

Development & Integration Guides





Change Logs

| DOCUMENT VERSION | DESCRIPTION | DATE |
|---------------------|--|--------------------|
| 1.19 | Added new supported channels: DragonPay (ChannelId = 14) AIS 12 Call Prepaid Card (ChannelId = 601) True Money Prepaid Card (ChannelId = 602) Happy Prepaid Card (ChannelId = 603) ZEST Prepaid Card (ChannelId = 604) MOLPoints Prepaid Card (ChannelId = 605) Include merchant payment result Acknowledge Payment Result and retries (Section 4.1.4 Payout Payment Result) | August 8, 2016 |
| 1.18 | Added guidelines for new added detail & summary reporting services (Section 5) | April 29, 2016 |
| 1.17 | Added guidelines for direct integrate with MOL payment methods individually (Section 4.1.1 – Merchant to surface payment methods individually & Section 4.1.3 – Payout Payment Request) Removed parameters VirtualCurrencyName & VirtualCurrencyRate from Payout Payment Request, instead, configured via MOL backend. Added more supported currencies (SGD, IDR, PHP, THB & VND) for channel Easy2Pay. | March 15, 2016 |
| 1.16 | Added new supported channels (Page 7): FPX Maybank2U Standardized integration flows via MOL Hosted Payment Wall, and removed channelId parameter from Payout Payment Request, Result & Query. Revised channels supported payment countries & currencies (Page 4 to 7). | April 20, 2015 |
| 1.15 | Added new supported channels, MOLPay Credit Card (channelId = 10) & PayPal (channelId = 11). | March 23, 2015 |
| 1.14 | Added new section to explain how to surface MOL payment methods at either at merchant site or MOL Payment Wall, in Section 4.1 Surface Payment Methods Revise payment flows in section 4.2 Customer Purchase Flows Update channelId parameter in section 4.4 Payout Payment Request as conditional field. Added description for channelId parameter in section 4.4 Payout Payment Request to surface MOL Payment Wall. Added new supported channel, Game Sultan (channelId = 9) in Payout Payment Request. | September 25, 2014 |
| 1.13 | Added new supported channel, NganLuong (channelId = 7) & Easy2Pay (channelId 8) in Payout Payment Request | September 18, 2014 |
| 1.12 | Added new supported channel, EasyTopUp (channelId = 6) in Payout Payment Request. | July 07,2014 |
| 1.11 | Added new securities feature for IP Address fraud detection. Added "ClientIpAddress" in Redemption Request and Card Query as required field. | July 04, 2014 |



Intended Audience

This integration guide is for developers from merchant who integrating their system with MOL Payout API.

Feedback

Feedback and comments are welcome throughout. You may help us to improve this guide by sending feedback to apisupport@mol.com.



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1.Introduction

The MOL Checkout – Payout API offers merchant a wide range of payment channels to their customer across the globe with just one time integration. Payout API designed to optimize and simplify integration effort between merchant and various payment channels. Instead of having to integrate with multiple APIs from different payment channels, Payout API provides a single endpoint for all. In other words, overall integration effort can be reduced and thus, completed in much shorter time.

MOL Payout API also provides a secure payment experience with server to server communication over a secure socket layer (SSL) and conforms to Representational State Transfer (RESTful) architectural style uses JSON as its data representation format.

Following are list of payment providers supported by MOL Payout API:

MOLPoints

MOLPoints is an online micropayment system enables consumers nationwide to purchase online games, products and services through any one of our 12 localized portals and pay for your purchases at over 1.6 million physical, online and mobile channels in more than 80 countries worldwide. For more information about MOLPoints, please visit www.mol.com.

| Payment Types: | Prepaid Card, E-Wallet |
|---------------------|--|
| Payment Countries: | Malaysia, Thailand, Indonesia, Philippines, Vietnam, Singapore, United States, Brazil, India, Australia, New Zealand, Taiwan, Rest of the World |
| Payment Currencies: | AUD, BRL, IDR, INR, MYR, NZD, PHP, SGD, THB, TWD, USD, VND |

Rixty

Rixty is an alternative payment system that lets domestic and international users spend cash and coins for online games, virtual worlds and all types of digital content. Consumers can pay without a credit card and without exposing confidential information by converting cash to Rixty value at 140,000 stores in the US and Brazil or nearly 500,000 locations worldwide. For more information about Rixty, please visit www.rixty.com.

| Payment Types: | Prepaid Card, E-Wallet |
|---------------------|---|
| Payment Countries: | United States, Brazil, North America, South America |
| Payment Currencies: | USD, BRL |



Thailand Prepaid Cards (via EasyTopUp)

Thailand Customers simply purchase the prepaid card anywhere and use the prepaid card PIN (direct top-up) for both client game and web game. The supported Thailand prepaid cards are:

- AIS 3G 1-2-Call! Cash Card (www.ais.co.th)
- Truemoney (www.truemoney.co.th)
- MOLPoints Card (<u>th.mol.com</u>)
- Zest Card (<u>www.zest.co.th</u>)
- Happy Cash Card (<u>www.dtac.co.th</u>)

| Payment Types: | Prepaid Card |
|---------------------|--------------|
| Payment Countries: | Thailand |
| Payment Currencies: | ТНВ |

NganLuong

NganLuong.vn is the leading E-wallet & prepaid card payment service in Vietnam Pilot licensed by Central Bank Quick and Easy merchant self-integration. The supported prepaid card for NganLuong.vn are Viettel, Vinaphone, MobiFone, and Gate card. For more information about NganLuong.vn, please visit www.nganluong.vn.

| Payment Types: | Prepaid Card |
|---------------------|--------------|
| Payment Countries: | Vietnam |
| Payment Currencies: | VND |

Mobile Direct Top-Up (via Easy2Pay)

Mobile Direct Top-Up (via Easy2Pay) is a carrier billing for game companies that use it as key payment channel. Users allow using Telco credits for purchase and top up in-app through mobile phone or web based.

| Payment Types: | Carrier Billing |
|---------------------|--|
| Payment Countries: | Malaysia, Singapore, Indonesia, Philippines, Thailand, Vietnam |
| Payment Currencies: | MYR, SGD, IDR, PHP, THB, VND |



Game Sultan

Game Sultan is one of Turkey's leading E-Pin distribution brand and MOL subsidiary company, founded in 2006. Game Sultan has been providing payment systems since 2006 from online gaming to digital online platforms through Turkey.

Game Sultan has more than 40 global online gaming partners with its various physical and digital distribution channels with more than 8.000 dealer network and 1 M end user community. Now Game Sultan bringing its expertise to Saudi Arabia, Egpyt, UAE, Quatar, Kuwait covering MENA to increase the joy of the game and safe & fast payment quality. For more information about Game Sultan, please visit www.gamesultan.com.

| Payment Types: | E-Wallet |
|---------------------|---|
| Payment Countries: | Turkey, MENA (Egypt, Saudi Arabia, UAE, Qatar, Bahrain, Kuwait, Tunisia, Algeria), EU (Poland, Germany, Romania, Bulgaria, Austria) |
| Payment Currencies: | TRY, EUR, USD |

MOLPay Credit Card

MOLPay is the first multi-currency payment gateway in Southeast Asia that accepts cash payments for online purchases, through physical outlets such as convenience stores and bookstores. It is simple to setup on any e-commerce store and also, convenient and secure for online buyers to use.

MOLPay offers a wide range of e-commerce payment solutions – from online payment acceptance and processing to fraud management to payment security.

| Payment Types: | Credit Card (Visa & Master) |
|---------------------|---|
| Payment Countries: | Malaysia, Thailand, Indonesia, Philippines, Vietnam, Singapore, United States, Brazil, India, Australia, New Zealand, Taiwan |
| Payment Currencies: | AUD, BRL, IDR, INR, MYR, NZD, PHP, SGD, THB, TWD, USD, VND |

PayPal

PayPal gives people better ways to connect to their money and to each other, helping them send money without sharing financial information and with the flexibility to pay using their PayPal account balances, bank accounts, PayPal Credit and credit cards. With our 162 million active digital wallets, we have created an open and secure payments ecosystem people and businesses choose to securely transact with each other online, in stores and on mobile devices.



PayPal is a truly global payments platform that is available to people in 203 markets, allowing customers to get paid in more than 100 currencies, withdraw funds to their bank accounts in 57 currencies and hold balances in their PayPal accounts in 26 currencies.

| Payment Types: | E-Wallet |
|---------------------|---|
| Payment Countries: | Malaysia, Thailand, Indonesia, Philippines, Vietnam, Singapore, United States, Brazil, India, Australia, New Zealand, Taiwan |
| Payment Currencies: | AUD, BRL, IDR, INR, MYR, NZD, PHP, SGD, THB, TWD, USD, VND |

FPX

FPX (Financial Process Exchange) is an online payment option by MyClear that allows consumers to make real time online payments using their current or savings account. All they need is an Internet Banking account with any of FPX participating banks. The participating banks are Maybank, CIMB Bank, RHB Bank, Public Bank, Hong Leong Bank and Bank Islam.

| Payment Types: | Online Banking |
|---------------------|--|
| Payment Countries: | Malaysia |
| Payment Currencies: | AUD, BRL, IDR, INR, MYR, NZD, PHP, SGD, THB, TWD, USD, VND |

Maybank2U

Maybank2u.com is an online payment option that allows consumers to make real time payments using their Maybank internet banking accounts.

| Payment Types: | Online Banking |
|---------------------|--|
| Payment Countries: | Malaysia |
| Payment Currencies: | AUD, BRL, IDR, INR, MYR, NZD, PHP, SGD, THB, TWD, USD, VND |

DragonPay

Dragonpay provides alternative online payment solutions to businesses of all sizes. Through the gateway, customers can purchase goods or services online, and pay for it using cash, mobile wallets or through online bank debit. Developing countries like the Philippines have very low penetration of credit cards and banking in general. This makes alternative payments an important part of any online selling strategy. (www.dragonpay.ph)



| Payment Types: | Online Banking |
|---------------------|----------------|
| Payment Countries: | Philippines |
| Payment Currencies: | PHP |



2. Security Features

The Payout API services are protected for only authorized merchant with restricted hardened platform to secure payment data transmission.

Secure Sockets Layer (SSL) data transport

It's required to use HTTPS for all interchange message between merchant and MOL. This is to prevent any sensitive data being reveal by unauthorized party during message exchange. (http://en.wikipedia.org/wiki/HTTP_Secure)

IP Address Filtering

Merchant can register their server's static IP addresses with MOL to establish a secure connection to MOL Payout server.

Data Message Protection (Signature)

This is an application layer security in ensuring data integrity. All data in the message exchange will be hashed using a unique Secret Key and output as Signature. Secret Key is assign to merchant during account creation. MOL will validate this Signature to prevent any data tampering during the message exchange. It's also recommended for merchant to perform the same validation for all response messages received from MOL.

IP Address Fraud Detection

This feature is applicable to host and host service such as Redemption Service and Card Query Service. MOL will decline requested transaction when failure attempt from particular client IP address is exceed securities setting.



3. Get Started

| API version | |
|-------------|----|
| version | V1 |

3.1 Merchant Application Account

Before merchant start integrating with MOL Payout API, merchant must have MOL Payout API application account. If merchant already have a MOL Payout API application account then skips this step. If not, please contact MOL business development team (bd@mol.com) to request an application account.

MOL will provide account information below for merchant integration development process.

| Application Code: | Unique code to identify merchant application or portal which integrating with MOL Payout API. |
|-------------------|---|
| Secret Key: | A server-side shared secret key which will use to generate signature for API communication. |

3.2 Setting up Merchant Application Account

After merchant obtained MOL Payout API account from MOL, merchant need to provide below information to MOL API support team to complete the setup for the account.

Callback URL

MOL will send HTTP POST request with the result of payment status to this merchant's Callback URL. Each merchant application account refers to one Callback URL. The URL will be setup and maintain under the admin module. The maximum length of Callback URL is 255 characters.

IP Address

Outgoing IP address(es) of merchant payment server, for whitelisted purposes.



4. Payment Service

4.1 MOL Hosted Payment Service



Payout Payment Request

Merchant initiate payment request to MOL before a customer can proceed to make their payment.

• Payout Payment Result

MOL returns payment result to merchant after customer completed their payment.

Payout Payment Query

Allow merchant to retrieve a past payment for verification.



4.1.1 Surface Payment Methods Options

MOL Payout API allows merchant to surface all supported payment methods to customer via <u>MOL Hosted</u> Payment Wall, or alternatively, merchant to <u>Surface the Payment Methods Individually</u> at merchant site.

- To surface payment methods via <u>MOL Hosted Payment Wall</u> (see figure 1), simply leave blank or skip the parameter {channelId} during Payout Payment Request.
- For <u>Surface the Payment Methods Individually</u>, merchant surface each individual MOL's
 payment methods on merchant site page (see figure 3). Once consumer selects a payment
 channel logo (e.g. PayPal), merchant specific {channelId} during Payout Payment Request.

4.1.1.1 MOL Hosted Payment Wall

The Payment Wall surface all MOL supported payment methods in a MOL hosted page. Merchant only required surfacing ONE MOL logo at their payment methods selection page in order for customer to using all supported payment methods. MOL Hosted Payment Wall handles the displays of the payment options. There is no change required on merchant site when new payment methods added by MOL.

URL of MOL Hosted Payment Wall is obtained via the **Payout Payment Request** service as payment URL. Below figure depicts a sample of MOL Hosted Payment Wall screen:



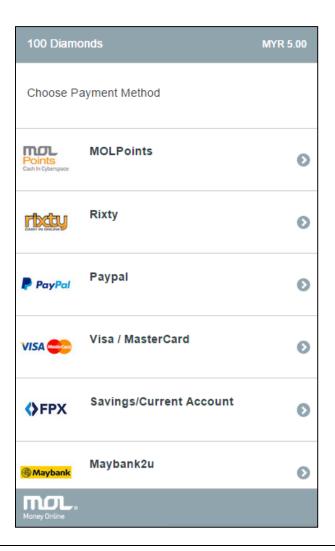


Figure 1 Sample MOL Hosted Payment Wall Screen



Example of customer purchase flows:

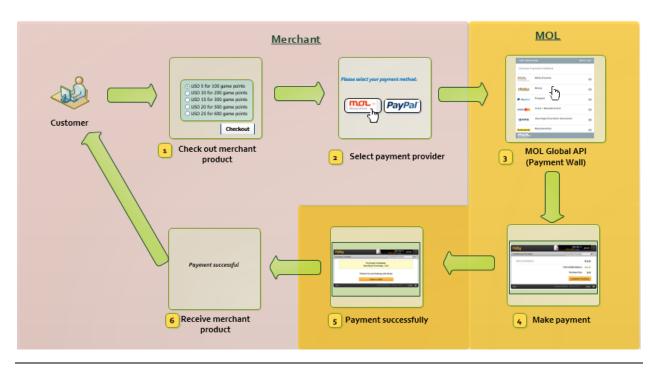


Figure 2 Customer Purchase Flows Diagram via MOL Payment Wall

4.1.1.2 Merchant Surface Payment Methods Individually

Instead of the MOL Hosted Payment Wall, merchant has the choice to surface each individual MOL's payment methods at their payment method selection page. With this payment flows, merchant has full control of visibility of MOL's payment methods to customers.

Example surface MOL payment methods individually at merchant site:



Figure 3 Customer Purchase Flows Diagram via MOL Payment Wall



When user selects particular MOL payment method at merchant site, merchant is required to submit parameter {channelId} during the Payout Payment Request. For example, if consumer select Rixty Payment Method, merchant submit {channelId} as 2. Full list of supported payment methods with respective channel id can be refer to 8.4 Supported Payment Methods.

4.1.2 Payment Flows

This section describes the overview payment flows among customer, merchant, MOL and payment channel.

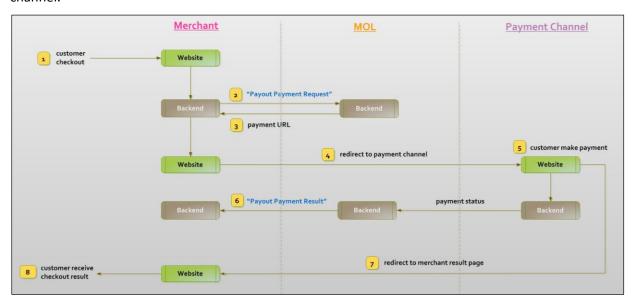


Figure 4 Payment Flows Diagram (MOL Hosted Payment Pages)

| Steps | Description |
|-------|---|
| | |
| 1 | Customer checkouts at merchant site and choose MOL Payout as their payment method. |
| 2 | Merchant sends payment request to MOL via Payout Payment Request service. |
| 3 | MOL returns payment attributes to merchant. E.g. payment URL together with a unique security token. |
| 4 | MOL redirects customer to the payment channel site. |
| 5 | Customer proceeds to make payment. |
| 6 | Upon completion, MOL notify merchant on the payment result via Payout Payment Result service. |
| 7 | Customer will be redirected back to merchant result page. |
| 8 | Customer receives final checkout result based on their payment status. |
| | |



4.1.3 Payout Payment Request

Invoke this service to initiate a payment request and MOL will returns a payment URL with a security token so merchant can forward their customer to make payment at MOL Payout website. Each token will be expired after 20 minutes.

| Environment | Service URL |
|-------------|---|
| Sandbox | https://sandbox.api.mol.com/payout/payments |
| Production | https://api.mol.com/payout/payments |

| Request Header | |
|----------------|-----------------------|
| HTTP Method | POST |
| Content type | x-www-form-urlencoded |



Request Body Message (Payout Payment Request)

| Parameters | Description |
|-----------------|---|
| applicationCode | Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. |
| | Required: Yes Format: maximum of 32 alphanumeric characters |
| referenceId | Reference Id is a unique identifier generated by merchant for each distinct transaction. |
| | Required : Yes Format : maximum of 50 alphanumeric characters |
| version | Version of MOL Payout API starts with prefix "v" following by the version number. When merchant make a HTTP request to MOL Payout API, the version must be specified in the parameter. |
| | Required : Yes Current Version : v1 |
| channelld | Channel Id is a unique identifier of payment provider specified for the payment. *Leave blank or skip this parameter to use MOL Payment Wall feature |
| | Required : Conditional Format : positive numeric values |
| | Supported channels: (refer to 8.4 Supported Payment Methods) |
| amount | Amount refers as payment amount of the transaction in fractional unit (lowest common denominator) of the respective currency code. Thousand comma separators should be removed before assign value to this parameter. (<i>refer to</i> 7.3 Supported Currency) |
| | Required: Conditional (*Leave blank for "Prepaid Card" or "Carrier Billing" payment types, Required for rest of the payment methods.) Note: |
| | If merchant choose to surface Payment Methods via MOL Hosted Payment Wall: • If merchant leave blank or skip for parameters {amount} & {currencyCode}, MOL Hosted Payment Wall lists all supported payment methods under the types of "Prepaid Card" or "Carrier Billing". |
| | If merchant submit value for parameter {amount} & {currencyCode}, MOL Hosted Payment Wall lists all supported payment methods other than "Prepaid Card" or "Carrier Billing". |
| | If merchant choose to surface Payment Methods individually at merchant site: |
| | Leave blank or skip for parameters {amount} & {currencyCode} for payment method under the types of "Prepaid Card" or "Carrier Billing". |



| | {amount} & {currencyCode} are required for payment method other than "Prepaid Card" or "Carrier Billing". |
|--------------|--|
| | The reason for leaving blank or skip parameters {amount} & {currencyCode} for "Prepaid Card" or "Carrier Billing" payment types is due to the payment amount are based on the full value of the prepaid card or carrier billing consumed by the customer. Merchant is required to reward game credits or product to customer equivalent to the payment amount. |
| | Format: positive numeric values |
| currencyCode | Currency Code refers to three characters global currencies code. |
| | Required: Conditional (Refer explanations for parameter {amount}) Format: 3 characters country code |
| returnUrl | Customer's browser will be redirected to this merchant's <i>Return URL</i> after the payment is completed. Merchant is recommended to include unique identifier for transaction in the URL. |
| | Required: Yes Format: maximum of 255 alphanumeric characters |
| description | Description refers to statement that describes the payment. The statement will be displayed in UI of the several payment providers. Required: Optional |
| customerId | Format: maximum of 255 alphanumeric characters Customer Id is a unique identifier of customer generated by the merchant. |
| | Required: Yes Format: maximum of 50 alphanumeric characters |
| signature | All parameters required for signature creation (refer to 5.1 Generate Signature) |
| | Required: Yes Format: maximum of 32 alphanumeric characters |

^{*} Testing mobile number: 12345678 (Please use this mobile number for sandbox carrier billing integration testing)



Response Body Message (Payout Payment Request)

** Original parameter value passed from merchant, merely for reference purpose

| Parameters | Description |
|-----------------|--|
| applicationCode | **Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. |
| | Format: maximum of 32 alphanumeric characters |
| referenceId | **Reference Id is a unique identifier generated by merchant for each distinct transaction. |
| | Format: maximum of 50 alphanumeric characters |
| version | **Version of MOL Payout API starts with prefix "v" following by the version number. When merchant make a HTTP request to MOL Payout API, the version must be specified in the parameter. |
| amount | **Amount refers as payment amount of the transaction in fractional unit (lowest common denominator) of the respective currency code. Thousand comma separators should be removed before assign value to this parameter. (refer to 7.3 Supported Currency) Format: positive numeric values |
| currencyCode | **Currency Code refers to three characters global currencies code. |
| | Format: 3 character country code |
| paymentId | Payment Id is a unique identifier given by MOL Payout for transaction reference purpose. Format: maximum of 50 alphanumeric characters |
| paymentUrl | Upon received the response from a Payment Payout Request, merchant redirect customer's browser to Payment URL of MOL to complete payment transaction. Payment URL will be expired in 20 minutes. |
| | Format : maximum of 255 alphanumeric characters |
| signature | All parameters required for signature creation (refer to 5.1 Generate Signature) |
| | Format: maximum of 32 alphanumeric characters |



Payout Payment Request Example

| HTTP Method | POST /payments |
|--|---|
| Request Parameters in HTTP Body (x- www-form- urlencoded format) | Format: applicationCode={ applicationCode }&referenceId={ referenceId }&version={ version }&amo unt={ amount }¤cyCode={ currencyCode }&returnUrl={ returnUrl }&description={ des cription }&customerId={ customerId }&signature={ signature } Example: applicationCode=3f2504e04f8911d39a0c0305e82c3301&referenceId=TRX1708901&version=v1&amount=1000¤cyCode=MYR&returnUrl=http%3A%2F%2Fyoursite.com%2Fresult%3FreferenceId%3DTRX1708901&description=Product%20A&customerId=12321144221&signature=aa3e9c52a1beabf1286db8d1e82976e1 |
| Response (JSON format) | <pre>200 OK (refer to 8.1 HTTP Status Code) Format: { "applicationCode" : "{ applicationCode }", "referenceId" : "{ referenceId }", "version" : "{ version }", "amount" : { amount }, "currencyCode" : "{ currencyCode }", "paymentId" : "{ paymentId }", "paymentUrl" : "{ paymentUrl }", "signature" : "{ signature }" }</pre> |
| | <pre>Example: { "applicationCode" : "3f2504e04f8911d39a0c0305e82c3301", "referenceId" : "TRX1708901", "version" : "v1", "amount" : 1000 , "currencyCode" : "MYR", "paymentId" : "MPO00000000001", "paymentUrl" : "https://payout.mol.com/index.aspx?token=F786525494694176A7D1308B479010C3", "signature" : "1c01d4d676d4e5445ab064edb2efa7f8" }</pre> |



4.1.4 Payout Payment Result

This service is for MOL to notify merchant of the payment result that has been completed by their customer. Prior receiving of the payment result, merchant is required to provides a <u>Callback URL</u> (*refer to* <u>3.2 Setting up Merchant Application Account</u>) per application. The merchant's callback page must exist and actively listen to this service for payment status update.

NOTE: Merchant can approve their customer order, if a success payment status is returned from this service.

Acknowledge Payment Result

Merchant is required to return a response with **HTTP STATUS CODE 200** (refer to <u>8.1 HTTP Status Code</u>) upon receive the Payment Result from MOL. In cases of the response is not received explicitly by MOL, MOL will retry resend identical payment result at various intervals.

Retries

Payout Payment Result provides a retry mechanism that re-sends a payment result within **24** hours until merchant's listener responses (**HTTP Status Code 200**) to the payment result. The maximum number of retries is **3**.

Merchant's listener must respond to every payment result. If merchant do not respond, MOL assumes the payment result was not received and re-sends it.

NOTE: Merchant must also ensure that do not process the transaction associated with a payment result twice or more.

| Request Header | |
|----------------|-----------------------|
| HTTP Method | POST |
| Content type | x-www-form-urlencoded |



Request Body Message (Payout Payment Result)

| Parameters | Description |
|-------------------|---|
| applicationCode | Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. |
| | Format: maximum of 32 alphanumeric characters |
| referenceId | Reference Id is a unique identifier generated by merchant for each distinct transaction. |
| | Format: maximum of 50 alphanumeric characters |
| version | Version of MOL Payout API starts with prefix "v" following by the version number. When merchant make a HTTP request to MOL Payout API, the version must be specified in the parameter. |
| amount | Amount refers as payment amount of the transaction in fractional unit (lowest common denominator) of the respective currency code. Thousand comma separators should be removed before assign value to this parameter. (refer to 7.3 Supported Currency) |
| | Format : positive numeric value |
| currencyCode | Currency Code refers to three characters global currencies code. |
| | Format: 3 character country code |
| paymentId | Payment Id is a unique identifier given by MOL Payout for transaction reference purpose. |
| | Format : maximum of 50 alphanumeric characters |
| paymentStatusCode | Payment Status Code refers to two characters status indicator for Success, Failure, or Pending of a payout payment transaction. |
| | Format: maximum of 2 alphanumeric characters |
| | List of payment status codes: |
| | Code Message Description |
| | 00 Success Payment completed and paid. |
| | O1 Incomplete Payment has not complete or in middle of processing. |
| | 02 Expired Payment has been failed as expired. |



| | 99 Failure P | Payment for the given transaction failed. |
|-----------------------|---|--|
| | | |
| paymentStatusDate | Payment Status Date in | dicates the last updated date of the payment's status. The |
| paymentstatusbate | - | |
| | date will be in <u>UTC (Coordinated Universal Time)</u> format. | |
| | Format : yyyy-MM-ddTH | IH:mm:ssZ |
| | | |
| channelld | Channel Id is a unique id | lentifier of payment provider specified for the payment. |
| | | |
| | Format : positive numer | ic values |
| | | |
| customerId | Customer Id is a unique | identifier of customer generated by the merchant. |
| | · | |
| | Format : maximum of 50 | alphanumeric characters |
| | | |
| virtualCurrencyAmount | - | t refers to the calculated quantity of merchant's Virtual |
| | Currency equivalent to t | he monetary Amount user has paid. |
| | | |
| | _ | or {virtualCurrencyAmount}, the {virtualCurrencyRate} |
| | · - | kend) will be used to automatically derive rates for user |
| | purchases in all other mo | onetary currencies supported by MOL payments. |
| | Merchant can use this {\ilde{\implies} | virtualCurrencyAmount} as a reference for the actual Virtual |
| | Currency quantity to credit into the user's game/app (after rounding up/down if | |
| | needed). | |
| | Format : positive decima | al value (2 decimal places) |
| | Format : positive decimal value (2 decimal places) Examples: 20.47, 17.00 | |
| | | |
| | Example Calculation: | |
| | Let's say, configuration v | |
| | {virtualCurrencyName} is "Diamonds", {virtualCurrencyRate} is = 50 (e.g. 1 USD = 50 Diamonds), | |
| | | |
| | If MOL successfully colle | cted a Payment amount of SGD 10 from user (for example, |
| | - | MOLPoints Card), then the value of the |
| | | t} returned from MOL to merchant in Payout Payment Result |
| | is calculated as follow: | y recurred from West to merchant in Fuyout Fuyment Result |
| | 15 38.58.18.08.8 | |
| | {virtualCurrencyAmount | t} = |
| | | x MOL Forex Rate* (for SGD to USD) x {virtualCurrencyRate} |
| | $= 10 \times 0.7416 \times 50$ | |
| | = 370.80 | |
| | | |



| | The merchant may then use this as reference and round up to issue 371 Diamonds to the user's game/app. |
|-----------|--|
| | (*MOL Forex Rate for SGD to USD is 1 SGD = 0.7416 USD based on Maybank spot rate on day of transaction) |
| | NOTE: |
| | This parameter is NOT for financial settlement purposes, but to ease merchants of the chores of doing Forex calculation to derive the virtual currency quantity to credit to user. |
| | The actual amount and currency of the monetary payment made by user is returned in the {Amount} and {Currency} parameter in the Payout Payment Result. |
| | This parameter is designed for use only in "redeem prepaid cards" payment flows where currency and amount is not specified in the Payout Payment Request. |
| signature | All parameters required for signature creation (refer to 5.1 Generate Signature) |
| | Format : maximum of 32 alphanumeric characters |



Payout Payment Result Example

| <i>HTTP</i> Method | POST /{ callbackURL } |
|--|--|
| Request Parameters in HTTP Body (x- www-form- urlencoded format) | Format: applicationCode={ applicationCode }&referenceId={ referenceId }&paymentId={ paymentId }&version={ version }&amount={ amount }¤cyCode={ currencyCode }&paymentStatu sCode={ paymentStatusCode }&paymentStatusDate={ paymentStatusDate }&customerId={ customerId }&signature={ signature } Example: applicationCode=3f2504e04f8911d39a0c0305e82c3301&referenceId=TRX1708901&payme ntId=MPO0000000001&version=v1&amount=1000¤cyCode=MYR&paymentStatusCode=00&paymentStatusDate=2012-12-31T14%3A59%3A59Z&customerId=12321144221&signature=67626c0bde4e0cf66658fa403b 91bf57 |
| Response | 200 OK (refer to 8.1 HTTP Status Code) |



4.1.5 Payout Payment Query

Merchant can use this service to verify their customer payment status (e.g. success or failure) or to obtain more details on the payment before approving their customer's order.

Here are the scenarios to invoke this service:

- To confirm payment status of a transaction before grant the purchased item to the customer.
- To obtain transaction details for missing or lost transaction.

| Environment | Service URL |
|-------------|---|
| Sandbox | https://sandbox.api.mol.com/payout/payments |
| Production | https://api.mol.com/payout/payments |

| Request Header | |
|----------------|-----|
| HTTP Method | GET |



Request Body Message (Payout Payment Query)

| Parameters | Description |
|-----------------|---|
| applicationCode | Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. |
| | Required: Yes |
| | Format: maximum of 32 alphanumeric characters |
| referenceId | Reference Id is a unique identifier generated by merchant for each distinct transaction. |
| | Required : Conditional |
| | Condition: Either referenceId or paymentId must be supplied. |
| | Format: maximum of 50 alphanumeric characters |
| paymentId | Payment Id is a unique identifier given by MOL Payout for transaction reference purpose. |
| | Required : Conditional |
| | Condition: Either referenceld or paymentId must be supplied. |
| | Format: maximum of 50 alphanumeric characters |
| version | Version of MOL Payout API starts with prefix "v" following by the version number. When |
| | merchant make a HTTP request to MOL Payout API, the version must be specified in the |
| | parameter. |
| | Required: Yes |
| | Current Version: v1 |
| signature | All parameters required for signature creation (refer to 5.1 Generate Signature) |
| | Required : Yes |
| | Format: maximum of 32 alphanumeric characters |



Response Body Message (Payout Payment Query)

** Original parameter value passed from merchant, merely for reference purpose

| Parameters | Description | | |
|-------------------|--|--|--|
| applicationCode | **Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. | | |
| | Format: maximum of 32 alphanumeric characters | | |
| referenceId | **Reference Id is a unique identifier generated by merchant for each distinct transaction. | | |
| | Format: maximum of 50 alphanumeric characters | | |
| version | **Version of MOL Payout API start with prefix "v" following by the version number. | | |
| | When merchant make a HTTP request to MOL Payout API, the version must be specified in the parameter. | | |
| paymentId | **Payment Id is a unique identifier given by MOL Payout for transaction reference purpose. | | |
| | Format: maximum of 50 alphanumeric characters | | |
| amount | Amount refers as payment amount of the transaction in fractional unit (lowest common denominator) of the respective currency code. Thousand comma separators should be removed before assign value to this parameter. (<i>refer to</i> 7.3 Supported Currency) | | |
| | Format: positive numeric values | | |
| currencyCode | Currency Code refers to three characters global currencies code. Format: 3 character country code | | |
| | | | |
| paymentStatusCode | Payment Status Code refers to two characters status indicator for Success, Failure, or Pending of a payout payment transaction. | | |
| | Format : maximum of 2 alphanumeric characters | | |
| | · | | |
| | List of payment status codes: Code Message Description | | |
| | 00 Success Payment completed and paid. | | |
| | 01 Incomplete Payment has not complete or in middle of processing. | | |
| | 02 Expired Payment has been failed as expired. | | |



| | 99 Failure | Payment for the given transaction failed. |
|-----------------------|---|---|
| paymentStatusDate | Payment Status Date | indicates the last updated date of the payment's status. The |
| | date will be in <u>UTC (Coordinated Universal Time)</u> format. | |
| | | |
| | Format: yyyy-MM-ddTHH:mm:ssZ | |
| channelld | Channel Id is a unique | e identifier of payment provider specified for the payment. |
| | Format : positive numeric values | |
| | | |
| | | |
| customerId | Customer Id is a uniqu | ue identifier of customer generated by the merchant. |
| | | Ğ , |
| | Format : maximum of | f 50 alphanumeric characters |
| | | |
| virtualCurrencyAmount | | punt refers to the calculated quantity of merchant's Virtual |
| | Currency equivalent t | o the monetary Amount user has paid. |
| | During the calculation | for {virtualCurrencyAmount}, the {virtualCurrencyRate} |
| | _ | nt during Payout Payment Request) will be used to |
| | ** | rates for user purchases in all other monetary currencies |
| | supported by MOL pa | · |
| | Supported by MO2 pa | ymens. |
| | Merchant can use this | s { virtualCurrencyAmount } as a reference for the actual Virtual |
| | Currency quantity to credit into the user's game/app (after rounding up/down if | |
| | needed). | |
| | , | |
| | Format : positive decimal value (2 decimal places) | |
| | Examples: 20.47, 17.00 | |
| | | |
| | Example Calculation: | |
| | Let's say in the Payout Payment Request, | |
| | <pre>{virtualCurrencyName} passed from merchant is "Diamonds", {virtualCurrencyRate} is = 50 (e.g. 1 USD = 50 Diamonds), If MOL successfully collected a Payment amount of SGD 10 from user (for example, user redeemed a SGD 10 MOLPoints Card), then the value of the {virtualCurrencyAmount} returned from MOL to merchant in Payout Payment Result</pre> | |
| | | |
| | | |
| | | |
| | | |
| | is calculated as follow | |
| | | |
| | {virtualCurrencyAmount} = | |
| | |)} x MOL Forex Rate* (for SGD to USD) x {virtualCurrencyRate} |
| | = 10 x 0.7416 x 50 | |
| | = 370.80 | |
| | | |



| Moriey orience | |
|----------------|--|
| | The merchant may then use this as reference and round up to issue 371 Diamonds to the user's game/app. |
| | (*MOL Forex Rate for SGD to USD is 1 SGD = 0.7416 USD based on Maybank spot rate on day of transaction) |
| | NOTE: |
| | This parameter is NOT for financial settlement purposes, but to ease merchants of the chores of doing Forex calculation to derive the virtual currency quantity to credit to user. |
| | The actual amount and currency of the monetary payment made by user is returned in the {Amount} and {Currency} parameter in the Payout Payment Result. |
| | This parameter is designed for use only in "redeem prepaid cards" payment flows where currency and amount is not specified in the Payout Payment Request. |
| signature | All parameters required for signature creation (refer to 5.1 Generate Signature) |
| | Format : maximum of 32 alphanumeric characters |

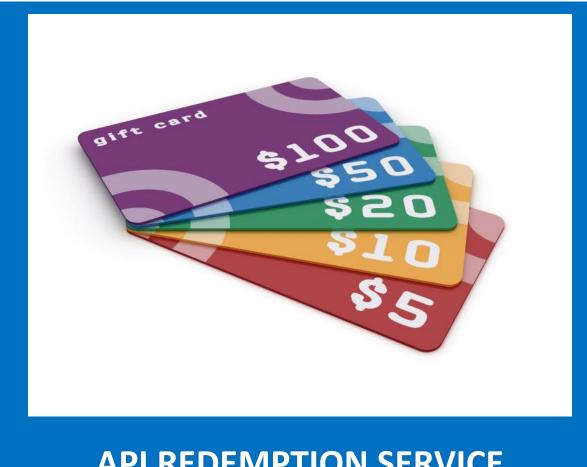


Payout Payment Query Example

| <i>HTTP</i> Method | GET /payments |
|---|---|
| Request Parameters as query string | Format: applicationCode={ applicationCode }&referenceId={ referenceId }&paymentId={ paymentId }&version={ version }&signature={ signature } |
| | Example: (with referenceId) https://api.mol.com/payout/payments?applicationCode=3f2504e04f8911d39a0c0305e82c3 301&referenceId=TRX1708901&version=v1&signature=23cc45d8fb9baad081d3db51416aca 39 |
| | Or Example: (with paymentId) |
| | https://api.mol.com/payout/payments?applicationCode=3f2504e04f8911d39a0c0305e82c3 301&paymentId=MPO00000000001&version=v1&signature=d22ff11cec9b9efdbf736f3f19 c928d2 |
| Response (JSON format) | 200 OK (refer to 8.1 HTTP Status Code) |
| | <pre>{ "applicationCode" : "{ applicationCode }", "referenceId" : "{ referenceId }", "paymentId" : "{ paymentId }", "version" : "{ version }", "amount" : { amount }, "currencyCode" : "{ currencyCode }", "paymentStatusCode" : "{ paymentStatusCode }", "paymentStatusDate" : "{ paymentStatusDate }", "customerId" : "{ customerId }", "signature" : "{ signature }" }</pre> |
| | <pre>Example: { "applicationCode": "3f2504e04f8911d39a0c0305e82c3301", "referenceld": "TRX1708901", "paymentId": "MPO000000000001", "version": "v1", "amount": 1000, "currencyCode": "MYR", "paymentStatusCode": "00", "paymentStatusDate": "2012-12-31T14:59:59Z", "customerId": "12321144221", "signature": "67626c0bde4e0cf66658fa403b91bf57" }</pre> |



4.2 API Redemption Service



API REDEMPTION SERVICE

Redemption Request

Merchant submits a host to host payment request to redeem a MOLPoints gift card's value.

Card Query

Merchant queries the MOLPoints gift card's details for validation purpose.

Payout Payment Result

MOL returns payment result to merchant's Callback URL after customer completed their payment. (refer to 4.1.4 Payout Payment Result)



4.2.1 Redemption Flows

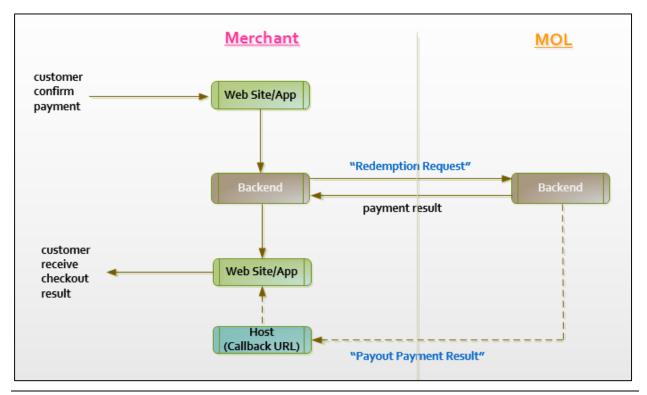


Figure 5 Payment Flows Diagram for API Redemption Service



4.2.2 Redemption Request

Invoke this service to redeem a gift card's value.

| Environment | Service URL |
|-------------|---|
| Sandbox | https://sandbox.api.mol.com/payout/payments/molpoints/pin |
| Production | https://api.mol.com/payout/payments/molpoints/pin |

| Request Header | |
|----------------|-----------------------|
| HTTP Method | POST |
| Content type | x-www-form-urlencoded |



Request Body Message (Redemption Request)

| Parameters | Description |
|-----------------|---|
| applicationCode | Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. |
| | Required: Yes Format: maximum of 32 alphanumeric characters |
| referenceId | Reference Id is a unique identifier generated by merchant for each distinct transaction. NOTE: Requesting a transaction with the same reference Id will return the previous completed transaction record. |
| | Required: Yes Format: maximum of 50 alphanumeric characters |
| serialNo | Serial No is a unique identity of the card. |
| | Required: Optional Format: maximum of 100 alphanumeric characters |
| pin | <i>Pin</i> is a unique code of the card. |
| | Required: Yes Format: maximum of 100 alphanumeric characters |
| description | Description refers to statement that describes the payment. The statement will be displayed in UI of the several payment providers. |
| | Required: Optional Format: maximum of 50 alphanumeric characters |
| customerId | Customer Id is a unique identifier of customer generated by the merchant. |
| | Required : Yes Format : maximum of 50 alphanumeric characters |
| currencyCode | Currency Code refers to three characters global currencies code. |
| | Required: Conditional Condition: Payout API will accept all currency of card, if the currencyCode parameter is not supplied. Format: 3 character country code |
| ClientlpAddress | ClientIpAddress is IP Address of the users who is request for redemption service. This IP Address is needed for fraud detection feature. |



| | Required : Yes |
|-----------|---|
| | Format: maximum of 50 characters valid IP Address |
| version | Version of MOL Payout API starts with prefix "v" following by the version number. When merchant make a HTTP request to MOL Payout API, the version must be specified in the parameter. |
| | Required: Yes Current Version: v1 |
| signature | Only selected parameters required for signature creation. (refer to 5.1 Generate Signature |
| | 1. applicationCode |
| | 2. currencyCode |
| | 3. pin |
| | 4. referenceld |
| | Required: Yes |
| | Format : maximum of 32 alphanumeric characters |



Response Body Message (Redemption Request)

** Original parameter value passed from merchant, merely for reference purpose

| Parameters | Description |
|-----------------|--|
| applicationCode | **Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. |
| | Format: maximum of 32 alphanumeric characters |
| referenceId | **Reference Id is a unique identifier generated by merchant for each distinct |
| | transaction. NOTE: Requesting a transaction with the same reference Id will return the previous completed transaction record. |
| | Format: maximum of 50 alphanumeric characters |
| serialNo | **Serial No is a unique identity of the card. |
| | Format: maximum of 100 alphanumeric characters |
| customerId | **Customer Id is a unique identifier of customer generated by the merchant. |
| | Format : maximum of 50 alphanumeric characters |
| currencyCode | **Currency Code refers to three characters global currencies code. |
| | Format: 3 character country code |
| version | **Version of MOL Payout API starts with prefix "v" following by the version number. |
| | When merchant make a HTTP request to MOL Payout API, the version must be specified |
| | in the parameter. |
| | Current Version: v1 |
| amount | Amount refers as payment amount of the transaction in fractional unit (lowest common |
| | denominator) of the respective currency code. Thousand comma separators should be |
| | removed before assign value to this parameter. (refer to 7.3 Supported Currency) |
| | Format: positive numeric values |
| paymentId | Payment Id is a unique identifier given by MOL Payout for transaction reference |
| | purpose. |
| | Format: maximum of 50 alphanumeric characters |
| | |
| | |



| Moriey offune | | | | |
|-------------------|--|---|---|----|
| paymentStatusCode | Paymer | nt Status Code | refers to two characters status indicator for Success, Failure, | or |
| | Pending of a payout payment transaction. | | | |
| | _ | Farment, manifestor of 2 alaban considerations | | |
| | Format | Format : maximum of 2 alphanumeric characters | | |
| | List of p | ayment status | s codes: | |
| | Code | Message | Description | |
| | | | | |
| | 00 | Success | Payment completed and paid. | |
| | 01 | Incomplete | Payment has not complete or in middle of processing. | |
| | 02 | Expired | Payment has been failed as expired. | |
| | 99 | Failure | Payment for the given transaction failed. | |
| paymentStatusDate | Paymer | Payment Status Date indicates the last updated date of the payment's status. The date | | |
| | will be i | n <u>UTC (Coordi</u> | nated Universal Time) format. | |
| | _ | | | |
| | Format | : yyyy-MM-dd | ITHH:mm:ssZ | |
| signature | Only sel | ected parame | ters required for signature creation. (refer to 5.1 Generate | |
| | Signature) | | | |
| | 1. | amount | | |
| | 2. | applicationC | ode | |
| | 3. | currencyCod | e | |
| | | - | | |
| | 4. | paymentId | | |
| | 5. | paymentStat | tusCode | |
| | 6. | referenceId | | |
| | Format | : maximum of | 32 alphanumeric characters | |



Redemption Request Example

| HTTP Method | POST /payments/molpoints/pin |
|--|--|
| Request Parameters in HTTP Body (x-www-form- urlencoded format) | Format: applicationCode={ applicationCode }&referenceId={ referenceId }&serialNo={ serialNo }&pin={ pin }&description={ description }&customerId={ customerId }¤cyCode={ currencyCode }&ClientIpAddress={ClientIpAddress} }&version={ version }&signature={ signature } Example: applicationCode=3f2504e04f8911d39a0c0305e82c3301&referenceId=TRX1708901&serialNo=7000053741&pin=12345678901234&description=Product%20A&customerId=123.1144221¤cyCode=MYR&ClientIpAddress=1.9.46.250&version=v1&signature=d3f82993661265982644cb8c4ee9fe83 |
| Response (JSON format) | <pre>200 OK (refer to 8.1 HTTP Status Code) Format: { "applicationCode" : "{ applicationCode }", "referenceld" : "{ referenceld }", "paymentld" : "{ paymentld }", "serialNo" : "{ serialNo }", "currencyCode" : "{ currencyCode }", "amount" : { amount }, "paymentStatusCode " : "{ paymentStatusCode }", "paymentStatusDate " : "{ paymentStatusDate }", "customerId" : { customerId }, "version" : "{ version }", "signature" : "{ signature }" } Example: { "applicationCode" : "3f2504e04f8911d39a0c0305e82c3301", "referenceId" : "TRX1708901", "paymentId" : "MPO10058", "serialNo" : "7000053741", "currencyCode" : "MYR", "amount" : 1000 , "paymentStatusCode" : "00", "paymentStatusCode" : "2013-11-08T09:43:26Z", </pre> |
| | "customerId": "12321144221", "version": "v1", "signature": "ba271600312cd1c312c4425ca76085e2" } |



4.2.3 Card Query

Invoke this service to query gift card details including state, amount and currency value.

Service URL

| Environment | Service URL |
|-------------|--|
| Sandbox | https://sandbox.api.mol.com/payout/molpoints/pin |
| Production | https://api.mol.com/payout/molpoints/pin |

| Request Header | |
|----------------|-----|
| HTTP Method | GET |



Request Body Message (Card Query)

| Parameters | Description |
|-----------------|---|
| applicationCode | Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. |
| | Required: Yes Format: maximum of 32 alphanumeric characters |
| serialNo | Serial No is a unique identity of the card. |
| | |
| | Required : Optional Format : maximum of 100 alphanumeric characters |
| pin | Pin is a unique code of the card. |
| | Required : Yes |
| | Format : maximum of 100 alphanumeric characters |
| ClientIpAddress | ClientIpAddress is IP Address of the users who is request for redemption service. This IP Address is needed for fraud detection feature. |
| | Required: Yes |
| | Format: maximum of 50 characters valid IP Address |
| version | Version of MOL Payout API starts with prefix "v" following by the version number. When |
| | merchant make a HTTP request to MOL Payout API, the version must be specified in the |
| | parameter. |
| | Required : Yes |
| | Current Version : v1 |
| signature | Only selected parameters required for signature creation. (refer to 5.1 Generate Signature) |
| | 1. applicationCode |
| | 2. pin |
| | 3. serialNo |
| | Required : Yes |
| | Format: maximum of 32 alphanumeric characters |



Response Body Message (Card Query)

 $\ensuremath{^{**}}$ Original parameter value passed from merchant, merely for reference purpose

| Parameters | Descrip | otion | Description | | |
|-----------------|--|-------------------------------|---|--|--|
| applicationCode | **Application Code is uniquely identifying merchant application or portal which integra with MOL Payout API. A merchant company could have up to 1 MOL merchant account multiple application accounts. | | | | |
| | Require Format | | f 32 alphanumeric characters | | |
| serialNo | **Seria | <i>l No</i> is a uniqu | ue identity of the card. | | |
| | | ed: Condition: : maximum o | al f 100 alphanumeric characters | | |
| pin | ** Pin is | a unique cod | e of the card. | | |
| | Require Format | | f 100 alphanumeric characters | | |
| version | **Version of MOL Payout API starts with prefix "v" following by the version number. Wh merchant make a HTTP request to MOL Payout API, the version must be specified in the parameter. | | | | |
| | Require Current | ed: Yes : Version: v1 | | | |
| stateId | State Id | refers to pre | sent condition of a card. | | |
| | Required : Yes Format : positive numeric values | | | | |
| | List of S | tate Id codes: | | | |
| | Code | Message | Description | | |
| | 1 | Active | Card is active and ready for redemption | | |
| | 2 | Redeemed | Card already redeemed. | | |
| | 3 | Expired | Card is already expired, hence it cannot be redeemed. | | |
| | 4 | Blocked | Card has been blocked for some reasons. | | |
| | 5 | Not Found | Card is not found or invalid. | | |
| | | | | | |



| amount | Amount refers as payment amount of the transaction in fractional unit (lowest common |
|--------------|---|
| | denominator) of the respective currency code. Thousand comma separators should be |
| | removed before assign value to this parameter. (refer to 7.3 Supported Currency) |
| | Format : positive numeric values |
| currencyCode | Currency Code refers to three characters global currencies code. |
| | Format : 3 character country code |
| signature | Only selected parameters required for signature creation. (refer to 5.1 Generate Signature) |
| | 1. amount |
| | 2. applicationCode |
| | 3. currencyCode |
| | 4. pin |
| | 5. serialNo |
| | 6. stateld |
| | Required: Yes Format: maximum of 32 alphanumeric characters |



Card Query Example

| <i>HTTP</i> Method | GET /molpoints/pin |
|---|---|
| Request Parameters as query string | Format: applicationCode={ applicationCode }&serialNo={ serialNo }&pin={ pin }&ClientIpAddress={ClientIpAddress}&version={ version }&signature={ signature } Example: https://api.mol.com/payout/molpoints/pin?applicationCode=3f2504e04f8911d39a0c0305e 82c3301&serialNo=7000053741&pin=35661514024111&ClientIpAddress=1.9.46.250&version=v1&signature=11ab3b7d29434d3698a595a624bbab96 |
| Response (JSON format) | <pre>200 OK (refer to 8.1 HTTP Status Code) Format: { "applicationCode" : "{ applicationCode }", "serialNo" : "{ serialNo }", "pin" : "{ pin }", "amount" : { amount }, "currencyCode" : "{ currencyCode }", "version" : "{ version }", "stateld" : "{ stateld }", "signature" : "{ signature }" } Example: { "applicationCode" : "3f2504e04f8911d39a0c0305e82c3301", "serialNo" : "7000053741", "pin" : "35661514024111", "amount" : "1000", "currencyCode" : "MYR", "version" : "v1", "stateld" : "1", "signature" : "54a105cc4e09a09532da711c6a41a913"</pre> |



5. Reporting Service

5.1 Payout Payments Detail Request

Invoke this service to retrieve top 100 payment transaction records base on merchant defined date range.

| Environment | Service URL |
|-------------|--|
| Sandbox | https://sandbox.api.mol.com/payout/report/detail |
| Production | https://api.mol.com/payout/report/detail |

| Request Header | |
|----------------|-----|
| HTTP Method | GET |



Request Body Message (Payout Payments Detail Request)

| Parameters | Description |
|-----------------|--|
| applicationCode | Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. |
| | Required: Yes Format: maximum of 32 alphanumeric characters |
| startDate | Start Date refers to the earliest transaction created date at which to start the report search. |
| | Required: Yes Format: yyyy-MM-ddTHH:mm:ss |
| endDate | End Date refers to the latest transaction created date to be included in the report search. |
| | Required: Yes Format: yyyy-MM-ddTHH:mm:ss |
| timeZone | Time Zone is a string containing "UTC" and the UTC offset . Parameters {startDate} and {endDate} will be converted to this time zone. Report search based on the {startDate} and {endDate} in converted time zone. |
| | Required: No (Default to <a a="" api,="" be="" by="" following="" href="https://www.urc.gov/</td></tr><tr><td>pageToken</td><td>Page Token is a unique identifier to retrieve the specific page of records.</td></tr><tr><td></td><td>Required: Conditional Condition: Not required for first time report query. Global API Transaction Detail report service will return if there is next page record in the list. Format: Encrypted alphanumeric characters</td></tr><tr><td>version</td><td>Version of MOL Payout API starts with prefix " http="" in="" make="" merchant="" mol="" must="" number.="" parameter.<="" payout="" request="" specified="" td="" the="" to="" v"="" version="" when=""> |
| | Required : Yes Current Version : v1 |
| signature | All parameters required for signature creation (refer to 6.1 Generate Signature) |
| | Required : Yes Format : maximum of 32 alphanumeric characters Example : MD5(applicationCode + endDate + pageToken + startDate + timeZone + version + secretKey) |



Response Body Message (Payout Payments Detail Request)

** Original parameter value passed from merchant, merely for reference purpose

| Parameters | Description | | | | |
|-----------------|---|---|--------|--|--|
| applicationCode | **Application Code is uniquely identifying merchant application or portal whi integrating with MOL Payout API. A merchant company could have up to 1 MC merchant account and multiple application accounts. | | | | |
| | Format : maximum of 3 | 2 alphanumeric characters | | | |
| startDate | **Start Date refers to the report query. | he earliest transaction created date at which to sta | rt the | | |
| | Format : yyyy-MM-ddTl | Format : yyyy-MM-ddTHH:mm:ss | | | |
| endDate | **End Date refers to the latest transaction created date to be included in query. | | | | |
| | Format : yyyy-MM-ddTl | Format : yyyy-MM-ddTHH:mm:ss | | | |
| timeZone | **Time Zone is a string | **Time Zone is a string containing "UTC" and the UTC offset . | | | |
| | Format: maximum of 10 alphanumeric characters | | | | |
| transactions | <i>Transaction</i> refer to obj | <i>Transaction</i> refer to object list with the list of transactions detail. | | | |
| | Format : Object List | | | | |
| | Parameter | Description | | | |
| | paymentId | Unique identifier generated by MOL Global API for payment reference | | | |
| | referenceId | Unique identifier generated by merchant for each distinct transaction | | | |
| | currencyCode | Three characters global currencies code | | | |
| | amount | Payment amount of transaction | | | |
| | description | Statement that describes the payment | | | |
| | commissionTerritory | Commission territory of the payment. This info is referred by MOL finance and merchant during the settlement process. | | | |
| | | | | | |



| | status | Status of the transaction | | | |
|---------------|--|---------------------------|----------------------------------|--------------|-------|
| | | Code | Description | | |
| | | 1 | Pending | | |
| | | 2 | Success | | |
| | | 3 | Failed | | |
| | paymentStatusDate | The last up | dated date of the payment's | | |
| | , , | - | date will be in UTC (Coordina | ted | |
| | | | ime) format. If request param | | |
| | | | is supplied, {paymentStatusD | | |
| | | | ate time in supplied timeZone | _ | |
| | | | | | |
| nextPageToken | Next Page Token is a unique identifier to retrieve the specific page of records. | | ;. | | |
| | Condition: Empty if the Format : Encrypted alph | | | | |
| version | **Version of MOL Payo | ut API start v | vith prefix "v" following by the | e version nu | mber. |
| | When merchant make a | a HTTP reque | st to MOL Payout API, the ver | sion must b | e |
| | specified in the parameter. | | | | |
| signature | Selected parameters required for signature creation (refer to 6.1 Generate Signature Creation (refer to 6.1 Genera | | gnature) | | |
| | Format: maximum of 32 alphanumeric characters Example: MD5(applicationCode + endDate + nextpageToken + startDate + timeZ + version + secretKey) | | | neZone | |

Payout Payments Detail Request Example

| HTTP Method | GET /report/detail |
|---|---|
| Request Parameters as query string | Format: applicationCode={ applicationCode }&startDate={ startDate }&endDate={ endDate }&timeZo ne={ timeZone }&pageToken={ pageToken }&version={ version }&signature={ signature } |
| | Example: (without pageToken) https://api.mol.com/payout/report/detail?applicationCode=3f2504e04f8911d39a0c0305e8 2c3301&startDate=2016-04-01T00:00:00&endDate=2016-04- 30T00:00:00&timeZone=UTC%2007&version=v1&signature= 0159a91e523ff10ca6382e0043f9a1f1 |



Or Example: (with pageToken)

https://api.mol.com/payout/report/detail?applicationCode=3f2504e04f8911d39a0c0305e8 2c3301&startDate=2016-04-01T00:00:00&endDate=2016-04-30T00:00:00&timeZone=UTC%2007&pageToken=syRJWYfunKJ9jeFP2sO3rOQHcRVG44nJBO

mM6cA**&version=**v1**&signature=**3bd01d2e025bccf3e8c3ce8cef6925a1

Response (JSON format)

```
200 OK (refer to 8.1 HTTP Status Code)

{
"applicationCode": "{ applicationCode }",
```

```
"startDate": "{ startDate }",
  "endDate": "{ endDate }",
  "transaction": [
      "paymentId": { paymentId },
      "referenceId": "{ referenceId }",
      "currencyCode": "{ currencyCode }",
      "amount": { amount },
      "description": "{ description }",
      "commissionTerritory": "{ commissionTerritory }",
      "status": "{ status }",
      "paymentStatusDate": "{ paymentStatusDate }"
    }]
  "nextPageToken": "{ nextPageToken }",
  "timeZone": "{ timeZone }",
  "version": "{ version }",
  "signature" : "{ signature }"
}
Example:
  "applicationCode": "3f2504e04f8911d39a0c0305e82c3301"
 "startDate": "2016-04-01T00:00:00",
  "endDate": "2016-04-30T00:00:00",
  "transaction": [
      "paymentId": 00001111,
      "referenceId": " Inv201604011234001",
      "currencyCode": "IDR",
      "amount": 10000,
      "description": "CreditX",
      "commissionTerritory": "MOL Indonesia",
      "status": "1",
      "paymentStatusDate": "2016-04-01T02:33:44.555"
    },
      "paymentId": 00001112,
      "referenceId": "Inv201604011548001",
      "currencyCode": "MYR",
      "amount": 10,
```

"description": "MYR 10 Game",



```
"commissionTerritory": "MOL Malaysia",
    "status": "2",
    "paymentStatusDate": "2016-04-01T03:33:44.555"
}
],
"nextPageToken": "syRJWYfunKJ9jeFP2sO3rOQHcRVG44nJBOmM6cA",
"timeZone": "UTC+07",
"version": "v1",
"signature": "3bd01d2e025bccf3e8c3ce8cef6925a1"
}
```



5.2 Payout Payments Summary Request

Invoke this service to retrieve the summary of <u>success</u> transaction records in merchant defined date range.

| Environment | Service URL |
|-------------|---|
| Sandbox | https://sandbox.api.mol.com/payout/report/summary |
| Production | https://api.mol.com/payout/report/summary |

| Request Header | |
|----------------|-----|
| HTTP Method | GET |



Request Body Message (Payout Payments Summary Request)

| Parameters | Description |
|-----------------|---|
| applicationCode | Application Code is uniquely identifying merchant application or portal which integrating with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. |
| | Required: Yes Format: maximum of 32 alphanumeric characters |
| startDate | Start Date refers to the earliest transaction created date at which to start the summary report query. |
| | Required: Yes Format: yyyy-MM-ddTHH:mm:ss |
| endDate | End Date refers to the latest transaction created date to be included in the summary report query. |
| | Required: Yes Format: yyyy-MM-ddTHH:mm:ss |
| timeZone | Time Zone is a string containing "UTC" and the UTC offset . Parameters {startDate} and {endDate} will be converted to this time zone. Report search based on the {startDate} and {endDate} in converted time zone. |
| | Required: No (Default to UTC (Coordinated Universal Time) format) Format: maximum of 10 alphanumeric characters Example: UTC+08:00 |
| version | Version of MOL Payout API starts with prefix "v" following by the version number. When merchant make a HTTP request to MOL Payout API, the version must be specified in the parameter. |
| | Required: Yes Current Version: v1 |
| signature | All parameters required for signature creation. (refer to 6.1 Generate Signature) |
| | Required: Yes Format: maximum of 32 alphanumeric characters Example: MD5(applicationCode + endDate + startDate + timeZone + version + secretKey) |



Response Body Message (Payout Payments Summary Request)

** Original parameter value passed from merchant, merely for reference purpose

| Parameters | Description | | | |
|-----------------|---|--|------------------------|--|
| applicationCode | **Application Code is uniquely identifying merchant application or portal which integratin with MOL Payout API. A merchant company could have up to 1 MOL merchant account and multiple application accounts. | | | |
| | Required: Yes Format: maximum of 32 alphanumeric characters | | | |
| startDate | **Start Date refers to the earliest transaction created date at which to start the report query. | | | |
| | Format : yyyy-MM-c | ddTHH:mm:ss | | |
| endDate | **End Date refers to | o the latest transaction created date to be included | d in the report query. | |
| | Format : yyyy-MM-c | ddTHH:mm:ss | | |
| timeZone | **Time Zone is a str | ing containing "UTC" and the UTC offset . | | |
| | Format : maximum of 10 alphanumeric characters | | | |
| transactions | <i>Transaction</i> is an ob | ject list with the transaction summary group by Cu | ırrency Code. | |
| | Parameter | Description | | |
| | currencyCode | Three characters global currencies code | | |
| | amount | Sum of amount group by currency code | | |
| | transactionCount | Count of transactions group by currency code | | |
| | Format : Object List | | | |
| version | **Version of MOL Payout API starts with prefix "v" following by the version number. Whe merchant make a HTTP request to MOL Payout API, the version must be specified in the parameter. | | | |
| | Required: Yes Current Version: v1 | | | |
| signature | Selected parameters | s required for signature creation (refer to 6.1 Gene | rate Signature) | |
| | I . | of 32 alphanumeric characters licationCode + endDate + startDate + timeZone + v | ersion + secretKey) | |



Payout Payments Summary Request Example

| HTTP Method | GET /report/summary |
|---|---|
| Request Parameters as query string | Format: applicationCode={ applicationCode }&startDate={ startDate }&endDate={ endDate }&timeZone={ timeZone }&version={ version }&signature={ signature } |
| | Example: |
| | https://api.mol.com/payout/report/summary? applicationCode =3f2504e04f8911d39a0c030 5e82c3301 &startDate =2016-04-01T00:00:00 &endDate =2016-04- |
| | 30T00:00:00&timeZone=UTC%2007&version=v1&signature= 0159a91e523ff10ca6382e0043f9a1f1 |
| Response | 200 OK (refer to 8.1 HTTP Status Code) |
| (JSON format) | |
| | Format: |
| | { "applicationCode" : "{ applicationCode }", |
| | "startDate": "{ startDate }", |
| | "endDate": "{ endDate }", |
| | "transaction": [|
| | { |
| | "amount": { amount }, "currencyCode": "{ currencyCode }", |
| | "transactionCount": { transactionCount } |
| | } |
| |], |
| | "timeZone": "{ timeZone }", |
| | "version": "{ version }", |
| | "signature" : "{ signature }" |
| | } |
| | Example: |
| | { |
| | "applicationCode": "3f2504e04f8911d39a0c0305e82c3301", |
| | "startDate": "2016-04-01T00:00:00", |
| | "endDate": "2016-04-30T01:00:00", "transaction": [|
| | (ansaction . [|
| | "amount": 10, |
| | "currencyCode": "MYR", |
| | "transactionCount": 1 |
| | } |
| |], "*imo 7 ono": "LITC: 07" |
| | "timeZone": "UTC+07", "version": "v1", |
| | "signature": "0159a91e523ff10ca6382e0043f9a1f1" |
| | } |



6. Signature

- 1. A Signature is a MD5 hash string combination of a sequence of parameters and a Secret Key.
- 2. Secret Key is a server-side shared secret, this key is assigned to merchant by MOL.
- 3. All or selected parameters used in the message exchange will form a part of the signature hash *Except*:
 - Empty parameter value (NOT zero)
 - Signature parameter itself.
- 4. <u>All</u> or <u>selected</u> parameter values that form a part of the signature hash must <u>sort alphabetically</u> based on parameter name.
- 5. All or selected parameters that form a part of the signature hash must in their original form (not URL encoded).
- 6. All or selected parameters that form a part of the signature hash <u>ARE</u> case sensitive.
- 7. All strings will have leading and trailing whitespace stripped off.

6.1 Generate Signature

The following example explains how to generate signature for parameters with **non-empty** values:

Secret Key: Ziu61T9xY227aazS530Pk8C5424y663r

| Parameter Name | Value |
|-----------------|---|
| applicationCode | 3f2504e04f8911d39a0c0305e82c3301 |
| referenceId | TRX1708901 |
| version | v1 |
| description | Product A |
| returnUrl | http://yoursite.com/result?referenceId=TRX1708901 |
| amount | 1000 |
| currencyCode | MYR |
| customerId | 12321144221 |



Step 1: Sort parameter's values order by parameter name alphabetically.

{ amount } + { applicationCode } + { currencyCode } + { customerId } + { description } + { referenceId } + { returnUrl } + { version }

Step 2: The result of concatenated string of the parameter's values.

10003f2504e04f8911d39a0c0305e82c3301MYR12321144221Product ATRX1708901http://yoursite.com/result?referenceId=TRX1708901v1

Step 3: Append Secret Key at the end of the concatenated string.

10003f2504e04f8911d39a0c0305e82c3301MYR12321144221Product ATRX1708901http://yoursite.com/result?referenceId=TRX1708901v1Ziu61T9xY227aazS530Pk8C5424y663r

Step 4: Hash the concatenated string using MD5 algorithm.

MD5(10003f2504e04f8911d39a0c0305e82c3301MYR12321144221Product ATRX1708901http://yoursite.com/result?referenceId=TRX1708901v1Ziu61T9xY227a azS530Pk8C5424y663r) = **aa3e9c52a1beabf1286db8d1e82976e1**

Step 5: Use hashed value generated from above step as Signature parameter.

applicationCode=3f2504e04f8911d39a0c0305e82c3301&transactionId=TRX1708901 &version=v1&description=Product%20A&returnUrl= http%3A%2F%2Fyoursite.com%2Fresult%3FreferenceId%3DTRX1708901&amount= 1000¤cyCode=MYR&customerId=12321144221&signature=aa3e9c52a1beab f1286db8d1e82976e1



6.2 Validate Signature

All service request and response message must have a Signature parameter and will be validated by MOL to prevent data tampering. If the signature is invalid then MOL will returns <a href="https://example.com/Https://example.co

It's highly **RECOMMENDED** for merchant to perform similar validation to ensure data validity against the origin source. Repeat the same steps from 1 - 4 described in <u>6.1</u> to generate signature and compare with the signature received from MOL.



7. Error Response

Whenever MOL Payout API returns a HTTP Status Code other than 200, indicates that the request has failed to proceed. Same time, different response body message consist of the error details will be returned.

Response Body Message (Error Response)

| Parameter | Required | Data Type | Description |
|-------------|-------------|-------------------------|---|
| message | Yes | (refer to <u>7.2 Er</u> | ror Message) |
| moreInfoUrl | Conditional | String(255) | URL that refers to an online documentation to describe more on the error if applicable. |



8. Common Fields Definition

8.1 HTTP Status Code

Following *HTTP Status Code*s applicable to message response from MOL. Full list of HTTP status code can be referred to http://www.w3.org/Protocols/rfc2616/rfc2616-sec10.html.

| Status Code | Description |
|-------------|--|
| 200 | OK - Successful response for HTTP requests. For example, MOL responses "OK" to a Payment Payout Request from merchant. |
| 400 | Bad Request – MOL server rejects request from merchant due to syntax error or insufficient request information. |
| 401 | Unauthorized – merchant request does not passed the MOL authentication. Example scenario such as unregistered merchant server's IP addresses trying to make request to MOL server. |
| 404 | Not Found – The resources requested by merchant does not existed. |
| 500 | Internal Server Error – Error occurred due to MOL internal processing. |
| 503 | Service Unavailable – The service or resources requested by merchant is currently unavailable. For example, the service is under maintenance or overloaded for temporary. |



8.2 Error Message

Following *Error Message*s describe different types of error/exception that return to Merchant. These error messages help Merchant to troubleshoot when error occurs.

| Attribute | Description |
|------------|----------------|
| Data Type | String |
| Max Length | 255 Characters |

| Http Status Code | Description |
|------------------|---|
| | (40001): Required parameter is required. / |
| | (40001): Parameter format is invalid. |
| | Example, |
| | (40001): 'applicationCode' is required. |
| | (40001): 'referenceId' has exceeded 50 characters. |
| | (40001): 'amount' has to greater than zero. |
| | (40002): Invalid API Version. |
| | (40003): Invalid Currency Code or not supported. |
| | (40004): Duplicate Reference Id. |
| | (40004): The transaction was refused as a result of a duplicate Reference Id |
| | supplied. Currency Code is not match with previous transaction. |
| 400 | (40004): The transaction was refused as a result of a duplicate Reference Id |
| 400 | 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. |



| | (40015): Invalid SubChannelCode . |
|-----|--|
| 401 | (40101): Invalid Application Code. |
| | (40102): Unauthorized Server IP Address. |
| | (40103): Invalid Signature . |
| | (40104): Channel Id not permitted. |
| 404 | (40400): Payment not found. |

8.3 Supported Currency

For instance, 100 (cents) is the fractional unit for US Dollar. If real amount for a customer payout payment request is USD 1.00, *Amount* value should be 100.

| Currency Code | | Example | Amount in Fractional Unit |
|---------------|---|----------|---------------------------|
| USD | 2 | USD 1.00 | 100 |
| MYR | 2 | MYR 1.00 | 100 |
| AUD | 2 | AUD 1.00 | 100 |
| BRL | 2 | BRL 1.00 | 100 |
| IDR | 2 | IDR 1.00 | 100 |
| INR | 2 | INR 1.00 | 100 |
| NZD | 2 | NZD 1.00 | 100 |
| PHP | 2 | PHP 1.00 | 100 |
| SGD | 2 | SGD 1.00 | 100 |
| THB | 2 | THB 1.00 | 100 |
| TWD | 2 | TWD 1.00 | 100 |
| VND | 2 | VND 1.00 | 100 |
| TRY | 2 | TRY 1.00 | 100 |
| EUR | 2 | EUR 1.00 | 100 |



8.4 Supported Payment Methods

Following are full list of supported payment methods with respective channel id.

| Channel | Туре | Channel Id | Supported | Constraints |
|-----------------------------|----------------------------|-------------------|--|--|
| | | | Currency | |
| | | | | |
| MOLPoints | E-Wallet | 1 | AUD, BRL, IDR, INR, | - |
| | Prepaid Card | 3 | MYR, NZD, PHP, SGD, | _ |
| | Trepaid card | , | THB, TWD, USD, VND | |
| Rixty | E-Wallet / Prepaid Card | 2 | BRL, USD | - |
| AIS 12 Call Prepaid Card | Prepaid Card | 601 | ТНВ | - |
| True Money Prepaid Card | Prepaid Card | 602 | ТНВ | - |
| Happy Prepaid Card | Prepaid Card | 603 | ТНВ | - |
| ZEST Prepaid Card | Prepaid Card | 604 | ТНВ | - |
| MOLPoints Prepaid Card | Prepaid Card | 605 | ТНВ | - |
| NganLuong | Prepaid Card | 7 | VND | - |
| Easy2Pay | Carrier Billing | 8 | MYR, SGD, IDR, PHP, THB, VND | - |
| GameSultan | E-Wallet | 9 | TRY, EUR, USD | - |
| ** MOLPay Credit Card | Credit Card | 10 | AUD, BRL, IDR, INR, MYR, NZD, PHP, SGD, THB, TWD, USD, VND | Allowed minimum transaction value of MYR 35 and maximum transaction value of MYR 460 |
| ** PayPal | E-Wallet | 11 | AUD, BRL, IDR, INR, MYR, NZD, PHP, SGD, THB, TWD, USD, VND | Allowed minimum transaction value of USD 10 and maximum transaction value of USD 125 |



| ** FPX | Online-Banking | 12 | AUD, BRL, IDR, INR, MYR, NZD, PHP, SGD, THB, TWD, USD, VND | Allowed minimum transaction value of MYR 20 and maximum transaction value of MYR 500 |
|--------------|----------------|----|--|--|
| ** Maybank2U | Online-Banking | 13 | AUD, BRL, IDR, INR, MYR, NZD, PHP, SGD, THB, TWD, USD, VND | Allowed minimum transaction value of MYR 20 and maximum transaction value of MYR 500 |
| DragonPay | Online-Banking | 14 | PHP | Allowed minimum transaction value of PHP 100 and maximum transaction value of PHP 5500 |

For channels marked with (**), MOL will auto converts currency when payment amount currency different from payment provider accepted currency before user transact.