

For real transaction conducted in “Dev” account, please void or cancel the transaction on the same day. For Malaysian internet banking, only Maybank and CIMB Clicks are allowed to request cancel. You may request to turn on the channel if it is not enabled in your “Dev” account.

PAYMENT APIs

Initiating Payment

Passing parameters to MOLPay payment page using POST/GET method via HTTPS or SSL connection will initiate a payment request from merchant system.

REQUEST URL

https://www.onlinepayment.com.my/MOLPay/pay/MerchantID/Payment_Method

MerchantID: mandatory value to identify MOLPay merchant;

Payment_Method: optional value to identify payment channel; Payment channel can be identified by using **channel filename**, or pass the **channel parameter** to **index.php** using GET/POST method.

The URL is an API to accept POST/GET parameters from merchant site as well as the payment page for buyer.

Channel Lists

Cross-Border Multi-Currency Card Processing (Non-3DS)

Default currency: USD

Channel Name	filename	channel	Payable Amount Range	Extra Information
Multi-currency card processing	indexH.php	credit3	> 1.00	Non-3DS

Multi-Currency Alternative Payment

Default currency: n/a

Channel Name	filename	channel	Payable Amount Range	Extra Information
BitX	BitX.php	BitX	> 2.00	Current supported currencies: MYR Future supported currencies: SGD, IDR, NGN, ZAR

Malaysia

Default currency: MYR

Channel Name	<i>channel filename</i>	<i>channel parameter</i>	Payable Amount Range / Downtime*	Extra Information
Visa / MasterCard	index.php	credit	> 1.00	credit/debit/prepaid card
JomPay	jompay.php	jompay	> 1.00	direct Internet banking
MyClear FPX	fpx.php	fpx	> 1.00 / 12am - 1am	indirect internet banking
Maybank2u	maybank2u.php	maybank2u	> 1.00 / 12:15am - 1am	direct internet banking
CIMB Clicks	cimb.php	cimb	> 1.00 / 11:45pm - 12:45am	direct internet banking / CIMB credit card
Bank Islam	BIMB.php	BIMB	> 1.00 / 12:15am - 1am	direct internet banking
RHB Now	rhb.php	rhb	> 1.00 / 12am - 1am	direct internet banking / RHB credit card
Am Online	amb.php	amb	> 1.00 / 12am - 6am	direct internet banking
Alliance Online	-	-		insecure
Hong Leong Connect	hlb.php	hlb	> 1.00 / 11pm - 7am	direct internet banking / HLB credit card
Affin Bank	affin-epg.php	affin-epg	> 2.00	direct internet banking
MOLPoints	MOLPoints.php	MOLPoints	> 1.00	e-wallet
Bcard points	Point-BCard.php	Point-BCard	> 1.00	e-wallet (BCard Loyalty Redemption)
Gift Card	giftcard.php	Point-Giftcard	> 1.00	e-wallet (MOL Co-brand Gift Card)
MOLWallet	MOLWallet.php	MOLWallet	> 0.00	e-wallet
Webcash	webcash.php	webcash	> 1.00	e-wallet
Mobile Money	mobilemoney.php	mobilemoney	> 1.00	e-wallet (obsoleted)
Celcom Aircash			> 1.00	e-wallet
7-eleven	cash.php	cash	> 1.00	cash
epay at Petronas	epay.php	epay	> 1.00	cash
Senheng/SenQ	senheng.php	senheng	> 1.00	cash (obsoleted)

Maybank CDM	Cash-MBBCDM.php	Cash-MBBCDM	> 10.00	cash (denominations: RM10, 20, 50, 100)
PayQuik / Paylink	paylink.php	paylink	> 1.00	cash (denominations: RM1, 5, 10, 50, 100)
Esapay	esapay.php	esapay	> 1.00	cash
PayPal	GPayPal.php	GPayPal	> 1.00	PayPal
PEX+ by HLBB	PEXPLUS.php	PEXPLUS	> 1.00	direct internet banking
TNG E-WALLET	TNG-EWALLET.php	TNG-EWALLET	> 1.00	e-wallet
MBB-eBPG-(PD or PW) EzyPay	MBB-EzyPay.php	MBB-EzyPay	Non-installment > 1.00 Installment: 3 mon: 200 - 1000 6 mon: 500 - 15,000 12 mon: 500 - 15,000 24 mon: 2,500 - 15,000	credit card / Installment for MBB issued card
PBB-ZIIP	installmentPBB-ZIIP.php	PBB-ZIIP	non-installment > 1.00 installment > 500.00	credit card / Installment for PBB issued card
Maybank ATM	Cash-MBBATM.php	Cash-MBBATM	> 1.00	Maybank ATM Transfer

* Downtime is for reference only

Remarks

1. Secure 1-click or credit card tokenization function can be enabled in merchant profile to ease next purchase on the same merchant system.
2. Bcard loyalty reward points for successful transaction can be activated in merchant profile.
3. For certain MOLPay CASH channels, such as 7-eleven and epay, round to the nearest 0 or 5 cents and convenience store fee applied. Buyer will see the "Payable Amount", but MOLPay still return the amount passed from merchant system.

Singapore

Default currency: SGD

Channel Name	filename	channel	Payable Amount Range	Extra Information
eNETS Debit	enetsD.php	enetsD	> 5.00	indirect internet banking
SAM by SingPost	singpost.php	singpost	> 5.00	cash / bank card / ATM

China

Default currency: USD (for merchant), RMB/CNY (for buyer)

Channel Name	filename	channel	Payable Amount Range (Processing Currency)	Extra Information
Alipay 支付宝	alipay.php	alipay	> MYR1.00 (USD)	e-wallet
Tenpay 财付通	tenpay.php	tenpay	> MYR1.00 (USD)	e-wallet

UnionPay 银联	UPOP.php	UPOP	> MYR1.00 (CNY/USD/MYR)	bank card
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Remarks

1. Due to China National Bank regulations, these channel will accept USD as default processing currency, and buyer account will be deducted an equivalent amount in RMB. If merchant passes MYR as the currency, MOLPay will convert it to equivalent amount of USD based on Yahoo! daily FX rate.

Philippines

Default currency: PHP

Channel Name	filename	channel	Payable Amount Range	Extra Information
Dragonpay	dragonpay.php	dragonpay	> 50.00	indirect internet banking / cash

Indonesia

Default currency: IDR

Channel Name	filename	channel	Payable Amount Range	Extra Information
Visa / MasterCard				credit/debit/prepaid
ATM Network Transfer Virtual Account (VA)	ATMVA.php	ATMVA	> 10,000.00	cardless ATM
Mandiri				direct internet banking
CIMB Niaga				direct internet banking

Vietnam

Default currency: VND

Channel Name	filename	channel	Payable Amount Range	Extra Information
NganLuong	nganluong.php	nganluong	> 2,000.00	e-wallet
VTC Pay	vtcpay.php	vtcpay	> 1,000.00	e-wallet

Australia

Default currency: AUD

Channel Name	filename	channel	Payable Amount Range	Extra Information
POLi payments	polipayment.php	polipayment	>= 1.00	indirect internet banking

Thailand

Default currency: THB

Channel Name	filename	channel	Payable Amount Range	Extra Information
PaysBuy	paysbuy.php	paysbuy	> 60	

Payment Page Integration

This is the traditional integration method which will send the buyer information to MOLPay hosted payment page. You may want to explore *in-page*(card only), *seamless integration*, *Direct Server API*, *mobile xdk* or supported shopping cart payment modules for better user experience beside this hosted payment page integration on MOLPay github repositories.

Request Parameters

These parameters can be passed using either POST or GET method, or mixed of these methods. Please use UTF-8 encoding for all values.

Variable / Parameter	Type Format / Max Length	Description / Example
merchant_id	optional, alphanumeric	Merchant ID provided by MOLPay
amount	mandatory, integer or up to 2 decimal points numeric value	The total amount to be paid in one purchase order. Configurable to lock this field (Read-only). E.g. 500, 168.99
orderid	mandatory, alphanumeric up to 32 characters	Invoice or order number from merchant system. Can set to Read-only field. E.g. BH2018-09rev
bill_name	mandatory, alphanumeric, 128 chars	Buyer's full name.
bill_email	mandatory, email, 128 chars	Buyer's email address.
bill_mobile	mandatory, alphanumeric, 32 chars	Buyer's mobile number or contact number.
bill_desc	mandatory, alphanumeric, 64kB	Purchase itemized list or order description. Try to avoid special character so that the payment request is not blocked by web application firewall.
country	mandatory, 2 chars of ISO-3166 country code (Alpha-2)	Buyer's country E.g. MY for Malaysia.
vcode	Conditional if accept open amount or order payment, such as virtual terminal is optional otherwise is mandatory. 32 chars hexadecimal string	This is the data integrity protection hash string. Refer vcode section for details.
cur / currency	optional, 3 chars ISO-4217 currency code	Default payment currency from merchant site. E.g. MYR, USD, EUR, AUD, SGD, CNY, IDR
channel	optional, predefined string. Refer to <i>channel</i> column in the Channel Lists.	Default payment page will be displayed without <i>channel</i> specified.
langcode	optional, predefined string. Currently only <i>en</i> for English & <i>cn</i> for Simplified Chinese.	Default language, i.e. English, will be displayed without langcode specified.
returnurl	optional, URL	For selected merchant only. Used for multiple return URL. All URLs must be registered beforehand with MOLPay.
callbackurl	optional, URL	Used for multiple callbackurl. All URLs must be registered beforehand with MOLPay

cancelurl	optional, URL	<i>orderid</i> will be sent back to this URL via GET method if buyer click "Cancel" button to abandon payment before proceeding. No transaction will be created.
state	optional, mandatory for specific channel	Buyer's state
zipcode	optional, mandatory for specific channel	Buyer's zipcode or postcode
addr	optional, mandatory for specific channel	Buyer's address
s_country	optional, mandatory for specific channel	Delivery destination country
s_state	optional, mandatory for specific channel	Delivery destination state
s_zipcode	optional, mandatory for specific channel	Delivery destination zipcode
s_addr	optional, mandatory for specific channel	Delivery destination address
is_escrow	optional, for escrow payment	Set the value to 1 to indicate this is an escrow payment. Escrow transaction also can be set after the transaction has been created using escrow API.
tcctype	optional, for Credit Card transaction type.	Available value is: SALS = Capture Transaction (Default) AUTH = Authorize Transaction
installmonth	Optional, mandatory for Installment	Total month of installment. E.g: 0, 3, 6, 12, 24

Examples

Using PHP to generate a GET payment request

```
<?PHP
echo "<a href= https://www.onlinepayment.com.my/MOLPay/pay/merchantID/?";
echo "amount=". $amount."&";
echo "orderid=".urlencode($oid)."&";
echo "bill_name=".urlencode($name)."&";
echo "bill_email=".urlencode($email)."&";
echo "bill_mobile=".urlencode($mobile)."&";
echo "bill_desc=".urlencode($description)."&";
echo "country=". $country."&";
echo "vcode=". $vcode."> Pay via MOLPay </a>";
?>
```

Using PHP to generate a POST form payment request

```
<?PHP
echo "<form action=' https://www.onlinepayment.com.my/MOLPay/pay/merchantID/' method=POST >";
echo "<input type=hidden name=amount value=' $amount'>";
echo "<input type=hidden name=orderid value=' $oid'>";
echo "<input type=hidden name=bill_name value=' $name'>";
echo "<input type=hidden name=bill_email value=' $email'>";
echo "<input type=hidden name=bill_mobile value=' $mobile'>";
echo "<input type=hidden name=bill_desc value=' $description'>";
echo "<input type=hidden name=country value=' $country'>";
echo "<input type=hidden name=vcode value=' $vcode'>";
echo "<input type=submit value=' PAY NOW '>";
echo "</form>";
?>
```

Using ASP to generate a GET payment request

```
<%
dim amount,orderid,name,email,mobile,desc,country,vcode
amount = "18.99"
orderid= "DG873MH370"
name = "Mr Albert Anderson"
email = "a.anderson@somewhere.com"
mobile = "016-2341234"
desc = "DIGI Reload Coupon RM20 with discount"
country= "MY"
vcode = md5(amount & merchantID & orderid & xxxxxxxxxxxxxx )
// REPLACE xxxxxxxxxxxxxx with MOLPay Verify Key
response.write("<a href= https://www.onlinepayment.com.my/MOLPay/pay/merchantID/?")
response.write(" amount=" & amount)
response.write("& orderid=" & orderid)
response.write("& bill_name=" & name)
response.write("& bill_email=" & email)
```



```

response.write("&bill_mobile=" & mobile)
response.write("&bill_desc=" & desc)
response.write("&country=" & country)
response.write("&vcode=" & vcode)
response.write("> Pay via MOLPay </a>")

```

§>

Using ASP to generate a POST form payment request

```

<%
dim amount, orderid, name, email, mobile, desc, country, vcode
amount = "28.99"
orderid= "DG873MH37o"
name   = "Mr Samuel Lim"
email  = "sam.lim@nowhere.com"
mobile = "86-232389872"
desc   = "Facebook Prepaid Reload Coupon RM30 with discount"
country= "CN"
vcode  = md5(amount & merchantID & orderid & xxxxxxxxxxxx )
// REPLACE xxxxxxxxxxxx with MOLPay Verify Key
response.write("<form action=' https://www.onlinepayment.com.my/MOLPay/pay/merchantID/'
method=POST >")
response.write("<input type=hidden name= amount value="&amount">")
response.write("<input type=hidden name= orderid value="&orderid& ">")
response.write("<input type=hidden name= bill_name value="&name& ">")
response.write("<input type=hidden name= bill_email value="&email">")
response.write("<input type=hidden name= bill_mobile value="&mobile">")
response.write("<input type=hidden name= bill_desc value="&desc">")
response.write("<input type=hidden name= country value="&country">")
response.write("<input type=hidden name= vcode value="&vcode">")
response.write("<input type=submit value=' PAY NOW ' ">")
response.write("</form>")

```

%>

Getting Payment Result

Payment result will be returned to merchant system once payment is done or user abandons the payment process. HTTP POST is the only method that MOLPay returns all parameters to merchant's return URL for real-time status update, which merchant can configure it in merchant admin. Merchant system should block all other methods or parameters from untrusted source.

Response Parameters

Variable / Parameter	Type Format / Max Length	Description / Example
amount	2 decimal points numeric value	The total amount paid or to be paid for CASH payment request.
orderid	alphanumeric, 32 characters	Invoice or order number from merchant system.
tranID	integer, 10 digits	Unique transaction ID for tracking purpose.
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
status	2-digit numeric value	00 for Successful payment, 11 for failure, 22 if pending.
appcode	alphanumeric, 16 chars	Bank approval code. Mandatory for Credit Card. Certain channel returns empty value.
error_code	alphanumeric	Refer to the Error Codes section.
error_desc	text	Error message or description.
skey	32 chars hexadecimal string	This is the data integrity protection hash string. Refer skey section for details.
currency	2 or 3 chars (ISO-4217) currency code	Default currency is RM (indicating MYR) for Malaysia channels.
channel	predefined string in MOLPay system	Channel references for merchant system. Refer to the below table.
paydate	Date/Time(YYYY-MM-DD HH:mm:ss)	Date/Time of the transaction.
extraP*	optional (on request)	JSON encoded string or array token: 16-digit token for merchant to store; fraudscreen: 1-digit integer, i.e. 1, 2, 3, 4, 5 (Unknown, Passed, Alert, Suspicious, Fraud)

“channel” in response parameter

Card / Wallet	Direct / Indirect Internet Banking	Kiosk / Over-the-Counter / Cash
<p>Malaysia & International credit paypal MOLWallet Point-BCard giftcard MOLPoints webcash BitX PEXPLUS</p> <p>China alipay</p> <p>Thailand paysbuy</p> <p>Vietnam VTCPay nganluong</p>	<p>Malaysia maybank2u / MB2u cimb / CIMB-Clicks hnb / HLB-ONL rhb / RHB-ONL amb / AMB-W2W affin-epg / Affin-EPG alb fpx / FPX-TPA bankislam / FPX_BIMB publicbank / FPX_PBB jompay</p> <p>Singapore enetsD / eNets-D</p> <p>Thailand TH_SCBPN TH_KTBPN TH_BBLPN TH_BAYPN</p> <p>China unionpay</p> <p>Australia polipayment</p>	<p>Malaysia cash / Cash-711 epay Cash-MBBCDM Cash-POS <i>esapay *</i> <i>senheng *</i></p> <p>Singapore singpost</p> <p>Indonesia ATMVA</p> <p>Philippines dragonpay</p> <p>Thailand TH123 TH_CASH</p>

* *obsolete*

Merchant is recommended to implement IPN(instant payment notification) in order to acknowledge(**ACK**) on the receiving of payment status from MOLPay. There are 2 ways to implement IPN. Please refer to **IPN** section for details.

Examples of Payment Endpoint

You may use the sample for all 3 endpoints, i.e. return URL, notification URL, and callback URL by making little modification based on your own requirements.

Sample return URL script for PHP

```
<?php

$key = "xxxxxxxxxxxx"; //Replace xxxxxxxxxxxx with your MOLPay Secret_Key

/*****
*Don't change below parameters
*****/
$tranID      =      $_POST['tranID'];
$orderid     =      $_POST['orderid'];
$status      =      $_POST['status'];
$domain      =      $_POST['domain'];
$amount      =      $_POST['amount'];
$currency    =      $_POST['currency'];
$appcode     =      $_POST['appcode'];
$paydate     =      $_POST['paydate'];
$key         =      $_POST['key'];

/*****
* To verify the data integrity sending by MOLPay
*****/
$key0 = md5( $tranID.$orderid.$status.$domain.$amount.$currency );
$key1 = md5( $paydate.$domain.$key0.$appcode.$key );

if( $key != $key1 ) $status= -1; // Invalid transaction.
// Merchant might issue a query to MOLPay to double check payment status with MOLPay.

if ( $status == "00" ) {
    if ( check_cart_amt($orderid, $amount) ) {
        /*** NOTE : this is a user-defined function which should be prepared by merchant ***/
        // action to change cart status or to accept order
        // you can also do further checking on the paydate as well
        // write your script here .....
    }
} else {
    // failure action. Write your script here .....
    // Merchant might send query to MOLPay using Merchant query
    // to double check payment status for that particular order.
}

// Merchant is recommended to implement IPN once received the payment status
// regardless the status to acknowledge MOLPay system

?>
```

Sample return URL script for ASP/ASP.NET

```
<!--#include file="md5.asp"--> 'For ASP Developer
<!--#include file="md5.aspx"--> 'For ASP.NET Developer

<%
' md5.asp/md5.aspx is a 3rd party developed md5 solution for ASP/ASP.NET user
' You could get the md5.asp/md5.aspx from support@molpay.com
' Some variables below are coming from POST method

dim key0, key1, tranID, orderid, status, merchantID, amount, currency, paydate, appcode,
skey

tranID = Request.Form("tranID")
orderid = Request.Form("orderid")
status = Request.Form("status")
merchantID = Request.Form("domain")
amount = Request.Form("amount")
currency = Request.Form("currency")
paydate = Request.Form("paydate")
appcode = Request.Form("appcode")
skey = Request.Form("skey")
key0 = md5( tranID & orderid & status & domain & amount & currency )
key1 = md5( paydate & merchantID & key0 & appcode & " xxxxxxxxxxxx" )
'Replace xxxxxxxxxxxx with your MOLPay Secret_Key

' invalid transaction if the key is different. Merchant might issue a requery to MOLPay to
double check payment status with MOLPay.

If skey <> key1 then
    status= -1
End if

If status = "00" then
' checking the validity of cart amount & orderid.
' if the verification test passed then can update the order status to paid.
' you can also do further checking on the paydate as well
Else
' failure action
' Merchant might send query to MOLPay using merchant requery
' to double check payment status for that particular order.
End if

' Merchant is to implement IPN to ack on receiving of payment status
' regardless the payment status

%>
```

Payment Status Notification

WARNING: Please note that multiple payment notifications (either from **return URL**, **notification URL** or **callback URL**) for single transaction is possible but this does not mean that the buyer has paid twice or multiple times.

IPN (Instant Payment Notification)

For normal payment flow, buyer browser is being redirected to MOLPay payment page, financial institution or channel page(if any), and then return to merchant website or system. User might close the browser any time throughout the payment process, even the payment is completed, successfully or failed. Other possible reason that rarely happens is the network connectivity issue. As a result, MOLPay is unable to update merchant system on the payment status. Therefore, merchant is recommended to implement IPN to acknowledge(ACK) upon the receiving of payment status from MOLPay. Otherwise MOLPay will resend the payment status within a time interval.

Implementation:

Step 1: Logon to merchant admin, choose “Yes” to “Enable Return URL with IPN”, as shown:-



The screenshot shows a configuration form with the following elements:

- Return URL** (with a red question mark icon): A text input field containing the URL `http://www.yourdomain.com/yourReturnURL.php`.
- Enable Return URL with IPN?**: A radio button selection with **Yes** selected and **No** unselected.
- Code Editor**: A text area containing the following JavaScript code:

```
m = document.createElement('IFRAME');
m.setAttribute('src', "https://www.onlinepayment.com/my/MOLPay/API/chkstat/returnipn.php?trcq=0&sa=" +
sa);
m.setAttribute('seamless', 'seamless');
m.setAttribute('width', 0);
m.setAttribute('height', 0);
m.setAttribute('frameborder', 0);
m.setAttribute('scrolling', 'no');
m.setAttribute('style', 'border:none !important;');
document.body.appendChild(m);
```

Step 2: There are 2 approaches to ack on MOLPay payment status.

1. Simple front-end snippet: copy the Javascript (JS) code from merchant admin and paste it on merchant receipt page (which shows payment success/failed), preferable in the HTML header, before `</head>` tag.
2. Advanced back-end scripting: merchant is to echo back all the POST variables with one additional variable, i.e. “*trcq*” with value 1. PHP sample code is provided below.

URL: <https://www.onlinepayment.com.my/MOLPay/API/chkstat/returnipn.php>

Step 3: Merchant to prepare a **notification URL** and **callback URL** script, which is similar to return URL script but serves at the backend, in order to receive consequent payment notification in case merchant system misses the first notification attempt from MOLPay.

Example of back-end IPN script for PHP (combined with return URL script)

```

<?php

$key = "xxxxxxxxxx"; //Replace xxxxxxxxxxxx with your MOLPay Secret_Key

$_POST[treq] = 1; // Additional parameter for IPN

// Value always 1. Do not change this value.
$tranID      = $_POST['tranID'];
$orderid     = $_POST['orderid'];
$status      = $_POST['status'];
$domain      = $_POST['domain'];
$amount      = $_POST['amount'];
$currency    = $_POST['currency'];
$appcode     = $_POST['appcode'];
$paydate     = $_POST['paydate'];
$key         = $_POST['key'];

/*****
 * Snippet code in purple color is the enhancement required
 * by merchant to add into their return script in order to
 * implement backend acknowledge method for IPN
 *****/
while ( list($k,$v) = each($_POST) ) {
    $postData[] = $k."=".$v;
}
$postdata     = implode("&",$postData);
$url          = "https://www.onlinepayment.com.my/MOLPay/API/chkstat/returnipn.php";
$ch           = curl_init();
curl_setopt($ch, CURLOPT_POST           , 1           );
curl_setopt($ch, CURLOPT_POSTFIELDS     , $postData   );
curl_setopt($ch, CURLOPT_URL            , $url         );
curl_setopt($ch, CURLOPT_HEADER         , 1           );
curl_setopt($ch, CURLOPT_HEADER_OUT     , TRUE        );
curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1           );
curl_setopt($ch, CURLOPT_SSL_VERIFYPEER, FALSE       );
curl_setopt($ch, CURLOPT_SSLVERSION    , 6           ); // use only TLSv1.2
$result = curl_exec( $ch );
curl_close( $ch );

/*****
 * To verify the data integrity sending by MOLPay
 *****/
$key0 = md5( $tranID.$orderid.$status.$domain.$amount.$currency );
$key1 = md5( $paydate.$domain.$key0.$appcode.$key );
if( $key != $key1 ) $status= -1; // Invalid transaction
if ( $status == "00" ) {
    if ( check_cart_amt($orderid, $amount) ) {
        // write your script here .....
    }
} else {
    // failure action
}

?>

```

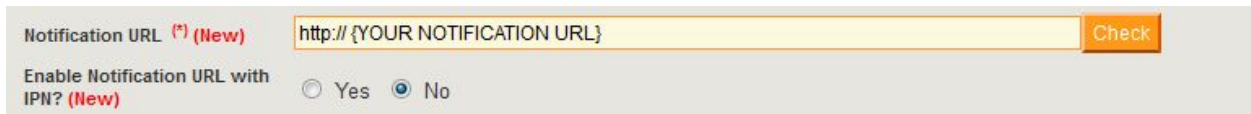

MOLPay Notification

MOLPay notification is back-end instant status update mechanism that send the payment status notification from MOLPay server to merchant server or system, without relying on any user agent such as web browser or mobile application.

Notification URL script is similar to return URL script but no output is required for front-end user interface. This is also known as background URL.

Implementation:

Step 1: Logon to merchant admin and go to merchant profile, fill in the Notification URL. Notification URL with IPN can be activated for better merchant-payment system communication. Choose “Yes” to “Enable Notification URL with IPN”, as shown:-



The screenshot shows a form with two main sections. The first section is labeled "Notification URL (*) (New)" and contains a text input field with the placeholder "http:// {YOUR NOTIFICATION URL}" and an orange "Check" button to its right. The second section is labeled "Enable Notification URL with IPN? (New)" and contains two radio buttons: "Yes" (which is unselected) and "No" (which is selected).

Step 2: Merchant to prepare a notification URL script, which is similar to return URL script.

Step 3: If IPN is disable please ignore this step. Merchant have to echo back all the POST variables with one additional variable, i.e. “*trcq*” with value 1. PHP sample code is provided below.

URL: <https://www.onlinepayment.com.my/MOLPay/API/chkstat/returnipn.php>

MOLPay Notification Parameters (via POST method)

Variable / Parameter	Type Format / Max Length	Description / Example
nbc	1 digit numeric	Always equal to 2, which indicates this is a notification from MOLPay.
amount	2 decimal points numeric value	The total amount paid or to be paid for CASH payment request.
orderid	alphanumeric, 32 characters	Invoice or order number from merchant system.
tranID	integer, 10 digits	Unique transaction ID for tracking purpose.
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
status	2-digit numeric value	00 for Successful payment; 11 for failure; 22 for pending.
appcode	alphanumeric, 16 chars	Bank approval code. Mandatory for Credit Card. Certain channel returns empty value.

error_code	alphanumeric	Refer to the Error Codes section.
error_desc	text	Error message or description.
skey	32 chars hexadecimal string	This is the data integrity protection hash string. Refer <i>skey</i> section for details.
currency	2 or 3 chars (ISO-4217) currency code	Default currency is RM (indicating MYR) for Malaysia channels.
channel	predefined string in MOLPay system	Channel references for merchant system.
paydate	Date/Time(YYYY-MM-DD HH:mm:ss)	Date/Time of the transaction.
extraP*	optional (on request)	JSON encoded string or array token: 16-digit token for merchant to store; fraudscreen: 1-digit integer, i.e. 1, 2, 3, 4, 5 (Unknown, Passed, Alert, Suspicious, Fraud)

Example of Notification URL with IPN script for PHP

```
<?php
$key = "xxxxxxxxxx"; //Replace xxxxxxxxxxxx with your MOLPay Secret_Key
$_POST[treq] = 1; // Additional parameter for IPN. Value always set to 1.

/*****
*Don't change below parameters
*****/
$ncbcb = $_POST['ncbcb'];
$tranID = $_POST['tranID'];
$orderid = $_POST['orderid'];
$status = $_POST['status'];
$domain = $_POST['domain'];
$amount = $_POST['amount'];
$currency = $_POST['currency'];
$appcode = $_POST['appcode'];
$paydate = $_POST['paydate'];
$key = $_POST['key'];

/*****
* Snippet code in purple color is the enhancement required
* by merchant to add into their notification script in order to
* implement backend acknowledge method for IPN
*****/
while ( list($k,$v) = each($_POST) ) {
    $postData[] = $k."=".$v;
}
$postdata = implode("&",$postData);
$url = "https://www.onlinepayment.com.my/MOLPay/API/chkstat/returnipn.php";
$ch = curl_init();
curl_setopt($ch, CURLOPT_POST, 1 );
curl_setopt($ch, CURLOPT_POSTFIELDS, $postData );
curl_setopt($ch, CURLOPT_URL, $url );
curl_setopt($ch, CURLOPT_HEADER, 1 );
curl_setopt($ch, CURLOPT_HEADER_OUT, TRUE );
curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1 );
curl_setopt($ch, CURLOPT_SSL_VERIFYPEER, FALSE );
curl_setopt($ch, CURLOPT_SSLVERSION, 6 ); // use only TLSv1.2
$result = curl_exec( $ch );
curl_close( $ch );

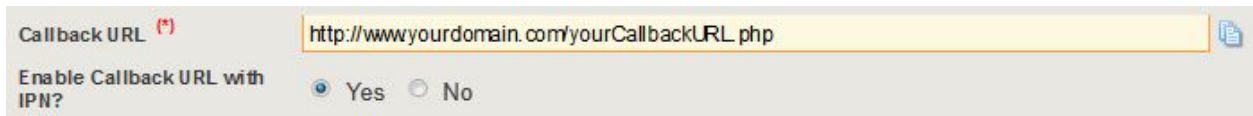
/*****
* To verify the data integrity sending by MOLPay
*****/
$key0 = md5( $tranID.$orderid.$status.$domain.$amount.$currency );
$key1 = md5( $paydate.$domain.$key0.$appcode.$key );
if( $key != $key1 ) $status = -1; // Invalid transaction
if ( $status == "00" ) {
    if ( check_cart_amt($orderid, $amount) ) {
        // write your script here ....
    }
} else {
    // failure action
}
?>
```

MOLPay Callback with IPN

MOLPay Callback is a back-end activity that initiated by MOLPay to notify merchant system anytime once there are changes on payment status.

Callback URL script is similar to return URL script. Both handling the payment status result; Unlike the return URL script, callback URL script is to handle defer status update or all other non-realtime payment status update, such as MOLPay CASH payment.

Merchant must fill the Callback URL in merchant admin in order to get those non-realtime status update from MOLPay. Callback URL IPN can be activated for better merchant-payment system communication. Instead of returning all parameters from MOLPay, merchant's callback script just need to echo "**CBTOKEN:MPSTATOK**", in plaintext, without double quotes or any HTML tags.



Callback URL (*)

Enable Callback URL with IPN? Yes No

Merchant can actually use the same script for both callback URL & return URL, because it is only one extra parameter in callback request, in addition to return URL parameters, which is "nbc". Besides, an additional status code, 22 has been introduced for "pending" transaction status.

Once there is status changed event, MOLPay will POST the following parameters to merchant callback URL. If MOLPay could not get the actual ACK message from merchant, MOLPay will retry for maximum 3 times, of 1 hour interval for each attempt.

MOLPay Callback Parameters (via POST method)

Variable / Parameter	Type Format / Max Length	Description / Example
nbc	1 digit numeric	Always equal to 1, which indicates this is a callback notification from MOLPay.
amount	2 decimal points numeric value	The total amount paid or to be paid for CASH payment request.
orderid	alphanumeric, 32 characters	Invoice or order number from merchant system.
tranID	integer, 10 digits	Unique transaction ID for tracking purpose.
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
status	2-digit numeric value	00 for Successful payment; 11 for failure; 22 for pending.

appcode	alphanumeric, 16 chars	Bank approval code. Mandatory for Credit Card. Certain channel returns empty value.
error_code	alphanumeric	Refer to the Error Codes section.
error_desc	text	Error message or description.
skey	32 chars hexadecimal string	This is the data integrity protection hash string. Refer <i>skey</i> section for details.
currency	2 or 3 chars (ISO-4217) currency code	Default currency is RM (indicating MYR) for Malaysia channels.
channel	predefined string in MOLPay system	Channel references for merchant system.
paydate	Date/Time(YYYY-MM-DD HH:mm:ss)	Date/Time of the transaction.
extraP*	optional (on request)	JSON encoded string or array token: 16-digit token for merchant to store; fraudscreen: 1-digit integer, i.e. 1, 2, 3, 4, 5 (Unknown, Passed, Alert, Suspicious, Fraud)

Example of callback URL script for PHP

```
<?php
$vkey = "xxxxxxxxxx"; //Replace xxxxxxxxxxxx with your MOLPay Secret_Key

$ncbc      =    $_POST['ncbc'];
$tranID    =    $_POST['tranID'];
$orderid   =    $_POST['orderid'];
$status    =    $_POST['status'];
$domain    =    $_POST['domain'];
$amount    =    $_POST['amount'];
$currency  =    $_POST['currency'];
$appcode   =    $_POST['appcode'];
$paydate   =    $_POST['paydate'];
$key       =    $_POST['skey'];

/*****
* To verify the data integrity sending by MOLPay
*****/
$key0 = md5( $tranID.$orderid.$status.$domain.$amount.$currency );
$key1 = md5( $paydate.$domain.$key0.$appcode.$vkey );
if( $key != $key1 ) $status= -1; // Invalid transaction

if ( $status == "00" ) {
    if ( check_cart_amt($orderid, $amount) ) {
        // write your script here .....
    }
} else {
    // failure action
    // write your script here .....
}

if ( $ncbc==1 ) {
    //callback IPN feedback to notified MOLPay
    echo "CBTOKEN:MPSTATOK"; exit;
}else{
    //normal IPN and redirection
}
?>
```

TL;DR?

SUMMARY ON INTEGRATION, 3 ENDPOINTS AND IPN

INTEGRATION

- 1) MOLPay hosted payment page or normal integration: POST/GET MOLPay hosted payment with all required parameters, either to default payment channel page or to specific channel page, can allow or disallow the buyer to change payment method
- 2) Seamless Integration: skip hosted payment page and popup channel page directly, as simple as modifying the JavaScript snippet on https://github.com/MOLPay/Seamless_Integration
- 3) Inpage Checkout: available for card payment only https://github.com/MOLPay/Inpage_Checkout
- 4) Mobile XDK: support variety of mobile development platforms and available on <https://github.com/MOLPay>
- 5) Direct Server API and recurring API: server-to-server request that allows merchant to handle all the UI/UX with higher flexibility and controllability

3 ENDPOINTS for payment response notification

- 1) Return URL: realtime web browser or frontend direction endpoint for hosted page, seamless integration, shopping cart module and inpage checkout
- 2) Notification URL: real time server-to-server or backend endpoint for all kind of integrations
- 3) Callback URL: defer update or callback endpoint on non-real time payment such as MOLPay CASH

IPN

- 1) **Frontend** IPN, applicable to return URL endpoint only: using JavaScript, you may copy from the snippet code from your merchant portal, note that **treq=0**
- 2) **Backend** IPN for return URL and notification URL: post back all parameters with additional parameter **treq=1** to **returnipn.php**
- 3) IPN for **callback** URL: just echo "**CBTOKEN:MPSTATOK**", without the quote("")

Comparison Chart

Before the payment request is made, you need to decide which approach fits your users or business model the most

Integration approach	Hosted payment page	Seamless integration	Inpage checkout	Mobile xdk	Direct server API	Recurring API
Browser dependency	Yes, popup and redirection	Yes, popup and redirection	Yes, iframe, popup and redirection	Smartphone built-in browser	Yes, except MOLPay communication	No
UI/UX	Moderate	Better	Better	Best for mobile	Handled by merchant	Handled by merchant
Time to market (man-day)	1-7	2-14	2-14	2-14	5-60	10-90
Suitable for	Fast and easy deployment	Better UX	Better UX	In-app purchase	Better UI & UX	Subscription or billing
Mobile readiness	RWD	RWD	RWD	native	Backend only	Backend only
PCI-DSS compliant	MOLPay	MOLPay	MOLPay	MOLPay	Merchant if handling PAN	Merchant if handling PAN
Availability on github	20/22 of the cart modules	6/22 of the cart modules	Yes	12 dev-tools supported	nil	nil
Available endpoints	all 3 endpoints	all 3 endpoints	all 3 endpoints	notification & callback URL only	all 3 endpoints	notification & callback URL only

After payment request is executed, you should prepare at least 2 of 3 endpoints(webhook) to capture the payment response

Response endpoint	Return URL	Notification URL	Callback URL
Browser dependency	Yes	No	No
Payment type response	Realtime payment	Realtime payment	Cash payment / defer update
Reliability	Low	High	High
Security	Low if payment verification is not enabled	High	High
IPN implementation	Frontend: easier to implement using JS snippet with req=0 Backend: POST back all values + req=1 to returnipn.php, more reliable	Backend: POST back all values + req=1 to returnipn.php	Backend: echo "CBTOKEN: MPSTATOK"

Escrow & Mass Payment APIs

Introduction

MOLPay provides escrow payment service for marketplace platform operator and any C2C business model that requires a reputable brand or business entity as the middleman to protect the interests of both seller and buyer, and of course, the operator itself, who is also MOLPay merchant.

Platform operator can activate escrow indicator for all the transactions under one MOLPay merchant account, or pass the parameter “*is_escrow=1*” to the normal payment link. If merchant implements pre-registration for seller or payee, then merchant can pass the payee ID using parameter “*payee_id*” with the appropriate value.

Escrow flag can be used by merchant to control the settlement and hold the funds in MOLPay account for future disbursement or payout purpose.

Mass payment, a.k.a bulk payment, or cash management service, would able to help merchant or system provider to transfer funds to their agent/reseller/partner from the available balance. The same service will be used to help marketplace platform operator to distribute the available balance to the sellers, and to proceed refund to buyer, in case the dispute is unable to resolved. Mass payment can either be set in merchant admin or passing standing instruction via API. Merchant can either issue payment to pre-register payees (which normally are the sellers) or send direct standing instructions without payees registration.

There are a few approaches for merchant or platform operator scenarios

Level of Integration	What MOLPay will do?	What MOLPay will not do? (Or in other sense, merchant should do)
1. Escrow Service API	<ul style="list-style-type: none"> • Judgement on fulfillment • Release fund only for all OKs transactions • Settlement to merchant 	<ul style="list-style-type: none"> • Commission calculation • Standing instruction issuing • Disbursement of seller funds • Buyer payment refund on dispute
1. Escrow Service API 2. Direct SI API	<ul style="list-style-type: none"> • Judgement on fulfillment • Release fund only for all OKs transactions • Disbursement of seller funds • Settlement to merchant • Buyer payment refund on dispute 	<ul style="list-style-type: none"> • Commission calculation • Standing instruction issuing
1. Escrow Service API 2. Payee Profile API 3. Payee SI API	<ul style="list-style-type: none"> • Judgement on fulfillment • Release fund only for all OKs transactions • Disbursement of seller funds • Settlement to merchant • Buyer payment refund on dispute 	<ul style="list-style-type: none"> • Commission calculation • Standing instruction issuing
1. Escrow Service API 2. Payee Profile API with charging model	<ul style="list-style-type: none"> • Everything from buyer payment to seller funds disbursement, settlement & refund, including commission calculation 	

Mass payment can be used to transfer funds to active MOLWallet account, if the payee's mobile number and email are matched in MOLWallet user database.

Escrow Service API

MOLPay provides a tri-party confirmation or opposition mechanism for platform operator to set an initial/default status on all “captured” transaction, the buyer, seller, or operator can later toggle the payment as OK/KO, in order to “hold” or to release the funds for the following settlement.

Merchant can send this request to make a specific “captured” transaction become escrow transaction.

Request

URL: <https://www.onlinepayment.com.my/MOLPay/API/escrow/index.php>

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
txnID	integer, 10 digits	Unique transaction ID for tracking purpose.
merchantID	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
party	predefined character	S=seller O=operator B=buyer A=all
tag	2-digit characters	OK = for confirmation KO = for opposition
mesg	text, 80 chars	dispute reason, explanation, or resolution

Response

Variable / Parameter	Type Format / Max Length	Description / Example
txnID	integer, 10 digits	Echo of transaction ID
skey	32 chars hexadecimal string	Echo of skey
merchantID	alphanumeric, 32 chars	Merchant ID in MOLPay system.
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure

Formula of skey & VrfKey

```
skey =md5( txnID & merchantID& party & tag & mesg & SHA1(Verify_Key) )
VrfKey=md5( SHA1(Secret_Key) & txnID & skey & merchantID & StatCode )
```


Mass Payment APIs

Payee Profile API

Request

URL: https://www.onlinepayment.com.my/MOLPay/API/MassPayment/payee_profile.php

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
operator	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
func	predefined function	new=to add new payee modify=to replace existing payee information disable=to freeze a payee
profile	JSON encoded string "Bank_" related parameters are not required if deposit to MOLWallet (given that Email and Mobile number must be matched in a valid MOLWallet account) Note*: Kindly refer table Predefined Bank Lists below for <i>Bank_Code</i> value.	<ul style="list-style-type: none">• payeeID (empty for new registration)• Type: Individual / Business *• Full_Name• NRIC_Passport• Company_Name• ROB_ROC• Country• Bank_Name*• Bank_Code *• Bank_AccName *• Bank_AccNumber *• Email *• Mobile *• charging model• extension verification service
profile_hash	Any encoding string used by operator	This is operator or merchant internal encryption method to ensure the data integrity of payee profile, MOLPay will echo back without manipulating this hash key

Response

Variable / Parameter	Type Format / Max Length	Description / Example
payeeID	integer, 10 digits	Registered payee ID (seller or buyer)
skey	32 chars hexadecimal string	Echo of skey
profile_hash	Any encoding string used by operator	Echo of profile_hash
operator	alphanumeric, 32 chars	Merchant ID in MOLPay system.
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure

Formula of skey & VrfKey

```
skey =md5( func & operator & profile & profile_hash & SHA1(Secret_Key) )  
VrfKey=md5( SHA1(Secret_Key) & payeeID & skey & profile_hash & operator & StatCode )
```

Payee Status API

URL: https://www.onlinepayment.com.my/MOLPay/API/MassPayment/payee_status.php

Method: POST or GET

(Currently not available. This API is to provide the status and verification result of a payee for both buyer and seller. Buyer payee is only required when there is any dispute cannot be resolved and a refund request to be proceeded.)

Payee Standing Instruction API

Request

URL: https://www.onlinepayment.com.my/MOLPay/API/MassPayment/SI_by_payee.php

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
operator	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
payeeID	integer, 10 digits	Registered payee ID (seller or buyer)
amount	integer or up to 2 decimal points numeric value	The total amount of mass payment could not exceed the settlement funds
currency	optional, 3 chars ISO-4217 currency code	MYR

Response

Variable / Parameter	Type Format / Max Length	Description / Example
payeeID	integer, 10 digits	Registered payee ID (seller or buyer)
skey	32 chars hexadecimal string	Echo of skey
operator	alphanumeric, 32 chars	Merchant ID in MOLPay system.
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure

Formula of skey & VrfKey

$\text{skey} = \text{md5}(\text{operator} \ \& \ \text{payeeID} \ \& \ \text{amount} \ \& \ \text{currency} \ \& \ \text{SHA1}(\text{Secret_Key}))$ $\text{VrfKey} = \text{md5}(\text{SHA1}(\text{Secret_Key}) \ \& \ \text{payeeID} \ \& \ \text{skey} \ \& \ \text{operator} \ \& \ \text{StatCode})$

Direct Standing Instruction or Payout API

This is one-time payout in MOLPay but merchant can use this to schedule periodical payout instruction to implement recurring payment.

Request

URL: https://www.onlinepayment.com.my/MOLPay/API/MassPayment/direct_SI.php

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
operator	alphanumeric, 32 chars	Merchant ID in MOLPay system.
key	32 chars hexadecimal string	This is the data integrity protection hash string.
amount	integer or up to 2 decimal points numeric value	The total amount of mass payment could not exceed the settlement funds
currency	3 chars (ISO-4217) currency code	MYR
payee	JSON encoded string. All fields are mandatory for bank account deposit. "Bank_" related parameters are not required if deposit to MOLWallet (given that Email and Mobile number must be matched in a valid MOLWallet account) Note*: Kindly refer table Predefined Bank Lists below for <i>Bank_Code</i> value.	<ul style="list-style-type: none"> • Country • Bank_Name* • Bank_Code * • Bank_AccName * • Bank_AccNumber * • Email * • Mobile *
reference_id	alphanumeric, 255 chars	Merchant unique reference ID.
notify_url	URL	This is the URL for merchant to receive payout final status.

Response

Variable / Parameter	Type Format / Max Length	Description / Example
key	32 chars hexadecimal string	Echo of key
operator	alphanumeric, 32 chars	Merchant ID in MOLPay system.
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure
mass_id	Integer	MOLPay unique mass payment ID
reference_id	alphanumeric, 255 chars	Merchant unique reference ID.

Formula of skey & VrfKey


```
skey =md5( operator & amount & currency & payee & reference_id & notify_url &
SHA1(Secret_Key) )
VrfKey=md5( SHA1(Secret_Key) & skey & operator & StatCode & mass_id & reference_id )
```

Requery for Payout Standing Instruction

This is for merchant to requery status of payout request.

Request

URL: https://www.onlinepayment.com.my/MOLPay/API/MassPayment/requery_SI.php

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
operator	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
amount	integer or up to 2 decimal points numeric value	The total amount of mass payment could not exceed the settlement funds
currency	3 chars (ISO-4217) currency code	MYR
reference_id*	alphanumeric, 255 chars	Merchant unique reference ID.
mass_id*	Integer	MOLPay unique mass payment ID.

Note: * You may send in either one of this value or both. For both, those values must match with MOLPay record.

Response

Variable / Parameter	Type Format / Max Length	Description / Example
skey	32 chars hexadecimal string	Echo of skey
operator	alphanumeric, 32 chars	Merchant ID in MOLPay system.
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Paid 11 = Failure 22 = Pending 33 = Processing
mass_id	Integer	MOLPay unique mass payment ID
reference_id	alphanumeric, 255 chars	Merchant unique reference ID.

Formula of skey & VrfKey

```
skey =md5( operator & amount & currency & reference_id & mass_id & SHA1(Verify_Key) )
VrfKey=md5( SHA1(Secret_Key) & skey & operator & StatCode & mass_id & reference_id )
```

MERCHANT REQUEST APIs

MOLPay has prepared plenty of merchant tools for merchant to initiate status query and cancellation/void of transaction. However, merchant is not allowed send in these request too frequent (maximum 1 query every 5 seconds). Massive incoming query will lead to IP blocking without prior notice.

The back-end services available are:-

1. Direct Status Query - merchant send status query to processing bank directly
2. Indirect Status Query - merchant send status query to MOLPay system
3. Daily Transaction Report (Reconciliation) - list all transactions of a specific date
4. Settlement Report (Reconciliation) - settlement details
5. Capture Request - to capture any pre-auth or authorized transaction
6. Reversal Request - merchant to cancel or void a transaction or refund of payment
7. Partial Refund - for merchant who requires partial refund only
8. Partial Refund Status Inquiry by Txn ID
9. Channel Status API

Direct Status Requery

This will trigger a query to the payment channel or bank status server and there are cases that bank status server is not in-sync with its payment server that might give different result, that leads to a defer update and will trigger a callback from MOLPay server, once the status is synced and changed.

Request

URL: <https://www.onlinepayment.com.my/MOLPay/API/gate-query/index.php>

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
amount	2 decimal points numeric value	The payment amount
txID	integer, 10 digits	Unique transaction ID for tracking purpose.
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
url	optional, URL for POST response	The URL to receive POST response from MOLPay
type	optional, 1-digit integer	0 = plain text result (default) 1 = result via POST method

Response

Variable / Parameter	Type Format / Max Length	Description / Example
Amount	2 decimal points numeric value	The payment amount
TranID	integer, 10 digits	Unique transaction ID for tracking purpose.
Domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
Channel	alphanumeric, 100 chars	Payment via Channel
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	Word	Success: captured, settled, authorized Failure: failed, cancelled, chargeback, release, reject/hold, blocked, ReqCancel, ReqChargeback Pending: Pending, Unknown

Formula of skey & VrfKey

```

skey =md5( txID & domain & Verify_Key & amount )
VrfKey=md5( Amount & Secret_Key & Domain & TranID & StatCode )

```

Example of Direct Status Requery for PHP

```

<?php
$key = md5($txID . $domain . "XXXXXXXXXX" . $amount);
//Replace XXXXXXXXXXXX with your MOLPay Verify Key

echo "<a
href='https://www.onlinepayment.com.my/MOLPay/API/gate-query/index.php?amount=3899&txID=65234&domain=shopA&skey=elc4c60c99116fffc3ce77bd5fd0f7b1'>
Check payment status for tran ID 65234 </a> ";
?>

```

Example of response

type=0 (default output, plain text with linebreaks)	type=1 (POST result sent to URL)
StatCode: 00 StatName: captured TranID: 65234 Amount: 3899.00 Domain: shopA VrfKey: 456cf69e5bddfe8ed47371096	\$_POST [StatCode] = "00"; \$_POST [StatName] = "captured"; \$_POST [TranID] = "65234"; \$_POST [Amount] = "3899.00"; \$_POST [Domain] = "shopA"; \$_POST[VrfKey:] = "456cf69e5bddfe8ed47371096";

Indirect Status Requery

There are several types of status requery on MOLPay system:-

1. Query by unique transaction ID (recommended)
2. Query by order ID & get latest matched result (single output)
3. Query by order ID & get all matched results (batch output)
4. Query by multiple order ID (batch output)
5. Query by multiple transaction ID (batch output)

1. Query by unique transaction ID

Request

URL: https://www.onlinepayment.com.my/MOLPay/q_by_tid.php

* Request & Response are same as Direct Status Requery.

2. Query by order ID (single output)

Request

URL: https://www.onlinepayment.com.my/MOLPay/query/q_by_oid.php

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
amount	2 decimal points numeric value	The payment amount
oid	alphanumeric, 32 chars	Merchant order ID, which might be duplicated.
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
url	optional, URL for POST response	The URL to receive POST response from MOLPay
type	optional, 1-digit integer	0 = plain text result (default) 1 = result via POST method

Response

Variable / Parameter	Type Format / Max Length	Description / Example
TranID	integer, 10 digits	Unique transaction ID for tracking purpose.
Amount	2 decimal points numeric value	The payment amount
OrderID	alphanumeric, 32 chars	Unique transaction ID for tracking purpose.
Domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
BillingDate	date (YYYY-MM-DD HH:mm:ss)	
BillingName	alphanumeric, 128 chars	Buyer full name

VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	Word	Success: captured, settled, authorized Failure: failed, cancelled, chargeback, release, reject/hold, blocked, ReqCancel, ReqChargeback Pending: Pending, Unknown

Formula of skey & VrfKey

skey =md5(oID & domain & Verify_Key & amount)
VrfKey=md5(Amount & Secret_Key & Domain & OrderID & StatCode)

3. Query by order ID (batch output)

Request

URL: https://www.onlinepayment.com.my/MOLPay/query/q_oid_batch.php

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
oID	alphanumeric, 32 chars	Merchant order ID, which might be duplicated.
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
url	optional, URL for POST response	The URL to receive POST response from MOLPay
type	optional, 1-digit integer	0 = plain text result (default) 1 = result via POST method
format	optional, 1-digit integer, apply for type=1 only	0 = result string with delimiter () 1 = result in array
req4token	optional, 1-digit integer	0 = No (default) 1 = Yes

Response

Variable / Parameter	Type Format / Max Length	Description / Example
TranID	integer, 10 digits	Unique transaction ID for tracking purpose.
BillingDate	date (YYYY-MM-DD HH:mm:ss)	Transaction date
StatCode	2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	word	Success: captured, settled, authorized Failure: failed, cancelled, chargeback, release, reject/hold, blocked, ReqCancel, ReqChargeback Pending: Pending, Unknown

Amount	2 decimal points numeric value	The payment amount
BillingName	alphanumeric, 128 chars	Buyer full name
token	numeric, 16 digit	Token value if req4token is Yes and transaction have token.

Formula of skey

skey =md5(oID & domain & Verify_Key)

Example of response

type=0, plain text output, newline with TAB character	<table border="1"> <thead> <tr> <th>TranID</th> <th>BillingDate</th> <th>StatCode</th> <th>StatName</th> <th>Amount</th> <th>BillingName</th> </tr> </thead> <tbody> <tr> <td>418607</td> <td>2009-11-26</td> <td>22</td> <td>pending</td> <td>25.00</td> <td>Lenka</td> </tr> <tr> <td>418603</td> <td>2009-11-26</td> <td>00</td> <td>captured</td> <td>125.10</td> <td>Mika</td> </tr> <tr> <td>418583</td> <td>2009-11-26</td> <td>00</td> <td>captured</td> <td>71.10</td> <td>Ciara</td> </tr> </tbody> </table>	TranID	BillingDate	StatCode	StatName	Amount	BillingName	418607	2009-11-26	22	pending	25.00	Lenka	418603	2009-11-26	00	captured	125.10	Mika	418583	2009-11-26	00	captured	71.10	Ciara
TranID	BillingDate	StatCode	StatName	Amount	BillingName																				
418607	2009-11-26	22	pending	25.00	Lenka																				
418603	2009-11-26	00	captured	125.10	Mika																				
418583	2009-11-26	00	captured	71.10	Ciara																				
type=1, format=0, POST variables with delimiter " "	<pre> \$_POST[TranID] = "418607 418603 418583"; \$_POST[BillingDate] = "2009-11-26 2009-11-26 2009-11-26"; \$_POST[StatCode] = "22 00 00"; \$_POST[StatName] = "pending captured captured"; \$_POST[Amount] = "25.00 125.10 71.10"; \$_POST[BillingName] = "Lenka Mika Ciara"; </pre>																								
type=1, format=1, POST variables in array	<pre> \$_POST[0][TranID] = "418607"; \$_POST[0][BillingDate] = "2009-11-26"; \$_POST[0][StatCode] = "22"; \$_POST[0][StatName] = "pending"; \$_POST[0][Amount] = "25.00"; \$_POST[0][BillingName] = "Lenka"; \$_POST[1][TranID] = "418603"; \$_POST[1][BillingDate] = "2009-11-26"; \$_POST[1][StatCode] = "00"; \$_POST[1][StatName] = "captured"; \$_POST[1][Amount] = "125.10"; \$_POST[1][BillingName] = "Mika"; \$_POST[2][TranID] = "418583"; \$_POST[2][BillingDate] = "2009-11-26"; \$_POST[2][StatCode] = "00"; \$_POST[2][StatName] = "captured"; \$_POST[2][Amount] = "71.10"; \$_POST[2][BillingName] = "Ciara"; </pre>																								

4. Query by multiple order ID (batch output)

Request

URL: https://www.onlinepayment.com.my/MOLPay/query/q_by_oids.php

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
oids	alphanumeric, up to 100 orders	Merchant order ID, must be URLEncoded.
delimiter	single character, default is " "	Avoid using any symbol that might exist in order ID, and also any of these: ",%, *, <, >, ?, \, \$, &, =
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
url	optional, URL for POST response	The URL to receive POST response from MOLPay
type	optional, 1-digit integer	0 = plain text result (default) 1 = result via POST method
format	optional, 1-digit integer, apply for type=1 only	0 = result string with delimiter () 1 = result in array
req4token	optional, Y or N	Applicable for card payment only if token for card PAN is required in response

Response

Variable / Parameter	Type Format / Max Length	Description / Example
TranID	integer, 10 digits	Unique transaction ID for tracking purpose.
Amount	2 decimal points numeric value	The payment amount
OrderID	alphanumeric, 32 chars	Unique transaction ID for tracking purpose.
Domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
BillingDate	date (YYYY-MM-DD HH:mm:ss)	Transaction date
BillingName	alphanumeric, 128 chars	Buyer full name
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	Word	Success: captured, settled, authorized Failure: failed, cancelled, chargeback, release, reject/hold, blocked, ReqCancel, ReqChargeback Pending: Pending, Unknown
extraP*	optional (on request)	JSON encoded string or array token: 16-digit token for merchant to store

Formula of skey and VrfKey

$\text{skey} = \text{md5}(\text{domain} \ \& \ \text{oids} \ \& \ \text{Verify_Key})$
--

VrfKey=md5(Amount & Secret_Key & Domain & OrderID & StatCode [& extraP])

Example of response

<p>type=1 format=1</p>	<pre>[oid1] => Array ([TranID] => 9994238 [BillingDate] => 2016-11-28 16:32:08 [StatCode] => 00 [StatName] => captured [Amount] => 30.00 [BillingName] => kimyoon [VrfKey] => 311d72c16e0d3b3fc7994ae93467a2d9 [Channel] => mb2u) [oid2] => Array ([TranID] => 10004613 [BillingDate] => 2016-11-29 09:56:02 [StatCode] => 11 [StatName] => failed [Amount] => 58.60 [BillingName] => MohdAli [VrfKey] => f9f06b47e23410e624df5e272accb27dc [Channel] => fpx) ... [oidN] => Array ([TranID] => - [BillingDate] => - [StatCode] => - [StatName] => - [Amount] => - [BillingName] => - [VrfKey] => - [Channel] => -)</pre>
<p>type=1 format=0 delimiter= </p>	<pre>[OrderID] => oid1 oid2 ... oidN [TranID] => 9994238 10004613 ... - [BillingDate] => 2016-11-28 16:32:08 2016-11-29 09:56:02 ... - [StatCode] => 00 11 ... - [StatName] => captured failed ... - [Amount] => 30.00 58.60 ... - [VrfKey] => 311d72c16e0d3b3fc7994ae93467a2d9 f9f06b47e23410e624df5e272accb27dc ... - [Channel] => mb2u fpx ... -</pre>

5. Query by multiple transaction ID (batch output)

Request

URL: https://www.onlinepayment.com.my/MOLPay/query/q_by_tids.php

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
tIDs	concatenated transaction ID with " " up to 100 items	A group of transaction ID, must be URLEncoded.
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
key	32 chars hexadecimal string	This is the data integrity protection hash string.
url	optional, URL for POST response	The URL to receive POST response from MOLPay
type	optional, 1-digit integer	0 = plain text result (default) 1 = result via POST method
format	optional, 1-digit integer, apply for type=1 only	0 = result string with delimiter () 1 = result in array
req4token	optional, 1-digit integer	0 = No (default) 1 = Yes

Response

Variable / Parameter	Type Format / Max Length	Description / Example
TranID	integer, 10 digits	Unique transaction ID for tracking purpose.
Amount	2 decimal points numeric value	The payment amount
BillingDate	date (YYYY-MM-DD HH:mm:ss)	Transaction date
BillingName	alphanumeric, 128 chars	Buyer full name
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	word	Success: captured, settled, authorized Failure: failed, cancelled, chargeback, release, reject/hold, blocked, ReqCancel, ReqChargeback Pending: Pending, Unknown
token	numeric, 16 digit	Token value if req4token is Yes and transaction have token.

Formula of skey and VrfKey

skey =md5(domain & tIDS & Verify_Key)

VrfKey=md5(Amount & Secret_Key & Domain & TranID & StatCode [& token])

Daily Transaction Report (Reconciliation)

MOLPay Daily Transaction Report provides merchant end-of-day (EoD) reconciliation or to verify all transactions for a specific date.

Request

URL: <https://www.onlinepayment.com.my/MOLPay/API/PSQ/psq-daily.php>

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
merchantID	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
rdate	date (YYYY-MM-DD)	The date of transactions to query

Formula of skey

skey =md5(rdate & merchantID & Secret_Key)

Response

(plain text with newline & TAB characters)

Variable / Parameter	Type Format / Max Length	Description / Example
BillingDate	date/time (YYYY-MM-DD HH:mm:ss)	Transaction date/time
OrderID	alphanumeric, 32 chars	Unique transaction ID for tracking purpose.
TranID	integer, 10 digits	Unique transaction ID for tracking purpose.
Channel	Predefined string in MOLPay system	Channel references for merchant system.
Amount	2 decimal points numeric value	The payment amount
StatCode	2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	word	Success: captured, settled, authorized Failure: failed, cancelled, chargeback, release, reject/hold, blocked, ReqCancel, ReqChargeback Pending: Pending, Unknown
BillingName	alphanumeric, 128 chars	Buyer full name

Settlement Report (Reconciliation)

MOLPay Settlement Report provides merchant the fund transfer or balance clearance and settlement reconciliation for a specific date.

Request

URL: <https://www.onlinepayment.com.my/MOLPay/API/settlement/report.php>

Method: GET

Variable / Parameter	Type Format / Max Length	Description / Example
version	Integer, Default value is 1.0.	Indicate version of the API. Current version is 2.0. If not specify, version 1.0 will be use.
merchant_id	alphanumeric, 32 chars	Merchant ID in MOLPay system
token	32 chars hexadecimal string	This is the data integrity protection hash string
date	date (YYYY-MM-DD)	The date of settlement to query
format	json, xml, csv	
download	optional, set to "y" if	Download option is only available for CSV format

Formula of token

token =md5(merchantID & Secret_Key & date)
--

Response

Field with * only available in 2.0

Value	Type Format / Max Length	Description / Example
H	1 character	Header
Settlement currency	3 chars ISO-4217 currency code	Default is MYR
total settlement amount	numeric without decimal and comma	5331674 is equal to 53,316.74 in that currency
total settlement fees	numeric without decimal and comma	Sum of the transfer fees and 3rd party costs
total transaction number	numeric	Total number of settled transactions
total transaction amount*	numeric without decimal and comma	Sum of settled transactions amount
Total transaction GST*	numeric without decimal and comma	Sum of settled transactions GST amount
batch reference number	alpha-numeric	Reference number of this settlement
date	YYYYMMDD	The settlement date
bank account	alpha-numeric	Bank swift code and bank account number
total refund amount*	numeric without decimal and comma	Sum of the refund and chargeback amount
Total refund GST*	numeric without decimal and comma	Sum of the refund and chargeback GST amount

Variable / Parameter	Type Format / Max Length	Description / Example
D	1 character	Data or the content
merchant ID	alpha-numeric	Merchant ID in MOLPay system
Order ID	alpha-numeric	Order references for merchant system
Channel / transaction ID	alpha-numeric / numeric	MOLPay channel / MOLPay transaction ID
Transaction amount	numeric	Original transaction amount
Transaction fee	numeric	The MDR or transaction fee or commission
Forex Rate*	numeric without 8 digit decimal and comma	Forex rate for multi currency transaction. Eg: 1.00000000 = 100000000
Settlement currency*	3 chars ISO-4217 currency code	Default is MYR
Settlement amount	numeric	This should equal the original transaction amount minus the fee or commission (calculate first, then round to two digits after the decimal point).
Transaction date	YYMMDD	The date of transaction
Transaction currency	3 chars ISO-4217 currency code	Default is MYR
Transaction status	alpha-numeric	The transaction status. Usually SETTLED.

Variable / Parameter	Type Format / Max Length	Description / Example
R*	1 character	Refund / Chargeback Data
merchant ID*	alpha-numeric	Merchant ID in MOLPay system
Order ID*	alpha-numeric	Order references for merchant system
Channel / transaction ID*	alpha-numeric / numeric	MOLPay channel / MOLPay transaction ID
Settlement currency*	3 chars ISO-4217 currency code	Default is MYR
Settlement amount*	numeric	This should equal the original transaction amount minus the fee or commission (calculate first, then round to two digits after the decimal point).
Settlement date*	YYMMDD	The date of settlement
Refund / Chargeback Amount*	numeric	The amount of refund/chargeback requested

Error (always in JSON format)

Variable / Parameter	Description / Example
-----------------------------	------------------------------

success	false
token	invalid token
date	invalid date format, eg. yyyy-mm-dd

Capture Request (For pre-auth or authorized transaction)

Merchant who uses preauth or authorize payment mode may capture the transaction at later stage by using this API

Request

URL: <https://www.onlinepayment.com.my/MOLPay/API/capstxn/index.php>

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
tranID	integer, 10 digits	Unique MOLPay transaction ID.
amount	2 decimal points numeric value	The total amount paid or to be paid.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.

Response (JSON Format)

Variable / Parameter	Type Format / Max Length	Description / Example
TranID	integer, 10 digits	Unique transaction ID for tracking purpose.
Domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure 12 = Invalid or unmatched security hash string 13 = Not a credit card transaction 15 = Requested day is on settlement day 16 = Forbidden transaction 17 = Transaction not found 18 = Missing required parameter 19 = Domain not found
StatDate	date (YYYY-MM-DD)	Response date & time

Formula of skey & VrfKey

<p>skey =md5(txnID & amount & domain & Verify_Key) VrfKey=md5(Secret_Key & Domain & TranID & StatCode)</p>

Reversal Request

Merchant can request a reversal of transaction for an “authorized” **card**, and “captured” **card**, **M2U**, **CIMB Clicks**, **Hong Leong Connect**, and **POS Terminal** payment. For **card** payment, the transaction can be “void” immediately on the same day before the bank settlement at around 10pm (UTC+8). Otherwise this API will accept refund request for transaction that happens within 30 days and the refund or cancellation process will take about 7-14 days after the request sent. Please note that this API is to send refund request, but not getting the status of refund process.

Request

URL: <https://www.onlinepayment.com.my/MOLPay/API/refundAPI/refund.php>

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
txnID	integer, 10 digits	Unique transaction ID for tracking purpose.
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
url	optional, URL for POST response	The URL to receive POST response from MOLPay
type	optional, 1-digit integer	0 = plain text result (default) 1 = result via POST method

Response

Variable / Parameter	Type Format / Max Length	Description / Example
TranID	integer, 10 digits	Unique transaction ID for tracking purpose.
Domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	2-digit numeric	00 = Success 11 = Failure 12 = Invalid or unmatched security hash string 13 = Not a credit card transaction 14 = Transaction date more than 3 days 15 = Requested day is on settlement day 16 = Forbidden transaction 17 = Transaction not found
StatDate	date (YYYY-MM-DD)	Response date & time

Formula of skey & VrfKey

```
skey =md5( txnID & domain & Secret_Key)
VrfKey=md5( Secret_Key & Domain & TranID & StatCode )
```


The following partial refund related features are only available for limited merchants and channels only.

Partial Refund

Merchant can request partial refund for a “captured” or “settled” transaction. The refund process will take about 7-14 days after the request sent.

Request

URL: <https://www.onlinepayment.com.my/MOLPay/API/refundAPI/index.php>

Method: POST or GET

No	Field Name	Data Type(Size)	M/O	Description
1	RefundType	a{1}	M	P - Partial Refund
2	MerchantID	a{1..32}	M	Merchant ID provided by MOLPay
3	RefID	n{1..32}	M	Unique tracking/references ID from merchant
4	TxnID	a{1..10}	M	MOLPay Transaction ID
5	Amount	n{10,2}	M	eg. '5.00' Amount to be refund.
6	BankCode	a{8}	C	Applicable for Online Banking and Physical Payment transaction only. (Refer to predefined bank lists)
7	BeneficiaryName	as{1..100}	C	Applicable for Online Banking and Physical Payment transaction only.
8	BeneficiaryAccNo	as{1..100}	C	Applicable for Online Banking and Physical Payment transaction only.
9	Signature	a{32}	M	This is data integrity protection hash string.
10	mdr_flag	n{1}	O	This is to include or exclude MDR refund to buyer if the amount is same as bill amount. Available value is as below: 0 - Include MDR/Full Refund (Default) 1 - Exclude/Reserved MDR
11	notify_url	as	O	This is the URL for merchant to receive refund status

Signature = md5(\$RefundType . \$MerchantID . \$RefID . \$TxnID . \$Amount . \$Secret_Key);

Response

MOLPay responds JSON format to merchant upon a successful request (positive result)

No	Field Name	Data Type(Size)	M/O	Description
1	RefundType	a{1}	M	Content follow merchant request.
2	MerchantID	a{1..32}	M	Content follow merchant request.
3	RefID	as{1..100}	M	Content follow merchant request.

4	RefundID	n{1..100}	M	Refund ID provided by MOLPay
5	TxnID	n{10}	M	Content follow merchant request.
6	Amount	n{10,2}	M	Content follow merchant request.
7	Status	n{2} [00, 11, 22]	M	22 for 'Pending' , 11 for 'Rejected' and 00 for 'Success'
8	Signature	a{32}	M	This is data integrity protection hash string.

Signature = md5(\$RefundType . \$MerchantID . \$RefID . \$RefundID . \$TxnID . \$Amount . \$Status . \$Secret_Key);

MOLPay will respond the following in JSON format once error occurs (negative result)
(insert table here)

No	Field Name	Data Type(Size)	Description
1	error_code	an{5}	Refer to Appendix C
2	error_desc	ans{1..255}	Refer to Appendix C

Partial Refund Status Inquiry by TxnID

Merchant is able to do status inquiry for refund transaction.

Request

URL: https://www.onlinepayment.com.my/MOLPay/API/refundAPI/q_by_txn.php

Method: POST or GET

No	Field Name	Data Type(Size)	M/O	Description
1	TxnID	n{10}	M	MOLPay Transaction ID
2	MerchantID	a{1..32}	M	Merchant ID provided by MOLPay
3	Signature	n{1..32}	M	This is data integrity protection hash string.

Signature = md5(\$TxnID . \$MerchantID . \$verify_key);

Response

MOLPay responds JSON format to merchant upon a successful request (positive result)

No	Field Name	Data Type(Size)	M/O	Description
1	TxnID	n{10}	M	Content follow merchant request.
2	RefID	as{1..100}	M	Unique tracking/references ID from merchant
3	RefundID	n{1..100}	M	Refund ID provided by MOLPay
4	Status	a{8}	M	'pending' , 'rejected' , 'success'

5	LastUpdate	ans{1..255}	M	Last update timestamp.
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Appendix A : Data Type Details

No	Code	Description
1	a	Letters, A-Za-z
2	n	Numbers, 0-9
3	s	Symbols, .: ?*,!&_ -
4	{x}	Fixed length x
5	{y..x}	Length range: y – x
6	{y,x}	Number range: 0-9. 0-9

Appendix B : M/O Details

No	Code	Description
1	M	Mandatory field.
2	O	Optional field.
3	C	Conditional field.

Appendix C : Error Code & Description in JSON

No	error_code	error_desc
1	PR001	Refund Type not found.
2	PR002	MerchantID field is mandatory.
3	PR003	RefID field is mandatory.
4	PR004	TxnID field is mandatory
5	PR005	Amount field is mandatory.
6	PR006	Signature field is mandatory
7	PR007	Merchant ID not found.
8	PR008	Invalid Signature.
9	PR009	Txn ID not found.
10	PR010	Transaction is not settled yet.
11	PR011	Exceed refund amount for this transaction.
12	PR012	Bank information is not applicable for credit channel transaction.
13	PR013	BankCode not found in our database, please contact support.

14	PR014	Bank information is mandatory for non-credit channel transaction.
15	PR015	Server is busy, try again later.
16	PR016	Duplicate RefID found, please provide a unique RefID.
17	INQ001	TxnID field is mandatory.
18	INQ002	MerchantID field is mandatory.
19	INQ003	Signature field is mandatory.
20	INQ004	Merchant ID not found.
21	INQ005	Invalid Signature.
22	INQ006	Unable to find refund transaction.

Channel Status API

In order to know the healthiness of payment channels, this API allows system-wide or merchant-only successful rate (OK rate) of a channel in real time for frequently used payment channel. Merchant can always check the latest 1 hour system-wide OK rate of the channel (card payment and internet banking) and a few window sizes, i.e. the latest 1, 3, 6, and 12 hours for merchant-only OK rate for all channels, including MOLPay CASH. Keep in mind that MOLPay CASH is not a realtime payment channel and sampling is based on payment request time and not the time that payment is made.

This API gives worst case scenario result, please DO NOT disturb MOLPay support team if your number of transaction of a channel is less than 30 or if there are multiple failure attempt from a same buyer. Try to optimize your OK rate if yours are far below the system-wide level. Frequent query on merchant-only OK rate might slow down your payment processing as well.

Prompt alert or warning instead of turning off the channel at 0% or low system-wide OK rate is always a best practice.

Request

URL: <https://www.onlinepayment.com.my/MOLPay/API/chkstat/OK-rate.php>

Method: GET

Variable / Parameter	Type Format / Max Length	Description / Example
domain	alphanumeric, 32 chars	Merchant ID in MOLPay system.
reqTime	YYYYMMDDHHmmss	Request date & time, e.g. 20161202153423
reqType	Global, Merchant	Global: system-wide OK rate Merchant: merchant only OK rate
skey	32 chars hexadecimal string	For merchant access verification purpose
duration	1, 3, 6, 12 (for reqType=merchant only)	Latest sampling window size in HOUR for merchant-only request. If the total sampling number is less than 30, it has less reference value due to the low statistical significance and n/a will be given

Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
StatTime	YYYYMMDDHHmmss	Status date & time, e.g. 20161202153435
OK-rate	{ "Channel 1" : OK_rate1, "Channel 2" : OK_rate2, ... }	Channel name with successful rate measure at the StatTime. Please refer to "Direct Server API" or "Seamless Integration" for channel name. { "credit": 75, "maybank2u": 70, }

		<pre> "cimbclicks": 65, "fpX": 56, "hlb": 60, "rhb": 52, ... "fpX_pbb": 45, "fpX_bimb": 80, } </pre> <p>where the OK rate is an integer range from 0-100. Channel might be added/removed without prior notice.</p>
--	--	--

Formula of skey

$\text{skey} = \text{md5}(\text{domain} \ \& \ \text{Secret_Key} \ \& \ \text{reqTime} \ \& \ \text{reqType} \)$
--

ERROR CODES

Payment Page

Error Code	Description
P01	Timeout
P02	Your transaction has been denied due to merchant account issue. Payment channel is not available for merchant.
P03	Your payment info format not correct ! Incorrect security hash string, check "vcode".
P04	not allow to process Incomplete buyer information, check bill_name, bill_mobile, bill_email, orderid, faked mobile such as 0123456789 will be blocked as well
P05	Payment gateway not found Invalid payment gateway file or channel code.
P06	System is busy now, temporary out of services. Please try again later.
P07	Access Denied. Requestor not authorize. Merchant URL is not allowed to process payment or not yet registered with MOLPay.
P08	Invalid referral
P09	Duplicate payment is not allowed for this merchant. Payment with same order ID and amount is not allowed to capture twice. Cash payment is not allowed to request twice.
P10	Sorry, Your Credit Card Number or CVV or expiration date is not valid
P11	Amount return from bank not match with MOLPay system.
P12	Signature from bank not match.
P21	Massive errors detected from the same IP address
P22	Massive errors detected from the same IP address
P33	System is busy
P403	Invalid payment URL
P404	Invalid merchant ID
P990	Sorry, we're not able to process your request now. You may close this window.
P991	System temporary not available due to security issue
P1813	URL is not allowed
R01	Error in payment process due to empty key
T01	Tokenization error
999	Transaction is blocked

	Due to one of the reason: country restriction, blacklist, exceeds transaction limit
--	---

3DS Error

Error Code	Description
P3011	This merchant only allows 3DS card
P3089	Invalid 3DS request
P3099	Card not authorized or invalid BIN

Payment Status Query (PSQ) Error

Error Code	Description
Q99	Service blocked due to massive connection. Please send only 1 request every 5 minutes.
Q101 / Q201	Correct skey with invalid data
Q102 / Q202 / Q302 / Q402 / Q502	Incorrect skey
Q203 / Q303	Transaction record not found
Q401	Delimiter error

Error in Merchant Admin

Error Code	Description
M0001	Inactive merchant account
M0002	Frozen merchant account
M0003	Merchant account has been purged
M0098	Invalid merchant ID
M0099	Unable to process the request
M1007	Invalid bank account number
M1008	Invalid email
M1009	Invalid bank account number & email

Error in Escrow

Error Code	Description
1001	Missing Parameter.
1002	Operator not exist.
1003	Operator info incorrect.
1004	Transaction ID not found.
1005	Invalid parameter value.

Error in Mass Payment

Error Code	Description
1001	Missing Parameter.

1002	Operator not exist.
1003	Operator info incorrect.
1004	Profile Type Invalid.
1005	Profile not exist.
1006	Profile inactive.
1007	Value for parameter payee not in valid JSON format.
1008	Insufficient balance.
1009	Record not found.

Error Codes in Channel

MOLPay will add a the following prefix to all credit card and certain internet banking error codes

Credit Card (Paymex, MIGS, etc)	CC_
MyClear FPX Internet Banking	FPX_

Error Code Description		
Prepaid/Debit/Credit Card via Paymex (Visa/MasterCard)		
1XX Invalid input to 3D Secure MPI 2XX Error related to 3D authentication 3XX Error related to authorization 4XX System error or timeout		
Error Code	Description	Action / Remarks
000	Transaction is successful	Merchant to display the confirmation page to cardholder
101	Invalid field passed to 3D Secure MPI	Merchant needs to check error description to find out what is wrong with the field. Authorization/Authentication not carried out.
201	Invalid ACS response format. Transaction is aborted.	Retry the transaction. If error persists, contact issuing bank.
202	Cardholder failed the 3D authentication, password entered by cardholder is incorrect and transaction is aborted	Merchant to display error page to cardholder
203	3D PaRes has invalid signature. Transaction is aborted	Retry the transaction. If error persists, contact issuing bank.
300	Transaction not approved	Transaction has failed authorization, e.g. due to insufficient credit, invalid card number, etc. The actual response code provided by acquiring host can be found via the View Transaction History web page available to merchants.
301	Record not found	<ul style="list-style-type: none"> Merchant/User has submitted a transaction with invalid purchase ID Merchant/User tried to reverse a previously declined transaction
302	Transaction not allowed	<ul style="list-style-type: none"> Purchase ID not unique due to mismatched card number and/or transaction amount System unable to process reversal due to transaction has been settled System unable to process reversal due to transaction type is CAPS System unable to process previously voided transaction
303	Invalid Merchant ID	Not a valid merchant account

304	Transaction blocked by error 901	Merchant to report error to acquiring bank
305	Merchant password is not available	The error code will be returned if merchant password is not available during the VISA 3D authentication,
306	Merchant exceeded count limit	The error code will be returned if the merchant daily transaction count exceeded the predefined daily transaction count limit.
307	Merchant exceeded amount limit	The error code will be returned if the merchant daily transaction amount exceeded the predefined daily transaction amount limit.
308	Merchant exceeded group count limit	The error code will be returned if the merchant transaction exceeded the predefined merchant organization transaction count limit.
309	Merchant exceeded group amount limit	The error code will be returned if the merchant transaction exceeded the predefined merchant organization transaction amount limit.
310	Request signature is not available	The PX_SIG is not append on the PxReq message or PX_SIG is blank
311	Request signature verification failed	The signature of the PxReq is not match with the PxReq message
900	3D Transaction timeout	Timeout of 3D transaction due to late response from Issuer ACS, after the predefined 3D timeout set in the application.
901	System Error	System unable to complete transaction. Merchant to report error to acquiring bank.
902	Time out	Issuing/acquiring host timeout, transaction is not approved
903	Pxtems no response	Transaction has failed to get response from MPI links. The service not available due to: <ul style="list-style-type: none"> • Database connection error • Network connection error

Host Error

00 | Successful approval/completion or that V.I.P. PIN verification is valid
01 | Refer to card issuer
02 | Refer to card issuer, special condition
03 | Invalid merchant or service provider
04 | Pickup card
05 | Do not honor / Incorrect CVV or 3D password
06 | Error
07 | Pickup card, special condition (other than lost/stolen card)
10 | Partial Approval-Private label
11 | V.I.P. approval
12 | Invalid transaction
13 | Invalid amount (currency conversion field overflow. Visa Cash-invalid load mount)
14 | Invalid account number (no such number)
15 | No such issuer
19 | Re-enter transaction
21 | No action taken (unable to back out prior transaction)
25 | Unable to locate record in file, or account number is missing from the inquiry
28 | File is temporarily unavailable
41 | Pickup card (lost card)
43 | Pickup card (stolen card)
51 | Insufficient funds
52 | No checking account
53 | No savings account

54 | Expired card
 55 | Incorrect PIN (Visa Cash-invalid or missing S1 signature)
 57 | Transaction not permitted to cardholder (Visa Cash-incorrect routing,
 not a load request)
 58 | Transaction not allowed at terminal
 59 | Suspected fraud"; break;
 61 | Activity amount limit exceeded
 62 | Restricted card (for example, in Country Exclusion table)
 63 | Security violation
 65 | Activity count limit exceeded
 75 | Allowable number of PIN-entry tries exceeded
 76 | Unable to locate previous message (no match on Retrieval Reference
 number)
 77 | Previous message located for a repeat or reversal, but repeat or
 reversal data are in consistent with original message
 80 | Invalid date (For use in private label card transactions and check
 acceptance transactions)
 81 | PIN cryptographic error found (error found by VIC security module
 during PIN decryption)
 82 | Incorrect CVV/iCVV
 83 | Unable to verify PIN
 85 | No reason to decline a request for account number verification or
 address verification
 91 | Issuer unavailable or switch inoperative (STIP not applicable or
 available for this transaction)
 92 | Destination cannot be found for routing
 93 | Transaction cannot be completed; violation of law
 96 | System malfunction System malfunction or certain field error conditions
 N0 | Force STIP
 N3 | Cash service not available
 N4 | Cash request exceeds issuer limit
 N7 | Decline for CVV2 failure
 P2 | Invalid biller information
 P5 | PIN Change/Unblock request declined
 P6 | Unsafe PIN

Credit Card via MIGS (Visa/MasterCard)

0 | Transaction Successful
 ? | Transaction status is unknown
 1 | Unknown Error
 2 | Bank Declined Transaction
 3 | No Reply from Bank
 4 | Expired Card
 5 | Insufficient funds
 6 | Error Communicating with Bank
 7 | Payment Server System Error
 8 | Transaction Type Not Supported
 9 | Bank declined transaction (Do not contact Bank)
 A | Transaction Aborted
 C | Transaction Cancelled
 D | Deferred transaction has been received and is awaiting processing
 F | 3D Secure Authentication failed
 I | Card Security Code verification failed
 L | Shopping Transaction Locked (Please try the transaction again later)
 N | Cardholder is not enrolled in Authentication scheme
 P | Transaction has been received by the Payment Adaptor and is being
 processed
 R | Transaction was not processed - Reached limit of retry attempts allowed
 S | Duplicate SessionID (OrderInfo)
 T | Address Verification Failed
 U | Card Security Code Failed
 V | Address Verification and Card Security Code Failed

Y | The cardholder was successfully authenticated.
 E | The cardholder is not enrolled.
 N | The cardholder was not verified.
 U | The cardholder's Issuer was unable to authenticate due to some system error at the Issuer.
 F | There was an error in the format of the request from the merchant.
 A | Authentication of your Merchant ID and Password to the ACS Directory Failed.
 D | Error communicating with the Directory Server.
 C | The card type is not supported for authentication.
 S | The signature on the response received from the Issuer could not be validated.
 P | Error parsing input from Issuer.
 I | Internal Payment Server system error.

05 | Fully Authenticated
 06 | Not authenticated (cardholder not participating), liability shift
 07 | Not authenticated due to a system problem

MyClear FPX Internet Banking

00 | Approved
 03 | Invalid Merchant
 05 | Seller Account Closed
 12 | Invalid Transaction
 13 | Invalid Amount
 14 | Invalid Buyer Account
 20 | Invalid Response
 30 | Transaction Not Supported For Model Or Format Error
 31 | Invalid Bank
 39 | No Credit Bank
 45 | Duplicate Seller Order Number
 46 | Invalid Seller Exchange Or Seller
 47 | Invalid Currency
 48 | Transaction Limit Exceeded
 51 | Insufficient Funds
 53 | No Saving Account
 57 | Transaction Not Permitted
 61 | Withdrawal Limit Exceeded
 65 | Withdrawal Frequency Exceeded
 70 | Invalid Serial Number
 72 | Duplicate Exchange Order Number
 76 | Transaction Not Found
 77 | Invalid Buyer Name Or Buyer Id
 78 | Decryption Failed
 79 | Host Decline When Down
 80 | Buyer Cancel Transaction
 83 | Invalid Transaction Model
 84 | Invalid Transaction Type
 85 | Internal Error At Bank System
 87 | Debit Failed Exception Handling
 88 | Credit Failed Exception Handling
 89 | Transaction Not Received Exception Handling
 93 | Transaction Cannot Be Completed
 96 | System Malfunction
 98 | MAC Error
 99 | Pending for Authorization (Applies to B2B model)
 FE | Internal Error
 BC | Transaction Cancelled By Customer
 OE | Transaction Rejected As Not In FPX Operating Hours (7 AM To 11 PM)
 OF | Transaction Timeout
 OA | Session Timeout at FPX Entry Page
 SB | Invalid Seller Bank Code
 XA | Invalid Source IP Address For B2B Model 2 Transactions
 XE | Invalid Message

XM | Invalid FPX Transaction Model
 XN | Transaction Rejected Due To Duplicate Seller Exchange Order Number
 XO | Duplicate Exchange Order Number
 XS | Seller Does Not Belong To Exchange
 XC | Seller Exchange Encryption Error
 XI | Invalid Seller Exchange
 XB | Invalid Seller Exchange IP
 XF | Invalid Number Of Orders
 XT | Invalid Transaction Type
 XW | Seller Exchange Date Difference Exceeded
 1A | Buyer Session Timeout at IB Login Page
 1B | Buyer failed to provide the necessary info to login to IB Login page
 1C | Buyer choose cancel at Login Page
 1D | Buyer session timeout at Account Selection Page
 1E | Buyer failed to provide the necessary info at Account Selection Page
 1F | Buyer choose cancel at Account Selection Page
 1G | Buyer session timeout at TAC Request Page
 1H | Buyer failed to provide the necessary info at TAC Request Page
 1I | Buyer choose cancel at TAC Request Page
 1J | Buyer session timeout at Confirmation Page
 1K | Buyer failed to provide the necessary info at Confirmation Page
 1L | Buyer choose cancel at Confirmation Page
 2A | Transaction Amount Is Lower Than Minimum Limit

Alipay (China)

Error Code	Description
ILLEGAL_SIGN	Illegal signature
ILLEGAL_ARGUMENT	Illegal parameters
HASH_NO_PRIVILEGE	No sufficient rights to complete the query
ILLEGAL_SERVICE	Service Parameter is incorrect
ILLEGAL_PARTNER	Incorrect Partner ID
ILLEGAL_SIGN_TYPE	sign_type parameter is incorrect
FOREX_MERCHANT_NOT_SUPPORT_THIS_CURRENCY	Cannot support this kind of currency
ILLEGAL_SECURITY_PROFILE	Cannot support this kind of encryption
REPEAT_OUT_TRADE_NO	out_trade_no parameter is repeated
ILLEGAL_CURRENCY	Currency parameter is incorrect
ILLEGAL_PARTNER_EXTERFACE	Service is not activated for this account
SYSTEM_EXCEPTION	Contact Alipay technical support for help
ILLEGAL_TIMEOUT_RULE	Timeout_rule parameter is incorrect
ILLEGAL_CHARSET	Illegal charset

BCard

00 Transaction done without error
 01 Invalid Card/invalid owner of card
 02 Invalid Merchant
 03 Invalid PIN
 04 Insufficient Point
 05 PIN Changed Fail

06 Card Is Blocked
 07 Card Is Expired
 08 Principal Is Currently A Supplementary
 09 Supplementary Is Currently A Principal
 10 Supplementary Is Already A Supplementary
 11 Merge Own Card
 12 Transaction Record Does Not Exists/ Invalid Transaction ID
 13 Transaction Already Voided
 14 Transaction Already Reversed
 15 Transaction record more than one or not found
 16 Invalid point/amount/bill no
 18 Invalid category
 19 Card not registered
 20 Duplicate Data
 21 Web Service Key already setup
 22 Invalid Web Service Key
 23 Invalid IC
 24 Invalid Name
 25 Invalid Operation/adjustment
 26 Invalid STAN No/ Offline ID
 27 Invalid Staff
 29 Invalid Date
 98 Unexpected Error
 99 Server Exception

CIMB Clicks

00 APPROVED OR COMPLETED
 01 REFER TO CARD ISSUER
 03 INVALID MERCHANT
 04 CAPTURE CARD
 05 DO NOT HONOR
 12 INVALID TRANSACTION
 13 INVALID AMOUNT
 14 INVALID CARD NUMBER
 15 INVALID ISSUER
 30 FORMAT ERROR
 41 LOST CARD
 43 STOLEN CARD
 51 INSUFFICIENT FUNDS
 52 NO CURRENT ACCOUNT
 53 NO SAVING ACCOUNT
 54 EXPIRED CARD
 55 INVALID PIN
 57 TRANSACTION NOT PERMITTED ISS
 58 TRANSACTION NOT PERMITTED ACQ
 59 SUSPECTED FRAUD
 61 EXCEEDS WITHDRAWAL LIMITS
 62 RESTRICTED CARD
 63 SECURITY VIOLATION
 65 EXCEEDS WITHDRAWAL COUNT LIMIT
 68 LATE RESPONSE
 75 ALLOWABLE PIN TRIES EXCEEDED
 80 FORCE PIN CHANGE
 81 FORCE PRE-REGISTERED PIN CHANGE
 91 SWITCH OR ISSUER INOPERATIVE
 92 UNABLE TO ROUTE TRANSACTION
 94 DUPLICATE TRANSACTION DETECTED
 96 SYSTEM ERROR/ MALFUNCTION/VALIDATION ERROR

Dragonpay (Phillippines)

000 Success
 101 Invalid payment gateway id

102 Incorrect secret key
 103 Invalid reference number
 104 Unauthorized access
 105 Invalid token
 106 Currency not supported
 107 Transaction cancelled
 108 Insufficient funds
 109 Transaction limit exceeded
 110 Error in operation
 111 Invalid parameters
 201 Invalid Merchant Id
 202 Invalid Merchant Password

eNETS Debit (Singapore)

"For the online transaction status query feature, the response returned to the merchant is in the format of <stage>_<responsecode>."

Stage Code	Stage Description
000001	Payment Request from eNETS II to Bank Host
000002	Notification from Bank Host to eNETS II
000003	Acknowledgement from eNETS II to Bank Host
000004	Txn End from Bank Host to eNETS II
000005	Payment Request from Merchant to eNETS II
000006	Notification from eNETS II to Merchant
000007	Acknowledgement from Merchant to eNETS II
000008	Txn End from eNETS II to Merchant

Error Code	Description	Action / Remarks
00000	Transaction Successful	Merchant to proceed with fulfillment of order. Note: Full response code should be 000008_000000
20001	Internal System Error	Internal processing errors such as Database unavailability and network problem, etc. If Gateway returns this status for Notification Acknowledgement Message, the Bank will have to initiate a reversal of the transaction.
20002	Data Validation Error	Invalid data sent from either party The bank will not proceed with the transaction and will initiate a reversal. It will inform customer the transaction is unsuccessful.
20003	XML Related Error	Either XML parsing error or invalid/missing DTD etc. If Gateway returns this status for Notification Acknowledgement Message, DBS

		will have to initiate a reversal of the transaction.
20004	Transaction Failed	Transaction is not successful, due to reasons such as customer has entered invalid PIN or insufficient funds, etc. Customer will be notified of the status and be redirected back to the Merchant page.
20005	Communication Errors	Open connection type of errors, broken pipe errors or timeout errors. For notification message, the Bank will retry a configurable number of times.
20006	Digital Certificate Errors	Either party's certificate is either expired or invalid. The Bank/Gateway will not accept the message and if the notification message has already been sent, the Bank will initiate a reversal.
20007	Invalid digital Signature	Verification of either party's signature failed. The Bank/Gateway will not accept the message and if the notification message has already been sent, the Bank will initiate a reversal.
20008	Session Errors	Time out due to customer inactivity. Customer will not be allowed to proceed and will be informed that his/her session has expired. They will then be redirected back to the Merchant site.
20009	Bank API configuration error	Inform Banks to reconfigure API.
20010	Failed to receive acknowledgement from Gateway	Check Gateway.
20011	No match for Gateway public certificate.	Double check Gateway public certificates.
30001	Merchant not found in Merchant_Profile table	No merchant record in the merchant_profile table. Check Gateway database.
30002	Merchant Failure_URL not found in Merchant_Notify_URL table.	Check Gateway database.
30003	Unable to retrieve Merchant's Public key from Merchant_Cert table.	Check Gateway database.

30004	Signature Error	Unable to verify Merchant signature due to different keys used. Merchant to check that the public key sent to the Gateway is correct.
30005	Duplicate Transaction	The payment request consists of a Merchant reference code that was used before. Merchant to advise customer to wait before trying again.
30006	Merchant Ref Code generated is not unique.	Merchant to advise customer to wait before trying again.
30007	Unable to insert transaction to MerchantArchive table.	Check gateway database.
30008	Unable to save transaction to ASPArchive table.	Check gateway database.
30009	Unable to insert transaction into Merchant_Txn_Info and Merchant_DD_Txn_Info tables.	Check gateway database.
30010	Unable to insert ASP Txn Time into ASP_Txn_Info table.	Check gateway database.
30011	Unable to generate gateway signature	Merchant should check the public key of Gateway.
30012	Bank ID not found.	Transaction cancelled by user at Gateway's Bank selection page. Merchant can show the same payment page again.
30013	Bank ID not enabled	Fill in the problem log and escalate to eNETS.
30014	Client-side HTTP error when notifying Merchant.	Check Gateway HTTP.
30015	Server-side HTTP error when notifying Merchant.	Check Gateway HTTP.
30016	Merchant Notification Acknowledgement Timeout	Merchant's notification acknowledgement received later than expected turnaround time.
30017	Exchange Rate does not exist (Forex	Required for currency conversion Contact RBS and/or verify Rate Retrieval from

	Debit)	FXmicropay
30018	Invalid Exchange Rate (Forex Debit)	Required for currency conversion Contact RBS and/or verify Rate Retrieval from FXmicropay
30019	System does not allow transaction to be processed	Transaction rejected by switch during initial stage. Possible causes: <ul style="list-style-type: none"> - profile is not active - amount not in range, - invalid merchant - invalid currency - invalid payment mode - invalid bank id
40001	Unable to retrieve Bank' URL from Bank_Profile table.	Check Gateway database.
40002	Merchant Ref code gotten from Bank is null.	Check that BankMgr is running.
40003	Unable to retrieve Bank's Public key from Database	Check Gateway database.
40004	Unable to verify Bank Signature.	The Gateway will not accept the message. Check with the respective bank.
40005	Unable to save Txn End html to BankArchive table.	Check Gateway database.
40006	Unable to save Txn End html to ASPArchive table.	Check Gateway database.
40007	Unable to insert transaction into Log_Merchant_Trans_End table.	Check Gateway database.
40008	Unable to update status in Merchant_Txn_Info table.	Check Gateway database.
40009	Unable to retrieve Merchant_URL in Merchant_Notify_URL table.	Check Gateway database.
40010	Duplicate Txn End	The payment request consists of a bank reference code that was used before. Bank to advise customer to wait before trying again.

40011	Transaction timeout	The Gateway has no response in specified time. Check Gateway itself and link between Gateway and bank.
40012	Gateway private key has been revoked	
40013	Bank private key has been revoked	
40014	Merchant private key has been revoked.	
40096	System Error	
40097	Transaction Not Found	
40098	Transaction is not in a valid state for this action.	Stage response code does not align with the transaction status. Check gateway database
40099	Transaction Unsuccessful	Transaction cancelled by user at Gateway's Bank selection page. Merchant can show the same payment page again.
50001	Registry Access Error	Fill in the problem log and escalate to eNETS
50002	Database Access Error	Fill in the problem log and escalate to eNETS
50003	Page forward Error	Fill in the problem log and escalate to eNETS
60001	Unable to get the CRL	Fill in the problem log and escalate to eNETS.
60002	Unable to send email to Administrator	Fill in the problem log and escalate to eNETS.
60003	Unable to validate the merchant Certificate	Fill in the problem log and escalate to eNETS.
60004	Unable to update revoked flag in database for Merchants	Check the database.
60005	Unable to validate the Gateway Certificates	Fill in the problem log and escalate to eNETS.
60006	Unable to update revoked flag in database for Gateway	Check the database.
60007	Unable to validate the Bank Certificates	Fill in the problem log and escalate to eNETS.
60008	Unable to update	Check the database.

	revoked flag in database for Banks	
60009	No certificate Authority ID specified	Fill in the problem log and escalate to eNETS.
70001	Unable to connect to the Password Server	Double check password.
70002	Invalid database password	Key into the correct password.
70003	Failed to check connection to the database	Fill in the problem log and escalate to eNETS.
80001	Error loading data into context	Fill in the problem log and escalate to eNETS.
90001	Invalid URL for reloading data into context	Fill in the problem log and escalate to eNETS.
1001	Wrong merchant or customer identification.	SS should check whether this merchant's records are in the database or not.
1002	Wrong bank PIN keyed-in by user.	User should key in again.
1003	Internet Banking transaction failed. Please check with the Bank concerned.	SS should check with the Bank.
1004	Session timeout.	Transaction has taken too long or user is inactive for too long. Customers will not be allowed to proceed and will be informed that their session has expired. They will then be redirected back to the Merchant site.
1005	Database access error.	Check Gateway database.
1006	Error in re-direction of web page.	Check Gateway connection with Banks or Merchants.
1007	Invalid digital signature.	Verification of Gateway signature failed. The Gateway will not accept the message.
1008	Network error.	Check Gateway network.
1009	Unable to connect to bank server.	Call respective bank to check his bank.
1010	Error due to user PC shutdown unexpectedly.	
1011	User cancelled transaction before completion.	

1035	Invalid UMID
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Gift Card

Error Code	Description
0	Success
1	Failure
2	Invalid ESN
3	Vendor Application Error
4	System Error
5	Card Already Active
6	Card Already Inactive
7	Invalid Request
8	Card Redeemed
9	Invalid Card
10	Card Deactivated
11	Card Suspended
12	Card Activated
13	Invalid Account
14	No Previous Action
15	Card is Active
16	Card is Deactivated
17	Card is Redeemed
18	Card is Not Found
19	Card Locked
20	Delayed Redemption
21	Maximum Transactions Exceeded
22	Invalid XML
23	Network Error
24	Invalid PIN
25	Declined
26	PIN Not Sold
27	PIN Already Sold

28	Card Expired
29	Card Stolen
30	Card Lost
31	Card Damaged
32	Card Pending
33	PIN Redeemed
34	Invalid/Inactive PIN
35	Card In Use
36	Already Reversed
37	Not Reversible
38	Incorrect Card Status
39	Card Not Active
40	Pin Locked
41	Suspected Fraud
42	Format Error
43	Action Not Supported
44	Card Action Suspended
45	Card is Pending
46	Card is Suspended
47	Card is Expired
48	Card is Stolen
49	Card is Lost
50	Card is Damaged

Multi Currency Credit Card (Visa/MasterCard/AMEX)

Error Code	Description
GeneralFailure	An unspecified error has occurred.
RateOfferNotFound	The RateOfferId did not identify a known, non-expired GoInterpay rate offer. One common reason for this result is that the rate offer has expired.
CurrencyNotFound	The CustomerCurrency did not correspond to a supported GoInterpay currency.
CurrencyMismatch	The CustomerCurrency specified in the request

	did not match the Currency associated with the specified GoInterpay rate offer.
EmailAddressInvalid	The consumer Email was not supplied or was supplied but was syntactically invalid.
PaymentMethodUnsupported	The PaymentMethod did not specify a supported type, or the merchant does not have access to the specified type for this payment.
CardNameInvalid	The Name in the card details was not valid.
CardNumberInvalid	The Number in the card details was not valid for the specified payment method.
CardYearInvalid	The Year in the card details was not valid.
CardMonthInvalid	The Month in the card details was not valid.
CardExpired	The specified payment card has expired.
CardVerificationCodeInvalid	The VerificationCode in the card details was not valid.
PostalCodeInvalid	The consumer PostalCode was not supplied and is required for the merchant's GoInterpay payment processing option, or was supplied but was syntactically invalid.
CountryInvalid	The consumer Country was not supplied and is required for the merchant's GoInterpay payment processing option, or was supplied but was syntactically invalid.
AmountInvalid	A ConsumerPrice or MerchantPrice did not meet the requirements documented for the request.
AmountLimitExceeded	The request contains an amount that exceeds the amount that GoInterpay is willing to transact in a single transaction for the merchant.
PaymentAuthorizationFailed	The payment details were syntactically correct, but the payment processing provider (or an intermediary) refused to authorize a payment against the payment details for the specified amount. This includes the case of failure to pass payment processor fraud checks. This also includes the failure of the payment processing provider to validate authentication performed by a payment authentication mechanism (via the Merchant).
Blacklisted	The consumer is on the GoInterpay blacklist and GoInterpay has refused to process the order.
FraudSuspected	Based on the parameters of the order, GoInterpay suspects that the order is

	fraudulent and/or represents too high a risk to proceed with processing.
ContractNotFound	The specified ContractId is not associated with the requesting Merchant.
ContractClosed	The specified ContractId is closed and cannot be used to begin new transactions.
ViaAgentInvalid	The ViaAgent flag was specified for a payment method that does not support it.
InstalmentsInvalid	A Number was specified for Instalments which is not between 2 and 12 (inclusive) or instalments are not available for this order.
BirthDateInvalid	The consumer BirthDate was not valid, or is missing but is required for this order.
NationalIdentifierInvalid	The consumer NationalIdentifier was not valid, or is missing but is required for this order.
PhoneInvalid	The consumer Phone was not valid, or is missing but is required for this order.
RegionInvalid	The consumer Region was not valid, or is missing but is required for this order.

Hong Leong Online (HONG LEONG Connect)

Error Code	Description
0000	Success
0101	Invalid fingerprint hash
0102	Invalid message request
0103	Invalid seller ID
0104	Invalid seller account
0105	Bank host down for maintenance
0106	Invalid login
0107	Invalid mobile number
0108	No debiting account
0109	Exceed transaction limit

0110	Exceed TAC attempts
0111	Purchase item not available
0112	Insufficient fund in buyer account
0113	Invalid account status of buyer or seller account
0114	Transaction rejected by host or reversed payment
0115	Buyer session timeout on Login Page
0116	Buyer cancel payment on Login Page
0117	Buyer session timeout on Account Selection Page
0118	Buyer cancel payment on Account Selection Page
0119	Buyer session timeout on Confirmation Page
0120	Buyer cancel payment on Confirmation Page
0121	Buyer invalid session
0122	Payment not found
0123	Processing transaction
0124	Transaction rejected by reversed payment
0125	Transaction is not allowed
0199	General exception error

PEX Plus (HONG LEONG PEX+)

Error Code	Description
00000	Successful.
00149	User has not logged in or session expired.
00341	Your session has timed out due to inactivity. Please login again.
00344	Not a privileged user.
10000	No data found.
44444	Service is not available.
00121	Payment in progress.
00201	QR sales has expired.
00300	QR code has been paired.
30002	Invalid currency.

00102	Invalid amount.
12001	Exceeded daily transaction limit.
00301	Cancellation failed.
00302	Cancellation successful.
01201	Merchant is not valid.
01202	Organisation is not valid.
00903	Batch No. is not valid.
10007	Sorry, we are unable to process your request now. Please try again later.
10008	Merchant has been deactivated.
10010	Merchant has not subscribed to PEx+ services.
10011	This transaction has been reversed.
10013	Sorry, you are not allowed to perform this action.
10014	Sorry, this transaction cannot be reversed due to return policy.
PEX+.ERR_PAYMENT.10102	The Payment Transaction is invalid. Please try again. [10102]
PEX+.ERR_PAYMENT.10105	The Payment Transaction is invalid. Please try again. [10105]
PEX+.1000000	No Record Found.
PEX+SD.00412	The transaction amount has exceeded the daily PEx+ transaction limit. [PEX+.0100010]
PEX+SD.00403	Sorry, your transaction has been cancelled. Please perform another PEx+ payment.
PEX+SD.00404	Sorry, your transaction has expired. Please perform another PEx+ payment.
PEX+SD.30002	Currency Code is invalid. Please try again.
PEX+SD.01301	Invalid QR scanning. Please perform another PEx+ payment.
PEX+SD.30001	Record Not Found. Please try again later.
PEX+.0100000	Sorry, we are unable to process your request now. Please try again later. [PEX+.0100000]
PEX+.0100011	Your account balance is insufficient for the transaction. [PEX+.0100011]
PEX+_rbs.5	Sorry, we are unable to process your request at this time. Please try again later.
N/A	Invalid QR code. Please try again.

ATM Cash Permata Bank (Indonesia)

000 Success
100 Invalid merchant ID
101 Empty merchant ID
102 Empty amount
103 Invalid amount (not approved string,dot and comma)
104 Empty orderid
105 Empty bill_name
106 bill_email
107 Empty bill_mobile
108 Empty bill_desc
109 Empty vcode
110 Invalid Authentication Key
111 Empty due_time
113 Invalid

MOLPoints

Error Code	Error Description
40001	Required parameter is required. / Parameter format is invalid.
40002	Invalid API Version.
40003	Invalid Currency Code or not supported.
40004	Duplicate Reference Id. The transaction was refused as a result of a duplicate Reference Id supplied. Currency Code is not match with previous transaction. The transaction was refused as a result of a duplicate Reference Id supplied. Pin is not match with previous transaction.
40005	Invalid Channel Id.
40006	Invalid Amount.
40007	Invalid PIN.
40008	Invalid Client IP Address.
40009	The transaction was declined by MOL because of possible fraudulent activity.
40013	Payment Amount Exceed channel maximum accepted amount.
40014	Payment Amount less than channel minimum accepted amount.
40101	Invalid Application Code.
40102	Unauthorized Server IP Address.
40103	Invalid Signature.
40104	Channel Id not permitted.
40400	Payment not found.

POLi Payment (Australia & New Zealand)

Error Code	Description	Action / Remarks
1001	Invalid Token	The token specified in the request corresponds to a POLi ID that does not exist in the database. There may be an error in the implementation of POLi™. Check your web services.
1002	Illegal Token	The token specified in the request corresponds to a POLi ID that does not belong to the specified merchant. There may be an error in the implementation of POLi™. Check your web services.
1003	Invalid Merchant Code	The merchant code specified in the request does not exist in the database. There may be an error in the implementation of POLi™. Check your web services.
1004	Inactive Merchant	The merchant code specified in the request corresponds to a merchant that is inactive. There may be an error in the implementation of POLi™. Check your web services.
1005	Merchant Not Authenticated	The merchant authentication code supplied is not correct or the authentication type has not been specified in the POLi™ system. There may be an error in the implementation of POLi™. Check your web services.
1006	Deleted Merchant	The merchant code specified in the request corresponds to a merchant that has been deleted. There may be an error in the implementation of POLi™. Check your web services.
1007	Invalid Currency Code	The specified currency code does not exist in the database. There may be an error in the implementation of POLi™. Check your web services.
1008	Invalid Merchant Currency	The specified currency code does not correspond to an active currency for the specified merchant. There may be an error in the implementation of POLi™. Check your web services.

1009	Currency System Limit Exceeded	The payment amount in the specified currency has exceeded the system limit for that currency. Inform the customer that POLi™ applies transaction limits for security reasons and to try another payment limit. Do not specify the limit.
1010	Currency VAR Limit Exceeded	The payment amount in the specified currency has exceeded the VAR limit for that currency. Inform the customer that POLi™ applies transaction limits for security reasons and to try another payment limit. Do not specify the limit.
1011	Currency Merchant Single Transaction Limit Exceeded	The payment amount in the specified currency has exceeded the merchant's single transaction limit for that currency. Inform the customer that POLi™ applies transaction limits for security reasons and to try another payment limit. Do not specify the limit.
1012	Currency Merchant Daily Cumulative Limit Exceeded	The payment amount in the specified currency has exceeded the merchant's daily cumulative limit for that currency. Inform the customer that POLi™ applies transaction limits for security reasons and to try another payment limit. Do not specify the limit.
1013	Invalid Merchant Established Date Time	The difference between the specified merchant established time and the system time is more than 24 hours. Check your date and time settings.
1014	Invalid URL Format	The format of the specified URL is invalid. There may be an error in the implementation of POLi™. Check your web services.
1015	Invalid timeout value	The specified timeout value is less than the system minimum timeout value. may be an error in the implementation of POLi™. Check your web services.
1016	The transaction has expired	The transaction being enquired upon has lapsed past the 15min enquiry window. Use the Merchant Console to attain the outcome of this transaction.
1017	Blocked User IP address	The IP address of the user is blocked, restricted or otherwise from a list of known suspect IP addresses.

		Do not try to initiate a transaction again. NOTE: Strongly recommend that the user not be allowed to complete the transaction using another payment option at the Merchant's discretion.
1018	Invalid IP address format	The IP address is in an invalid format. Try again passing in the correct data.
1019	Invalid IP address	The IP address is invalid. Try again passing in the correct data.
1020	No merchant primary account	The merchant has not set up a primary account to be used. Set up a primary account for the merchant through the console and try initiating the transaction again after the change has been approved.
1021	Invalid Field Characters	The specified field contains invalid characters. There may be an error in the implementation of POLi™. Check your web services.
1022	Mandatory Field	No value is supplied for a mandatory field. There may be an error in the implementation of POLi™. Check your web services.
1023	Invalid Field Length	The specified field has an invalid length. There may be an error in the implementation of POLi™. Check your web services.
1024	Invalid Currency Amount In Field	The specified field contains invalid currency amount. There may be an error in the implementation of POLi™. Check your web services.
1025	Invalid Field Range	The value in the field is out of the allowable range. There may be an error in the implementation of POLi™. Check your web services.
1026	Invalid Transaction Status	The transaction has not followed the anticipated transaction status path. NOTE: This error should never be returned to a Merchant. If it does then please inform Centricom.
1027	Invalid Merchant Financial Institution	The Financial Institution Code passed in is not allowed for this merchant. There may be an error in the

		implementation of POLi™. Check your web services.
1028	Invalid Financial Institution Code	The Financial Institution Code passed in is not valid. There may be an error in the implementation of POLi™. Check your web services.
1029	Inactive Financial Institution	The Financial Institution Code passed in is not currently active. There may be an error in the implementation of POLi™. Check your web services.
1030	Deleted Financial Institution	The Financial Institution Code passed in has been deleted. There may be an error in the implementation of POLi™. Check your web services.
1031	Invalid Financial Institution Vector	The vector for the passed in Financial Institution Code is not available or non-existent. NOTE: This error should never be returned to a Merchant. If it does then please inform Centricom
1032	Invalid Transaction Status Code	The Transaction Status Code passed in is not valid. There may be an error in the implementation of POLi™. Check your web services.
2021	Invalid Payment Amount	The amount being paid is not equal to the transaction amount. The user's locale can affect the way that currency amounts are displayed on the screen. For example, a German locale may display the amount with a comma rather than a decimal point. This affects the way that POLi™ interprets the amount and may result in a failure. Setting the locale to En-AU, En-US, or En-GB will rectify this issue.
8001	Operational Error Without Trace Information	An operational error occurs but there is no trace information available. Perform the web service again.
8002	Operational Error With Trace Information	An operational error occurs and trace information is available. Perform the web service again.
8003	Invalid Field Characters	The specified field contains invalid characters. There may be an error in the implementation of POLi™. Check your web

		services.
8004	Mandatory Field	No value is supplied for a mandatory field. There may be an error in the implementation of POLi™. Check your web services.
8005	Invalid Field Length	The specified field has an invalid length. There may be an error in the implementation of POLi™. Check your web services.
8006	Invalid Currency Amount In Field	The specified field contains invalid currency amount. There may be an error in the implementation of POLi™. Check your web services.
8007	Invalid Field Range	The value in the field is out of the allowable range. There may be an error in the implementation of POLi™. Check your web services.
11002	Unable to Send Nudge	A nudge sent to the merchant has failed. The Nudge Notification URL may be publicly inaccessible or the destination is down or it takes too long to respond.
12001	Merchant Code Required	Merchant code is empty. Provide a non-empty merchant code.
12002	Merchant Code Length	Merchant code length exceeds maximum number of characters allowed. Provide a Merchant Code with valid length.
12003 or 1003	Invalid Merchant Code	Merchant Code doesn't exist or inactive. Provide a valid Merchant Code.
12004	Authentication Code Required	Authentication Code is empty. Provide a non-empty Authentication Code.
12005	Authentication Code Length	Authentication Code length exceeds maximum number of characters allowed. Provide an Authentication Code with valid length.
12006 or 1005	Invalid Authentication Code	Provide a valid Authentication Code.
12010	Request Type is Required	Request Type is empty. Provide a non-empty Request Type.
12011	Request Type Length	Request Type length exceeds maximum number of characters allowed. Provide a Request Type with a valid length.

12012	Invalid Request Type	Request Type is not valid. It must be either Manual or Email. Provide a Request Type set to either Manual or Email.
12013	Invalid Payment Amount.	Payment Amount is empty. Either it is empty or not a decimal number or decimal precision exceeds 2 or not in the range of 1.00 and 10000.00 Provide a valid Payment Amount.
12014	Payment Reference is required	Payment reference is empty. Provide a non-empty Payment Reference.
12015	Invalid Payment Reference	Payment reference is not valid. Provide a Payment Reference with a valid length.
12016	Invalid Confirmation Email.	Confirmation Email is either empty or not one of the values Yes, No. Provide Confirmation Email with a valid value.
12017	Invalid Customer Reference.	Customer Reference is either empty or not one of the values Yes, No. Provide Customer Reference with a valid value.
12018	Recipient Name is required.	Recipient Name is empty. Provide a non-empty Recipient Name.
12019	Recipient Name Length	Recipient Name length exceeds maximum number of characters allowed. Provide a Recipient Name with a valid length.
12020	Invalid Recipient Name.	Recipient Name is not valid. Check invalid characters in the Recipient Name.
12021	Recipient Email is required.	Recipient Email is empty. Provide a non-empty recipient email.
12022	Recipient Email Length	Recipient Email length exceeds maximum number of characters allowed. Provide a Recipient Email with a valid length.
12023	Invalid Recipient Email.	Recipient Email is not valid. Check Recipient Email follows email address rules.
12024	Email Delivery Failed.	Email Delivery to Payer failed. Check payer email address is valid and active.

UnionPay (China)

00 Payment is successful.
 01 Refer to card issuer.
 03 Invalid merchant.
 05 Merchant or seller account closed.
 06 Issuer card is expired.
 09 Request in progress.
 12 Invalid transaction.
 13 Invalid amount.
 14 Invalid buyer account or card information.
 17 Buyer cancel transaction.
 22 Suspected malfunction.
 25 Failure to search an original transaction.
 30 Format error or MAC error.
 31 Invalid bank.
 39 No credit account.
 51 Insufficient fund.
 53 No saving account.
 57 Transaction not permitted.
 61 Withdrawal limit exceeded.
 65 Withdrawal frequency exceeded.
 76 Transaction not found.
 77 Invalid buyer name or buyer Id.
 79 Host decline when down.
 85 Internal error at bank's system.
 87 Debit failed (exception handling).
 88 Credit failed (exception handling).
 89 Transaction not received (exception handling).
 92 Financial institution or intermediate network facility cannot be found for routing.
 93 Transaction cannot be completed.
 FE Internal error.
 OE Transaction rejected as not in operating hours.
 OF Transaction timeout.
 OA Session timeout.
 1A Buyer session timeout at bank login page.
 1B Buyer failed to provide the necessary info to login to bank login page.
 1C Buyer choose cancel at login page.
 1D Buyer session timeout at account selection page.
 1E Buyer failed to provide the necessary info at account selection page.
 1F Buyer choose cancel at account selection page.
 1G Buyer session timeout at TAC request page.
 1H Buyer failed to provide the necessary info at TAC request page.
 1I Buyer choose cancel at TAC request page.
 1J Buyer session timeout at confirmation page.
 1K Buyer failed to provide the necessary info at confirmation page.
 1L Buyer choose cancel at confirmation page.
 2A Transaction amount is lower than minimum limit.

Paysbuy (Thailand)

Error Code	Description	Action / Remark
90	No data is sent	inv is null
91	secureCode is incorrect	secureCode is incorrect
92	PSBID, email address, or password is incorrect	PSBID or email not found

93	PSBID or email address format is incorrect, or password is not entered	PSBID or Username is incorrect
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RESOURCES

Logos of all brand name

Merchant may download the logos from <http://www.molpay.com/doc/molpaylogos.zip>

Mobile SDK/XDK

MOLPay is now ready to be integrated into your mobile apps. We have released Mobile SDK and XDK library on GitHub. To apply this, kindly contact support@molpay.com and provide your MOLPay Merchant ID or Company name, Platform (iOS/Android), Apps Name in order to register and authorize 3rd party app in MOLPay system.

Supported Shopping Cart

MOLPay have been integrated with many popular shopping carts, globally. Merchant may refer the complete list on <http://www.molpay.com/cart>

Some MOLPay payment plugin/add-on/module can be downloaded from GitHub.

ISO References

http://www.iso.org/iso/country_codes.htm

http://en.wikipedia.org/wiki/ISO_3166-1

http://www.iso.org/iso/currency_codes

http://en.wikipedia.org/wiki/ISO_4217

Handling JSON/PLAIN TEXT using .NET

<http://stackoverflow.com/questions/36216464/wcf-webinvoke-which-can-accept-content-type-text-plain>

Please use the above custom WebContentTypeMapper if you are using .NET, especially when you encounter this exception message:

The incoming message has an unexpected message format 'Raw'. The expected message formats for the operation are 'Xml'; 'Json'. This can be because a WebContentTypeMapper has not been configured on the binding. See the documentation of WebContentTypeMapper for more details.

Predefined Bank Lists (Updated on 06th Jan 2015)

Bank Code	Bank Name	CA/SA & Credit Card	Loan	H/P
ABNAMYKL	THE ROYAL BANK OF SCOTLAND BHD	Personal 7,9, Corp. CA 7,9,10		
AFBQMYKL	ASIAN FINANCE BANK BHD			
AGOB9999	BANK PERTANIAN MALAYSIA BHD SPI			
AGOBMYK1	BANK PERTANIAN MALAYSIA BHD (AGROBANK)	SA 16	17	
AIBBMYKL	AFFIN ISLAMIC BANK BHD	12, Y	12	12
AISLMYKL	AMISLAMIC BANK BHD	13	14	14
ALSRMYK1	ALLIANCE ISLAMIC BANK BHD	15	15	15
AMMB9999	AMINVESTMENT BANK BHD SPI			
AMMBMYKL	AMINVESTMENT BANK BHD			
ARBKMYKL	AMBANK BHD	13, Y	14	14
AVSSMYK1	ECM LIBRA INVESTMENT BANK BHD			
BIMBMYKL	BANK ISLAM BHD	14, Y	14	14
BKCHMYKL	BANK OF CHINA (MALAYSIA) BHD	15		
BKKBMYKL	BANGKOK BANK BHD			
BKRMMYK1	BANK KERJASAMA RAKYAT	SA 12, Y	12	
BMMBMYKL	BANK MUAMALAT (M) BHD	14	14, 17	14, 17
BNMAMYKL	BANK NEGARA MALAYSIA			
BNPA9999	BNP PARIBAS MALAYSIA BHD SPI			
BNPAMYKL	BNP PARIBAS MALAYSIA BHD	CA 16	16	
BOFAMY2X	BANK OF AMERICA BHD	5-17		
BOTKMYKX	BANK OF TOKYO-MITSUBISHI BHD	6	6	
BSNA9999	BANK SIMPANAN NASIONAL SPI			
BSNAMYK1	BANK SIMPANAN NASIONAL	SA 16, Y	15	15
CAGA9999	CAGAMAS BHD SPI			
CAGAMYK1	CAGAMAS BHD			
CHASMYKX	J.P. MORGAN CHASE BANK BHD	10	10	
CIBBMYKL	CIMB BANK BHD	10/14, Y	10, 17	10, 17
CITI9999	CITIBANK BHD SPI			

CITIMYKL	CITIBANK BHD	Personal 10, Corp. CA 9-16, Y	10-14	
COIM9999	CIMB INVESTMENT BANK BHD SPI			
COIMMYK1	CIMB INVESTMENT BANK BHD			
CTBBMYKL	CIMB ISLAMIC BANK BHD	10	10, 17	10, 17
DEUT9999	DEUTSCHE BANK (M) BHD SPI			
DEUTMYKL	DEUTSCHE BANK (M) BHD	10-14	10-14	
EXMB9999	EXPORT IMPORT BANK BHD SPI			
EXMBMYKL	EXPORT IMPORT BANK BHD			
HBMBMYKL	HONGKONG BANK MALAYSIA BHD			
HDSBMY2P	HWANGDBS INVESTMENT BANK BHD			
HLBBMYKL	HONG LEONG BANK BHD	11/13, Y	11	11
HLIBMYKL	HONG LEONG ISLAMIC BANK BHD	11	11	11
HBMBMYKL	HSBC BANK MALAYSIA BHD	12, Y	12	
HMABMYKL	HSBC AMANAH MALAYSIA BHD	12	12-14	
ICBKMYKL	INDUSTRIAL & COMM. BANK OF CHINA (M) BHD	17/19	17/19	
IIMBMYKL	INDIA INTERNATIONAL BANK (M) BHD			
ISCA9999	ABRAR DISCOUNTS BHD SPI			
ISCAMYK1	ABRAR DISCOUNTS BHD			
KAFD9999	KAF INVESTMENT BANK BHD SPI			
KAFDMYK1	KAF INVESTMENT BANK BHD			
KFHOMYKL	KUWAIT FINANCE HOUSE	12		
KKENMYK1	KENANGA INVESTMENT BANK BHD			
KWAPMYK1	KUMPULAN WANG PERSARAAN			
KWSPMYK1	KUMPULAN WANG SIMPANAN PEKERJA			
MBAM9999	ALLIANCE INVESTMENT BANK BHD SPI			
MBAMMYK1	ALLIANCE INVESTMENT BANK BHD			
MBBEMYKL	MALAYAN BANKING BHD	12	12	12
MBEA9999	MAYBANK INVESTMENT BANK BHD SPI			
MBEAMYK1	MAYBANK INVESTMENT BANK BHD			
MBISMYKL	MAYBANK ISLAMIC BHD	12	12	12

MFBBMYKL	ALLIANCE BANK MALAYSIA BHD	15, Y	15	15
MHCBMYKA	MIZUHO CORPORATE BANK (M) BHD	CA 10, Y		
MIMBMYKL	MIMB INVESTMENT BANK BHD			
MSME9999	SME BANK MALAYSIA BHD SPI			
MSMEMYKL	SME BANK MALAYSIA BHD			
NBADMYKL	NATIONAL BANK OF ABU DHABI MALAYSIA BHD			
NOSCMYKL	THE BANK OF NOVA SCOTIA BHD			
OABBMYKL	OCBC AL-AMIN BANK BHD	10	15	
OCBCMYKL	OCBC BANK (M) BHD	10, Y	15	
OSKI9999	OSK INVESTMENT BANK BHD SPI			
OSKIMYKL	OSK INVESTMENT BANK BHD			
PAMBMYK1	AFFIN INVESTMENT BANK BHD			
PBBEMYKL	PUBLIC BANK BHD	10, Y	15	15
PEMB9999	BANK PEMBANGUNAN MALAYSIA BHD SPI			
PEMBMYKL	BANK PEMBANGUNAN MALAYSIA BHD			
PERDMYK1	HONG LEONG INVESTMENT BANK BHD			
PHBMMYKL	AFFIN BANK BHD	12, Y	12	12
PIBEMYK1	PUBLIC ISLAMIC BANK BHD	10	15	15
RHBAMYKL	RHB ISLAMIC BANK BERHAD	14	14	12
RHBBMYKL	RHB BANK BHD	14, Y	14	12
RHBMMYK1	RHB INVESTMENT BANK BHD			
RJHIMYKL	AL-RAJHI BANK (M) BHD	15, Y	15	15
SCBLMYKX	STANDARD CHARTERED BANK BHD	Personal 12, Corp. CA 5-17, Y	8	
SCSRMYK1	STANDARD CHARTERED SAADIQ BHD			
SMBBMYK1	PUBLIC INVESTMENT BANK BHD			
SMBCMYKL	SUMITOMO MITSUI BANK BHD	CA 8		
UMBB9999	MIDF AMANAH INVESTMENT BANK BHD SPI			
UMBBMYK1	MIDF AMANAH INVESTMENT BANK BHD			
UOVBMYKL	UNITED OVERSEAS BANK (M) BHD	SA 11, CA 10,11, Y	10, 15	

Settlement/FTT Country & Currency Lists (Updated on 11th Sep 2014)

United States	USD
United Kingdom	GBP, USD
Europe	EUR, USD
Japan	JPY, USD
New Zealand	NZD, USD
Australia	AUD, USD
Singapore	SGD, USD
Hong Kong	HKD, USD
Canada	CAD, USD
Brunei	BND, USD
Thailand	THB, USD
Denmark	DKK
Switzerland	CHF
China	USD, EUR
Korea, Indonesia, India, Taiwan	USD ONLY