






**API SPECIFICATIONS  
FOR  
HOSTED PAYMENT PAGE  
+  
3 ENDPOINTS  
+  
GENERAL OPERATIONAL FUNCTIONS  
INTEGRATION**

(Version 13.74)

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<b>RAZER MERCHANT SERVICES</b>	
	J-39-1, Block J, Persiaran Multimedia, i-City, 40000 Shah Alam, Selangor, Malaysia.
	+(603) - 5521 8438
	support@Fiuu.com
	Fiuu.com
	<b>Social Networks</b> <a href="https://twitter.com/FiuuPayment">https://twitter.com/FiuuPayment</a> <a href="https://facebook.com/FiuuPayment">https://facebook.com/FiuuPayment</a> <a href="https://youtube.com/@FiuuPayment">https://youtube.com/@FiuuPayment</a> <a href="https://instagram.com/FiuuPayment">https://instagram.com/FiuuPayment</a> <a href="https://linkedin.com/company/FiuuPayment">https://linkedin.com/company/FiuuPayment</a>
	<b>Developer Platforms</b> <a href="https://github.com/FiuuPayment">https://github.com/FiuuPayment</a> Mobile XDK, seamless and in-page checkout, and many shopping carts payment plugin/module/addon/extension are available

# ChangeLogs

Date	Version	Description
2014/05/16	v11.0	Formalize the document
2014/06/14	v12.0	Simplified and consolidating API documents
2016/10/24	v13.0	Declare EOL of inactive channels
2016/12/03	v13.3	Introduce secret key and changed of some critical APIs hashing based on secret key
2017/09/08	v13.6	Removal of obsoleted channels
2017/10/10	v13.7	Splitting payment and non-payment request endpoint FQDN, adding sandbox URL
2018/05/31	v13.8	Adding Pick-n-Pay APIs
2018/08/20	v13.9	Adding card BIN info API
2019/01/04	v13.9	Update value of channel in return URL, withdraw Pay-n-Pick from this document
2019/04/30	v13.9	Rebranding to Razer Merchant Services
2019/05/07	v13.10	Withdrawal of escrow and mass payout APIs
2019/06/17	v13.11	Adding currency & error code/desc to requery APIs response
2019/09/20	v13.12	Transferring predefined bank and FTT list to Razer Escrow & Mass Payout API
2019/11/29	v13.13	Adding Taiwan payment channels, removing EOL channels table
2020/01/09	v13.14	Adding eWallet channel (GrabPay, Maybank QRPAY), 51 currencies supported for multi-currency card acceptance
2020/03/24	v13.14	Update Settlement Report API version 3.0 to 4.0 that includes refund and chargeback records
2020/08/27	v13.15	Adding Thailand credit card channel.
2020/09/18	v13.16	Changing all API FQDN to Razer domain; Enhanced settlement report API to support duration in seconds from a specific time
2020/10/02	v13.16	Minor enhancement on the daily transaction report API to include all optional fields
2020/11/06	v13.17	Adding Cash-TH channel
2020/11/24	v13.18	Adding Cash-KKmart channel
2021/01/07	v13.19	Adding ShopeePay channel
2021/01/14	V13.20	Adding new FPX B2C & B2B channels (Agrobank, Citibank, UOB, Bank Rakyat, Affin, and etc.)
2021/01/29	V13.21	Minor enhancement on daily transaction report and Capture Request API
2021/03/10	v13.22	Adding/removing of payment channel's error code table
2021/06/09	v13.23	Adding DuitNow group channel, additional optional billing info, and update Thailand channel
2021/07/01	v13.23	Adding AppDeeplink parameter to payment request

2021/07/13	v13.24	Adding Singapore PayNow
2021/07/28	v13.24	Adding eNets Debit error code & removing Razer Pay
2021/08/24	v13.25	Changing all <a href="http://www.onlinepayment.com.my">www.onlinepayment.com.my</a> to pay.fiuu.com
2021/08/27	v13.26	Adding installment channels
2021/10/15	v13.26	- Rectified the key used in FOREX API - Adding KBank PayPlus error codes - Releasing channel value in callback and notification messages
2021/10/28	v13.26	- Adding KTB_IB & SCB_IB error codes
2021/11/03	v13.26	- Adding Crypto_tripleA
2021/11/23	v13.27	- Adding IOUPay - Adding Doku
2021/12/14	v13.28	Adding RPP DuitNow and Alipay+
2022/02/15	v13.29	- Renaming "Notification URL" to "Notify URL" - Rewrite sample code for skey validation
2022/02/22	v13.30	Adding LinePay TH
2022/03/11	v13.31	Adding Atome
2022/03/18	v13.32	Adding Token API
2022/04/11	v13.33	- Add channel status API - Revamp the request parameter and response of token API - Change the existing channel status API to channel success rate API
2022/04/26	v13.34	- Adding GCash - Adding Pace
2022/05/05	v13.35	Adding 9PAY
2022/05/19	v13.36	Adding waittime and cancelurl in request parameter Adding creditAN
2022/06/10	v13.37	- Adding note for direct status requery API - Changing the data type of token API
2022/07/25	v13.38	Adding creditAI
2022/08/09	v13.39	Adding Maya channel
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2022/11/09	v13.41	Adding BPI Channel
2022/11/15	v13.42	Adding ESUN COD Family Mart
2023/01/25	v13.43	- Isolating extraP to a new section - Adding Void non-cash payment API
2023/02/15	v13.44	Adding hide_biller_info and hide_merchant_header_details in request parameter

2023/04/05	v13.45	- Change StatCode capture API from 22 to 23 to avoid confusion from "Pending" status code - Add description for MerchantAdviceCode & ProcessorCVVResponse at ExtraP
2023/05/18	v13.46	- Adding ADD_TOKEN, EDIT_TOKEN_DETAILS action type into payment token API - Add new error code (33 , 34)
2023/06/02	v13.46	- Add new error code Q00008 for PSQ API
2023/06/13	v13.46	- Remove DOKU IB channels
2023/06/26	v13.46	- Add ShopeePay for PH
2023/06/28	v13.47	- Rectify the key used (verify_key) for Settlement Report API
2023/07/11	v13.48	- Add Installment Channel HLB-MPGS, RHB-MPGS
2023/07/13	v13.49	- Add new FPX Bank Of China - Change of hash string formula presentation
2023/08/02	v13.50	- Update extraP description in Callback URL with IPN
2023/08/04	v13.51	- Add DuitNow QR into Static QR Generator
2023/08/09	v13.52	- Add LocalCardScheme in extraP - Add installment conditions
2023/08/28	v13.53	- Add ShopBack
2023/09/08	v13.54	- Rectify the key used (verify_key) for Settlement Refund Report API
2023/09/14	v13.55	- Remove hide_biller_info and hide_merchant_header_details in request parameter
2023/10/05	v13.55	- Add new error code 21 at reversal API. - Add new 3DS error codes.
2023/10/17	v13.56	- Add new parameter "custID" for token payment and token API
2023/11/02	v13.57	- Add new parameter "page" for Daily Transaction Report API
2023/11/11	v13.57	- Update credit card response code
2023/11/23	v13.58	- Add new parameter installment_info in Channel Status API
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2023/12/04	v13.58	- Add new StatCode 16 for API VoidNonPendingCash API
2024/01/23	v13.59	- Adding COINS.PH
2024/01/29	v13.60	- Add PaymentExpirationTime
2024/02/22	v13.61	- Add new response parameters at Direct Status Requery & Indirect Status Requery API - ProcessorResponseCode - ProcessorCVVResponse - SchemeTransactionID - MerchantAdviceCode - ECI - 3DSVersion - ACSTransactionID - 3DSTransactionID

2024/02/22	v13.62	- Add E2Pay channels and remove DOKU channels
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2024/05/13	v13.66	- Add metadata in payment request and 3 endpoints response
2024/05/14	v13.67	- Adding UPAY Channel - Adding UPAY_UBO Channel - Adding UPAY_PCHC Channel - Adding UPAY_INSTA Channel
2024/05/17	v13.68	- Correction of <b>ProcessorCVVResponse</b> , previously wrongly put as <b>ProcessorCCVResponse</b> in status requery and extraP
2024/06/05	v13.69	Update 3DS description for error code 5000, 6000 & 7000
2024/06/07	v13.70	Introducing API idempotency
2024/06/14	v13.71	Adding PNCO
2024/06/18	v13.72	Adding TW ESUN IcpMemberId in payment request and extraP
2024/07/03	v13.72	Add new error code E99
2024/08/14	v13.73	Adding type 3 for Foreign Exchange Rate API
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# INTRODUCTION

Dealing with banks and multiple payment channels 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 we consolidate all payment channels into one integration to reduce merchant's costs and effort, and to shorten your time-to-market.

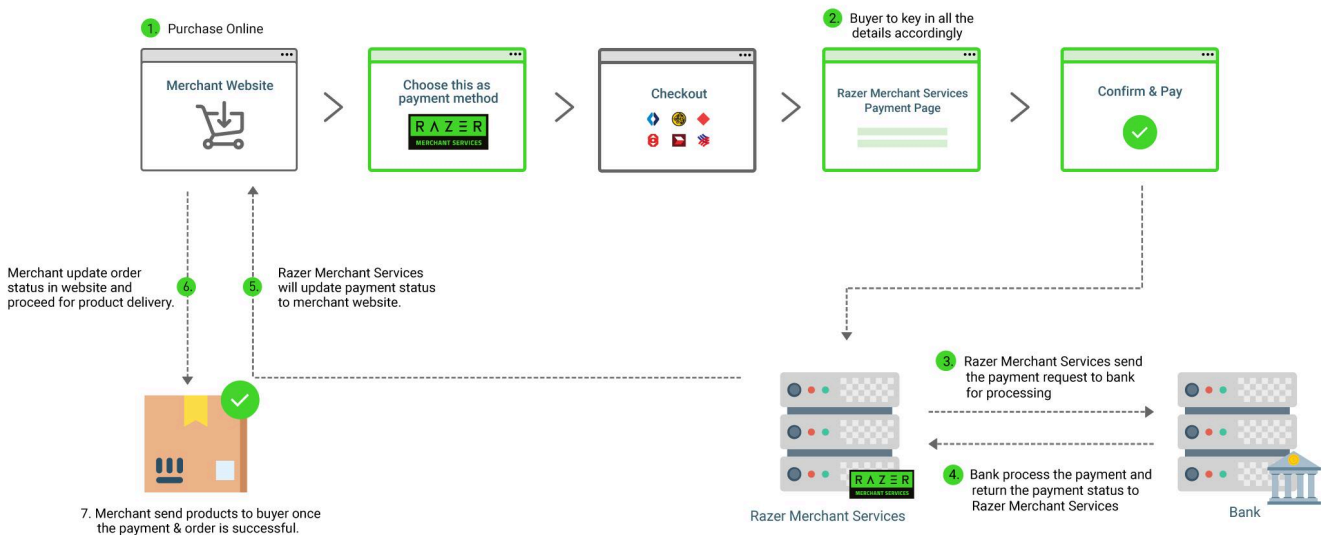
**Fiuu**, the payment gateway (**PG**), or previously known as **Razer Merchant Services (RMS)**, is to help merchants, who sell online and offline, to reach out to the regional buyers, collecting payment and distributing funds, expanding rapidly to the Southeast Asia market. The service includes:

- 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 XDK allows app developers to implement in-app payments
  - Channel switching is available for same currency channels
  - Fiuu Cash which allows over-the-counter (OTC) payment acceptance
  - 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

# PAYMENT FLOW OVERVIEW

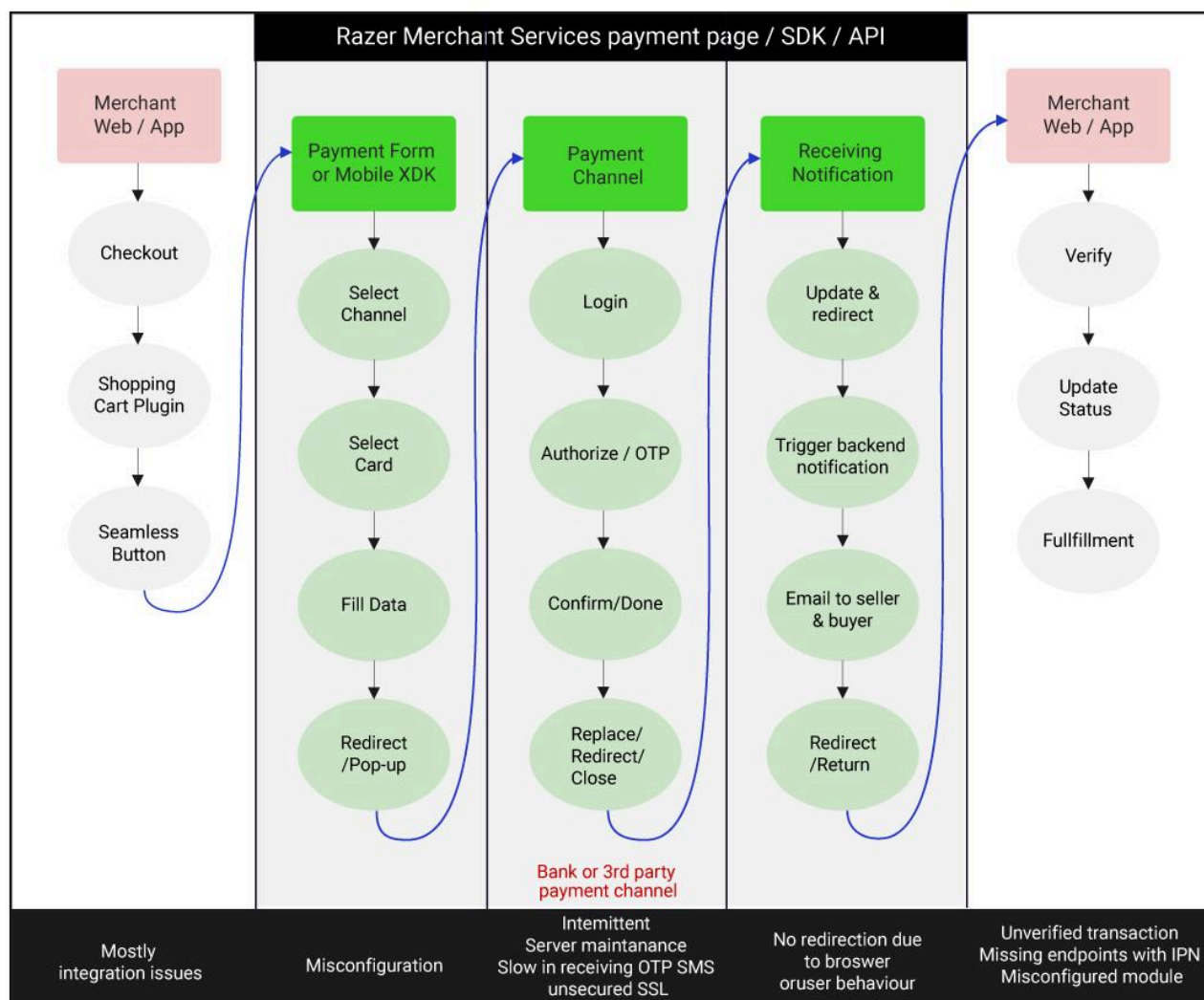
PG provides hosted payment page service, so that merchants do not require costly and tech-savvy PCI-DSS compliance at merchant websites or systems. The integration is as simple as passing parameters via HTTPS **POST** or **GET** method from merchant to PG payment page. Buyer will proceed their transaction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

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





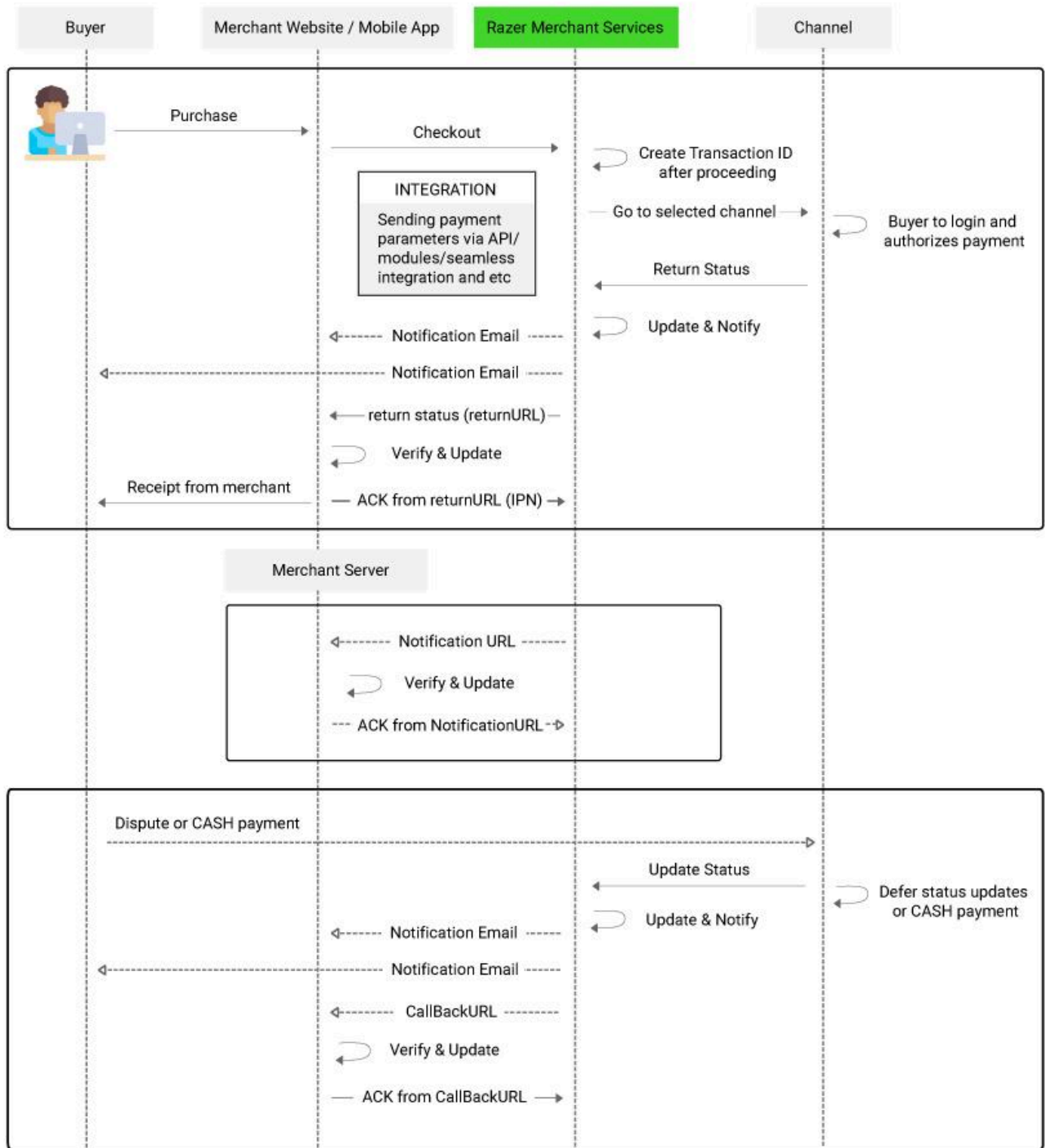
How to identify and report tech-related issues to PG?



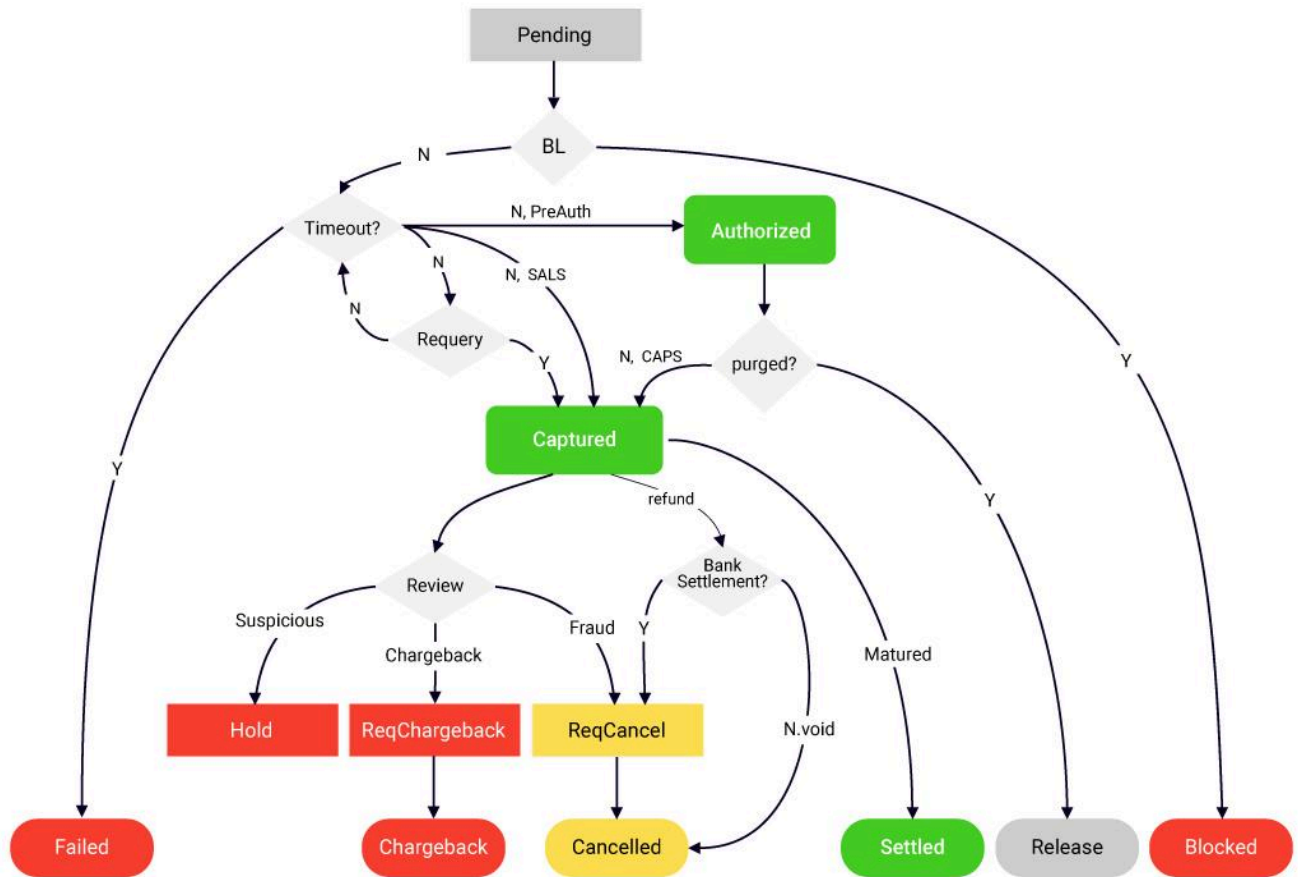
Merchant needs to prepare 3 simple and similar payment endpoint scripts to handle the payment notification from the payment gateway:

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 (webhook):** a server-to-server back-end webhook which is more robust and crucial for payment status or order update;
3. **Callback URL (webhook):** a special handler webhook to get notified on non-realtime payment status, such as “deferred status update”, change of payment status, or Fiuu Cash, which is not a realtime payment naturally.

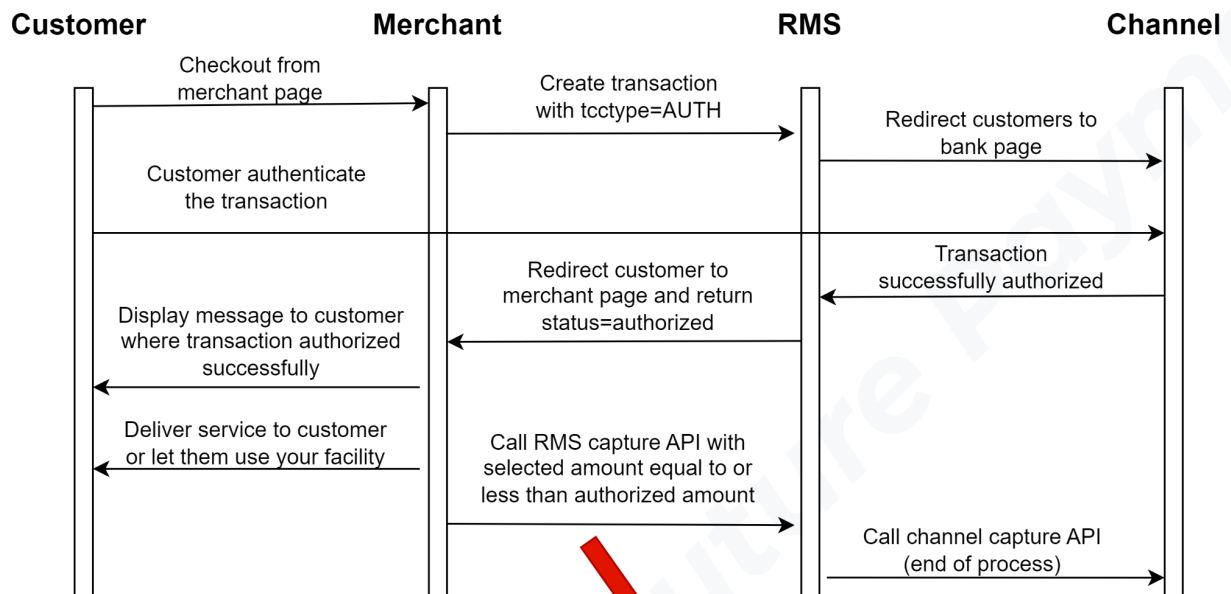
After the normal payment flow, merchants can always send payment status query requests, which is defined in **reQuery** APIs (a.k.a PSQ, Payment Status Query).



## Payment Status Flow



Pre authorization workflow is suitable for business without knowing the exact amount to be charged before the service or item is delivered. This feature can be enabled upon request by sending an email to support@fiuu.com. (Refer Capture Request)



**If this step did not happen, transaction will be released (cancelled) after 7 days**

# SECURITY & DATA INTEGRITY

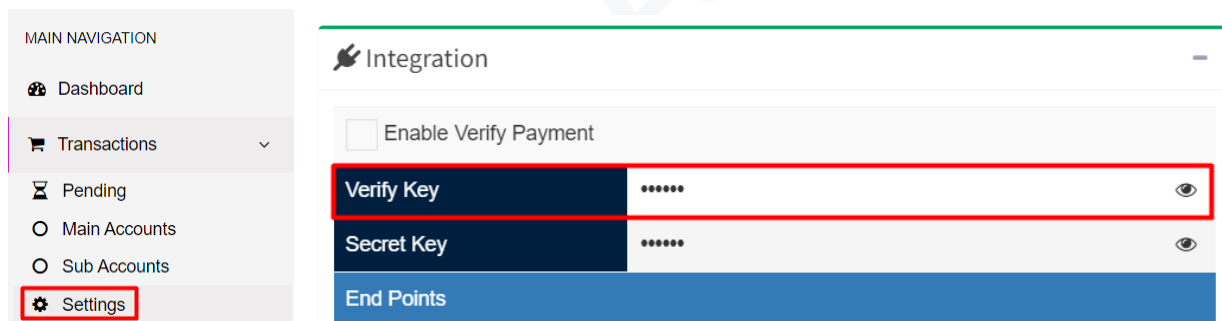
For online payment. The system uses “**merchant ID**”, “**Verify Key**” and “**Secret Key**” to generate encrypted hash string to ensure data integrity in the payment process.

## Verify Key [Confidential]

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

### How to get the verify key?

1. Logon to PG Merchant Portal
2. Open up the “Transaction” drop down list in “MAIN NAVIGATION”.
3. Click on “Settings” option
4. “Verify Key” will be listed at “Integration” tab
5. Click on Eye Icon to show the “Verify Key”



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

## Secret Key [Top Secret]

Secret Key is a unique shared secret for the payment gateway to generate responses to merchants. It is a key or seed for generating one-time hash data, which are known as “**skey**” (in the payment response) or some of the “**VrfKey**” (APIs’ response from payment gateway). Merchant or developer **MUST NOT** disclose this secret key to the public. Once the key is suspected to be compromised, please contact PG customer service immediately to reset the key.

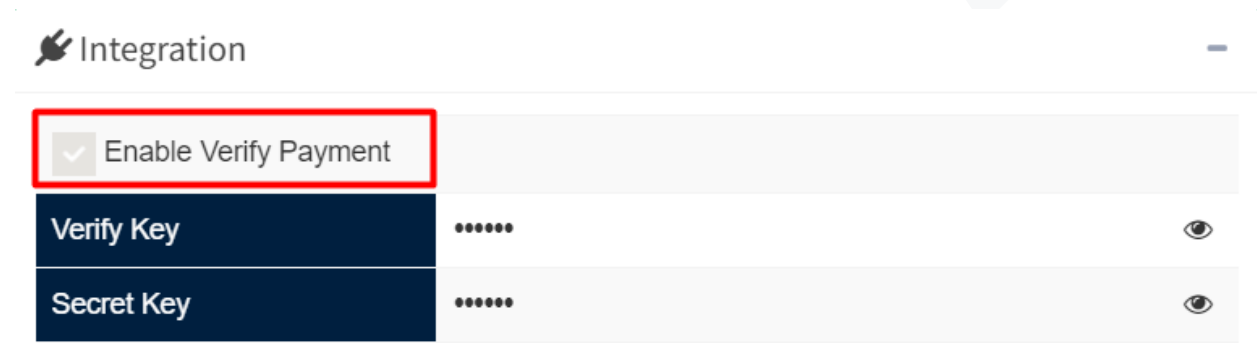


Merchants who are using PG mobile xdk **MUST** use different strings for “Verify Key”(treat it as public key) and “Secret Key”(treat it like private key), respectively. Contact PG customer service to reset your keys whenever needed.

## vcode (in payment request)

**vcode** is to ensure the data integrity passed from merchant-end (either website or mobile APP) to the payment page to avoid man-in-the-middle (MITM) attack. It uses “Verify Key”(like a public key) in combination with the data string for hashing purposes.

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



Integration		
<input checked="" type="checkbox"/>	Enable Verify Payment	
Verify Key	.....	
Secret Key	.....	

**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. Merchant ID
3. Order ID
4. Verify Key

Extra characters/parameters which are **OPTIONAL**

To have these values calculated in the hash. Kindly reach out to our support to help enable it.

5. Currency

### Formula to generate **vcode**

$$vcode = md5( \{amount\}\{merchantID\}\{orderId\}\{verify\_key\} )$$

### Example to generate vcode for PHP developer

```
<?php
```

```
$amount = "27.60";  
$merchantID = "ACME";
```

```
$orderid = "OD8842";
$verifykey = "xxxxxxxxxxxxxxxxxxxx";
// Replace xxxxxxxxxxxxxxxxxx with your Verify Key

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

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

?>
```

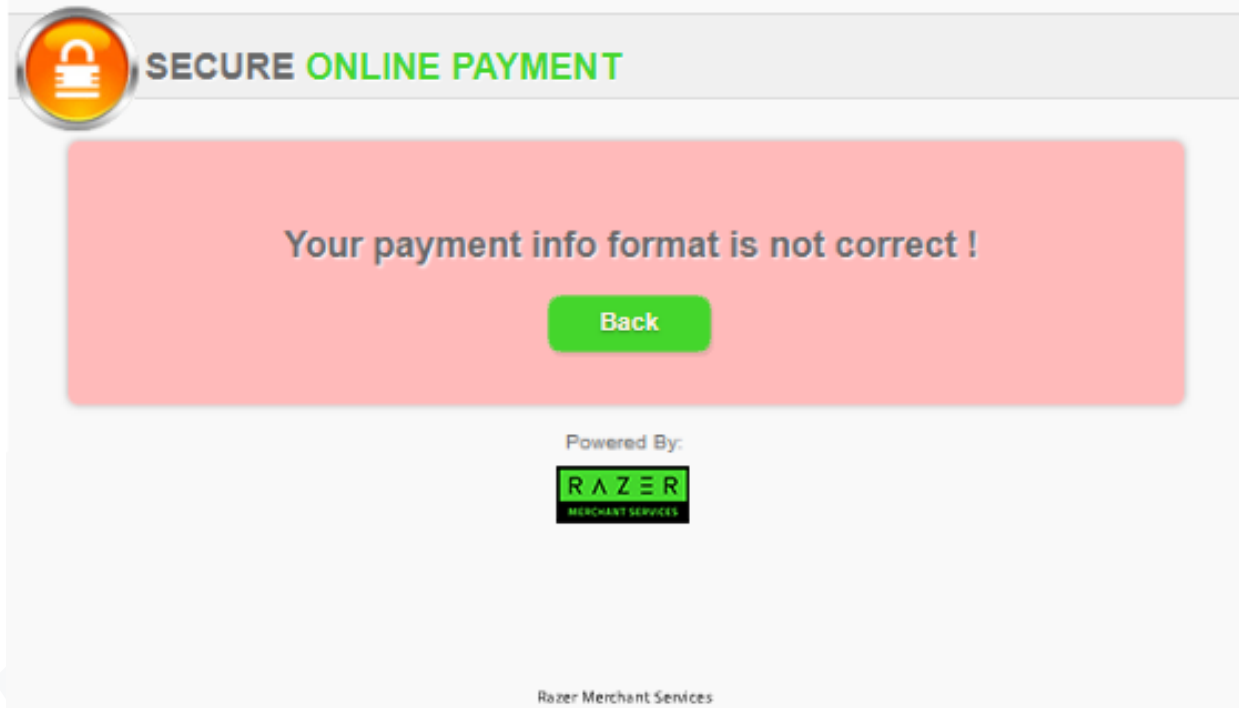
### Verification tool for vcode

To verify whether the **vcode** generated is correct, merchant may check on this URL:-

<https://api.fiuu.com/RMS/query/vcode.php>

### What happens if a merchant passes in an incorrect **vcode**?

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



## key (in payment response)

**skey** is a payment gateway generated returning hash string to ensure the payment result data integrity that passed to the merchant system. Merchants or developers **MUST** verify this hash string properly and compare the order ID, currency, amount, and also the payment date/time, to protect self interest from being cheated by a fraudster/hacker. It uses a "Secret Key"(like a private key) in combination with a data string for the hashing process.

Please note that there are other "**skey**" with different formulas in **Merchant Request APIs'** parameters. Try not to confuse yourself with this payment response "**skey**".

**skey** 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. Merchant ID (domain)
5. Amount
6. Currency

### Final hash string

1. Payment Date/Time
2. Merchant ID (domain)
3. First hash string
4. Approval Code
5. Secret Key

### Formula to generate skey

```
pre_skey = md5( {txnID}{orderId}{status}{merchantID}{amount}{currency} )  
skey = md5( {paydate}{merchantID}{pre_skey}{appcode}{secret_key} )
```

### Example to generate skey for PHP developer

```
<?php  
  
$sec_key = "xxxxxxxxxx"; //Replace xxxxxxxxxx with your 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['key']; //Security hashstring returned by PG
```

```
/******
```

```
* To verify the data integrity sending by PG
```

```
*****/
```

```
$key0 = md5( $tranID.$orderid.$status.$merchant.$amount.$currency );
```

```
$key1 = md5( $paydate.$merchant.$key0.$appcode.$sec_key );
```

```
//key1 : Hashstring generated on Merchant system
```

```
// either $merchant or $domain could be one from POST
```

```
// and one that predefined internally
```

```
// by right both values should be identical
```

```
if( $key === $key1 ){
```

```
    // If matched, perform another extra checking before approved order
```

```
} elseif( $key != $key1 ){
```

```
    // If unmatched, reject the order or merchant might send query to
```

```
    // PG using Merchant requery to double check payment status
```

```
    // for that particular order.
```

```
} else {
```

```
    // error or exception case
```

```
}
```

```
?>
```

# SIMULATION

Merchants should be provided a sandbox account or developer account from PG, in order to simulate the payment flow for successful and failure transaction cases.

Please note that the sandbox account is for **SIT** purposes and only simulated credit card channel is available. **Sandbox** environment is solely for basic integration and validation purposes, **DO NOT** treat it as a grant for production environment testing and the configuration and implementation might be different. **“Dev”** account has a full range of production features for advanced integration and **UAT** purposes.

## Sandbox Account

- Sandbox provides only simple simulation on card payment for merchant to test successful and failure cases based on algorithm (Luhn-10) and no actual transaction occurs between bank or payment gateway
- Many advanced features are not available in the sandbox environment
- Test card - sample for Visa and Mastercard card number for testing:

Pattern	MasterCard	Visa
Positive Test	5105105105105100 (CVV: 444) 5555555555554444 (CVV: 444)	4111111111111111 (CVV: 111) 4012888888881881 (CVV: 111)
Negative Test	5555555555554440 (CVV: 444)	4111111111111110 (CVV: 111)

- Expiry date for credit card need to be valid (NOT expired) as of the current month and year.

## Developer Account

For full feature integration and **UAT**, such as mobile xdk or seamless integration, please request “Developer” account or “Dev” account from PG. These accounts are all set with a short period of lifespan for integration and testing purposes only. No settlement and mass payout is allowed in these accounts.

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

A “Dev” or developer account is always ended in “\_Dev” and there will be **no settlement** (hence no payout) for this type of account. Please make sure that your “Dev” account has the same configuration in the production merchant profile to guarantee the expected test results.

# PAYMENT APIs

## Initiating Payment

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

### REQUEST URL

Production: [https://pay.fiuu.com/RMS/pay/{MerchantID}/{Payment\\_Method}](https://pay.fiuu.com/RMS/pay/{MerchantID}/{Payment_Method})

Sandbox: [https://sandbox.fiuu.com/RMS/pay/{MerchantID}/{Payment\\_Method}](https://sandbox.fiuu.com/RMS/pay/{MerchantID}/{Payment_Method})

**{MerchantID}**: mandatory value to identify merchant;

**{Payment\_Method}**: optional value to identify payment channel, only required when channel selection at hosted payment page is disabled upon request by email; 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 the merchant site as well as the payment page for buyers. For merchants who use the POST method please include the “ / ” after **{MerchantID}** on the URL.

WARNING: Loading the bank login page or authorization page into iframe is not recommended as most of the banks or channels will block all cross-origin requests and treat it as an XFS, XSS, and CSRF attack.

## Channel Lists

### Multi-Currency Payment

Default currency: -

Channel Name	filename	channel	Payable Amount Range	Extra Information
Visa / MasterCard	indexT.php	creditT	> 1.00	51 currencies supported : AED, <b>AUD</b> , <b>BND</b> , BRL, CAD, CHF, <b>CNY</b> , COP, CZK, DKK, EGP, <b>EUR</b> , FJD, <b>GBP</b> , <b>HKD</b> , HUF, <b>IDR</b> , ILS, INR, IQD, IRR, ISK, <b>JPY</b> , <b>KRW</b> , KWD, LAK, LKR, MOP, MXN, <b>MYR</b> , NGN, NOK, NZD, <b>PHP</b> , PKR, PLN, QAR, RUB, SAR, SCR, SEK, <b>SGD</b> , <b>THB</b> , TRY, <b>TWD</b> , <b>USD</b> , <b>VND</b> , ZAR, BDT, NPR, MMK
Visa / MasterCard	indexW.php	creditW	> 1.00	THB, USD
Visa / Mastercard	indexAN.php	creditAN	> 1.00	MYR, <b>SGD</b> , <b>PHP</b>
Unionpay Card	indexAN.php	creditAN	> 1.00	MYR
Visa / Mastercard	indexAI.php	creditAI	> 1.00	AFN, DZD, ARS, AMD, AWG, AUD, AZN, BSD, BHD, THB, PAB, BBD, BYN, BZD, BMD, VES, BOB, BRL, BND, BGN, BIF, CAD, CVE, KYD, GHS, XOF, XAF, XPF, CLP, COP, KMF, CDF, BAM, NIO, CRC, HRK, CZK, GMD, DKK, MKD, DJF, STD, DOP, VND, XCD, EGP, SVC, ETB, EUR, FKP, FJD, HUF, GIP, HTG, PYG, GNF, GYD, HKD, UAH, ISK, INR, IRR, IQD, JMD, JOD, KES, PGK, LAK, EEK, KWD, MWK, AOA, MMK, GEL, LVL, LBP, ALL, HNL, SLL, LRD, LYD, SZL, LTL, LSL, MGA, MYR, TMT, MUR, MZN, MXN, MDL, MAD, NGN, ERN, NAD, NPR, ANG, ILS, RON, TWD, NZD, BTN, KPW, NOK, PEN, MRO, TOP, PKR, MOP, UYU, PHP, GBP, BWP, QAR, GTQ, ZAR, OMR, KHR, MVR, IDR, RUB, RWF, SHP, SAR, RSD, SCR, SGD, SBD, KGS, SOS, TJS, LKR, SDG, SRD, SEK, CHF, SYP, BDT, WST, TZS, KZT, TTD, MNT, TND, TRY, AED, UGX, CLF, USD, UZS, VUV, KRW, YER, JPY, CNY, ZMW, ZWL, PLN

### Malaysia

Default currency: MYR

Channel Name	channel filename	channel parameter	Payable Amount Range / Downtime*	Extra Information
Visa / MasterCard	index.php	credit	> 1.00	credit/debit/prepaid card
Visa / MasterCard	indexAB.php	creditAB	> 1.00	credit/debit/prepaid card

FPX B2C				
FPX B2C (all supported banks)	fpx.php	fpx	> 1.00	indirect internet banking
FPX B2C Bank Islam	FPX_BIMB.php	FPX_BIMB	> 1.00	indirect internet banking
FPX B2C Maybank	FPX_MB2U.php	FPX_MB2U	> 1.00 / 12am - 12:15am	indirect internet banking
FPX B2C Public Bank	FPX_PBB.php	FPX_PBB	> 1.00	indirect internet banking
FPX B2C CIMBClicks	FPX_CIMBCLICKS.php	FPX_CIMBCLICKS	> 1.00	indirect internet banking
FPX B2C AmOnline	FPX_AMB.php	FPX_AMB	> 1.00	indirect internet banking
FPX B2C Hong Leong	FPX_HLB.php	FPX_HLB	> 1.00	indirect internet banking
FPX B2C RHB Bank	FPX_RHB.php	FPX_RHB	> 1.00 / 12am - 12:10am	indirect internet banking
FPX B2C OCBC	FPX_OCBC.php	FPX_OCBC	> 1.00	indirect internet banking
FPX B2C Standard Chartered	FPX_SCB.php	FPX_SCB	> 1.00	indirect internet banking
FPX B2C Affin Bank	FPX_ABB.php	FPX_ABB	> 1.00	indirect internet banking
FPX B2C Bank Rakyat	FPX_BKRM.php	FPX_BKRM	> 1.00 / 12am - 12:30am	indirect internet banking
FPX B2C Bank Muamalat	FPX_BMMB.php	FPX_BMMB	> 1.00	indirect internet banking
FPX B2C Kuwait Finance House	FPX_KFH.php	FPX_KFH	> 1.00	indirect internet banking
FPX B2C Bank Simpanan Nasional	FPX_BSN.php	FPX_BSN	> 1.00 / 12am - 12:15am	indirect internet banking
FPX B2C Alliance Bank	FPX_ABMB.php	FPX_ABMB	> 1.00	indirect internet banking
FPX B2C United Overseas Bank	FPX_UOB.php	FPX_UOB	> 1.00	indirect internet banking
FPX B2C HSBC Bank	FPX_HSBC.php	FPX_HSBC	> 1.00	indirect internet banking
FPX B2C Agrobank	FPX_AGROBANK.php	FPX_AGROBANK	> 1.00	Indirect internet banking
FPX B2C Bank Of China	FPX_BOCM.php	FPX_BOCM	> 1.00	Indirect internet banking
DUITNOW OBW				
DuitNow OBW - Affin Bank	RPP_RTP_ABB.php	RPP_RTP_ABB	> 1.00	Indirect internet banking
DuitNow OBW - Alliance Bank	RPP_RTP_ABMB.php	RPP_RTP_ABMB	> 1.00	Indirect internet banking
DuitNow OBW - Agrobank	RPP_RTP_AGROBANK.php	RPP_RTP_AGROBANK	> 1.00	Indirect internet banking



DuitNow OBW - AmBank	RPP_RTP_AMB.php	RPP_RTP_AMB	> 1.00	Indirect internet banking
DuitNow OBW - CIMB Bank	RPP_RTP_CIMBCLICK S.php	RPP_RTP_CIMBCLICKS	> 1.00	Indirect internet banking
DuitNow OBW - Bank Islam	RPP_RTP_BIMB.php	RPP_RTP_BIMB	> 1.00	Indirect internet banking
DuitNow OBW - Bank Rakyat	RPP_RTP_BKRM.php	RPP_RTP_BKRM	> 1.00	Indirect internet banking
DuitNow OBW - Bank Muamalat	RPP_RTP_BMMB.php	RPP_RTP_BMMB	> 1.00	Indirect internet banking
DuitNow OBW - Bank Simpanan Nasional	RPP_RTP_BSN.php	RPP_RTP_BSN	> 1.00	Indirect internet banking
DuitNow OBW - Hong Leong	RPP_RTP_HLB.php	RPP_RTP_HLB	> 1.00	Indirect internet banking
DuitNow OBW - HSBC Bank	RPP_RTP_HSBC.php	RPP_RTP_HSBC	> 1.00	Indirect internet banking
DuitNow OBW - Kuwait Finance House	RPP_RTP_KFH.php	RPP_RTP_KFH	> 1.00	Indirect internet banking
DuitNow OBW - Maybank	RPP_RTP_MB2U.php	RPP_RTP_MB2U	> 1.00	Indirect internet banking
DuitNow OBW - OCBC	RPP_RTP_OCBC.php	RPP_RTP_OCBC	> 1.00	Indirect internet banking
DuitNow OBW - Public Bank	RPP_RTP_PBB.php	RPP_RTP_PBB	> 1.00	Indirect internet banking
DuitNow OBW - RHB Bank	RPP_RTP_RHB.php	RPP_RTP_RHB	> 1.00	Indirect internet banking
DuitNow OBW - Standard Chartered	RPP_RTP_SCB.php	RPP_RTP_SCB	> 1.00	Indirect internet banking
DuitNow OBW - United Overseas Bank	RPP_RTP_UOB.php	RPP_RTP_UOB	> 1.00	Indirect internet banking
DuitNow OBW - Bank Of China	RPP_RTP_BOCM.php	RPP_RTP_BOCM	> 1.00	Indirect internet banking
<b>PayNet Checkout</b>				
PayNet Checkout - Affin Bank	PNCO_ABB.php	PNCO_ABB	> 1.00	Indirect internet banking
PayNet Checkout - Alliance Bank	PNCO_ABMB.php	PNCO_ABMB	> 1.00	Indirect internet banking
PayNet Checkout - Agrobank	PNCO_AGROBANK.php	PNCO_AGROBANK	> 1.00	Indirect internet banking
PayNet Checkout - AmBank	PNCO_AMB.php	PNCO_AMB	> 1.00	Indirect internet banking

PayNet Checkout - CIMB Bank	PNCO_CIMBCLICKS.php	PNCO_CIMBCLICKS	> 1.00	Indirect internet banking
PayNet Checkout - Bank Islam	PNCO_BIMB.php	PNCO_BIMB	> 1.00	Indirect internet banking
PayNet Checkout - Bank Rakyat	PNCO_BKRM.php	PNCO_BKRM	> 1.00	Indirect internet banking
PayNet Checkout - Bank Muamalat	PNCO_BMMB.php	PNCO_BMMB	> 1.00	Indirect internet banking
PayNet Checkout - Bank Simpanan Nasional	PNCO_BSN.php	PNCO_BSN	> 1.00	Indirect internet banking
PayNet Checkout - Hong Leong	PNCO_HLB.php	PNCO_HLB	> 1.00	Indirect internet banking
PayNet Checkout - HSBC Bank	PNCO_HSBC.php	PNCO_HSBC	> 1.00	Indirect internet banking
PayNet Checkout - Kuwait Finance House	PNCO_KFH.php	PNCO_KFH	> 1.00	Indirect internet banking
PayNet Checkout - Maybank	PNCO_MB2U.php	PNCO_MB2U	> 1.00	Indirect internet banking
PayNet Checkout - OCBC	PNCO_OCBC.php	PNCO_OCBC	> 1.00	Indirect internet banking
PayNet Checkout - Public Bank	PNCO_PBB.php	PNCO_PBB	> 1.00	Indirect internet banking
PayNet Checkout - RHB Bank	PNCO_RHB.php	PNCO_RHB	> 1.00	Indirect internet banking
PayNet Checkout - Standard Chartered	PNCO_SCB.php	PNCO_SCB	> 1.00	Indirect internet banking
PayNet Checkout - United Overseas Bank	PNCO_UOB.php	PNCO_UOB	> 1.00	Indirect internet banking
PayNet Checkout - Bank Of China	PNCO_BOCM.php	PNCO_BOCM	> 1.00	Indirect internet banking
PayNet Checkout - MBSB Bank	PNCO_MBSB.php	PNCO_MBSB	> 1.00	Indirect internet banking
<b>FPX B2B</b>				
FPX B2B AmBank	FPX_B2B_AMB.php	FPX_B2B_AMB	2.00 - 1mil / 12am - 2am	indirect internet banking
FPX B2B Hong Leong	FPX_B2B_HLB.php	FPX_B2B_HLB	2.00 - 1mil	indirect internet banking
FPX B2B United Overseas Bank	FPX_B2B_UOB.php	FPX_B2B_UOB	2.00 - 1mil	indirect internet banking
FPX B2B Affin Bank	FPX_B2B_ABB.php	FPX_B2B_ABB	2.00 - 1mil	indirect internet banking

FPX B2B CIMB Bank	FPX_B2B_CIMB.php	FPX_B2B_CIMB	2.00 - 1mil	indirect internet banking
FPX B2B Bank Islam	FPX_B2B_BIMB.php	FPX_B2B_BIMB	2.00 - 1mil / 11pm - 7am	indirect internet banking
FPX B2B Public Bank	FPX_B2B_PBB.php	FPX_B2B_PBB	2.00 - 1mil	indirect internet banking
FPX B2B RHB Bank	FPX_B2B_RHB.php	FPX_B2B_RHB	2.00 - 1mil / 12am - 12:15am	indirect internet banking
FPX B2B HSBC	FPX_B2B_HSBC.php	FPX_B2B_HSBC	2.00 - 1mil	indirect internet banking
FPX B2B Maybank2E	FPX_M2E.php	FPX_M2E	2.00 - 1mil / 12am - 1 am	indirect internet banking
FPX B2B BNP Paribas	FPX_B2B_BNP.php	FPX_B2B_BNP	2.00 - 1mil / 5pm - 8.45am	indirect internet banking
FPX B2B Affin Max	FPX_B2B_ABBM.php	FPX_B2B_ABBM	2.00 - 1mil	indirect internet banking
FPX B2B Citibank	FPX_B2B_CITIBANK.php	FPX_B2B_CITIBANK	2.00 - 1mil	indirect internet banking
FPX B2B i-bizRAKYAT	FPX_B2B_BKRM.php	FPX_B2B_BKRM	2.00 - 1mil	indirect internet banking
FPX B2B Public Bank Enterprise	FPX_B2B_PBBE.php	FPX_B2B_PBBE	2.00 - 1mil	indirect internet banking
FPX B2B UOB Regional	FPX_B2B_UOBR.php	FPX_B2B_UOBR	2.00 - 1mil	indirect internet banking
FPX B2B Agrobank	FPX_B2B_AGROBANK.php	FPX_B2B_AGROBANK	2.00- 1mil	Indirect internet banking
FPX B2C DirectDebit e-Mandate	FPX_EMANDATE.php	FPX_EMANDATE	> 1.00 Maximum authorized installment amount but always debit MYR 1.00 upon enrollment and this will be fully refunded	direct debit enrollment
FPX DirectDebit e-Mandate	FPX_EMANDATE_ABB.php	FPX_EMANDATE_ABB	> 1.00 Maximum authorized installment amount but always debit MYR 1.00 upon enrollment and this will be fully refunded	direct debit enrollment
<b>DuitNow</b>				
DuitNow QR	RPP_DuitNowQR.php	RPP_DuitNowQR	> 1.00	DuitNow QR payment
<b>Wallet</b>				
<b>Razer Pay</b>	RazerPay.php	RazerPay	> 1.00	e-wallet
<b>Razer Gold</b>	MOLPoints.php	MOLPoints	> 1.00	e-wallet
Touch N' Go E-WALLET	TNG-EWALLET.php	TNG-EWALLET	> 1.00	e-wallet
BOOST	BOOST.php	BOOST	> 1.00	e-wallet

GrabPay	GrabPay.php	GrabPay	> 1.00	e-wallet
Maybank QRPay	MB2U_QRPay-Push.php	MB2U_QRPay-Push	> 1.00	e-wallet
ShopeePay	ShopeePay.php	ShopeePay	> 1.00	e-wallet
<b>OTC</b>				
<b>Razer Cash</b> via 7E	cash.php	cash	> 1.00	OTC @ 7-Eleven
JomPay ATM 9282	jompay.php	jompay	> 1.00	ATM bill payment
CIMB Virtual Account	CIMB-VA.php	CIMB-VA	> 1.00	CIMB Clicks / ATM transfer for CIMB customers only
<b>Razer Cash</b> via 99	cash99.php	cash99	> 1.00	OTC @ 99 Speedmart
<b>Razer Cash</b> via KK	cashkkmart.php	cashkkmart	> 1.00	OTC @ KK Mart
<b>Installment for card</b>				
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	MBB card installment V/M card payment
PBB-ZIIP	installmentPBB-ZIIP.php	PBB-ZIIP	non-installment > 1.00 installment > 500.00	PBB card installment V/M card payment
CIMB-eBPG	indexL.php	creditL	non-installment > 1.00 Installment: 6 mon: >= 1,000 12 mon: >= 1,200	CIMB card installment V/M card payment
AMBank-eBPG-PD	indexU.php	creditU	non-installment > 1.00 Installment: 3 mon: >= 500 6 mon: >= 1,000 12 mon: >= 1,200 18 mon: >= 1,500 24 mon: >= 1,500 36 mon: >= 2,000	AMB card installment V/M card payment
AMBank-eBPG-PW	AMBank-eBPG-PW.php	AMBank-eBPG-PW	non-installment > 1.00 installment > 500.00	AMB card installment V/M card payment
HSBC-MIGS-PW	HSBC-MIGS-PW.php	HSBC-MIGS-PW	> 1.00	HSBC card installment V/M card payment
SCB-MGIS-PW	SCB-MGIS-PW.php	SCB-MGIS-PW	> 1.00	SCB card installment V/M card payment
HLB-MPGS	indexAE.php	creditAE	Installment: 3 mon: >= 500	HLB card installment V/M card payment

			6 mon: >= 1,000 12 mon: >= 1,200	
RHB-MPGS	indexAH.php	creditAH	Installment: 3 mon: >= 500 6 mon: >= 1,000 12 mon: >= 1,200 18 mon: >= 1,500 24 mon: >= 1,500 36 mon: >= 2,000	RHB card installment V/M card payment
CYBERSOURCE	indexAB.php	creditAB	Installment: 3 mon: >= 500 6 mon: >= 1,000 12 mon: >= 1,200 24 mon: >= 1,500	Affin card installment V/M card payment

\* Downtime is for reference only

Remarks

1. Secure 1-click or credit card tokenization function can be enabled in the merchant profile to ease next purchase on the same merchant system.
2. Bcard loyalty reward points for successful transactions can be activated in the merchant profile. (Obsoleted)
3. For certain Razer 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 PG still returns the amount passed from the 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	bank card / ATM
AXS	AXS.php	AXS	> 5.00	bank card / ATM
Wallet				
Razer Pay	RazerPay.php	RazerPay	> 1.00	e-wallet
PayNow	PayNow.php	PayNow	>1.00	Online banking/e-wallet

## Singapore

Default currency: SGD, MYR, USD

Channel Name	filename	channel	Payable Amount Range	Extra Information
Wallet				
Crypto tripleA	Crypto_tripleA.php	Crypto_tripleA	No min and max amount	Crypto e-wallet

Default currency: SGD, MYR, PHP, THB

Channel Name	filename	channel	Payable Amount Range	Extra Information
Buy Now Pay Later				
Atome	Atome.php	Atome	>10.00	V/M card payment

## Indonesia

Default currency: IDR

Channel Name	filename	channel	Payable Amount Range	Extra Information
Alipay+ DANA	AlipayPlus_DANA.php	AlipayPlus_DANA	>1.00	e-Wallet (MYR only)
e2Pay BNI Virtual Account (VA)	e2Pay_BNI_VA.php	e2Pay_BNI_VA	> 10,000.00	OTC
e2Pay CIMB Virtual Account (VA)	e2Pay_CIMB_VA.php	e2Pay_CIMB_VA	> 10,000.00	OTC

e2Pay Mandiri Virtual Account (VA)	e2Pay_MANDIRI_VA.php	e2Pay_MANDIRI_VA	> 10,000.00	OTC
e2Pay Permata Virtual Account (VA)	e2Pay_PERMATA_VA.php	e2Pay_PERMATA_VA	> 10,000.00	OTC
e2Pay BNI Virtual Account (VA)	e2Pay_BNI_VA.php	e2Pay_BNI_VA	> 10,000.00	OTC
e2Pay BCA Virtual Account (VA)	e2Pay_BCA_VA.php	e2Pay_BCA_VA	> 10,000.00	OTC
e2Pay CIMB Octo Clicks Internet Banking	e2Pay_CIMBOctoClicks_IB.php	e2Pay_CIMBOctoClicks_IB	> 10,000.00	Online Banking
e2Pay CIMB QRIS	e2Pay_CIMB_QRIS.php	e2Pay_CIMB_QRIS	> 10,000.00	e-Wallet
e2Pay CIMB OctoPay	e2Pay_CIMB_OctoPay.php	e2Pay_CIMB_OctoPay	> 10,000.00	e-Wallet
e2Pay DANA	e2Pay_DANA.php	e2Pay_DANA	> 100.00	e-Wallet
e2Pay LinkAja Applink	e2Pay_LINKAJA.php	e2Pay_LINKAJA_APPLINK	> 100.00	e-Wallet
e2Pay LinkAja QRIS	e2Pay_LINKAJA_QRIS.php	e2Pay_LINKAJA_QRIS	> 100.00	e-Wallet
e2Pay LinkAja Web Checkout	e2Pay_LINKAJA_WCO.php	e2Pay_LINKAJA_WCO	> 100.00	e-Wallet
e2Pay OVO	e2Pay_OVO.php	e2Pay_OVO	> 100.00	e-Wallet
e2Pay ShopeePay JumpApp	e2Pay_SHOPEEPAY_JUMPAPP.php	e2Pay_SHOPEEPAY_JUMPAPP	> 100.00	e-Wallet
e2Pay ShopeePay QRIS	e2Pay_SHOPEEPAY_QRIS.php	e2Pay_SHOPEEPAY_QRIS	> 100.00	e-Wallet
e2Pay GOPAY	e2Pay_GOPAY.php	e2Pay_GOPAY	> 10000.00	e-Wallet
e2Pay Kredivo Financing	e2Pay_Kredivo_FN.php	e2Pay_Kredivo_FN	-	Financing (Buy Now Pay Later)
e2Pay MBayar QR	e2Pay_MBayar_QR.php	e2Pay_MBayar_QR	> 10000.00	e-Wallet
e2Pay Indomaret	e2Pay_Indomaret.php	e2Pay_Indomaret	> 10000.00	OTC
e2Pay Alfamart	e2Pay_Alfamart.php	e2Pay_Alfamart	> 10000.00	OTC
e2Pay Indodana	e2Pay_Indodana_FN.php	e2Pay_Indodana_FN	-	Financing (Buy Now Pay Later)
e2Pay DBankPro IB	e2Pay_DBankPro_IB.php	e2Pay_DBankPro_IB	> 10000.00	Online Banking

## China

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

Channel Name	filename	channel	Payable Amount Range (Processing currency)	Extra Information
Alipay 支付宝	alipay.php	alipay	> MYR1.00 (MYR/USD/SGD/RMB/CNY)	e-wallet (CN)
UnionPay 银联	GUPOP.php	GUPOP	> MYR1.00 (MYR/USD/CNY/AUD/CAD/EUR/ GBP/HKD/IDR/JPY/NZD/PHP/ SGD/THB/TWD/VND)	bank card
WeChat Pay 微信支付	WeChatPay.php	WeChatPay	> MYR1.00	e-wallet (CN)
Alipay+	AlipayPlus.php	AlipayPlus	> MYR1.00	e-wallet

### Remarks

- Due to China Central Bank regulations, CNY(or RMB) is not able to be settled to an overseas bank account, these channels will use USD as default settlement currency. Besides USD, PG can also settle MYR, SGD via Alipay as well and PG will convert it to equivalent amount of settlement currency based on Maybank daily FX rate.

## Thailand

**Default currency: THB**

Channel Name	filename	channel	Payable Amount Range	Extra Information
Bank of Ayudhya (Krungsri)	BAY_IB_U.php	BAY_IB_U	> 1.00	direct internet banking (fees on buyer)
Bangkok Bank	BBL_IB_U.php	BBL_IB_U	> 1.00	direct internet banking (fees on buyer)
Krung Thai Bank	KTB_IB_U.php	KTB_IB_U	> 1.00	direct internet banking (fees on buyer)
Tesco Lotus & Big Central	Cash-TH.php	Cash-TH	> 1.00	OTC
Kasikornbank PAYPLUS	KBANK_PayPlus.php	KBANK_PayPlus	> 1.00	direct internet banking (fees on buyer)
Siam Commercial Bank	SCB_IB_U.php	SCB_IB_U	> 1.00	direct internet banking (fees on buyer)
Prompt Pay Request to Pay	KBANK_RTP.php	KBANK_RTP	> 1.00	Request to pay
Wallet				
Kbank Promptpay QR	KBANK_THQR_Payment.php	KBANK_THQR_Payment	> 1.00	Direct internet banking & e-wallet



LinePay	LinePay.php	LINEPAY	> 0.01	eWallet
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## Vietnam

Default currency: VND

Channel Name	filename	channel	Payable Amount Range	Extra Information
Bank Transfer via 9Pay	9PAY_BANKTRANSFER.php	9PAY_BANKTRANSFER	> 10,000.00	Online Banking
Debit Card via 9Pay	9PAY_DEBITCARD.php	9PAY_DEBITCARD	> 2,000.00	bank card / ATM
Wallet				
NganLuong	nganluong.php	nganluong	> 2,000.00	e-wallet
VTC Pay	vtcpay.php	vtcpay	> 1,000.00	e-wallet
9Pay e-wallet	9PAY_EWALLET.php	9PAY_EWALLET	> 4,000.00	e-wallet

## Philippines

Default currency: PHP

Channel Name	filename	channel	Payable Amount Range	Extra Information
Dragonpay	dragonpay.php	dragonpay	> 50.00	indirect internet banking / cash
Razer Cash PH	cashph.php	cashph	> 100	OTC @ Razer Cash PH
GCash	GCash.php	GCash	<100,000	e-Wallet
Alipay+ GCash	AlipayPlus_GCash.php	AlipayPlus_GCASH	> 1.00	e-Wallet (MYR only)
Bank of the Philippine Islands (BPI)	BPI.php	BPI	> 1.00	Internet Banking
UPAY	UPAY.php	UPAY	> 1.00	Internet Banking
UnionBank Online (UPay)	UPAY_UBO.php	UPAY_UBO	> 1.00	Internet Banking
PesoNet (UPay)	UPAY_PCHC.php	UPAY_PCHC	> 1.00	Internet Banking
Instapay (UPay)	UPAY_INSTA.php	UPAY_INSTA	> 1.00	Internet Banking
PayMaya	PayMaya.php	PayMaya	> 1.00	Credit card
COINS.PH	COINS_PH.php	COINS_PH	>1.00	e-Wallet
Wallet				
PayMaya e-wallet	PayMaya-eWallet.php	PayMaya-eWallet	> 1.00	e-Wallet

ShopeePay	ShopeePay.php	ShopeePay	> 1.00	e-Wallet
GrabPay	GrabPay.php	GrabPay	> 1.00	e-Wallet

## Taiwan

Default currency: TWD

Channel Name	filename	channel	Payable Amount Range	Extra Information
ESUN Cash-711	ESUN_Cash711.php	ESUN_Cash711	>= 1.00	OTC
ESUN Cash FamilyMart	ESUN_CashFamilyMart.php	ESUN_CashFamilyMart	>= 1.00	OTC
ESUN ATM	ESUN_ATM.php	ESUN_ATM	>= 1.00	Virtual Account
ESUN Cash Hi-Life	ESUN_CashHiLife.php	ESUN_CashHiLife	>= 1.00	OTC
ESUN COD Family Mart	ESUN_CODFamilyMart.php	ESUN_CODFamilyMart	>= 1.00	OTC

## Payment Page Integration

This is the traditional integration method which will send the buyer information to the payment gateway hosted payment page. You may want to explore *seamless integration*, *Direct Server API*, *mobile xdk* or supported shopping cart payment modules for better user experience beside this hosted payment page integration on github repositories. Recurring API is also available for card payment and DirectDebit.

### 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 and it is on the request URL, otherwise need to pass this as parameter
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, comma(,) is not allowed
orderid	mandatory, alphanumeric up to 40 characters	Invoice or order number from merchant system. Can be set to Read-only field. E.g. BH2018-09rev
bill_name	mandatory, alphanumeric, 128 chars	Buyer's full name. <b>(Please do not pass in dummy data if you want to use the saved cards feature, as this info will be used to identify the ownership of the card's token. If you need to use dummy data, kindly refer to guest_checkout.)</b>
bill_email	mandatory, email, 128 chars	Buyer's email address. Must be a valid email. <b>(Please do not pass in dummy data if you want to use the saved cards feature, as this info will be used to identify the ownership of the card's token. If you need to use dummy data, kindly refer to guest_checkout.)</b>
bill_mobile	mandatory, alphanumeric, 32 chars	Buyer's mobile number or contact number. Must be a valid mobile number. <b>(Please do not pass in dummy data if you want to use the saved cards feature, as this info will be used to identify the ownership of the card's token. If you need to use dummy data, kindly refer to guest_checkout.)</b>
guest_checkout	conditional, 0 or 1	Used to indicate that this checkout does not belong to a registered user. Equal to 0 by default and 1 if the merchant does not hold the customer's bill_name, bill_email or bill_mobile. Saved card payment will disabled if set as 1.
bill_desc	mandatory, alphanumeric, 64kB	Purchase itemized list or order description. Try to avoid special characters so that the payment request is not blocked by the web application firewall. For Taiwan channels please refer to <b>Guideline for Taiwan channels</b> .
b_addr1	optional, mandatory for specific channel	Billing address line 1

b_addr2	optional, mandatory for specific channel	Billing address line 2
b_zipcode	optional, mandatory for specific channel	Billing address zipcode or postcode
b_city	optional, mandatory for specific channel	Billing address city
b_state	optional, mandatory for specific channel	Billing address state
country	optional, 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 <b>vcode</b> section for details.
currency	mandatory, 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 the channel 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 the langcode specified.
returnurl	optional, URL	For selected merchants only. Used for multiple return URLs. This will slow down your payment request.
callbackurl	optional, URL	Used for both multiple callback URL and Notification URL.
cancelurl	optional, URL	Buyer will redirect to this URL if the buyer clicks the "Cancel" button to abandon payment before proceeding. No transaction will be created.
s_name	optional, mandatory for specific channel	Receiver name
s_addr1	optional, mandatory for specific channel	Delivery address line 1
s_addr2	optional, mandatory for specific channel	Delivery address line 2
s_zipcode	optional, mandatory for specific channel	Delivery destination zipcode
s_city	optional, mandatory for specific channel	Delivery destination city
s_state	optional, mandatory for specific channel	Delivery destination state
s_country	optional, mandatory for specific channel	Delivery destination country
s_merchantID	conditional for partner	Partner's sub-merchant MID
s_merchantURL	conditional for partner	Partner's sub-merchant URL
s_merchantMCC	conditional for partner	Partner's sub-merchant MCC
is_escrow	optional, for escrow payment	Set the value to 1 to indicate this is an escrow payment. Escrow transactions also can be set after the transaction has been created using escrow API.
non_3DS	conditional for partner, 0 or 1	Applicable to card processing via specific processor using specific currency for pre-approved partners only.

		Equal to 0 by default and 1 for non-3DS transaction
tcctype	optional, for card type transaction	Available value is: SALS = Capture Transaction (Default) AUTH = Authorize Transaction (Please inform PG before starting using pre-auth)
token_status	optional	Default value will be 0. If the value is 1 the save card checkbox will be check as default..
installmonth	optional, mandatory for installment payment	Total month of installment. E.g: 0, 3, 6, 12, 24
cash_waittime	optional, integer	To overwrite the allowed waiting time for cash payment in hour(s), values greater than "Payment Expiry Time" in merchant profile will be capped.
split_info	optional, alphanumeric with pipe (   ) as data delimiter and comma ( , ) as recipient separator	Used for "Alipay Split Payment". Format as below without '<' and '>':- <submer_ID> <amount>, <submer_ID> <amount>
AppDeeplink	optional, URL	Mobile deeplink/universal link that allows e-wallet In-App payment.
waittime	optional, integer	When the payment page will be expired in second(s) and redirect to cancelurl after timeout
PaymentExpirationTime	optional, integer	For non-cash payment only. A timestamp (ISO 8601) that determines when the requestURL (payment link) will expire, in UTC.  Eg. 2023-12-31T23:59:59Z
metadata	optional, JSON, 64kb	Merchants are allowed to pass metadata for each transaction in JSON format only. Metadata that were passed via payment request will be returned in extraP parameters without any alteration in all of 3 endpoints so that merchants will be able to do the corresponding transaction mapping on their end.
lcpMemberId	optional, alphanumeric	Unique ID for Taiwan ESUN channels. Merchant will be able to retrieve it from the <b>extraP</b> parameter in the payment response.

## Examples

### Using PHP to generate a GET payment request

```
<?PHP
echo "<a href=https://pay.fiuu.com/RMS/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 Now </a>";

```

```
?>
```

## Using PHP to generate a POST form payment request

```

<?PHP
echo "<form action='https://pay.fiuu.com/RMS/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 & xxxxxxxxxxxx )
// REPLACE xxxxxxxxxxxx with Verify Key
response.write("<a href=https://pay.fiuu.com/RMS/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 Now </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 Verify Key
response.write("<form action='https://pay.fiuu.com/RMS/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 results will be returned to the merchant system once payment is done or the user abandons the payment process. HTTP POST is the only method that payment gateway returns all parameters to a merchant's return URL for real-time status update, which the merchant can configure in merchant admin. Merchant system should block all other methods or parameters from an 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 in Razer Cash payment request.
orderid	alphanumeric, 40 characters	Invoice or order number from merchant system.
tranID*	integer, 10-20 digits	Unique transaction ID for tracking purpose. This is an auto-incremental positive value, your DB structure has to be future-proof in case the maximum threshold is reached.
domain	alphanumeric, 32 chars	Merchant ID in PG system.
status	string in 2-digit numeric	00 for Successful payment, 11 for failed status, 22 if pending.
appcode	alphanumeric, 16 chars	Bank approval code. Mandatory for card payment. Certain channels return 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 <a href="#">skey</a> section for details.
currency	2 or 3 chars (ISO-4217) currency code	Default currency is MYR (indicating Malaysia Ringgit) for Malaysia channels.
channel	predefined string in PG system	Channel references for the 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)	Refer to section ExtraP for all the available values to be responded

\* For those who are using MySQL or MariaDB, recommended data type is unsigned BIGINT(20)

\*\* This is a customizable parameter

Value of “channel” in return URL

Card / Wallet		
Malaysia & International		
<b>Credit/Debit/Prepaid card (Visa/MasterCard)</b> Credit  <b>Razer Gold - Pay with Razer (PWR)</b> MOLPoints  <b>WeChat Pay MY (Online)</b> WeChatPayMY  <b>Maybank QRPay</b> MB2U_QRPay-Push  <b>DuitNow QR</b> RPP_DuitNowQR	<b>Point BCard</b> Point-BCard  <b>Webcash</b> WEBCASH  <b>WeChat Pay MY (Offline)</b> WeChatPayMY-Offline  <b>Touch N' Go E-WALLET</b> TNG-EWALLET	<b>PayPal</b> PayPal  <b>Boost</b> BOOST  <b>GrabPay</b> GrabPay  <b>ShopeePay</b> ShopeePay
Indonesia		
<b>Alipay+ DANA</b> AlipayPlus_DANA  <b>e2Pay DANA</b> e2Pay_DANA  <b>e2Pay LinkAja Web Checkout</b> e2Pay_LINKAJA_WCO  <b>e2Pay ShopeePay</b> e2Pay_SHOPEEPAY_JUMPAPP	<b>e2Pay CIMB Octo Pay</b> e2Pay_CIMB_OctoPay  <b>e2Pay LinkAja QRIS</b> e2Pay_LINKAJA_QRIS  <b>e2Pay OVO</b> e2Pay_OVO  <b>e2Pay GOPAY</b> e2Pay_GOPAY	<b>e2Pay CIMB QRIS</b> e2Pay_CIMB_QRIS  <b>e2Pay LinkAja Applink</b> e2Pay_LINKAJA_APPLINK  <b>e2Pay ShopeePay QRIS</b> e2Pay_SHOPEEPAY_QRIS  <b>e2Pay MBayar QR</b> e2Pay_MBayar_QR
China		
<b>Alipay (Online)</b> Alipay  Alipay+ AlipayPlus	<b>WeChat Pay (Online)</b> WeChatPay	<b>WeChat Pay (Offline)</b> WeChatPay-Offline
Thailand		
<b>Paysbuy</b> paysbuy	<b>Kbank Promptpay QR</b> KBANK_THQR_PAYMENT	
Vietnam		
<b>Nganluong</b> NGANLUONG  <b>VTC Pay eWallet &amp; Banks</b> VTCP_EWB  <b>9Pay Debit Card</b> 9PAY_DEBITCARD	<b>VTC-Pay</b> VTC-Pay  <b>VTC Pay eWallet &amp; Credit Cards</b> VTCP_EWC	<b>VTC Pay eWallet</b> VTCP_EW  <b>9Pay eWallet</b> 9PAY_EWALLET

Philippines		
<b>GCash</b> GCash	<b>Alipay+ GCash</b> AlipayPlus_GCASH	<b>ShopeePay</b> ShopeePay
<b>COINS.PH</b> COINS_PH		
Indirect / Direct Internet Banking		
Malaysia		
<b>FPX</b> FPX  <b>RHB Now</b> FPX_RHB / RHB-ONL  <b>Bank Islam</b> FPX_BIMB  <b>Affin Online</b> FPX_ABB / Affin-EPG  <b>myBSN</b> FPX_BSN  <b>HSBC Online</b> FPX_HSBC  <b>Bank Of China Online</b> FPX_BOCM  <b>FPX B2B AmBank</b> FPX_B2B_AMB  <b>FPX B2B United Overseas Bank</b> FPX_B2B_UOB  <b>FPX B2B Maybank2E</b> FPX_M2E  <b>FPX B2B RHB Bank</b> FPX_B2B_RHB  <b>FPX B2B Deutsche Bank</b> FPX_B2B_DEUTSCHE  <b>FPX B2B OCBC</b> FPX_B2B_OCBC  <b>FPX DirectDebit</b> FPX_DIRECTDEBIT  <b>FPX B2B Affin Max</b> FPX_B2B_ABBM  <b>FPX B2B Public Bank Enterprise</b> FPX_B2B_PBBE	<b>Maybank2u</b> FPX_MB2U / MB2u  <b>PBe</b> FPX_PBB / PBeBank  <b>AmOnline</b> FPX_AMB / AMB-W2W  <b>i-Muamalat</b> FPX_BMMB  <b>OCBC Online</b> FPX_OCBC  <b>Standard Chartered Online</b> FPX_SCB  <b>FPX B2B Model</b> FPX_B2B  <b>FPX B2B Affin Bank</b> FPX_B2B_ABB  <b>FPX B2B CIMB Bank</b> FPX_B2B_CIMB  <b>FPX B2B Public Bank</b> FPX_B2B_PBB  <b>FPX B2B Alliance Bank</b> FPX_B2B_ABMB  <b>FPX B2B Bank Muamalat</b> FPX_B2B_BMMB  <b>Agrobank</b> FPX_AGROBANK  <b>FPX B2B Citibank</b> FPX_B2B_CITIBANK  <b>FPX B2B UOB Regional</b> FPX_B2B_UOBR  <b>FPX DirectDebit</b> FPX_DIRECTDEBIT_ABB	<b>CIMB Clicks</b> FPX_CIMBCLICKS / CIMB-Clicks  <b>Hong Leong Connect / PEx+</b> FPX_HLB / HLB-ONL / PEXPLUS  <b>Alliance online</b> FPX_ABMB / ALB-ONL  <b>i-Rakyat</b> FPX_BKRM  <b>UOB Online</b> FPX_UOB  <b>KFH Online</b> FPX_KFH  <b>FPX B2B Hong Leong</b> FPX_B2B_HLB  <b>FPX B2B HSBC</b> FPX_B2B_HSBC  <b>FPX B2B Bank Islam</b> FPX_B2B_BIMB  <b>FPX B2B Kuwait Finance House</b> FPX_B2B_KFH  <b>FPX B2B Standard Chartered</b> FPX_B2B_SCB  <b>FPX e-Mandate</b> FPX_EMANDATE  <b>FPX B2B Agrobank</b> FPX_B2B_AGROBANK  <b>FPX B2B i-bizRAKYAT</b> FPX_B2B_BKRM  <b>FPX e-Mandate</b> FPX_EMANDATE_ABB
Singapore		

<b>eNets Debit</b> eNets-D	<b>eNets Debit DBS Bank</b> eNets-D_DBS	<b>eNets Debit Standard Chartered Bank</b> eNets-D_SCB
<b>eNets Debit United Overseas Bank</b> eNets-D_UOB	<b>eNets Debit OCBC Bank</b> eNets-D_OCBC	
<b>Philippines</b>		
<b>DragonPay</b> Dragonpay	<b>Bank of the Philippine Islands (BPI)</b> BPI	<b>UPAY</b> UPAY
<b>UnionBank Online (UPay)</b> UPAY_UBO	<b>PesoNet (UPay)</b> UPAY_PCHC	<b>Instapay (UPay)</b> UPAY_INSTA
<b>Thailand</b>		
<b>Bangkok Bank</b> BBL_IB & BBL_IB_U	<b>Bank of Ayudhya (Krungsri)</b> BAY_IB_U	<b>Krung Thai Bank</b> KTB_IB & KTB_IB_U
<b>Siam Commercial Bank</b> SCB_IB_U	<b>OMISE</b> OMISE	<b>PromptPay Request to Pay</b> KBANK_RTP
<b>Vietnam</b>		
<b>VTC Pay Banks</b> VTCP_B	<b>VTC Pay - Vietcombank</b> VTCP_Vietcombank	<b>VTC Pay - Techcombank</b> VTCP_Techcombank
<b>VTC Pay - MB</b> VTCP_MB	<b>VTC Pay - Vietinbank</b> VTCP_Vietinbank	<b>VTC Pay - Agribank</b> VTCP_Agribank
<b>VTC Pay - DongABank</b> VTCP_DongABank	<b>VTC Pay - Oceanbank</b> VTCP_Oceanbank	<b>VTC Pay - BIDV</b> VTCP_BIDV
<b>VTC Pay - SHB</b> VTCP_SHB	<b>VTC Pay - VIB</b> VTCP_VIB	<b>VTC Pay - MaritimeBank</b> VTCP_MaritimeBank
<b>VTC Pay - Eximbank</b> VTCP_Eximbank	<b>VTC Pay - ACB</b> VTCP_ACB	<b>VTC Pay - HDBank</b> VTCP_HDBank
<b>VTC Pay - NamABank</b> VTCP_NamABank	<b>VTC Pay - SaigonBank</b> VTCP_SaigonBank	<b>VTC Pay - Sacombank</b> VTCP_Sacombank
<b>VTC Pay - VietABank</b> VTCP_VietABank	<b>VTC Pay - VPBank</b> VTCP_VPBank	<b>VTC Pay - TienPhongBank</b> VTCP_TienPhongBank
<b>VTC Pay - SeaABank</b> VTCP_SeaABank	<b>VTC Pay - PGBank</b> VTCP_PGBank	<b>VTC Pay - Navibank</b> VTCP_Navibank
<b>VTC Pay - GPBank</b> VTCP_GPBank	<b>VTC Pay - BACABANK</b> VTCP_BACABANK	<b>VTC Pay - PHUONGDONG</b> VTCP_PHUONGDONG
<b>VTC Pay - ABBANK</b> VTCP_ABBANK	<b>VTC Pay - LienVietPostBank</b> VTCP_LVPB	<b>VTC Pay - BVB</b> VTCP_BVB
<b>9Pay Bank Transfer</b> 9PAY_BANKTRANSFER		
<b>China</b>		
<b>Union Pay</b> UPOP		
<b>Indonesia</b>		

<b>e2Pay CIMB Octo Clicks Internet Banking</b> e2Pay_CIMBOctoClicks_IB	<b>e2Pay DBankPro Internet Banking</b> e2Pay_DBankPro_IB	
<b>Kiosk / Over-the-Counter / Cash / Bill Payment</b>		
<b><u>Malaysia</u></b>		
<b>7-Eleven</b> Cash-711  <b>Jompay</b> jompay	<b>99SpeedMart</b> Cash-99SM  <b>Cash-in to PG</b> Cash-Deposit  <b>CIMB Virtual Account</b> CIMB-VA	<b>Maybank ATM</b> Cash-MBBATM
<b><u>Singapore</u></b>		
<b>SingPost ATM</b> Cash-SAM	<b>AXS Kiosk</b> AXS	
<b><u>Indonesia</u></b>		
<b>e2Pay BNI Virtual Account</b> e2Pay_BNI_VA  <b>e2Pay Permata Virtual Account</b> e2Pay_PERMATA_VA	<b>e2Pay CIMB Virtual Account</b> e2Pay_CIMB_VA  <b>e2Pay Indomaret</b> e2Pay_Indomaret	<b>e2Pay Mandiri Virtual Account</b> e2Pay_MANDIRI_VA  <b>e2Pay Alfamart</b> e2Pay_Alfamart
<b><u>Philippines</u></b>		
<b>DragonPay</b> Dragonpay  <b>Razer Cash PH</b> Cash-PH	<b>Bank of the Philippine Islands (BPI)</b> BPI	
<b><u>Thailand</u></b>		
<b>Tesco Lotus</b> Cash-TH  <b>Big Central</b> Cash-TH		
<b><u>Taiwan</u></b>		
<b>FamilyMart 全家便利商店</b> FAMILYMART		
<b><u>Singapore</u></b>		
<b>Atome</b> Atome		
<b><u>Indonesia</u></b>		
<b>e2Pay Kredivo Financing</b> e2Pay_Kredivo_FN	<b>e2Pay Indodana Financing</b> e2Pay_Indodana_FN	

\* Channel in yellow text means obsoleted

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

$sec_key = "xxxxxxxxxxxx"; //Replace xxxxxxxxxxxx with Secret_Key

/*****
*Don't change below parameters
*****/
$stranID = $_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 PG
*****/
$key0 = md5( $stranID.$orderid.$status.$domain.$amount.$currency );
$key1 = md5( $paydate.$domain.$key0.$appcode.$sec_key );

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

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 PG using Merchant requery
    // 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 the PG
```



## 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@fiuu.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 & "xxxxxxxxxxx" )
'Replace xxxxxxxxxxxx with Secret_Key

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

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 PG 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 (Merchant Webhook or the 3 Endpoints)

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

### Return URL with IPN (Instant Payment Notification)

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

Implementation:

**Step 1:** Login to the merchant portal, and go to tab Transactions -> Settings, fill in the Return URL, which must be starting with https. Return URL with IPN can be activated for better merchant-payment system communication. Check the checkbox beside “Enable Instant Payment Notification (IPN)”, as shown below:

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

1. Simple front-end snippet: copy the Javascript (JS) code from merchant admin and paste it on the 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. “*treq*” with value 1. PHP sample code is provided below.

**URL:** <https://pay.fiuu.com/RMS/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 the merchant system misses the first notification attempt from the payment gateway.

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

```
<?php

$sec_key = "xxxxxxxxxx"; //Replace xxxxxxxxxx with 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['skey'];

/*****
* 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://pay.fiuu.com/RMS/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 PG
*****/
$key0 = md5( $tranID.$orderid.$status.$domain.$amount.$currency );
$key1 = md5( $paydate.$domain.$key0.$appcode.$sec_key );
if( $key != $key1 ) $status = -1; // Invalid transaction
if ( $status == "00" ) {
    if ( check_cart_amt($orderid, $amount) ) {
        // write your script here .....
    }
} else {
    // failure action
}

?>
```

## Notification URL with IPN

Direct payment status notification is a back-end instant update mechanism that sends over the payment status notification from gateway directly to the 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:** Login to merchant portal and go to tab Transactions -> Settings, fill in the Notification URL, which must be starting with https. Notification URL with IPN can be activated for better merchant-payment system communication. Check the checkbox beside “Enable Instant Payment Notification (IPN)”, as shown below:



The screenshot shows a form with a dark blue header labeled "Notification URL". Below the header, there is a text input field containing the placeholder "https://{YOUR NOTIFICATION URL}" and a "Check" button. Below the input field, there is a checkbox labeled "Enable Instant Payment Notification (IPN)" which is checked.

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

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

**URL:** <https://pay.fiuu.com/RMS/API/chkstat/returnipn.php>

## Notification Parameters (via POST method)

Variable / Parameter	Type Format / Max Length	Description / Example
nbcdb	1 digit numeric	Always equal to <b>2</b> , which indicates this is a notification from PG
amount	2 decimal points numeric value	The total amount paid or to be paid for Razer Cash payment request
orderid	alphanumeric, 40 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 PG system
status	2-digit numeric value	00 for Successful payment 11 for failed status
appcode	alphanumeric, 16 chars	Bank approval code. Mandatory for card payment. Certain channels return 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 MYR (indicating Malaysia Ringgit) for Malaysia channels
channel	predefined string in system	Channel references for merchant system
paydate	Date/Time( YYYY-MM-DD HH:mm:ss)	Date/Time of the transaction.
extraP*	optional (on request)	Refer to section ExtraP for all the available values to be responded

\*Note: Values are not URL encoded

## Example of Notification URL with IPN script for PHP

```
<?php

$sec_key = "xxxxxxxxxx"; //Replace xxxxxxxxxxxx with Secret_Key

$_POST[treq] = 1; // Additional parameter for IPN. Value always set to 1.

/*****
*Don't change below parameters
*****/
$nbcb = $_POST['nbcb'];
$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'];

/*****
* 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://pay.fiuu.com/RMS/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 PG
*****/
$key0 = md5( $tranID.$orderid.$status.$domain.$amount.$currency );
$key1 = md5( $paydate.$domain.$key0.$appcode.$sec_key );
if( $key != $key1 ) $status = -1; // Invalid transaction
if ( $status == "00" ) {
    if ( check_cart_amt($orderid, $amount) ) {
        // write your script here .....
    }
} else {
    // failure action
}

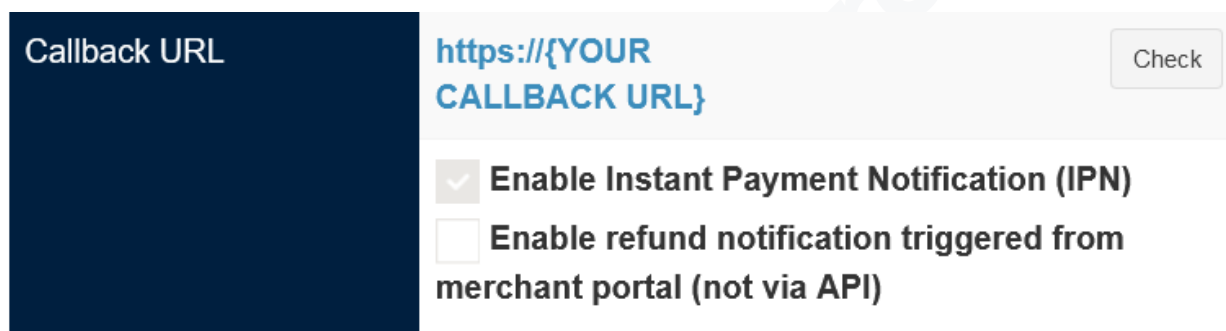
?>
```

## Callback URL with IPN

Callback mechanism is a back-end activity that is initiated by payment gateway to notification the merchant system once there are changes on any payment status.

Callback URL script is similar to return URL script. Both handle 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 updates, such as Fiuu Cash payment.

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



Callback URL

<https://{YOUR CALLBACK URL}> Check

☒ **Enable Instant Payment Notification (IPN)**

☐ **Enable refund notification triggered from merchant portal (not via API)**

Merchant can actually use the same script for both callback URL & return URL, because there 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 a status changed event, payment gateway will POST the following parameters to merchant callback URL. If the payment gateway could not get the actual ACK message from the merchant, it will retry for a maximum 3 times, of 15 minutes interval for each attempt.

### Callback Parameters (via POST method)

Variable / Parameter	Type Format / Max Length	Description / Example
nbcb	1 digit numeric	Always equal to 1, which indicates this is a callback notification from PG
amount	2 decimal points numeric value	The total amount paid or to be paid for Razer Cash payment request
orderid	alphanumeric, 40 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 PG system
status	2-digit numeric value	00 for Successful payment 11 for failed status
appcode	alphanumeric, 16 chars	Bank approval code. Mandatory for card payment. 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 MYR (indicating Malaysia Ringgit) for Malaysia channels
channel	predefined string in system	Channel references for merchant system
paydate	Date/Time( YYYY-MM-DD HH:mm:ss)	Date/Time of the transaction
extraP*	optional (on request)	Refer to section ExtraP for all the available values to be responded

\*Note: Values are not URL encoded



## Example of callback URL script for PHP

```
<?php

$sec_key = "xxxxxxxxxx"; //Replace xxxxxxxxxxxx with Secret_Key

$nbcb      = $_POST['nbcb'];
$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 PG
*****/
$key0 = md5( $tranID.$orderid.$status.$domain.$amount.$currency );
$key1 = md5( $paydate.$domain.$key0.$appcode.$sec_key );
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 ( $nbcb==1 ) {
    //callback IPN feedback to notified PG
    echo "CBTOKEN:MPSTATOK"; exit;
}else{
    //normal IPN and redirection
}
?>
```

Value of “channel” in notification and callback URL

Card / Wallet		
Malaysia & International		
<b>Credit/Debit/Prepaid card (Visa/MasterCard)</b> credit  <b>Razer zGold - Pay with Razer (PWR)</b> MOLPoints  <b>WeChat Pay MY (Online)</b> WeChatPayMY  <b>Maybank QRPAY</b> MB2U_QRPAY-Push  DuitNow QR RPP_DuitNowQR	<b>Point BCard</b> Point-BCard  <b>Webcash</b> webcash  <b>WeChat Pay MY (Offline)</b> WeChatPayMY-Offline  <b>Touch N' Go E-WALLET</b> TNG-EWALLET	<b>PayPal</b> paypal  <b>Boost</b> BOOST  <b>GrabPay</b> GrabPay  <b>ShopeePay</b> ShopeePay
Indonesia		
<b>Alipay+ DANA</b> AlipayPlus_DANA  <b>e2Pay DANA</b> e2Pay_DANA  <b>e2Pay LinkAja Web Checkout</b> e2Pay_LINKAJA_WCO  <b>e2Pay ShopeePay</b> e2Pay_SHOPEEPAY_JUMPAPP	<b>e2Pay CIMB QRIS</b> e2Pay_CIMB_QRIS  <b>e2Pay LinkAja Applink</b> e2Pay_LINKAJA_APPLINK  <b>e2Pay ShopeePay QRIS</b> e2Pay_SHOPEEPAY_QRIS  <b>e2Pay GOPAY</b> e2Pay_GOPAY	<b>e2Pay CIMB Rekening Ponsel</b> e2Pay_CIMB_Rekening_Ponsel  <b>e2Pay LinkAja QRIS</b> e2Pay_LINKAJA_QRIS  <b>e2Pay OVO</b> e2Pay_OVO  <b>e2Pay MBayar QR</b> e2Pay_MBayar_QR
China		
<b>Alipay (Online)</b> alipay  <b>Alipay+</b> AlipayPlus	<b>WeChat Pay (Online)</b> WeChatPay	<b>WeChat Pay (Offline)</b> WeChatPay-Offline
Thailand		
<b>Paysbuy</b> paysbuy	<b>Kbank Promptpay QR</b> KBANK_THQR_PAYMENT	
Vietnam		
<b>Nganluong</b> nganluong  <b>VTC Pay eWallet &amp; Banks</b> VTCPay-eWalletBank  <b>9Pay Debit Card</b> 9PAY_DEBITCARD	<b>VTC-Pay</b> VTCPay  <b>VTC Pay eWallet &amp; Credit Cards</b> VTCPay-eWalletCreditCard	<b>VTC Pay eWallet</b> VTCP_EW  <b>9Pay eWallet</b> 9PAY_EWALLET

Philippines		
<b>GCash</b> GCash	<b>Alipay+ GCash</b> AlipayPlus_GCASH	<b>ShopeePay</b> ShopeePay
<b>COINS.PH</b> COINS_PH		
Indirect / Direct Internet Banking		
Malaysia		
<b>FPX</b> fpx  <b>RHB Now</b> rhb / rhb  <b>Bank Islam</b> bankislam  <b>Affin Online</b> abb / affin-epg  <b>myBSN</b> bsn  <b>HSBC Online</b> hsbc  <b>Bank Of China Online</b> bocm  <b>FPX B2B AmBank</b> FPX_B2B_AMB  <b>FPX B2B United Overseas Bank</b> FPX_B2B_UOB  <b>FPX B2B Maybank2E</b> FPX_M2E  <b>FPX B2B RHB Bank</b> FPX_B2B_RHB  <b>FPX B2B Deutsche Bank</b> FPX_B2B_DEUTSCHE  <b>FPX B2B OCBC</b> FPX_B2B_OCBC  <b>FPX DirectDebit</b> FPX_DIRECTDEBIT	<b>Maybank2u</b> maybank2u / maybank2u  <b>PBe</b> publicbank / publicbank  <b>AmOnline</b> amb / amb  <b>i-Muamalat</b> muamalat  <b>OCBC Online</b> ocbc  <b>Standard Chartered Online</b> scb  <b>FPX B2B Model</b> FPX_B2B  <b>FPX B2B Affin Bank</b> FPX_B2B_ABB  <b>FPX B2B CIMB Bank</b> FPX_B2B_CIMB  <b>FPX B2B Public Bank</b> FPX_B2B_PBB  <b>FPX B2B Alliance Bank</b> FPX_B2B_ABMB  <b>FPX B2B Bank Muamalat</b> FPX_B2B_BMMB  <b>FPX e-Mandate</b> FPX_EMANDATE_ABB	<b>CIMB Clicks</b> cimb / cimb  <b>Hong Leong Connect / PEx+</b> hlb / hlb / PEXPLUS  <b>Alliance online</b> alliancebank / alliancebank  <b>i-Rakyat</b> bkrm  <b>UOB Online</b> uob  <b>KFH Online</b> kuwait-finace  <b>FPX B2B Hong Leong</b> FPX_B2B_HLB  <b>FPX B2B HSBC</b> FPX_B2B_HSBC  <b>FPX B2B Bank Islam</b> FPX_B2B_BIMB  <b>FPX B2B Kuwait Finance House</b> FPX_B2B_KFH  <b>FPX B2B Standard Chartered</b> FPX_B2B_SCB  <b>FPX e-Mandate</b> FPX_EMANDATE  <b>FPX DirectDebit</b> FPX_DIRECTDEBIT_ABB
Singapore		
<b>eNets Debit</b> enetsD		
Philippines		

<b>Bank of the Philippine Islands (BPI)</b> BPI  <b>PesoNet (UPay)</b> UPAY_PCHC	<b>UPAY</b> UPAY  <b>Instapay (UPay)</b> UPAY_INSTA	<b>UnionBank Online (UPay)</b> UPAY_UBO
<u>Thailand</u>		
<b>Bangkok Bank</b> TH_BBLPN / BBL_IB & BBL_IB_U  <b>Siam Commercial Bank</b> TH_SCBPN	<b>Bank of Ayudhya (Krungsri)</b> TH_BAYPN / BAY_IB_U  <b>OMISE</b> OMISE	<b>Krung Thai Bank</b> TH_KTBPN / KTB_IB & KTB_IB_U
<u>Vietnam</u>		
<b>VTC Pay Banks</b> VTCPay-Bank  <b>VTC Pay - MB</b> VTCPay-MB  <b>VTC Pay - DongABank</b> VTCPay-DongABank  <b>VTC Pay - SHB</b> VTCPay-SHB  <b>VTC Pay - Eximbank</b> VTCPay-Eximbank  <b>VTC Pay - NamABank</b> VTCPay-NamABank  <b>VTC Pay - VietABank</b> VTCPay-VietABank  <b>VTC Pay - SeaABank</b> VTCPay-SeaABank  <b>VTC Pay - GPBank</b> VTCPay-GPBank  <b>VTC Pay - ABBANK</b> VTCPay-ABBANK  <b>9Pay Bank Transfer</b> 9PAY_BANKTRANSFER	<b>VTC Pay - Vietcombank</b> VTCPay-Vietcombank  <b>VTC Pay - Vietinbank</b> VTCPay-Vietinbank  <b>VTC Pay - Oceanbank</b> VTCPay-Oceanbank  <b>VTC Pay - VIB</b> VTCPay-VIB  <b>VTC Pay - ACB</b> VTCPay-ACB  <b>VTC Pay - SaigonBank</b> VTCPay-SaigonBank  <b>VTC Pay - VPBank</b> VTCPay-VPBank  <b>VTC Pay - PGBank</b> VTCPay-PGBank  <b>VTC Pay - BACABANK</b> VTCPay-BACABANK  <b>VTC Pay - LienVietPostBank</b> VTCPay-LienVietPostBank	<b>VTC Pay - Techcombank</b> VTCPay-Techcombank  <b>VTC Pay - Agribank</b> VTCPay-Agribank  <b>VTC Pay - BIDV</b> VTCPay-BIDV  <b>VTC Pay - MaritimeBank</b> VTCPay-MaritimeBank  <b>VTC Pay - HDBank</b> VTCPay-HDBank  <b>VTC Pay - Sacombank</b> VTCPay-Sacombank  <b>VTC Pay - TienPhongBank</b> VTCPay-TienPhongBank  <b>VTC Pay - Navibank</b> VTCPay-Navibank  <b>VTC Pay - PHUONGDONG</b> VTCPay-PHUONGDONG  <b>VTC Pay - BVB</b> VTCPay-BVB
<u>China</u>		
<b>Union Pay</b> unionpay		
<u>Australia</u>		
<b>POLi Payment</b> polipayement		
<u>Indonesia</u>		

<b>e2Pay CIMB Octo Clicks Internet Banking</b> e2Pay_CIMBOctoClicks_IB	<b>e2Pay DBankPro Internet Banking</b> e2Pay_DBankPro_IB	
<b>Kiosk / Over-the-Counter / Cash / Bill Payment</b>		
<b><u>Malaysia</u></b>		
<b>7-Eleven</b> cash  <b>Esapay Cash Retail</b> esapay  <b>Jompay</b> jompay	<b>99SpeedMart</b> cash99  <b>Cash-in to PG</b> Cash-Deposit  <b>CIMB Virtual Account</b> CIMB-VA	<b>Petronas</b> epay  <b>Maybank ATM</b> Cash-MBBATM
<b><u>Singapore</u></b>		
<b>SingPost ATM</b> singpost	<b>AXS Kiosk</b> AXS	
<b><u>Indonesia</u></b>		
<b>e2Pay CIMB Virtual Account</b> e2Pay_CIMB_VA  <b>e2Pay Indomaret</b> e2Pay_Indomaret	<b>e2Pay Mandiri Virtual Account</b> e2Pay_MANDIRI_VA  <b>e2Pay Alfamart</b> e2Pay_Alfamart	<b>e2Pay BNI Virtual Account</b> e2Pay_BNI_VA  <b>e2Pay Permata Virtual Account</b> e2Pay_PERMATA_VA
<b><u>Philippines</u></b>		
<b>DragonPay</b> dragonpay		
<b><u>Thailand</u></b>		
<b>Tesco Lotus</b> Cash-TH	<b>Big Central</b> BigC	
<b><u>Taiwan</u></b>		
<b>FamilyMart</b> 全家便利商店 FAMILYMART		
<b><u>Singapore</u></b>		
<b>Atome</b> Atome		
<b><u>Indonesia</u></b>		
<b>e2Pay Kredivo Financing</b> e2Pay_Kredivo_FN	<b>e2Pay Indodana Financing</b> e2Pay_Indodana_FN	

\* Channel in yellow text means the channel had been obsoleted

# TL;DR?

## SUMMARY ON INTEGRATION, 3 ENDPOINTS AND IPN

### INTEGRATION

- 1) Hosted payment page or normal integration: HTTP POST/GET with all required parameters, either to default payment channel page or to specific channel page, merchant can allow or disallow the buyer to change payment method (PDF)
- 2) Seamless Integration: popup page or lightbox on merchant checkout flow, as simple as modifying the JavaScript snippet that could be found on [GitHub](#)
- 3) Mobile xdk: support variety of mobile development platforms and available on [GitHub](#)
- 4) Direct Server API: server-to-server request that allows merchant to handle all the UI/UX with higher flexibility and controllability (PDF)
- 5) Recurring API: server-to-server request that allows merchant initiated transaction (MIT) to debit buyer account anytime (PDF)
- 6) Offline Payment API: For in-store e-wallet payment acceptance on POS/terminal (PDF)
- 7) ISO Message Interface: For card acceptance terminal vendor (restricted PDF)

### 3 ENDPOINTS for payment response notification (For integration 1-6 only)

- 1) Return URL: realtime web browser or frontend direction endpoint for hosted page, seamless integration, and shopping cart module
- 2) Notification URL (webhook): real-time server-to-server or backend endpoint for all kind of integrations
- 3) Callback URL (webhook): defer update or callback endpoint on non-real time payment such as Razer 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 **trreq=0**
- 2) **Backend** IPN for return URL and Notification URL: post back all parameters with additional parameter **trreq=1** to **returnipn.php**
- 3) IPN for **callback** URL: just echo "**CBTOKEN:MPSTATOK**", without the quote("")

# Comparison Chart

For **online** payment, merchant to decide which approaches fit the business requirements

Integration approach	Hosted payment page	Seamless integration	Inpage checkout	Mobile xdk	Direct server API + CSE	Recurring API
Browser dependency	Yes, popup and redirection	Yes, popup and redirection	Yes, iframe, popup and redirection	Smartphone built-in browser	Depends	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 / hybrid	Backend only	Backend only
PCI-DSS compliant	PG	PG	PG	PG	PG / Merchant if handling PAN	PG / 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	all 3 endpoints	notification & callback URL
Fraud screening	By PG	By PG	By PG	By PG	By merchant	By merchant

For response handling, setup these 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 treq=0  Backend: POST back all values + treq=1 to returnipn.php, more reliable	Backend: POST back all values + treq=1 to returnipn.php	Backend: echo "CBTOKEN: MPSTATOK"

# MERCHANT REQUEST APIs

PG has prepared plenty of merchant tools for merchants to initiate status query and cancellation/void of transaction. However, merchants are not allowed to send in requests too frequently (maximum 1 query every 5 seconds). Massive incoming query will lead to IP blocking without prior notice. There will be a validity duration to initiate a status query API call, generally within **1 hour** after the initiated time for online payment and the due time for offline payment.

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 PG 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
10. Card BIN information API
11. Foreign Exchange Rate API
12. Void Pending-Cash API
13. Recurring Plans API

## Notes:

W.e.f 19th October 2017, Razer Merchant Services will migrate all none payment-flow related service APIs to a new FQDN: <https://api.molpay.com> (and now changed to <https://api.fiuu.com>) from the original <https://www.onlinepayment.com.my>

W.e.f 1st November 2017, Razer Merchant Services will shutdown all none payment-flow related service APIs on <https://www.onlinepayment.com.my>

For sandbox environment, use <https://sandbox.fiuu.com>



## 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 results, that leads to a defer update and will trigger a callback from PG server, once the status is synced and changed.

**Note :** No result available for transactions more than 1 day or 24 hours.

### Request

URL: <https://api.fiuu.com/RMS/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, 20 digits	Unique transaction ID for tracking purpose.
domain	alphanumeric, 32 chars	Merchant ID in PG 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 PG
type	optional, 1-digit integer, obsoleted in new API sets	0 = plain text result (default) 1 = result via POST method 2 = JSON text result

### Response

Variable / Parameter	Type Format / Max Length	Description / Example
Amount	2 decimal points numeric value	The payment amount
TranID	integer, 20 digits	Unique transaction ID for tracking purpose.
Domain	alphanumeric, 32 chars	Merchant ID in PG system.
Channel	alphanumeric, 100 chars	Payment via Channel
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	string of 2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	alphanumeric	Success: captured, settled, authorized Failure: failed, cancelled, chargeback, release, reject/hold, blocked, ReqCancel, ReqChargeback Pending: Pending, Unknown
Currency	3 chars ISO-4217 currency code	The payment currency. E.g. MYR, USD, EUR, AUD, SGD, CNY, IDR
ErrorCode	alphanumeric	Error code defined by channel for failed transactions only

ErrorDesc	alphanumeric	Error description defined by channel for failed transactions only
ProcessorResponseCode	alphanumeric	Authorization response code
ProcessorCVVResponse	alpha	Credit Card validation response code
SchemeTransactionID	alphanumeric	Transaction ID provided by CC Schemes.
MerchantAdviceCode	numeric	MasterCard issuers use the Merchant Advice Code (MAC) in authorization request responses to communicate with merchants about a cardholder's account
ECI	numeric	Electronic Commerce Indicator (ECI) is a value returned by Directory Servers (namely Visa, MasterCard, MyDebit, JCB, and American Express) indicating the outcome of authentication attempted on transactions enforced by 3DS
3DSVersion	alphanumeric	Version of the 3DS use to authenticate the transaction
ACSTransactionID	alphanumeric	ACS transaction identifier
3DSTransactionID	alphanumeric	3DS transactions identifier

### Formula of key & VrfKey

```
key =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 . "xxxxxxxx" . $amount);
//Replace xxxxxxxxxx with Verify Key

echo "<a
href='https://api.fiuu.com/RMS/API/gate-query/index.php?amount=3899&txID=65234&domain=shopA&key=e1c4c60c99116fffc3ce77bd5fd0f7b1'>
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)	type=2 (JSON text)
StatCode=00 StatName=captured	\$_POST [StatCode] => "00"; \$_POST [StatName] => "captured";	{ "StatCode": "00",

TranID=65234 Amount=3899.00 Domain=shopA Channel=fpx VrfKey=456cf69e5bddfe8ed47371096 Currency=MYR ErrorCode= ErrorDesc=	\$_POST [TranID] => "65234"; \$_POST [Amount] => "3899.00"; \$_POST [Domain] => "shopA"; \$_POST [Channel] => "fpx"; \$_POST [VrfKey:]=> "456cf69e5bddfe8ed47371096"; \$_POST [Currency] => "MYR"; \$_POST [ErrorCode] => ""; \$_POST [ErrorDesc] => "";	"StatName": "captured", "TranID": "65234", "Amount": "3899.00", "Domain": "shopA", "Channel": "fpx", "VrfKey": "456cf69e5bddfe8ed47371096", "Currency": "MYR", "ErrorCode": null, "ErrorDesc": null }
---	--	---

## Indirect Status Requery

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

Description & Script	Max Result Count	Performance	Rate Limit (Req/Sec)	Data Range (Hour or Day)
Query by unique transaction ID: q_by_tid	1	Fast	30	180D
Query by order ID : q_by_oid	1	Moderate	10	30D
Query by order ID & get 10 latest matched results: q_oid_batch	10	Slow	5	24H / 1D
Query by multiple order ID: q_by_oids	10	Slow	5	24H / 1D
Query by multiple transaction ID: q_by_tids	10	Moderate	10	30D

Status inquiry is a backup approach to get a final payment status in a proactive way, yet a more reliable integration should be established using 3 endpoints or webhooks to obtain real-time passive notification from the PG.

For bulk requery, best practice is to utilize one of these APIs once every half an hour for transactions with pending and unknown status only. Excessive and rapid API calls will be blocked without prior notice.

**Note :** No result available for transactions created more than 24 hours, 30 or 180 days, depending on the API respectively.

## 1. Query by unique transaction ID

### Request

URL: [https://api.fiuu.com/RMS/q\\_by\\_tid.php](https://api.fiuu.com/RMS/q_by_tid.php)

Method: POST or GET

\* Request & Response parameters are the same as Direct Status Requery but the format and parameters order of the responses are slightly different.

### Example of response

type=0 (default output, plain text with linebreaks)	type=1 (POST result sent to URL)	type=2 (JSON text)
StatCode: 00 StatName: captured TranID: 10645406 Amount: 138.99 Domain: ShopB VrfKey: 9862acf1099b625c00b225887e715861 Channel: credit OrderID: ABC123 Currency: MYR ErrorCode: ErrorDesc:	\$_POST [StatCode] => "00"; \$_POST [StatName] => "captured"; \$_POST [TranID] => "10565234"; \$_POST [Amount] => "3899.00"; \$_POST [Domain] => "shopC"; \$_POST [VrfKey:] => "456cf69e5bddfe8ed47371096"; \$_POST [Channel] => "credit"; \$_POST [OrderID] => "ABC123"; \$_POST [Currency] => "MYR"; \$_POST [ErrorCode] => ""; \$_POST [ErrorDesc] => "";	{ "StatCode": "00", "StatName": "captured", "TranID": "10565234", "Amount": "3899.00", "Domain": "shopC", "Channel": "credit", "VrfKey": "456cf69e5bddfe8ed47371096", "Currency": "MYR", "ErrorCode": null, "ErrorDesc": null }

## 2. Query by order ID (single output)

### Request

URL: [https://api.fiuu.com/RMS/query/q\\_by\\_oid.php](https://api.fiuu.com/RMS/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 PG system.
skey	32 chars hexadecimal string	This is the data integrity protection hash string.
url	Conditional , URL for POST response	The URL to receive POST response from PG, it is mandatory for type=1
type	optional, 1-digit integer	0 = plain text result (default) 1 = result via POST method 2 = JSON text result
req4token	optional, 1-digit integer	0 = No (default) 1 = Yes for more card related information

### Response

Variable / Parameter	Type Format / Max Length	Description / Example
StatCode	string of 2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	alphanumeric	Success: captured, settled, authorized Failure: failed, canceled, chargeback, release, reject/hold, blocked, ReqCancel, ReqChargeback Pending: Pending, Unknown
OrderID	alphanumeric, 40 chars	Invoice or order number from merchant system.
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 PG system.
BillingDate	date (YYYY-MM-DD HH:mm:ss)	Transaction date/time
BillingName	alphanumeric, 128 chars	Buyer full name
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
Channel	alphanumeric, 100 chars	Payment via channel
Currency	3 chars ISO-4217 currency code	The payment currency. E.g. MYR, USD, EUR, AUD, SGD, CNY, IDR

ErrorCode	alphanumeric	Error code defined by channel for failed transactions only
ErrorDesc	alphanumeric	Error description defined by channel for failed transactions only
token	optional, with req4token=1	Card payment only: if PAN has been tokenized
ccbrand	optional, with req4token=1	Card payment only: Visa, MasterCard, AMEX
cclast4	optional, 4-digit numeric with req4token=1	Card payment only: Last 4-digit of PAN
cctype	optional, with req4token=1	Card payment only: Credit, Debit, Prepaid
NumberOfInstalment	Integer, 2 digits	Number of Installment Months
MonthlyPayment	2 decimal points numeric value	Monthly Installment Amount
TotalFees	2 decimal points numeric value	Total fees to be charged for installment
ProcessorResponseCode	alphanumeric	Authorization response code
ProcessorCVVResponse	alpha	Credit Card validation response code
SchemeTransactionID	alphanumeric	Transaction ID provided by CC Schemes.
MerchantAdviceCode	numeric	MasterCard issuers use the Merchant Advice Code (MAC) in authorization request responses to communicate with merchants about a cardholder's account
ECI	numeric	Electronic Commerce Indicator (ECI) is a value returned by Directory Servers (namely Visa, MasterCard, MyDebit, JCB, and American Express) indicating the outcome of authentication attempted on transactions enforced by 3DS
3DSVersion	alphanumeric	Version of the 3DS use to authenticate the transaction
ACSTransactionID	alphanumeric	ACS transaction identifier
3DSTransactionID	alphanumeric	3DS transactions identifier

### 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://api.fiuu.com/RMS/query/q\\_oid\\_batch.php](https://api.fiuu.com/RMS/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 PG 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 PG
type	optional, 1-digit integer	0 = plain text result (default) 1 = result via POST method 2 = JSON text result
format	optional, 1-digit integer, for type=1 only	0 = result string with delimiter (   ) 1 = result in array
req4token	optional, 1-digit integer	0 = No (default) 1 = Yes for more card related information

#### Response

Variable / Parameter	Type Format / Max Length	Description / Example
TranID	integer, 20 digits	Unique transaction ID for tracking purpose.
BillingDate	date (YYYY-MM-DD HH:mm:ss)	Transaction date
StatCode	string of 2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	alphanumeric	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
Currency	3 chars ISO-4217 currency code	The payment currency. E.g. MYR, USD, EUR, AUD, SGD, CNY, IDR
ErrorCode	alphanumeric	Error code defined by channel for failed transactions only
ErrorDesc	alphanumeric	Error description defined by channel for failed transactions only
token	optional, with req4token=1	Card payment only: if PAN has been tokenized
ccbrand	optional, with req4token=1	Card payment only: Visa, MasterCard, AMEX



cclast4	optional, 4-digit numeric, with req4token=1	Card payment only: Last 4-digit of PAN
cctype	optional, with req4token=1	Card payment only: Credit, Debit, Prepaid
ProcessorResponseCode	alphanumeric	Authorization response code
ProcessorCVVResponse	alpha	Credit Card validation response code
SchemeTransactionID	alphanumeric	Transaction ID provided by CC Schemes.
MerchantAdviceCode	numeric	MasterCard issuers use the Merchant Advice Code (MAC) in authorization request responses to communicate with merchants about a cardholder's account
ECI	numeric	Electronic Commerce Indicator (ECI) is a value returned by Directory Servers (namely Visa, MasterCard, MyDebit, JCB, and American Express) indicating the outcome of authentication attempted on transactions enforced by 3DS
3DSVersion	alphanumeric	Version of the 3DS use to authenticate the transaction
ACSTransactionID	alphanumeric	ACS transaction identifier
3DSTransactionID	alphanumeric	3DS transactions identifier

### Formula of key

```
key =md5( {oID}{domain}{verify_key} )
```

### Example of response

type=0, plain text output, newline with single or two TAB character(s)	<table><tr><th>TranID</th><th>BillingDate</th><th>StatCode</th><th>StatName</th><th>Amount</th><th>BillingName</th><th>Currency</th><th>ErrorCode</th><th>ErrorDesc</th></tr><tr><td>418607</td><td>2009-11-26</td><td>22</td><td>pending</td><td>25.00</td><td>Lenka</td><td>MYR</td><td></td><td></td></tr><tr><td>418603</td><td>2009-11-26</td><td>00</td><td>captured</td><td>125.10</td><td>Mika</td><td>MYR</td><td></td><td></td></tr><tr><td>418583</td><td>2009-11-26</td><td>00</td><td>captured</td><td>71.10</td><td>Ciara</td><td>MYR</td><td></td><td></td></tr></table>	TranID	BillingDate	StatCode	StatName	Amount	BillingName	Currency	ErrorCode	ErrorDesc	418607	2009-11-26	22	pending	25.00	Lenka	MYR			418603	2009-11-26	00	captured	125.10	Mika	MYR			418583	2009-11-26	00	captured	71.10	Ciara	MYR		
TranID	BillingDate	StatCode	StatName	Amount	BillingName	Currency	ErrorCode	ErrorDesc																													
418607	2009-11-26	22	pending	25.00	Lenka	MYR																															
418603	2009-11-26	00	captured	125.10	Mika	MYR																															
418583	2009-11-26	00	captured	71.10	Ciara	MYR																															
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"; \$_POST[Currency] = "MYR MYR MYR"; \$_POST[ErrorCode] = " "; \$_POST[ErrorDesc] = " ";</pre>																																				
type=1, format=1, POST variables in array	<pre>\$_POST[o][TranID] = "418607"; \$_POST[o][BillingDate] = "2009-11-26"; \$_POST[o][StatCode] = "22"; \$_POST[o][StatName] = "pending"; \$_POST[o][Amount] = "25.00"; \$_POST[o][BillingName] = "Lenka"; \$_POST[o][Currency] = "MYR";</pre>																																				

	<pre> \$_POST[0][ErrorCode] = ""; \$_POST[0][ErrorDesc] = ""; \$_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[1][Currency] = "MYR"; \$_POST[1][ErrorCode] = ""; \$_POST[1][ErrorDesc] = ""; \$_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"; \$_POST[2][Currency] = "MYR"; \$_POST[2][ErrorCode] = ""; \$_POST[2][ErrorDesc] = ""; </pre>
type=2, JSON text output	<pre> [ {   "TranID": "418607",   "BillingDate": "2009-11-26",   "StatCode": "22",   "StatName": "pending",   "Amount": "25.00",   "BillingName": "Lenka",   "Currency": "MYR",   "ErrorCode": "",   "ErrorDesc": "" }, {   "TranID": "418603",   "BillingDate": "2009-11-26",   "StatCode": "00",   "StatName": "captured",   "Amount": "125.10",   "BillingName": "Mika",   "Currency": "MYR",   "ErrorCode": "",   "ErrorDesc": "" }, {   "TranID": "418583",   "BillingDate": "2009-11-26",   "StatCode": "00",   "StatName": "captured",   "Amount": "71.10",   "BillingName": "Ciara",   "Currency": "MYR",   "ErrorCode": "",   "ErrorDesc": "" } ] </pre>

#### 4. Query by multiple order ID (batch output)

##### Request

URL: [https://api.fiuu.com/RMS/query/q\\_by\\_oids.php](https://api.fiuu.com/RMS/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: ",%,*,<,>?,\,\$,&, =</td><td></td></tr><tr><td>domain</td><td>alphanumeric, 32 chars</td><td>Merchant ID in PG system.</td></tr><tr><td>skey</td><td>32 chars hexadecimal string</td><td>This is the data integrity protection hash string.</td></tr><tr><td>url</td><td>optional, URL for POST response</td><td>The URL to receive POST response from PG</td></tr><tr><td>type</td><td>optional, 1-digit integer</td><td>0 = plain text result (default) 1 = result via POST method 2 = JSON text result</td></tr><tr><td>format</td><td>optional, 1-digit integer, apply for type=1 only</td><td>result string with TAB-newline (default) 0 = result string with delimiter ( ) 1 = result in array</td></tr><tr><td>req4token</td><td>optional, 1-digit integer</td><td>0 = No (default) 1 = Yes for more card related information</td></tr></table>

##### Response

Variable / Parameter	Type Format / Max Length	Description / Example
OrderID	alphanumeric, 40 chars	Merchant order ID for tracking purpose.
TranID	integer, 20 digits	Unique transaction ID for tracking purpose.
BillingDate	date (YYYY-MM-DD HH:mm:ss)	Transaction date
StatCode	string of 2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	alphanumeric	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
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
Channel	alphanumeric, 100 chars	Payment via channel
Currency	3 chars ISO-4217 currency code	The payment currency. E.g. MYR, USD, EUR, AUD, SGD, CNY, IDR

ErrorCode	alphanumeric	Error code defined by channel for failed transactions only
ErrorDesc	alphanumeric	Error description defined by channel for failed transactions only
token	optional, with req4token=1	Card payment only: if PAN has been tokenized
ccbrand	optional, with req4token=1	Card payment only: Visa, MasterCard, AMEX
cclast4	optional, 4-digit numeric, with req4token=1	Card payment only: Last 4-digit of PAN
cctype	optional, with req4token=1	Card payment only: Credit, Debit, Prepaid
ProcessorResponseCode	alphanumeric	Authorization response code
ProcessorCvVResponse	alpha	Credit Card validation response code
SchemeTransactionID	alphanumeric	Transaction ID provided by CC Schemes.
MerchantAdviceCode	numeric	MasterCard issuers use the Merchant Advice Code (MAC) in authorization request responses to communicate with merchants about a cardholder's account
ECI	numeric	Electronic Commerce Indicator (ECI) is a value returned by Directory Servers (namely Visa, MasterCard, MyDebit, JCB, and American Express) indicating the outcome of authentication attempted on transactions enforced by 3DS
3DSVersion	alphanumeric	Version of the 3DS use to authenticate the transaction
ACSTransactionID	alphanumeric	ACS transaction identifier
3DSTransactionID	alphanumeric	3DS transactions identifier

### Formula of skey and VrfKey

$skey = md5(\{domain\}\{oids\}\{verify\_key\})$   
 $VrfKey = md5(\{Amount\}\{secret\_key\}\{Domain\}\{OrderID\}\{StatCode\})$

- See the example in next page -

## Example of response

type=1 format=1	<pre>[oid1] =&gt; Array (     [TranID] =&gt; 9994238     [BillingDate] =&gt; 2016-11-28 16:32:08     [StatCode] =&gt; 00     [StatName] =&gt; captured     [Amount] =&gt; 30.00     [BillingName] =&gt; kimyoon     [VrfKey] =&gt; 311d72c16e0d3b3fc7994ae93467a2d9     [Channel] =&gt; mb2u     [Currency] =&gt; MYR     [ErrorCode] =&gt;     [ErrorDesc] =&gt; )  [oid2] =&gt; Array (     [TranID] =&gt; 10004613     [BillingDate] =&gt; 2016-11-29 09:56:02     [StatCode] =&gt; 11     [StatName] =&gt; failed     [Amount] =&gt; 58.60     [BillingName] =&gt; MohdAli     [VrfKey] =&gt; f9f06b47e23410e624df5e272accb27dc     [Channel] =&gt; fpx     [Currency] =&gt; MYR     [ErrorCode] =&gt;     [ErrorDesc] =&gt; )  ...  [oidN] =&gt; Array (     [TranID] =&gt; -     [BillingDate] =&gt; -     [StatCode] =&gt; -     [StatName] =&gt; -     [Amount] =&gt; -     [BillingName] =&gt; -     [VrfKey] =&gt; -     [Channel] =&gt; -     [Currency] =&gt; -     [ErrorCode] =&gt; -     [ErrorDesc] =&gt; - )</pre>
type=1 format=0 delimiter=	<pre>[OrderID] =&gt; oid1 oid2 ... oidN [TranID] =&gt; 9994238 10004613 ... - [BillingDate] =&gt; 2016-11-28 16:32:08 2016-11-29 09:56:02 ... - [StatCode] =&gt; 00 11 ... - [StatName] =&gt; captured failed ... - [Amount] =&gt; 30.00 58.60 ... - [BillingName] =&gt; Nurbaizura KUMARASAN ... - [VrfKey] =&gt; 311d72c16e0d3b3fc7994ae93467a2d9 f9f06b47e23410e624df5e272accb27dc ... - [Channel] =&gt; mb2u fpx ... - [Currency] =&gt; MYR MYR ... - [ErrorCode] =&gt;   ... - [ErrorDesc] =&gt;   ... -</pre>
type=2	<pre>[   {     "OrderID": "oid1",     "TranID": "9994238",</pre>

	<pre> "BillingDate": "2016-11-28 16:32:08", "StatCode": "00", "StatName": "captured", "Amount": 30.00, "BillingName": "Nurbaizura", "VrfKey": "311d72c16e0d3b3fc7994ae93467a2d9", "Channel": "mb2u", "Currency": "MYR", "ErrorCode": null, "ErrorDesc": null }, {   "OrderID": "oid2",   "TranID": "10004613",   "BillingDate": "2016-11-29 09:56:02",   "StatCode": "11",   "StatName": "failed",   "Amount": 58.60,   "BillingName": "KUMARASAN",   "VrfKey": "f9f06b47e23410e624df5e272accb27dc",   "Channel": "fpx",   "Currency": "MYR",   "ErrorCode": null,   "ErrorDesc": null }, ... {   "OrderID": "oidN",   "TranID": "-",   "BillingDate": "-",   "StatCode": "-",   "StatName": "-",   "Amount": "-",   "BillingName": "-",   "VrfKey": "-",   "Channel": "-",   "Currency": "-",   "ErrorCode": "-",   "ErrorDesc": "-" } ] </pre>
--	--

## 5. Query by multiple transaction ID (batch output)

### Request

URL: [https://api.fiuu.com/RMS/query/q\\_by\\_tids.php](https://api.fiuu.com/RMS/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 PG 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 PG
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 for more card related information

### Response

Variable / Parameter	Type Format / Max Length	Description / Example
TranID	integer, 20 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	string of 2-digit numeric	00 = Success 11 = Failure 22 = Pending
StatName	alphanumeric	Success: captured, settled, authorized Failure: failed, cancelled, chargeback, release, reject/hold, blocked, ReqCancel, ReqChargeback Pending: Pending, Unknown
OrderID	alphanumeric, 40 chars	Merchant order ID for tracking purpose.
Currency	3 chars ISO-4217 currency code	The payment currency. E.g. MYR, USD, EUR, AUD, SGD, CNY, IDR
ErrorCode	alphanumeric	Error code defined by channel for failed transactions only
ErrorDesc	alphanumeric	Error description defined by channel for failed transactions only

token	optional, with req4token=1	Card payment only: if PAN has been tokenized
ccbrand	optional, with req4token=1	Card payment only: Visa, MasterCard, AMEX
cclast4	optional, 4-digit numeric, with req4token=1	Card payment only: Last 4-digit of PAN
cctype	optional, with req4token=1	Card payment only: Credit, Debit, Prepaid
ProcessorResponseCode	alphanumeric	Authorization response code
ProcessorCvVResponse	alpha	Credit Card validation response code
SchemeTransactionID	alphanumeric	Transaction ID provided by CC Schemes.
MerchantAdviceCode	numeric	MasterCard issuers use the Merchant Advice Code (MAC) in authorization request responses to communicate with merchants about a cardholder's account
ECI	numeric	Electronic Commerce Indicator (ECI) is a value returned by Directory Servers (namely Visa, MasterCard, MyDebit, JCB, and American Express) indicating the outcome of authentication attempted on transactions enforced by 3DS
3DSVersion	alphanumeric	Version of the 3DS use to authenticate the transaction
ACSTransactionID	alphanumeric	ACS transaction identifier
3DSTransactionID	alphanumeric	3DS transactions identifier

### Formula of skew and VrfKey

```
skew =md5( {domain}{tIDS}{verify_key} )
VrfKey=md5( {Amount}{secret_key}{Domain}{TranID}{StatCode} )
```



## Daily Transaction Report (Reconciliation)

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

### Request

URL: <https://api.fiuu.com/RMS/API/PSQ/psq-daily.php>

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
merchantID	alphanumeric, 32 chars	Merchant ID in PG system.
key	32 chars hexadecimal string	This is the data integrity protection hash string.
rdate	date (YYYY-MM-DD) or date(YYYY-MM-DD HH:ii:ss)	The date or beginning time of transactions to query 2020-10-10 or 2020-10-10 07:11:24
rduration	optional, second in numeric	Without rduration, the search duration is 24 hours or 86400 seconds starting from rdate
status	optional, alphanumeric, 32 chars	00 - success 11 - failed 22 - pending  Combine with delimiter " " for multiple status or left empty for all status.
version	version	2.0, 3.0, or latest is 4.0
additional_fields [New from Version 2]	optional, predefined tags	BillingEmail - billing email TransactionRate - transaction rate BillingInfo - billing info TransactionCost - transaction cost Channel - channel BillingMobileNumber - billing mobile TransactionFee - transaction fee GST - GST (tax) NetAmount - net amount IPAddress - IP address BankName - bank name BIN - card no (hidden) ExpiryDate - card expiry date StatusDescription - status description SettlementDate - settlement date PaidDate - paid date TerminalID - terminal ID PayTransactionID - transaction ID BuyerName - buyer name CaptureRefID - Capture Reference ID (Only in v3) RefundRefID - Refund Reference ID (Only in v3) all - for all additional fields  Combine with delimiter "," for multiple fields
response_type [New from Version 2]	optional	Response format in either text/json/csv(only in v2 and v3)

page	optional	The total page number with 5000 records per page
------	----------	--

### 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, 40 chars	Invoice or order number from merchant system.
TranID	integer, 20 digits	Unique transaction ID for tracking purpose.
Channel	Predefined string in PG system	Channel references for the merchant system.
Amount	2 decimal points numeric value	The payment amount
StatCode	string of 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
Serviceltem	text	Billing Information / Description (newline will be replaced by whitespace)
Additional fields: BillingEmail TransactionRate TransactionCost BillingMobileNumber TransactionFee GST NetAmount IPAddress BankName ExpiryDate StatusDescription SettlementDate PaidDate TerminalID PayTransactionID BuyerName	text (default) or JSON string	BillingEmail = ABC@razer.com TransactionRate = 0.0290 TransactionCost = 0.0000 BillingMobileNumber = 0123456789 TransactionFee = 100.0 GST = 0 NetAmount = 1900.0 IPAddress = 192.168.0.1 BankName = unknownbank ExpiryDate = 2020 StatusDescription = This is status description SettlementDate = 2020-05-26 10:51:51 PaidDate = 2020-05-31 10:51:51 TerminalID = 999

## Settlement Report (Reconciliation)

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

Version 1.0, 2.0 and 3.0 will be obsoleted and the following is the latest specification of version 4.0 and 5.0. Version 4.0 will include refund and chargeback records that are excluded from the settlement batch. Version 5.0 supports pagination for big merchants.

### Request

URL: <https://api.fiuu.com/RMS/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 5.0. If not specified, version 1.0 will be used.
merchant_id	alphanumeric, 32 chars	Merchant ID in PG 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	Recommend to use csv for large file
download	optional, set to "y" for download mode	Download option is only available for CSV format
page	Integer, mandatory for version 5.0	Determines the page to view for D records that have a limit of 5000 transactions. Currently available to version 5.0.
page_txn	Optional, integer. Default value is 5000.	Determines the number of items being generated in a page. Currently available on version 5.0.

### Formula of token

$\text{token} = \text{md5}(\{\text{merchantID}\}\{\text{verify\_key}\}\{\text{date}\})$
---

### Response

Value	Type Format / Max Length	Description / Example
RecordIdentifier	1 character	H: Header
SettlementCurrency	3 chars ISO-4217 currency code	Default is MYR, Settlement currency
SettlementNetAmount	numeric without decimal and comma	total settlement amount, 5331674 is equal to 53,316.74 in that currency
SettlementCommissionAmount	numeric without decimal and comma	total settlement fees, sum of the transfer fees and 3rd party costs

NumberOfTransactions	numeric	total transaction number of settled transaction or D data type in the report, not including R & G type
BatchReferenceNumber	alphanumeric	Reference number of this settlement
SettlementDate	YYYYMMDD	The settlement date
SettlementGSTAmount	numeric without decimal and comma	Sum of settled transactions GST amount
BankAccount	alphanumeric	Bank swift code and bank account number
RefundNetAmount	numeric without decimal and comma	Sum of the refund fees
RefundGSTAmount	numeric without decimal and comma	Taxes : GST/VAT on the RefundNetAmount

Variable / Parameter	Type Format / Max Length	Description / Example
RecordIdentifier	1 character	D: Data or the content R: Refund / Chargeback Data G: Data (Original txn data - Txn fully refunded before settlement)
MerchantId	alphanumeric	Merchant ID in PG system
OrderId	alphanumeric	Order references for merchant system
Channel	alphanumeric	Payment channel / method
AcquirerReference	alphanumeric	PG transaction ID
RefundID	n{1..11}	Refund ID provided by PG
MerchantRefID	ans{1..100}	Unique refund tracking/reference ID by merchant
RefundFees	numeric without decimal and comma	PG refund fees. D: Always Zero '0' value R: PG refund fees (positive value)
TransactionNetAmount	numeric without decimal and comma	D: amount after deducting MDR/fees. Formula: TransactionGrossAmount - TransactionCommissionAmount  R: amount refunded to the buyer (full/partial) after adding Refund fees. Formula: TransactionGrossAmount + RefundFees
TransactionCommissionAmount	numeric without decimal and comma	The MDR or transaction fee or commission D: MDR R: Recalculate MDR for partial refund during captured and charging model have %. Otherwise the value is 0.
TransactionDate	YYYYMMDD	The date of transaction been created
TransactionTime	HHmmss	The time of transaction been requested/created
TransactionGrossAmount	numeric without decimal and comma	D: Payment amount R: amount refunded to the buyer (full/partial)

TransactionCurrency	3 chars ISO-4217 currency code	The currency sent in by merchant or most of the time, paid by the buyer
TransactionGST	numeric without decimal and comma	Taxes : GST/VAT
SettlementNetAmountInProcessingCurrency	numeric without decimal and comma	D: TransactionNetAmount after deducting GST. Formula: TransactionGrossAmount - TransactionCommissionAmount - TransactionGST  R: TransactionNetAmount after deducting GST. Formula: NEGATIVE (TransactionGrossAmount + RefundFees + TransactionGST - TransactionCommissionAmount)
SettlementNetAmount	numeric without decimal and comma	Net amount in settlement currency, after forex conversion (round to 2 decimal place).  Formula: SettlementNetAmountInProcessingCurrency*Forex
SettlementCurrency	3 chars ISO-4217 currency code	MYR, SGD, USD, ...
Forex	numeric without 8 digit decimal and comma	Forex rate for multi currency transactions. Eg: 1.00000000 = 100000000
Status	alphanumeric	The transaction status. Usually SETTLED for D, REFUND for R, CANCELLED for G

Variable / Parameter	Type Format / Max Length	Description / Example
RecordIdentifier	1 character	F: Record summary
NumberOfTransactionsTotal	integer	Total number of D records
NumberOfTransactionsShown	integer	Total number of D records been display
FilterTransactionsTotalPages	integer	Total available pages for D records
FilterTransactionsLimitPerPage	integer	Limit record been display for D records

**\*Note: F row only available in version 5.0 and when page value is more than 0. To speed up the response on the subsequence pages, row R & G will be excluded and may only appear at page 1.**

#### Error (always in JSON format)

Variable / Parameter	Description / Example
success	false
token	invalid token
date	invalid date format, eg. yyyy-mm-dd

## Example (in JSON format)

*The following example might not be accurate and please only take it as a format reference*

```
[
  {
    "RecordIdentifier": "H",
    "SettlementCurrency": "MYR",
    "SettlementNetAmount": "1033293",
    "SettlementCommissionAmount": "2439",
    "NumberOfTransactions": 15,
    "BatchReferenceNumber": "20170817-613",
    "SettlementDate": "20170817",
    "SettlementGSTAmount": "2239",
    "BankAccount": "(MALAYAN BANKING BHD) MerchantID SDN BHD 5144 8457 3110",
    "RefundNetAmount": "179741",
    "RefundGSTAmount": "334"
  },
  {
    "RecordIdentifier": "D",
    "MerchantId": "merchantIDSB",
    "OrderId": "OP-02559",
    "Channel": "maybank2u",
    "AcquirerReference": "18300981",
    "RefundFees": "0",
    "TransactionNetAmount": "9732",
    "TransactionCommissionAmount": "178",
    "TransactionDate": "20170807",
    "TransactionTime": "112250",
    "TransactionGrossAmount": "9900",
    "TransactionCurrency": "MYR",
    "TransactionGST": "010",
    "SettlementNetAmountInProcessingCurrency": "9722",
    "SettlementNetAmount": "000",
    "SettlementCurrency": "MYR",
    "Forex": null,
    "Status": "SETTLED"
  },
  {
    "RecordIdentifier": "D",
    "MerchantId": "merchantIDSB",
    "OrderId": "163138",
    "Channel": "credit",
    "AcquirerReference": "18310736",
    "RefundFees": "0",
    "TransactionNetAmount": "294521",
    "TransactionCommissionAmount": "9656",
    "TransactionDate": "20170807",
    "TransactionTime": "133001",
    "TransactionGrossAmount": "303630",
    "TransactionCurrency": "MYR",
    "TransactionGST": "547",
    "SettlementNetAmountInProcessingCurrency": "293974",
    "SettlementNetAmount": "000",
    "SettlementCurrency": "MYR",
    "Forex": null,
    "Status": "SETTLED"
  },

```

... segment removed ...

```

    {
      "RecordIdentifier": "D",
      "MerchantId": "merchantIDSB",
      "OrderId": "79126387162378123",
      "Channel": "credit",
      "AcquirerReference": "18516590",
      "RefundFees": "0",
      "TransactionNetAmount": "153745",
      "TransactionCommissionAmount": "5040",
      "TransactionDate": "20170810",
      "TransactionTime": "120057",
      "TransactionGrossAmount": "158500",
      "TransactionCurrency": "MYR",
      "TransactionGST": "285",
      "SettlementNetAmountInProcessingCurrency": "153460",
      "SettlementNetAmount": "000",
      "SettlementCurrency": "MYR",
      "Forex": null,
      "Status": "SETTLED"
    },
    {
      "RecordIdentifier": "D",
      "MerchantId": "merchantIDSB",
      "OrderId": "31283671293",
      "Channel": "credit",
      "AcquirerReference": "18532262",
      "RefundFees": "0",
      "TransactionNetAmount": "9700",
      "TransactionCommissionAmount": "318",
      "TransactionDate": "20170810",
      "TransactionTime": "155958",
      "TransactionGrossAmount": "10000",
      "TransactionCurrency": "MYR",
      "TransactionGST": "018",
      "SettlementNetAmountInProcessingCurrency": "9682",
      "SettlementNetAmount": "000",
      "SettlementCurrency": "MYR",
      "Forex": null,
      "Status": "SETTLED"
    },
    {
      "RecordIdentifier": "R",
      "MerchantId": "merchantIDSB",
      "OrderId": "54671293761293",
      "Channel": "credit",
      "AcquirerReference": "13251784",
      "RefundFees": 0,
      "TransactionNetAmount": "-179741",
      "TransactionCommissionAmount": "000",
      "TransactionDate": "20170503",
      "TransactionTime": "155958",
      "TransactionGrossAmount": "-185300",
      "TransactionCurrency": "MYR",
      "TransactionGST": "-018",
      "SettlementNetAmountInProcessingCurrency": "-179741",
      "SettlementNetAmount": "000",
      "SettlementCurrency": "MYR",
      "Forex": null,
      "Status": "REFUND"
    }
  ]

```

## Unsettled/Refunded Transaction Report (Exclusion from settlement)

Any unsettled transaction that has been canceled within a given settlement batch will be retrievable using this API

### Request

URL: [https://api.fiuu.com/RMS/API/settlement/report\\_refund.php](https://api.fiuu.com/RMS/API/settlement/report_refund.php)

Method: GET

Variable / Parameter	Type Format / Max Length	Description / Example
merchant_id	alphanumeric, 32 chars	Merchant ID in PG 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}{verify_key}{date} )
```

### Response

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 refund transaction number	numeric	Total number of refund transactions
batch reference number	alphanumeric	Reference number of this settlement
date	YYYYMMDD	The settlement date
bank account	alphanumeric	Bank swift code and bank account number
Start date	YYYY-MM-DD	The settlement period start date
End date	YYYY-MM-DD	The settlement period end date



Variable / Parameter	Type Format / Max Length	Description / Example
R	1 character	Refund Data
merchant ID	alphanumeric	Merchant ID in PG system
Order ID	alphanumeric	Order references for merchant system
Channel / transaction ID	alpha-numeric / numeric	Payment channel / PG transaction ID
Transaction net amount	Numeric without decimal and comma	This should equal the original transaction amount minus the fee or commission
Transaction commission amount	Numeric without decimal and comma	The MDR or transaction fee or commission
Forex Rate	0	0
Settlement amount	0	0
Settlement currency	0	0
Transaction date	YYMMDD	The date of settlement
Transaction gross amount	Numeric without decimal and comma	Original transaction amount
Transaction currency	3 chars ISO-4217 currency code	Default is MYR
Status	alpha-numeric	The transaction status. Usually REFUND

#### 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 should use SALES (SALS) for most of the use cases and avoid Pre-Authorization & Capture model. This is because many merchant will miss the auto-release period before they can actually capture the funds. Merchant who uses preauth or authorize payment mode may capture the transaction at a later stage by using this API

### Request

URL: <https://api.fiuu.com/RMS/API/capstxn/index.php>

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
domain	alphanumeric, 32 chars	Merchant ID in PG system
tranID	integer, 20 digits	Unique PG transaction ID
amount	2 decimal points numeric value	The total amount paid or to be paid
RefID	Alphanumeric, 100 chars	Reference ID for tracking purpose sent by merchant
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, 20 digits	Unique transaction ID for tracking purposes
Domain	alphanumeric, 32 chars	Merchant ID in PG system.
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string
StatCode	string of 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 20 = Temporary out of service 21 = Authorization expired 23 = Not allowed to perform partial capture 24 = Transaction has already been captured. 25 = Amount requested more than available capture amount 99 = General Error(Please check with PG Support)
StatDate	date (YYYY-MM-DD)	Response date & time
PartialCaptureTranID	integer, 20 digits	Created upon successful partial capture request

#### Formula of skey & VrfKey

```
skey =md5( {txnID}{amount}{domain}{verify_key} )  
VrfKey=md5( {secret_key}{Domain}{TranID}{StatCode} )
```

## Reversal Request

Merchant can request a reversal of transaction via original payment method for an “authorized” card, and “captured” card (including recurring payment), M2U, CIMB Clicks, Hong Leong Connect, Razer Pay, Alipay-Spot, POS Terminal, Boost and WeChat Pay payment.

For most of the payment channels above, the transaction can be “void” immediately on the same day before settlement (card payment at around 10pm and other channels are 11:59pm local time). For a payment channel that accepts refund requests, the transaction that happens within 180 days will be refunded within 7-14 days after the request is sent.

Please note that this API is to send a refund request, but not getting the status of the refund process. All successful requests shall be executed and if there is any exceptional case, PG support team will contact the merchant to resolve the issue.

### Request

URL: <https://api.fiuu.com/RMS/API/refundAPI/refund.php>

Method: POST or GET

Variable / Parameter	Type Format / Max Length	Description / Example
txnID	integer, 20 digits	Unique transaction ID for tracking purpose.
domain	alphanumeric, 32 chars	Merchant ID in PG 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 PG
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, 20 digits	Echo of the <i>txnID</i> in request
Domain	alphanumeric, 32 chars	Echo of the <i>domain</i> in request
VrfKey	32 chars hexadecimal string	This is the data integrity protection hash string.
StatCode	string of 2-digit numeric	00 = Success (will proceed the request) 11 = Failure 12 = Invalid or unmatched security hash string 13 = Not a refundable transaction 14 = Transaction date more than 180 days 15 = Requested day is on settlement day 16 = Forbidden transaction 17 = Transaction not found 18 = Duplicate partial refund request

		19 = Merchant not found 20 = Missing required parameter 21 = Transaction must be in authorized/captured/settled status 22 = Duplicate request is not allowed
StatDate	date (YYYY-MM-DD HH:mm:ss)	Response date & time
refundID	integer, 20 digits	Refund ID provided by PG

### Formula of skey & VrfKey

$skey = md5(\{txnID\}\{domain\}\{secret\_key\})$   
 $VrfKey = md5(\{secret\_key\}\{Domain\}\{TranID\}\{StatCode\})$

### Reversal Reference Table

Payment Channel	Support Void / Refund / Both	Cut-off time for VOID request	Processing method	Credit to buyer within
MYR card payment	Both	10pm GMT+8	manual	14-business day
Maybank2u	Refund	-	manual	7-business day
CIMB Clicks	Refund	-	manual	7-business day
Hong Leong Connect	Refund	-	manual	7-business day
Razer Pay	Both	11:59pm GMT+8	auto	1-business day
Alipay Spot	Both	11:59pm GMT+8	auto	1-business day
Wechat Pay (CN, MY)	Both	11:59pm GMT+8	auto	1-business day
Boost	Both	11:59pm GMT+8	auto	1-business day
TnG e-Wallet	Both	11:59pm GMT+8	auto	1-business day
Grab Pay	Both	11:59pm GMT+8	auto	1-business day
Maybank QR Push	Refund	-	manual	7-business day

## Advanced Full/Partial Refund

Merchants can request a full/partial refund for a “captured” or “settled” transaction regardless of the payment method. The request can be sent within 180 days from the transaction creation date and the refund process will take about 7-14 days after the request is sent.

Merchants can enable the “**Refund Portal**” so that buyers who need a refund could easily provide the bank account details to shorten the refund lead time.

### Request

URL: <https://api.fiuu.com/RMS/API/refundAPI/index.php>

Method: POST or GET

Field Name	Data Type(Size)	M/O	Description
RefundType	a{1}	M	P - Partial Refund
MerchantID	an{1..32}	M	Merchant ID provided by PG
RefID	ans{1..100}	M	Unique reference ID for tracking purpose sent by merchant
TxnID	n{1..20}	M	PG Transaction ID
Amount	n{10,2}	M	eg. '5.00' Amount to be refunded
BankCode	an{8}	C	Applicable for Online Banking and Physical Payment transactions only. (Refer to predefined bank lists)
BankCountry	a{2}	C	Applicable for Online Banking and Physical Payment transactions only. Two letters country ISO code. (Default value: MY)
BeneficiaryName	as{1..100}	C	Applicable for Online Banking and Physical Payment transactions only.
BeneficiaryAccNo	ans{1..100}	C	Applicable for Online Banking and Physical Payment transactions only.
Signature	an{32}	M	This is the data integrity protection hash string.
mdr_flag	n{1}	O	This is to include or exclude MDR refund to the buyer if the amount is same as bill amount. Available value is as below: 0 - Include MDR/Full Refund (Default) 1 - Exclude/Reserved MDR
notify_url	as	O	This is the URL for merchant to receive refund status (same format as the response of this API), either 00 (Success) or 11 (Rejected)

Signature = md5( {RefundType}{MerchantID}{RefID}{TxnID}{Amount}{secret\_key} )

## Response

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

Field Name	Data Type(Size)	M/O	Description
RefundType	a{1}	M	Echo of merchant request
MerchantID	an{1..32}	M	Echo of merchant request
RefID	ans{1..100}	M	Echo of merchant request
RefundID	n{1..11}	M	Refund ID provided by PG
TxnID	n{1..20}	M	Echo of merchant request
Amount	n{10,2}	M	Echo of merchant request
Status	a{2} [00, 11, 22]	M	22 for 'Pending' (Upon Request) 11 for 'Rejected' (via notify_url) 00 for 'Success' (Refunded, via notify_url)
Signature	a{32}	M	This is data integrity protection hash string.
reason	ans{1..255}	O	Reason for rejected status
FPXTxnID	ans{1..100}	O	FPX channel Transaction ID

Signature = md5( {RefundType}{MerchantID}{RefID}{RefundID}{TxnID}{Amount}{Status}{secret\_key} )

PG will respond the following in JSON format once error occurs (negative result)

Field Name	Data Type(Size)	Description
error_code	an{5}	Refer to Appendix C
error_desc	ans{1..255}	Refer to Appendix C

## Partial Refund Status Inquiry by TxnID/RefID

Merchant is able to do a status inquiry for a refund transaction.

### Request Type 1

URL: [https://api.fiuu.com/RMS/API/refundAPI/q\\_by\\_txn.php](https://api.fiuu.com/RMS/API/refundAPI/q_by_txn.php)

Method: POST or GET

Field Name	Data Type(Size)	M/O	Description
TxnID	n{1..20}	M	PG Transaction ID
MerchantID	a{1..32}	M	Merchant ID provided by PG
Signature	n{1..32}	M	This is the data integrity protection hash string.

Signature = md5( {TxnID}{MerchantID}{verify\_key} )

### Request Type 2

URL: [https://api.fiuu.com/RMS/API/refundAPI/q\\_by\\_refID.php](https://api.fiuu.com/RMS/API/refundAPI/q_by_refID.php)

Method: POST or GET

Field Name	Data Type(Size)	M/O	Description
RefID	ans{1..100}	M	Unique tracking/references ID from merchant
MerchantID	a{1..32}	M	Merchant ID provided by PG
Signature	n{1..32}	M	This is the data integrity protection hash string.

Signature = md5( {RefID}{MerchantID}{verify\_key} )

### Response

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

Field Name	Data Type(Size)	M/O	Description
TxnID	n{1..20}	M	Echo of merchant request
RefID	ans{1..100}	M	Unique tracking/references ID from merchant
RefundID	n{1..11}	M	Refund ID provided by PG
Status	enum	M	'pending', 'processing', 'rejected', 'success'
LastUpdate	ans{1..255}	M	Last update timestamp.
FPXTxnID	ans{1..100}	O	FPX channel Transaction ID



## Appendix for Partial Refund and Partial Refund Status Inquiry

### Appendix A : Data Type Details

Code	Description
a	Letters, A-Za-z
n	Numbers, 0-9
s	Symbols, .:!?*,!&_-
{x}	Fixed length x
{y..x}	Length range: y – x
{y,x}	Number range: 0-9. 0-9

### Appendix B : M/O Details

Code	Description
M	Mandatory field.
O	Optional field.
C	Conditional field.

### Appendix C : Error Code & Description in JSON

error_code	error_desc
PR001	Refund Type not found.
PR002	MerchantID field is mandatory.
PR003	RefID field is mandatory.
PR004	TxnID field is mandatory
PR005	Amount field is mandatory.
PR006	Signature field is mandatory
PR007	Merchant ID not found.
PR008	Invalid Signature.
PR009	Txn ID not found.
PR010	Transaction must be in authorized/captured/settled status. Current transaction is in {{TRANSACTION_STATUS}} status.
PR011	Exceed refund amount for this transaction.
PR012	Bank information is not applicable for credit channel transaction.

PR013	BankCode not found in our database, please contact support.
PR014	Bank information is mandatory for non-credit channel transaction.
PR015	Server is busy, try again later.
PR016	Duplicate RefID found, please provide a unique RefID.
PR017	Refund request for transaction that is out of the allowed period.
PR018	BeneficiaryName cannot contain non-alphanumeric characters.
PR019	Refund is not allowed / Only partial refund is allowed / Only full refund is allowed.
PR020	Insufficient balance to refund.
INQ001	TxnID field is mandatory.
INQ002	MerchantID field is mandatory.
INQ003	Signature field is mandatory.
INQ004	Merchant ID not found.
INQ005	Invalid Signature.
INQ006	Unable to find refund transaction.
INQ011	RefID field is mandatory.

## Static QR-Code Generator

For merchant to generate static QR code of e-wallet

### Request

URL: <https://api.fiuu.com/RMS/API/staticqr/index.php>

Method: POST or GET

Field Name	Data Type(Size)	M/O	Description
merchantID	Alphanumeric, 32 chars	M	Merchant ID provided by PG
channel	Alphanumeric, 32 chars	M	Channel requested: <ul style="list-style-type: none"><li>• <b>AlipaySQR</b> - Alipay Static QR</li><li>• <b>WeChatPaySQR</b> - WeChat Pay Static QR</li><li>• <b>DuitNowSQR</b> - DuitNow Static QR</li><li>• <b>PayNowSQR</b> - PayNow Static QR</li></ul>
orderid	Alphanumeric, 40 chars	M	Items ID. E.g: S001
currency	Alphabet, 3 chars	M	ISO-4217 currency code.
amount	Numeric	C	The total amount to be paid in one purchase order. 2 decimal points and comma( , ) is not allowed. Mandatory except <b>DuitNowSQR</b> and <b>PayNowSQR</b>
bill_name	Alphanumeric, 128 chars	M	Items name.
bill_desc	Text	M	Item description.
checksum	Alphanumeric, 32 chars	M	This is a request integrity protection hash string.

Checksum = md5( {merchantID}{channel}{orderid}{currency}{amount}{verify\_key} )

### Response

PG responds JSON format to merchant upon a successful request

Field Name	Data Type(Size)	M/O	Description
status	Boolean	M	true/false
qrcode_data	URL	M	QR-Code data. Available for status true.
qrcode_link	URL	M	Link to view QR-Code image. Available for status true.
error_code	Alphanumeric	M	Error code when status is false.
error_mesg	Text	M	Error description when status is false.

error_code	error_mesg
------------	------------

SQ001	Missing required parameter (<FieldName>).
SQ002	System is busy now, temporarily out of service. Please try again later.
SQ003	Merchant info not found.
SQ005	Invalid checksum value.
SQ004	Currency not supported.
SQ006	Your account doesn't subscribe to this channel. Please contact our support teams to enable this.

## Channel Status API

This API returns the availability of all channels enabled for a particular merchantID

### Request

URL: [https://pay.fiuu.com/RMS/API/chkstat/channel\\_status.php](https://pay.fiuu.com/RMS/API/chkstat/channel_status.php)

Method: POST

Variable / Parameter	Type Format / Max Length	Description / Example
merchantID	Alphanumeric, 32 chars	Merchant ID in PG system.
datetime	YYYYMMDDHHmmss	Request date & time, e.g. 20161202153423
skey	Alphanumeric	For merchant access verification purpose

### Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
status	Boolean	true/false
result	Object	[...]
title	Alphanumeric	Display name of the payment method
status	Boolean	True = Bank/Channel is online or available False = Bank/Channel is temporary offline/down for maintenance
currency	Object	List of currency accepted by the payment method
channel_map	Object	[...]
integration_type	Object	Hosted, seamless, seamlesspayment, direct
request	Alphanumeric	Channel name submitted during request
response	Alphanumeric	Channel name submitted during response
logo_url_16x16	Alphanumeric	Link to channel logo in size 16x16
logo_url_24x24	Alphanumeric	Link to channel logo in size 24x24
logo_url_32x32	Alphanumeric	Link to channel logo in size 32x32
logo_url_120x43	Alphanumeric	Link to channel logo in size 120x43
channel_type	Text	IB - internet banking, CC - credit card, EW - ewallet , OTC - over the counter
googlepay_enabled	Boolean	1 = Google Pay is enabled for this channel 0 = Google Pay is NOT enabled for this channel

applepay_enabled	Boolean	1= Apple Pay is enabled for this channel 0 = Apple Pay is NOT enabled for this channel
installment_info	Alphanumeric	Display list of installment plan available

Formula of skew

skew = HMAC\_SHA256( {datetime}{merchantID}, {verify\_key} )

Example (in JSON format)

The following example might not be accurate and please only take it as a format reference

```
{
  "status": true,
  "result": {
    {
      "title": "Affin Online",
      "status": 1,
      "currency": {
        "MYR",
        "USD",
      },
      "channel_map": {
        "hosted": {
          "request": "affin-epg",
          "response": "affin-epg"
        },
        "seamless": {
          "request": "affinonline",
          "response": "affin-epg"
        },
        "old_direct": {
          "request": "affin-epg",
          "response": "affin-epg"
        },
        "direct": {
          "request": "AFFIN-EPG",
          "response": "AFFIN-EPG"
        }
      },
      "logo_url_16x16": "https://d2x73ruoixi2ei.cloudfront.net/images/logos/channels/24/affin.gif",
      "logo_url_24x24": "https://d2x73ruoixi2ei.cloudfront.net/images/logos/channels/24/affin.gif",
      "logo_url_32x32": "https://d2x73ruoixi2ei.cloudfront.net/images/logos/channels/32/affin.gif",
      "logo_url_120x43": "https://d2x73ruoixi2ei.cloudfront.net/images/logos/channels/120/affin.gif",
      "channel_type": "IB"
    }
  }
}
```

## Channel Success Rate 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 channels. Merchants 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 Razer Cash. Keep in mind that Razer Cash is not a real-time payment channel and sampling is based on payment request time and not the time that payment is made.

This API gives a worst case scenario result, please DO NOT approach the PG support team if your number of transactions of a specific payment channel is less than 30 or if there are multiple failure attempts from the same buyer. Try to optimize your OK rate (success rate or SR) 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://api.fiuu.com/RMS/API/chkstat/OK-rate.php>

Method: GET

Variable / Parameter	Type Format / Max Length	Description / Example
domain	alphanumeric, 32 chars	Merchant ID in PG 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 <b>HOURL</b> 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.

	}	<pre>{   "credit": 75,   "maybank2u": 70,   "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**

skey = md5( {domain}{**secret\_key**}{reqTime}{reqType} )



## Card BIN information API

To retrieve the card BIN information such as card type and the issuer information.

### Request

URL: [https://api.fiuu.com/RMS/query/q\\_BINinfo.php](https://api.fiuu.com/RMS/query/q_BINinfo.php)

Method: GET

Variable / Parameter	Type Format / Max Length	Description / Example
domain	alphanumeric, 32 chars	Merchant ID in PG system.
skey	32 chars hexadecimal string	For merchant access verification purpose
BIN	6-digit numeric	First 6-digit number of the PAN, e.g. 519603

### Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
card_brand	VISA / MASTERCARD / AMEX / UP / JCB / DC	MASTERCARD
card_issuer	ans{100}	CIMB BANK BERHAD
debit_credit	DEBIT / CREDIT / PREPAID / N/A	CREDIT
card_type	ans{100}	STANDARD other example like GOLD, PLATINUM, CLASSIC, co-brand name is available
card_country	ISO-3166-1 alpha-2	MY
islamic_card	Y / N	Y

PG will respond the following in JSON format once error occurs (negative result)

Field Name	Data Type(Size)	Description
error_code	an{7}	Refer to Appendix A
error_desc	ans{1..255}	Refer to Appendix A

### Formula of skey

$$\text{skey} = \text{md5}(\{\text{domain}\}\{\text{secret\_key}\}\{\text{BIN}\})$$

#### Appendix A : Error Code & Description in JSON

error_code	error_desc
QBIN001	Missing required Parameter.
QBIN002	Merchant info not found.
QBIN003	Invalid skey.
QBIN004	Card BIN info not found.
QBIN005	System is busy now, temporarily out of service. Please try again later.

## Foreign Exchange Rate API

In order to know the current foreign exchange (FX) of each supported currency, this API allows merchants to know the current exchange rate for each supported currency.

### Request

URL: [https://api.fiuu.com/RMS/query/q\\_fx\\_rate.php](https://api.fiuu.com/RMS/query/q_fx_rate.php)

Method: GET

Variable / Parameter	Type Format / Max Length	Description / Example
domain	alphanumeric, 32 chars	Merchant ID in PG system.
reqtime	YYYYMMDD	Request date & time, e.g. 20161202
source	optional, 1-digit integer	Predefined value as below: 1. BNM 2. Maybank 3. WeChat
skey	32 chars hexadecimal string	For merchant access verification purpose

### Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
base	3 chars ISO-4217 currency code	MYR
reqtime	YYYYMMDD	20170128
rate	float(2,4) in array	1.2888
[currency] under "rate"	3 chars ISO-4217 currency code	Currency to compared with MYR (USD,SGD,etc)

### Formula of skey

```
skey = md5( {domain}{verify_key}{reqTime} )
```

Will list out the list of currency, exchange rate compared to 1 MYR with rate expiration date/time.

```
{
  "base": "MYR"
  "reqtime": "20170128"
  "rate":{
    "USD":{"units":1,"rates":0.24425989252565},
    ...
  }
}
```

## Void Pending-Cash API

For merchants to cancel and void the cash payment request order, before getting paid or the expiry time, and force-to-expired.

### Request

URL: <https://api.fiuu.com/RMS/API/VoidPendingCash/index.php>

Method: POST or GET

Field Name	Data Type(Size)	M/O	Description
tranID	n{1..20}	M	PG Transaction ID
amount	n{10,2}	M	The total amount to be paid in one purchase order. 2 decimal points, comma( , ) is not allowed.
merchantID	an{1..32}	M	Merchant ID provided by PG
checksum	an{32}	M	This is request integrity protection hash string.

### Formula of checksum

checksum = md5( {tranID}{amount}{merchantID}{verify\_key} )

### Response

PG responds JSON format to merchant upon a successful request

Field Name	Data Type(Size)	M/O	Description
StatCode	n{2}	M	00 = Success (voided) 11 = Missing required parameter (<FieldName>). 12 = Merchant info not found 13 = Invalid checksum value. 14 = Transaction not found 15 = Transaction not Pending  99 = System is busy now, temporary out of services. Please try again later.
tranID	n{1..20}	O	PG Transaction ID
orderid	an{1..40}	O	Merchant order
amount	n{10,2}	O	The total amount to be paid in one purchase order
merchantID	an{1..32}	O	Merchant ID provided by PG
channel	an{1..32}	O	Channel references for the merchant system

## Void Pending Non-Cash API

For merchants to cancel and void the non-cash payment request order (generated from direct server API), before getting paid within the expiry time, and force-to-expired.

### Request

URL: <https://api.fiuu.com/RMS/API/VoidPendingNonCash/index.php>

Method: POST or GET

Field Name	Data Type(Size)	M/O	Description
ReferenceNo	an{1..32}	M	Merchant reference no
TxnChannel	an{1..32}	M	Channel references
TxnAmount	n{10,2}	M	The total amount to be paid in one purchase order. 2 decimal points, comma(,) is not allowed.
MerchantID	an{1..32}	M	Merchant ID provided by PG
Signature	an{32}	M	This is a request integrity protection hash string.

### Formula of Signature

Signature= hash\_mac( "sha256", {ReferenceNo}{TxnAmount}{MerchantID}, {verify\_key} )

### Response

PG responds JSON format to merchant upon a successful request

Field Name	Data Type(Size)	M/O	Description
StatCode	n{2}	M	00 = Success (canceled) 11 = Missing mandatory parameter. 12 = Merchant info not found 13 = Invalid checksum value. 14 = Transaction not found 15 = Transaction already in captured status.Not voidable. 16 = Transaction already in failed status.Not voidable. 99 = System is busy now, temporarily out of service. Please try again later.
ReferenceNo	an{1..32}	O	Merchant reference no
TxnAmount	n{10,2}	O	The total amount to be paid in one purchase order
MerchantID	an{1..32}	O	Merchant ID provided by PG
TxnChannel	an{1..32}	O	Channel references for the merchant system

## Recurring Plan API

For merchants to retrieve recurring plans info which were created from the merchant portal.

### Request

URL: [https://api.fiuu.com/RMS/API/Recurring/get\\_plans.php](https://api.fiuu.com/RMS/API/Recurring/get_plans.php)

Method: POST or GET

Field Name	Data Type(Size)	M/O	Description
domain	an{1..32}	M	Merchant ID provided by PG
charge_on_endofmonth	a{1}	O	Predefined value as below: 1. Y 2. N
period	a{3..8}	O	Predefined value as below: 1. month 2. week 3. day 4. year 5. quarter 6. halfyear 7. bimonth 8. biweek
cycle_term	n{1..10}	O	Billing cycle (E.g. '6', '12', '24')
status	a{2..3}	O	Predefined value as below: 1. On 2. Off 3. NA
skey	an{32}	M	This is request integrity protection hash string.

### Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
planID	n{1..10}	Unique ID for each plan.
plan_name	ans{1..64}	Plan name.
plan_desc	ans{1..255}	Plan description.
amount	n{10,2}	The total amount to be paid in each cycle.
period	a{3..8}	Predefined value as below: 1. month 2. week 3. day

		4. year 5. quarter 6. halfyear 7. bimonth 8. biweek
status	a{2..3}	Predefined value as below: 1. On 2. Off 3. NA
cycle_term	n{1..10}	Billing cycle (E.g. '6', '12', '24')
charge_on_endofmonth	a{1}	Predefined value as below: 1. Y 2. N

### Formula of key

key = md5( {domain}{**secret\_key**}{charge\_on\_endofmonth}{period}{cycle\_term}{status} )

PG will respond the following in JSON format once error occurs (negative result)

No	Field Name	Data Type(Size)	Description
1	error_code	an{7}	Refer to Appendix A
2	error_desc	ans{1..255}	Refer to Appendix A

### Appendix A : Error Code & Description in JSON

error_code	error_mesg
PLAN001	Missing required parameter (<FieldName>).
PLAN002	Merchant info not found.
PLAN003	Invalid skey.
PLAN004	Plan not found.
PLAN005	System is busy now, temporary out of services. Please try again later.
PLAN006	Invalid parameter value (<FieldName>).

# Payment Token API

Available upon request

## Token API - Generate Token / Provisioning

For merchants to generate the payment token without payment authorization.

**PCI-DSS Attestation of Compliance (AoC)** is required in order to unlock this API for merchant.

### Request

URL: <https://pay.fiuu.com/RMS/API/token/index.php>

Method: POST

Variable / Parameter	Type Format / Max Length	Description / Example
action	as{32}	Action of this request - ADD_TOKEN
billing_name	as{32}	Buyer's full name
billing_mobile	ns{32}	Buyer's mobile number or contact number
billing_email	ans{128}	Buyer's email address
custID	ans{40}	Unique customer ID that will bind with the token
merchantID	ans{32}	Merchant ID in PG system
token_type	ans{1} {Optional}	Based on the recurring token type { T }
detail	ans	Information that will be used to generate a token. Refer to <b>Token API - detail</b> .
signature	ans	For merchant access verification purpose

### Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
status	a{5}	true - success return false - failed return
merchantID	ans{32}	Merchant ID in PG system.
billing_name	as{32}	Buyer's full name
billing_mobile	ns{32}	Buyer's mobile number or contact number.
billing_email	ans{128}	Buyer's email address.
token	ans{1...100}	Card number that has been tokenized by Payment Gateway



bin	n{6..8}	First 6 or 8 digit of the card number
bin4	n{4}	Last 4 digit of the card number
expYear	n{4}	Card expiry year
expMonth	n{2}	Card expiry month, e.g. February is 02
token_type	ans{1}	Based on the recurring token type { T }

## Formula of signature

```
signature = hash_hmac( 'SHA256',
{action}{billing_email}{billing_mobile}{billing_name}{detail}{merchantID}{token_type}, {verify_key} )
```

## Example (in JSON format)

*The following example might not be accurate and please only take it as a format reference*

```
{
  "status": true,
  "merchantID": "merchantIDSB",
  "billing_name": "abc",
  "billing_email": "abc@email.com",
  "billing_mobile": "012-3456789",
  "token": "1234567890",
  "bin": "123456",
  "bin4": "8901",
  "expYear": "2099",
  "expMonth": "12",
  "token_type": "T",
}
```

## Token API - Retrieve Token

For merchants to retrieve the token based on the buyer information.

### Request

URL: <https://pay.fiuu.com/RMS/API/token/index.php>

Method: POST

Variable / Parameter	Type Format / Max Length	Description / Example
action	as{32}	Action of this request - GET_TOKEN
billing_name	as{32}	Buyer's full name
billing_mobile	ns{32}	Buyer's mobile number or contact number
billing_email	ans{128}	Buyer's email address
custID	ans{40}	Customer ID that bind with token
merchantID	ans{32}	Merchant ID in PG system
token_type	ans{1} {Optional}	Based on the recurring token type { T, F, E, K, A } Respond all token type if not provided
signature	ans	For merchant access verification purpose

### Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
status	a{5}	true - success return false - failed return
tokens	object	[...]
token	ans{1...100}	Card number that has been tokenized by Payment Gateway
bin	n{6..8}	First 6 or 8 digit of the card number
bin4	n{4}	Last 4 digit of the card number
expYear	n{4}	Card expiry year
expMonth	n{2}	Card expiry month, e.g. February is 02
token_type	ans{1}	Based on the recurring token type { T, F, E, K, A }

card_brand	ans{20}	Card brand VISA / MASTERCARD / AMEX / UP / JCB / DC
card_issuer	ans{20}	Bank name which issues the card
card_type	ans{10}	Card type - PREPAID , DEBIT, CREDIT

## Formula of signature

```
signature = hash_hmac( 'SHA256',
{action}{billing_email}{billing_mobile}{billing_name}{merchantID}{token_type}, {verify_key} )
```

## Example (in JSON format)

*The following example might not be accurate and please only take it as a format reference*

```
{
  "status": true,
  "tokens": [
    {
      "token": "555111112315454545",
      "bin": "550690",
      "bin4": "0001",
      "expYear": "2030",
      "expMonth": "02",
      "token_type": "T",
      "card_brand": "MASTERCARD",
      "card_issuer": "AFFIN BANK",
      "card_type": "DEBIT"
    }
  ]
}
```

## Token API - Retrieve Buyer Information

Available upon request

For merchants to retrieve the token information such as credit card first 6 and last 4 digit, credit card exp date, card type and the issuer information.

### Request

URL: <https://pay.fiuu.com/RMS/API/token/index.php>

Method: POST

Variable / Parameter	Type Format / Max Length	Description / Example
action	as{32}	Action of this request - GET_TOKEN_DETAILS
token	ans{36}	Credit Card token
custID	ans{40}	Customer ID that bind with token
merchantID	ans{32}	Merchant ID in PG system.
signature	ans	For merchant access verification purpose

### Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
status	a{5}	true - success return false - failed return
bin	n{6}	First 6 digit of card number
bin4	n{4}	Last 4 digit of card number
card_brand	ans{20}	Card brand VISA / MASTERCARD / AMEX / UP / JCB / DC
card_type	ans{20}	Card type - PREPAID , DEBIT, CREDIT
expYear	n{4}	Card expiry year
expMonth	n{2}	Card expiry month
billing_name	a{32}	Buyer's full name
billing_mobile	ns{32}	Buyer's mobile number or contact number.
billing_email	ans{128}	Buyer's email address.
token_type	a{1}	Payment Channel

### Formula of signature

```
signature = hash_hmac( 'SHA256', {action}{merchantID}{token}, {verify_key} )
```

## Token API - Edit Token Details

Available upon request

For merchants to modify the token detail based on the generated active token.

### Request

URL: <https://pay.fiuu.com/RMS/API/token/index.php>

Method: POST

Variable / Parameter	Type Format / Max Length	Description / Example
action	as{32}	Action of this request - EDIT_TOKEN_DETAILS
billing_name	as{32}	Original buyer's full name
billing_mobile	ns{32}	Original buyer's mobile number or contact number.
billing_email	ans{128}	Original buyer's email address.
custID	ans{40}	Customer ID that bind with token
merchantID	ans{32}	Merchant ID in PG system.
token	ans{36}	Credit Card token
detail	ans	Information that will be used to edit token details. Refer to <b>Token API - detail</b> .
signature	ans	For merchant access verification purpose

### Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
status	a{5}	true - Success edit token detail false - Failed edit token detail

### Formula of signature

```
signature = hash_hmac( 'SHA256',  
{action}{billing_email}{billing_mobile}{billing_name}{detail}{merchantID}{token}, {secret_key} )
```

## Token API - Delete Token

Available upon request

For merchants to delete the token based on buyer information.

### Request

URL: <https://pay.fiuu.com/RMS/API/token/index.php>

Method: POST

Variable / Parameter	Type Format / Max Length	Description / Example
action	as{32}	Action of this request - DELETE_TOKEN
token	ans{36}	Credit Card token
billing_name	as{32}	Buyer's full name
billing_mobile	ns{32}	Buyer's mobile number or contact number
billing_email	ans{128}	Buyer's email address
custID	ans{40}	Customer ID that bind with token
merchantID	an{32}	Merchant ID in PG system
signature	ans	For merchant access verification purpose

### Response (JSON format)

Variable / Parameter	Type Format / Max Length	Description / Example
status	a{5}	true - Success delete token false - Failed delete token

### Formula of signature

```
signature = hash_hmac( 'SHA256',  
{action}{billing_email}{billing_mobile}{billing_name}{merchantID}{token}, {secret_key} )
```

## Token API - Error Handling

PG will respond the following in JSON format once error occurs (negative result)

Field Name	Data Type(Size)	Description
status	a{5}	false - request failed/error
error_code	n{4}	Refer to Appendix A
error_desc	ans{1..255}	Refer to Appendix A

### Token Error Code & Description in JSON

error_code	error_mesg
TK01	Invalid parameter value ({parameter_name})
TK02	Missing parameter value ({parameter_name})
TK03	Merchant info not found
TK04	Incorrect signature
TK05	Record not found

## Token API - detail

Merchants will include the following information during request the following token action.

Token Type	Variable / Parameter	Type Format / Max Length	Description / Example
ADD_TOKEN			
T	cardnumber	n{16}	Card number to tokenize.
	month	MM{2}	Expiry month
	year	YYYY{4}	Expiry year
	<b>Procedure to generate:</b> <ol style="list-style-type: none"><li>1. Request PG to provide RSA public key.</li><li>2. JSON encode the variable and its data.</li><li>3. Using Open SSL to encrypt the JSON information with an RSA public key.</li><li>4. Base64 encode the encrypted data generated from the OpenSSL public key encryption.</li><li>5. Add the output in the <b>detail</b> variable.</li></ol>		
EDIT_TOKEN_DETAILS			
T	billing_name	as{32}	Buyer's full name
	billing_mobile	ns{32}	Buyer's mobile number or contact number.
	billing_email	ans{128}	Buyer's email address.
	<b>Procedure to generate:</b> <ol style="list-style-type: none"><li>1. JSON encode the variable and its data.</li><li>2. Add the encoded JSON in the <b>detail</b> variable.</li></ol>		



# Idempotence Request

Idempotency allows you to retry a request multiple times while only performing the action once. This helps avoid unwanted duplication in case of failures and retries. For example, in the case of a timeout error, it is possible to safely retry sending the same API payment call multiple times with the guarantee that the payment detail will only be charged once.

The accounting rules in the PG take care of most potential double-processing issues that can impact payment modifications. To minimize unwanted side effects when requests are duplicated.

## Implement idempotency

To submit a request for idempotent processing, include an idempotency-key:<key> in the request header.

The <key> should be a unique identifier for the message, with a maximum length of 64 characters (including symbols). We recommend using a version 4 (random) UUID. If you don't receive a response (e.g., due to a timeout), you can safely retry the request with the same HTTP header. If the PG has already processed the request, the response from the first attempt will be returned without duplication.

To verify that a request was processed idempotently, check the idempotency-key HTTP header in the response.

## Sample Request Header

Key	Type Format / Max Length	Description / Example
idempotence-key	ans(64)	Any alphanumeric character or UUIDv4 e.g. d4fa5b34-306e-47b6-88ee-9104b918375b

# Jump App Integration

Certain channels, especially E-wallet support Tap & Pay functionality, enabling seamless transactions with just a tap, primarily in a mobile device flow. To ensure proper handling of transaction notifications, it is required to add an event listener that manages the app URL or Universal Link, facilitating a smooth user experience and ensuring the app responds appropriately to the incoming data.

Implementation:

1. Adds an event listener to detect when the system is redirected to a specific page (triggered URL).
2. When an app URL or universal URL is triggered after the webview reaches a specific page, the opened URL will be opened with new intent.
3. When a channel mobile app is opened to proceed payment, it is optional to update the specific page and redirect it to a self setup loading page, which will have continuous [checking transaction status](#) in a certain timeframe. (Eg. 5 minutes waiting time with 10 seconds interval time)

Channel	Triggered URL	Universal Link / App URL
TNG-EWALLET	xxxx/intermediate_eTNG-EWALLET.php	m.tngdigital.com.my/xxxxx
BOOST	https://msp.boost-my.com/xxxxx	xxxxmyboost.appxxxx
ShopeePay	xxx/intermediate_app/loading.php	https://my.shp.ee/xxxx
Atome	https://gateway.atome.my/xxx	https://atome-my.onelink.me/xxxx
LINEPAY	https://web-pay.line.me/xxxx	line://pay/payment/xxxx
SCB_IB_U	https://scbpaymentgateway.scb.co.th/xxxx	xxscbeasy/easy_app_link.html/xxx
KTB_IB_U	https://p2p.krungthai.com/xxxx	ktbnext://next.co.th/xxxx
9PAY_EWALLET	https://9pay.vn/merchant/xxxx	https://9pay.page.link/xxxx
Alipay	https://mclient.alipay.com/xxxx	alipays://xxxx

# DuitNow QR Account Enquiry Notify

DuitNow QR account enquiry is a functionality that allows DuitNow-supported banks and wallets to verify the validity of a QR code with the QR issuer. Merchants can request to enable the notification feature, which alerts them when the generated QR code has been scanned by the user. This webhook will use the same URL as the payment notification and deliver the information directly to the merchant. The integration for this feature can refer [Notification URL with IPN](#).

## Notification Parameters (via POST method)

Variable / Parameter	Type Format / Max Length	Description / Example
nbcdb	1 digit numeric	Always equal to <b>2</b> , which indicates this is a notification from PG
amount	2 decimal points numeric value	The total amount to be paid for the payment request
orderid	alphanumeric, 40 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 PG system
status	2-digit numeric value	22 for Pending payment
aprcode	alphanumeric, 16 chars	Bank approval code. Mandatory for card payment. Certain channels return 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 MYR (indicating Malaysia Ringgit) for Malaysia channels
channel	predefined string in system	Channel references for merchant system
paydate	Date/Time( YYYY-MM-DD HH:mm:ss)	Date/Time of the transaction.
extraP*	optional (on request)	Example: {"account_enquiry": "true", "enquirydate": "2023-12-12 12:12:12"}

# ExtraP

Contains additional information provided by the payment processor.  
Parameter ExtraP is a JSON encoded string.

Variable / Parameter	Description / Example	
token	16-digit card token for merchant to store for recurring MIT (merchant initiated transaction)	
CustID	Customer ID that will bind with the token	
fraudscreen	1-digit integer, i.e. 1=Unknown, 2=Passed, 3=Alert, 4=Suspicious, 5=Fraud	
fpx_txn_id	FPX transaction ID	
fpx_buyer_name	FPX buyer name	
buyer_name	buyer name (if any for non-FPX channel)	
billing_name	Biller Name	
billing_mobile	Biller Mobile	
billing_email	Biller Email	
ccbrand	Visa, MasterCard, AMEX	
bank_issuer	The issuing bank or institution	
ccbin	Issuer/Bank identification number, first 6-digit	
cclast4	Last 4-digit of card number	
cctype	Credit, Debit, Prepaid	
cccountr	Card issuing country	
paymentMethod	ApplePay,GooglePay	
grabpay_indicator	GPWALLET, INSTALMENT_4, POSTPAID	
duitnowqr_indicator	DuitNow Ref ID	
ProcessorResponseCode	Authorization response code	
ProcessorCVVResponse	Credit Card validation response code	
	Value	Description
	M	Indicate cvc match
	N	Indicate cvc no match
	P	Indicate cvc not process, the card scheme or issuer was unable to verify the cvc value

	S	Indicate cvc should be on the card, because the card scheme or issuer wants perform cvc verification																						
	U	Indicate cvc unverified, because issuer does not participate in cvc service																						
SchemeTransactionID	Transaction ID provided by CC Schemes.																							
MerchantAdviceCode	<p>MasterCard issuers use the Merchant Advice Code (MAC) in authorization request responses to communicate with merchants about a cardholder's account</p> <table><tr><td>Value</td><td colspan="2">Description</td></tr><tr><td>01</td><td colspan="2">New account information available</td></tr><tr><td>02</td><td colspan="2">Cannot approve at this time, try again later</td></tr><tr><td>03</td><td colspan="2">Do not try again</td></tr><tr><td>04</td><td colspan="2">Token requirements not fulfilled for this token type</td></tr><tr><td>21</td><td colspan="2">Payment Cancellation</td></tr><tr><td>22</td><td colspan="2">Merchant does not qualify for product code</td></tr></table>			Value	Description		01	New account information available		02	Cannot approve at this time, try again later		03	Do not try again		04	Token requirements not fulfilled for this token type		21	Payment Cancellation		22	Merchant does not qualify for product code	
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04	Token requirements not fulfilled for this token type																							
21	Payment Cancellation																							
22	Merchant does not qualify for product code																							
ECI	<p>Electronic Commerce Indicator (ECI) is a value returned by Directory Servers (namely Visa, MasterCard, MyDebit, JCB, and American Express) indicating the outcome of authentication attempted on transactions enforced by 3DS</p> <table><tr><td></td><td>Mastercard</td><td>Visa</td><td>MyDebit</td></tr><tr><td>Cardholder authentication successful</td><td>02</td><td>05</td><td>15</td></tr><tr><td>Attempted to authenticate the cardholder</td><td>01</td><td>06</td><td>16</td></tr><tr><td>Non-authenticated e-commerce transaction</td><td>00</td><td>07</td><td>17</td></tr></table>				Mastercard	Visa	MyDebit	Cardholder authentication successful	02	05	15	Attempted to authenticate the cardholder	01	06	16	Non-authenticated e-commerce transaction	00	07	17					
	Mastercard	Visa	MyDebit																					
Cardholder authentication successful	02	05	15																					
Attempted to authenticate the cardholder	01	06	16																					
Non-authenticated e-commerce transaction	00	07	17																					
LocalCardScheme	Card transacted through a local card network																							
AvsStreet	Street validation status																							
AvsZip	Zip/Postcode validation status																							
AvsResponse	Association validation status																							
captured_date	Date/Time of the transaction status updated from authorized to captured																							

store_id	7eleven store id (Only for Cash 711)
store_name	7eleven store name (Only for Cash 711)
store_address	7eleven store address (Only for Cash 711)
metadata	Respond metadata in JSON format
lcpMemberId	ESUN unique number (for TW ESUN channels only)

# 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 PG.
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 PG system.
P12	Signature from bank not match.
P13	Currency not supported.
P14	Transaction amount must more than CUR XXX.XX.
P15	Transaction amount must less than CUR XXX.XX.
P16	Invalid subMerchantID
P17	Unable to retrieve the currency exchange rate
P18	Empty currency rate
P19	Invalid Order ID
P21	Massive errors detected from the same IP address
P22	Massive errors detected from the same IP address

P33	System is busy
P44	Bill description format incorrect
P45	Subtotal amount not match with bill amount
P46	Merchant is not allowed to use this payment method
P47	Bank under maintenance
P48	TxnType not supported for this channel
P49	Original TransactionID/SchemeID not found
P50	Card not eligible for installment plan
P51	Only debit card is allowed for this payment.
P52	Invalid customer ID
P53	Transaction rejected due to card expired.
P54	Transaction rejected due to exceeded attempt limit in this month. Please try again next month.
P55	Card type is not supported.
P56	Invalid payment expiration time
P57	Invalid parameter format for metadata, must be in JSON format
P403	Invalid payment URL
P404	Invalid merchant ID
P409	Duplicate request is not allowed
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
P992	Sorry, no matching transaction or profile detail found for the return_url.
P993	Sorry, the return url doesn't match with the transaction or profile.
P1813	URL is not allowed
R01	Error in payment process due to empty key
T01	Tokenization error
01	Unsuccessful Timeout due to user did not authorize the payment
33	Transaction declined as the payment window has expired
34	Transaction refunded or voided due to success payment exceeding payment window
36	Transaction voided via VoidPendingNonCash API
99	Record not found



	Timeout due to user did not proceed with the payment
E99	Exception occurred during the transaction
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
MD2310	rejected due to non-3DS (a feature of PG to block non-3DS transaction)
3000	Transaction end with not successful status
3001	Card authentication failed
3002	Unknown Device
3003	Unsupported Device
3004	Exceeds authentication frequency limit
3005	Expired card
3006	Invalid card number
3007	Invalid transaction
3008	No Card record
3009	Security failure
3010	Stolen card
3011	Suspected fraud
3012	Transaction not permitted to cardholder
3013	Cardholder not enrolled in service
3014	Transaction timed out at the ACS
3015	Low confidence
3016	Medium confidence
3017	High confidence
3018	Very High confidence

3019	Exceeds ACS maximum challenges
3020	Non-Payment transaction not supported
3021	3RI transaction not supported
3022	ACS technical issue
3023	Decoupled Authentication required by ACS but not requested by 3DS Requestor
3024	3DS Requestor Decoupled Max Expiry Time exceeded
3025	Decoupled Authentication was provided insufficient time to authenticate cardholder. ACS will not make attempt
3026	Authentication attempted but not performed by the cardholder.
4000	Transaction has timeout
5000	Transaction ended with exception happened at 3DS Server
6000	Transaction ended with Error Message is raised from one of the 3D participants
7000	3DS Server received an invalid Authentication Request

## Payment Status Query (PSQ) Error

Different query status API uses different standard error code due to legacy reasons. Developer may group these error codes based on the grouping in the following table:

- **Direct Status Requery API** - 5 digit number . For eg : Q00001,Q00002.
- **Indirect Status Requery API** 2 - 3 digit number. For eg: Q01, Q02, Q203

Error Code	Description
Q01 / Q00001	Missing Required Parameter ({parameter_name}).
Q02 / Q00002	Invalid Parameter Value ({parameter_name}).
Q03 / Q00007	System is busy now, temporary out of services. Please try again later.
Q04 / Q00003	Merchant info not found.
Q05 /	Send result to merchant URL failed.
Q06	Query period expired. No result available for transaction more than 7 days.
Q00008	Error encountered due to external service disruption. Kindly retry.
Q99	Service blocked due to massive connection. Please send only 1 request every 5 minutes.
Q101 / Q201 / Q00004	Correct skey with invalid data
Q00004 / Q102 / Q202 / Q302 / Q402 / Q502	Incorrect skey
Q203 / Q303 / Q00005	Transaction record not found
Q204	Incorrect amount
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
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## Error Codes from Payment Channel

PG will add the following prefix to all card and certain internet banking error codes

Credit Card (CyberSource, MPGS, etc)	CC_
FPX Internet Banking	FPX_

Error Code   Description
<b>Prepaid/Debit/Credit Card (Visa/MasterCard)</b>  <b>Host Error</b> 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) 08   Honor with ID 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 30   Format Error 39   No Credit Account 41   Pickup card (lost card) 43   Pickup card (stolen card) 46   Closed account 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 61   Activity amount limit exceeded 62   Restricted card (for example, in Country Exclusion table)

63 | Security violation  
 64 | Transaction does not fulfill AML requirement  
 65 | Activity count limit exceeded  
 70 | Contact Card Issuer  
 71 | PIN Not changed  
 74 | Different value than that used for PIN encryption errors  
 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  
 78 | "Blocked, first used"—Transaction from new cardholder, and card not properly unblocked  
 78 | Invalid/nonexistent account specified (general)  
 79 | Updated information was found in the Mastercard ABU database. Check for new information before reattempting.  
 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 | Fraud/Security(MasterCard use only) / Unable to verify PIN  
 84 | Invalid Authorization Life Cycle  
 85 | No reason to decline a request for account number verification or address verification  
 86 | Pin Validation not possible  
 87 | Purchase Amount Only, No Cash Back Allowed  
 88 | Cryptographic failure  
 89 | Unacceptable PIN—Transaction Declined—Retry  
 90 | Cutoff is in progress  
 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  
 94 | Duplicate transaction detected  
 96 | 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

#### 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

#### Card via eBPG (Visa/MasterCard)

0 Process with No Error.  
1001 Error setting mandatory fields  
1002 Invalid value for TRANSACTION\_TYPE! Acceptable Value : QUERY=1  
1003 This transaction is not authorized  
1004 Error setting mandatory fields  
1005 Invalid MERCHANT\_ACC\_NO! Unable to find merchant with provided MERCHANT\_ACC\_NO.  
1006 The status of this MERCHANT\_ACC\_NO is suspended! All transactions are not allowed temporary. Please check with administrator for the status.  
1007 The status of this MERCHANT\_ACC\_NO is still pending and not yet activated. Please check with administrator for the status.  
1008 The status of this MERCHANT\_ACC\_NO is invalid! Please check the merchant setting.  
1009 The setting of this MERCHANT\_ACC\_NO does not allow the requested transaction type. Please check the merchant setting.  
1010 The setting of this MERCHANT\_ACC\_NO do not allow transaction request from this IP address. Please check the merchant allow IP setting.  
1011 Error setting mandatory fields  
1012 Invalid value for AMOUNT  
1013 Error setting mandatory fields  
1014 Error setting mandatory fields  
1015 Error setting mandatory fields  
1016 Error setting mandatory fields  
1017 Invalid value for CARD\_NO. CARD\_NO must be numeric and with valid length!  
1018 Invalid value for CARD\_EXP\_MM. CARD\_EXP\_MM must be numeric and with valid length!  
1019 Invalid value for CARD\_EXP\_YY. CARD\_EXP\_YY must be numeric and with valid length!  
1020 Invalid value for CARD\_CVC. CARD\_CVC must be numeric and with valid length!  
1021 Invalid payment method. Please call bank to check Merchant Settings.  
1022 Amount has been over transaction limit for today. Please call bank to check Merchant Settings.  
1023 Transaction not permitted through this merchant type. Please call bank to check Merchant Settings.  
1024 This transaction is not allowed to void due to transaction has already settled or status is not Sale or Captured.  
1025 Error setting mandatory fields  
1026 Invalid Card Type. The card number is not match with the card type.  
1027 Sorry, your card is expired. Please use another card.  
1028 Invalid Card Expired Month. CARD\_EXP\_MM must be from 01 to 12.  
3001 Error setting mandatory fields  
3002 Error setting mandatory fields  
3003 Error setting mandatory fields  
3004 Error setting mandatory fields  
3005 Invalid value for RESPONSE\_TYPE for non-3D transaction! Acceptable Value : HTTP  
3006 Error setting mandatory fields  
3007 Invalid value for SECURE\_SIGNATURE! Computed signature does not match one included in the request.  
3008 Invalid format for SECURE\_SIGNATURE! SECURE\_SIGNATURE must be length of 128  
3009 Unable to find the transaction record!  
3010 MERCHANT\_ACC\_NO not matched with previous submitted transaction request! To capture/query previous transaction  
3011 AMOUNT not matched with previous submitted transaction request! To capture/query previous transaction  
3012 CUSTOMER\_ID not matched with previous submitted transaction request! To capture/query previous transaction  
3013 MERCHANT\_TRANID not matched with previous submitted transaction request! To capture/query previous transaction  
3014 Insecure mode for RETURN\_URL. Please specify an URL which uses HTTPS protocol!  
3015 Insecure mode for TXN\_URL. Please specify an URL which uses HTTPS protocol!  
4001 Error setting mandatory fields  
4002 Error setting mandatory fields  
4003 Duplicate MERCHANT\_TRANID detected! Please ensure the MERCHANT\_TRANID is always unique.  
4004 Error setting mandatory fields

4005 Error setting mandatory fields for 3D transaction  
4006 Error setting mandatory fields for 3D transaction  
4007 Error setting mandatory fields for 3D transaction  
4008 Error setting mandatory fields for 3D transaction  
4009 Error setting mandatory fields for 3D transaction  
4010 Error setting mandatory fields for 3D transaction  
4011 Error setting mandatory fields for 3D transaction  
4012 Error setting mandatory fields for 3D transaction  
4013 Transaction failed to send to bank host because the merchant 3D setting is (BLOCK\_NON\_3D)  
4014 Transaction failed to send to bank host because the merchant 3D setting is (ALLOW\_ATTEMPTED\_AND\_3D)  
5001 Error setting mandatory fields for fraud risk detection  
5002 Error setting mandatory fields for fraud risk detection  
5003 Error setting mandatory fields for fraud risk detection  
5004 Error setting mandatory fields for fraud risk detection  
5005 Error setting mandatory fields for fraud risk detection  
5006 Error setting mandatory fields for fraud risk detection  
5007 Error setting mandatory fields for fraud risk detection  
5008 Transaction was blocked due to fraud level exceeded threshold limit.  
5009 Transaction was blocked due to blacklisted card detected.  
5201 Invalid payment indicator!  
5202 Mismatch number of Payment Indicator and Payment Criteria!  
5203 Invalid delimiter for Payment Indicator & Payment Criteria. Use "€" only.  
5204 Sorry, your request cannot be proceed due to the specified payment criteria was invalid or not found!  
5205 Transaction was blocked due to card range filtering based on merchant setting.  
5206 Transaction was blocked due to card range filtering by payment indicator.  
5207 Unknown card range indicator received.  
5208 Merchant not support instalment.  
5209 Merchant instalment plan not found.  
5210 Transaction amount is not within instalment allowed range.  
5211 Merchant transaction support instalment only.  
5212 Invalid merchant instalment plan format.  
5213 Invalid Promote Code.  
5214 Invalid Bin Filtering.  
5215 Promotion Exceed Maximum Usage.  
5216 No Promotion Found.  
5217 Error setting mandatory fields  
5218 Payment Link ID is empty  
5219 Sorry, the system is unable to locate the payment link transaction with the id specified.  
5220 The current payment link status is unavailable for process.  
5221 The payment link transaction has been expired.  
5222 The transaction is already been processed  
5223 Parameter length exceeds maximum length.  
5224 Instalment is not allowed.  
5225 Invalid incoming parameter name.  
5226 Not allowed to proceed void for instalment transaction.  
6001 Unable to get connection to MPI Server!  
6002 Time out occurred during communication with MPI Server!  
6003 Unable to update MPI Ref. No in system. Please try again.  
6004 There was an error occurred during 3D authentication with MPI. Please check logs for details.  
6005 Invalid message or response received from MPI. Please try again.  
6006 MPI Settings are not configured correctly. Please check MPI\_HOST and MPI\_PORT in system configuration.  
6007 Error occurred when trying to display ACS Form in web browser for 3D authentication. Please try again.  
6008 Problem occurred on MPI side  
6009 Unable to locate back transaction to update system after 3-D authentication process. Please try again.  
6010 Empty response received from MPI  
6011 MPI Code received is not allowed to proceed to process the transaction.  
6012 Transaction was aborted because 3-D authentication process is not completed.  
6013 Attempted duplicate submission of 3-D authentication result. Please try with new transaction.  
6014 MALL NAME is required for 3-D transaction. Please call bank to check Merchant Settings.  
6015 MALL URL is required for 3-D transaction. Please call bank to check Merchant Settings.  
6016 Invalid value for RESPONSE\_TYPE for 3D transaction! Acceptable Value : HTTP only  
6017 Time out occurred while waiting for ACS response.  
6018 Error formatting mandatory field for 3D transaction while generating message to bank host  
6019 Error formatting mandatory field for 3D transaction while generating message to bank host  
7001 REFUND COMPLETED

8001 This MERCHANT\_ACC\_NO is not authorized to proceed with this transaction via website! Please check the merchant setting.

8002 This MERCHANT\_ACC\_NO is not authorized to proceed with this transaction via batch upload! Please check the merchant setting.

8003 Exception while query Payment Server!

8004 Exception while checking for fraud risk!

8005 Settlement in Progress

9999 Internal Exception. Please call bank to report.

9988 Server Time Out Exception.

9977 Bank Connection Error!

9966 Reply from bank is empty/incorrect!

9967 Bank rejected transaction!

9968 Transaction Timeout.

9969 Payment Window Timeout.

9955 Error when trying to insert transaction table. Transaction ID is empty!

9933 Server interruption occurred during processing. Manual checking required. Please inform Administrator.

9935 Cancel payment by customer.

51020 DS/ACS communication error.

62030 VERes message: Unexpected VERes.

64910 PAREs message: Received TX.status value = N (Authentication fail or cancelled).

64930 PAREs message: Signature verification fail.

333317 Invalid {parameter name} : {required format} (This error code is for 3D2.0 additional parameters)

333318 Length of CARD\_HOLDER\_NAME must be at least 2.

333319 Time out occurred during communication with 3DSS Server!

333320 3DS Server returned unsuccessful response {- error details if available}

333321 {Parameter name} JSON is invalid.

333322 3D type not found in 3D type supported card scheme.

333323 Error setting mandatory fields for 3D2 transaction. MPI\_CODE must be in length of 44 and contains "-" sign

#### Card via Cybersource(Visa/MasterCard)

Error Code	Error Prefix	Description
100	SOK	Successful transaction
101	DMISSINGFIELD	Declined - The request is missing one or more fields
102	DINVALIDDATA	Declined - One or more fields in the request contains invalid data.
104	DDUPLICATE	Declined - The merchantReferenceCode sent with this authorization request matches the merchantReferenceCode of another authorization request that you sent in the last 15 minutes.
110	SPARTIALAPPROVAL	Partial amount was approved
150	ESYSTEM	Error - General system failure.
151	ETIMEOUT	Error - The request was received but there was a server timeout. This error does not include timeouts between the client and the server.
152	ETIMEOUT	Error: The request was received, but a service did not finish running in time.
154	ESYSTEM	Bad MaC key
200	DAVSNO	Soft Decline - The authorization request was approved by the issuing bank but



		flagged by Cybersource because it did not pass the Address Verification Service (AVS) check.
201	DCALL	Decline - The issuing bank has questions about the request. You do not receive an authorization code programmatically, but you might receive one verbally by calling the processor.
202	DCARDEXPIRED	Decline - Expired card. You might also receive this if the expiration date you provided does not match the date the issuing bank has on file.
203	DCARDREFUSED	Decline - General decline of the card. No other information provided by the issuing bank.
204	DCARDREFUSED	Decline - Insufficient funds in the account.
205	DCARDREFUSED	Decline - Stolen or lost card.
207	DCARDREFUSED	Decline - Issuing bank unavailable.
208	DCARDREFUSED	Decline - Inactive card or card not authorized for card-not-present transactions.
209	DCARDREFUSED	Decline - card verification number (CVN) did not match.
210	DCARDREFUSED	Decline - The card has reached the credit limit.
211	DCARDREFUSED	Decline - Invalid Card Verification Number (CVN).
220	DCHECKREFUSED	Decline - Generic Decline.
221	DCHECKREFUSED	Decline - The customer matched an entry on the processor's negative file.
222	DCHECKREFUSED	Decline - customer's account is frozen
230	DCV	Soft Decline - The authorization request was approved by the issuing bank but flagged by Cybersource because it did not pass the Card Verification Number (CVN) check.
231	DINVALIDCARD	Decline - Invalid account number
232	DINVALIDCARD	Decline - The card type is not accepted by the payment processor.
233	DINVALIDDATA	Decline - General decline by the processor.
234	DINVALIDDATA	Decline - There is a problem with your

		Cybersource merchant configuration.
235	DINVALIDDATA	Decline - The requested amount exceeds the originally authorized amount. Occurs, for example, if you try to capture an amount larger than the original authorization amount.
236	DINVALIDDATA	Decline - Processor failure.
237	DINVALIDDATA	Decline - The authorization has already been reversed.
238	DINVALIDDATA	Decline - The transaction has already been settled.
239	DINVALIDDATA	Decline - The requested transaction amount must match the previous transaction amount.
240	DINVALIDDATA	Decline - The card type sent is invalid or does not correlate with the credit card number.
241	DINVALIDDATA	Decline - The referenced request id is invalid for all follow-on transactions.
242	DNOAUTH	Decline - The request ID is invalid.
243	DINVALIDDATA	Decline - The transaction has already been settled or reversed.
246	DNOTVOIDABLE	Decline - The capture or credit is not voidable because the capture or credit information has already been submitted to your processor. Or, you requested a void for a type of transaction that cannot be voided.
247	DINVALIDDATA	Decline - You requested a credit for a capture that was previously voided.
248	DBOLETODECLINED	Decline - The boleto request was declined by your processor.
250	ETIMEOUT	Error - The request was received, but there was a timeout at the payment processor.
251	DCARDREFUSED	Decline - The Pinless Debit card's use frequency or maximum amount per use has been exceeded.
254	DINVALIDDATA	Decline - Account is prohibited from processing stand-alone refunds.
268	ETIMEOUT	Transaction Error: Unable to confirm, please contact Barclaycard help desk. Do not re-process
400	DSCORE	Soft Decline - Fraud score exceeds

		threshold.
450	DINVALIDADDRESS	Apartment number missing or not found.
451	DINVALIDADDRESS	Insufficient address information.
452	DINVALIDADDRESS	House/Box number not found on street.
453	DINVALIDADDRESS	Multiple address matches were found.
454	DINVALIDADDRESS	P.O. Box identifier not found or out of range.
455	DINVALIDADDRESS	Route service identifier not found or out of range.
456	DINVALIDADDRESS	Street name not found in Postal code.
457	DINVALIDADDRESS	Postal code not found in database.
458	DINVALIDADDRESS	Unable to verify or correct address.
459	DINVALIDADDRESS	Multiple address matches were found (international)
460	DINVALIDADDRESS	Address match not found (no reason given)
461	DINVALIDADDRESS	Unsupported character set
475	DAUTHENTICATE	The cardholder is enrolled in Payer Authentication. Please authenticate the cardholder before continuing with the transaction.
476	DAUTHENTICATIONFAILED	Encountered a Payer Authentication problem. Payer could not be authenticated.
478	DAUTHENTICATE	Strong customer authentication (SCA) is required for this transaction.
480	DREVIEW	The order is marked for review by Decision Manager
481	DREJECT	The order has been rejected by Decision Manager
490		Your aggregator or acquirer is not accepting transactions from you at this time.
491		Your aggregator or acquirer is not accepting this transaction.
520	DSETTINGS	Soft Decline - The authorization request was approved by the issuing bank but declined by Cybersource based on your Smart Authorization settings.

700	DRESTRICTED	The customer matched the Denied Parties List
701	DRESTRICTED	Export bill_country/ship_country match
702	DRESTRICTED	Export email_country match
703	DRESTRICTED	Export hostname_country/ip_country match

#### PayNet FPX Internet Banking (MY)

00 | Approved  
 03 | Invalid Merchant  
 05 | Seller Account Closed  
 09 | Transaction Pending  
 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 | Maximum Transaction Limit Exceeded  
 49 | Merchant Specific Limit Exceeded  
 50 | Invalid Seller for Merchant Specific Limit  
 51 | Insufficient Funds  
 53 | No Saving Account  
 57 | Transaction Not Permitted  
 58 | Transaction to Merchant Not Permitted  
 65 | Withdrawal Frequency Exceeded  
 70 | Invalid Serial 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  
 90 | Bank Internet Banking Unavailable  
 92 | Invalid Buyer Bank  
 96 | System Malfunction  
 98 | MAC Error  
 99 | Pending for Authorization (Applies to B2B model)  
 BB | Blocked by Bank  
 BC | Transaction Cancelled By Customer  
 DA | Invalid Application Type  
 DB | Invalid Email Format  
 DC | Invalid Maximum Frequency  
 DD | Invalid Frequency Mode  
 DE | Invalid Expiry Date  
 DF | Invalid e-Mandate Buyer Bank ID  
 FE | Internal Error

OE | Transaction Rejected As Not In FPX Operating Hours  
 OF | Transaction Timeout  
 SB | Invalid Seller Bank Code  
 XA | Invalid Source IP Address (Applicable for B2B2 model)  
 XB | Invalid Seller Exchange IP  
 XC | Seller Exchange Encryption Error  
 XE | Invalid Message  
 XF | Invalid Number of Orders  
 XI | Invalid Seller Exchange  
 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  
 XT | Invalid Transaction Type  
 XW | Seller Exchange Date Difference Exceeded  
 1A | Buyer Session Timeout at Internet Banking 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  
 1M | Internet Banking Session Timeout  
 2A | Transaction Amount Is Lower Than Minimum Limit

#### Alipay (CN)

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
99/TRADE_NOT_EXIST	Customer did not make payment/Fail onboarding

#### Razer Gold

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 Razer Gold 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.

#### UnionPay (CN)

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.

#### Boost (MY)

Error Code	Description
E0005	Invalid input value mandatory parameter missing
E0006	Message too long. Maximum length characters
E0007	Message too short. Minimum length characters
E0008	Invalid email format
E0009	Invalid date format, expected format
E0010	Invalid Double value format
E0013	Invalid msisdn format
E0016	Error occurred
E0017	Invalid value format for path variable
E0020	Merchant not found
E0021	Merchant integration info not found
E0022	Payment transaction token Expired
E0023	Merchant transaction not found
E0024	Already payment done for given payment Transaction Token
E0027	Customer wallet balance not sufficient
E0032	Validation Failure Invalid Merchant category

E0038	Minimum Bio Data [image count] not found
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GrabPay (MY/PH/SG)	
Error Code	Description
99/ Invalid transaction_id	Customer did not make payment
99/Record not found	Record not found
currency_mismatch	Currency used in this request mismatches with merchant configuration.
init_record_not_exist	The initiate payment action is not completed.
payment_not_found	Original payment is not found or not completed for the refund request.
partial_refund_not_allowed	Partial refund is not allowed for this transaction.
merchant_insufficient_balance	Merchant balance is insufficient.
exceed_payment_amount	Refund amount exceeds payment amount
no_record_found	No record found for this transaction
charging	System is processing a charge request
Refunding	System is processing a refund request
invalid_request	The request is missing a required parameter, includes an invalid value, includes a parameter more than once, or is otherwise malformed
unauthorized_client	The client is not authorized to request an authorization code using this method
Access_denied	The resource owner or authorization server denied the request
unsupported_response_type	The authorization server does not support obtaining an authorization code using this method
invalid_scope	The requested scope is invalid, unknown, or malformed
server_error	The authorization server encountered an unexpected condition that prevented it from fulfilling the request
temporarily_unavailable	The authorization server is currently unable to handle the request due to a temporary overloading or maintenance of the server.
interaction_required	The Authorization Server requires some form for end-user interaction to proceed. This error may be returned when the prompt parameter value in the Authentication Request is 'none' but cannot be completed without displaying a user interface for end-user interaction.
login_required	The Authorization Server requires end-user authentication. This error may be returned when the prompt parameter value in Authentication Request is none but cannot be completed without displaying a user interface for end-user authentication
account_selection_required	The end-user is required to select a session at the Authorization server. The end-user may be authenticated at the Authorization server with different associated accounts, but he did not select a session. This error may be returned when the 'prompt' parameter value in



	Authentication Request is 'none' but cannot be completed without displaying a user interface to prompt for a session to use
consent_required	The Authorization Server requires end-user consent. This error may be returned when the prompt parameter value in the Authentication Request is 'none' but cannot be completed without displaying user interface for end user consent.
invalid_request_uri	The request_uri in the Authorization Request returns an error or contains invalid data
invalid_request_object	The Request parameter contains an invalid Request Object
request_not_supported	The OP does not support the use of the Request parameter
request_uri_not_supported	The OP does not support the use of the request_uri parameter
registration_not_supported	The OP does not support the use of the Registration parameter
user_canceled	The user has requested to cancel the transaction.
session_expired	The session for this transaction has expired.
invalid_acr_values	An invalid acr_values parameter was passed in the generated Web URL. Please ensure that the acr_values query parameter is generated in the correct format.
invalid_token	An invalid request object was passed in the generated Web URL. Be sure to only use a request parameter that was returned in a successful Initiate Payment step.
invalid_argument	There are invalid parameters passed with the generated Web URL. Ensure that all required parameters are sent in the URL in the correct format.
mfa_not_completed	The multi-factor authentication step for the user was not successful.
transaction_not_found	A valid transaction could not be located from the specified request. Ensure that all required parameters are sent in the URL, and in the correct format.
kyc_compliance_decline	Transaction was unsuccessful due to regulatory compliance checks.
transaction_declined	Transaction was declined.
client_error	Transaction could not be completed due to an unspecified user error in the checkout flow.
insufficient_balance	Transaction could not be completed due to an insufficient balance on the user's selected payment method.
unknown	Transaction could not be processed in time. As a result, the transaction will be canceled. Users may still encounter a temporary hold of funds in their wallet.
confirm_failed	(LEGACY) A user or server error has happened in the checkout flow.

#### MAE by Maybank2U (MY)

Error Code	Description
QR098	Sorry, we could not complete your request at this time. Please try again later
QR090	Mandatory fields missing
QR091	Invalid QR ID

QR092	Invalid Terminal ID
QR122	Your account has been locked or Inactive. Please call our Customer Care Hotline at 1300 888 6688 for assistance
QR155	Invalid Transaction
401	Failed to verify OAuth information

#### Touch 'n Go eWallet (MY)

Error Code	Description	Action/Remarks
00000000/INIT	Order is not paid/Paid but unfinished	
00000000/CLOSED	Order is closed	
PAYING	Order is paid but not finish	Order is paid successfully for PAY-CONFIRM
MERCHANT_ACCEPT	Order is accepted by merchant after order is paid for PAY-CONFIRM	
CANCELLED	Order is cancelled	

#### WeChat Pay (CN & MY)

Error Code	Description	Action/Remarks
SUCCESS	Payment successful	
REFUND	Order to be refunded	
NOTPAY	Order not paid	
CLOSED	Order closed	
REVOKED	Order revoked	
USERPAYING	Awaiting user to pay	
PAYERROR	Payment failed (payment status failed to be returned by bank or other reasons)	
0000	Successful	
9994	Merchant does not support Institution or Agency mode	The Merchant ID is a direct merchant. Please check the Merchant ID
9995	Sub Merchant ID does not belong to the Merchant	Please check the Sub Merchant ID first
9996	Error Signature Algorithm	Check the sign type and for more information.
9997	Invalid Merchant ID	Invalid Merchant ID or Sub Merchant ID. Please check the ID first
9998	Error verifying signature	Check the signature process in detail

9999	System Error	Call the Query Order API to check the current order status. The Status determined which process will be taken next.
0100	Order does not exist	The order status is unknown. It is suggested to call the API once again
0101	Order does not exist	The order status is unknown. It is suggested to call the API once again
0102	Order does not match	Check the program in detail, and confirm the matching relation between Merchant's Order Number and WeChat Pay Order Number
0203	Order does not match.	Check the program in detail, and confirm the matching relation between Merchant's Order Number and WeChat Pay Order Number.
0001	Payment is in progress	Waiting for the user to enter the password/Pin on the smart phone. The Merchant's backend can check the payment result regularly
0011	Not sufficient funds	The customer's account balance is insufficient and you can suggest the customer to change the account
0012	Reached transaction limit	The current payment mode of the customer has reached transaction limit, and you can suggest the customer to change the way of payment mode
0013	Rejected due to risk assessment	The transaction has been rejected due to risk assessment by WeChat Pay automatically. You can suggest the customer to change the way of payment mode or contact the WeChat Pay Customer Service Team
0014	Reject by bank card issuer	The transaction has been rejected by bank card issuer. You can suggest the customer to change the way of payment mode or contact the card issuer
0015	Invalid QR code	It is suggested that the shop assistant can scan the QR code once again or customer reload the QR code
0201	Order does not exist.	Check the program in detail, and confirm the validity of WeChat Pay Order Number
0201	Order does not exist	Check the program in detail, and confirm the validity of Merchant's Order Number
0202	Order does not match	Check the program in detail, and confirm the matching relation between Merchant's Order Number and WeChat Pay Order Number
0203	Order does not match	Check the program in detail, and confirm the matching relation between Merchant's Order Number and WeChat Pay Order Number
0204	Incorrect order status	The order which has been paid or refunded cannot be closed
0300	Order does not exist	Check the program in detail and confirm the validity of WeChat Pay Order Number
0301	Order does not match	Check the program in detail and confirm the validity of Merchant's Order Number

0302	Order does not match	Check the program in detail and confirm the matching relation between Merchant's Order Number and WeChat Pay Order Number.
0303	Order does not match	Check the program in detail and confirm the matching relation between Merchant's Order Number and WeChat Pay Order Number.
0304	The amount of is not consistent with the original order.	Check the program in detail and confirm the validity of the original order information.
03005	Exceed the refundable amount	The total amount of refunds should not be more than the amount of payment.
03006	Incorrect order status	The unpaid or closed order cannot be refunded
0350	Error verifying Merchant certificate	Check whether the Merchant certificate used is valid
0201	Order does not exist	Check the program in detail, and confirm the validity of Merchant's Order Number.
0203	Order paid for more than 1 day cannot be revoked	Order paid for more than 1 day cannot be revoked and you can call the Refund Order API to submit a refund
0250	Error verifying Merchant certificate	Check whether the Merchant certificated used is valid
0400	Order does not match	Check the program in detail, and confirm the validity of order parameter
0401	Order does not exist	Check the program in detail, and confirm the validity of WeChat Pay Order Number or WeChat Pay Refund Number
0402	Order does not exist	Check the program in detail, and confirm the validity of Merchant's Order Number or Merchant's Refund Number
0500	Failed to download	Confirm the validity of the data parameter first

#### eNETS Debit

Error Code	Description	Action/Remarks
00000	Payment successful	Transaction is approved.
01000	Payment declined. Call Bank.	Bank has declined the transaction because customer cancelled it at the bank login page.
01001	Payment declined. Please try again.	Bank has declined the transaction with unknown reason and indicated customer to try again.
01002	Payment declined. Please contact card issuer	Customer's account has Insufficient Funds

01003	Payment declined. Please contact Merchant	Bank declined with Security Violation
01005 / 01006	Payment declined. Invalid Account	Bank has declined the transaction because customer does not have a Cheque Account
01007	Payment declined. Invalid Account	Bank has declined the transaction because customer does not have a Savings Account
01010	Payment declined. Exceeded activity/pin-retry Limit	Bank has declined the transaction with unknown reason and indicated customer to try again
01011	Payment declined. Exceeded Account Limit	Bank has declined the transaction because customer exceeded their account limit
01039	Payment declined - User Session Expired	Bank has declined the transaction because of Timeout due to customer inactivity
02001	Payment declined. Time out.	Gateway has declined the transaction because timeout on backend has occurred.
02002	Payment declined. User Session Expired.	Payment declined. User Session Expired.
02003	Payment declined. User Cancelled Txn	Payment declined. User Cancelled Txn
02200	Payment declined. Please contact card issuer	Gateway has declined the transaction because issuer/bank related problems

#### KBank\_PayPlus

Failure Code	Failure Message
99	Payment Failed
0500	Invalid Message Format
1001	No register
HOST30209	(HOST30209) The account cannot be processed. Please contact the bank branch of account.
04	Bill Expired (ER04)
KP1001	Require field not found (identify field name in error message)
KP2000	Unauthorized partner
KP9999	KBank internal error
07	Payment request cannot be sent. PromptPay account is inactive. Please contact the bank of PromptPay account.(07)
35	Payment request cannot be sent.(35)
36	Payment request cannot be sent. The owner of PromptPay account must give consent for receiving the payment request to the bank of that account .(36)

37	Payment request cannot be sent. The bank of PromptPay account does not support Request-to-Pay.(37)
40	Payment request cannot be sent.(40)
41	Payment request cannot be sent.(41)
79	Payment request cannot be sent. Please contact the bank of PromptPay account.(79)
82	Payment request cannot be sent. Please contact the bank of PromptPay account.(82)
96	Payment request cannot be sent.(96)
8018	Payment request cannot be sent.(8018)
8019	Payment request cannot be sent.(8019)
8020	Payment request cannot be sent.(8020)
8021	Payment request cannot be sent.(8021)
8022	Payment request cannot be sent.(8022)
8023	Payment request cannot be sent.(8023)
8024	Payment request cannot be sent. Please check PromptPay registration process.(8024)
8025	Payment request cannot be sent. Please check PromptPay registration process.(8025)
8026	Payment request cannot be sent. Please check PromptPay registration process.(8026)
8027	Payment request cannot be sent. Please check PromptPay registration process.(8027)
<b>KTb_IB_U</b>	
Error Code	Error Description
11	Cancel Payment by Customer
E01	Login
E02	Payment
Z01	Error caused by embedding portal
E0111	Your user ID / ATM Card No. is invalid. Please re-enter it.
E0112	Password/PIN is invalid. Please re-enter it. In case of error exceeding three times, please contact your Main Account branch.
E0113	Sorry !! Your login retries exceeded those allowed by system. Please contact branch where you signed up for service

E0115	Sorry !! Your User ID/Password retries already exceeded those allowed by system. Please contact branch where you signed
E0116	Sorry !! System not allow you to do transaction since you are blocked from using service. Please contact branch where you signed up for service.
E0117	Sorry !! Your membership record for using KTB Internet Banking not found. Please sign up for service before login.
E0120	Incorrect Company Information.
E0121	Cancel Payment by Customer.
E0122	Please kindly change your password at KTB Online on web before making this transaction
E0123	Please pay by your belonging ATM Card or Invalid ATM Card No.
E0124	You have no last 5 transactions in 30 days
E0212	Insufficient funds. Please check your A/C balance.
E0214	Sorry !! Host computer unavailable now. Please Login again later.
E0215	Sorry !! System error - unable to serve you now. Please Login again later.
E0216	Sorry !! You are not allowed to do this transaction.
E0217	Sorry !! you are not allowed to do transaction since you account has problems. Please contact branch where you signed up for service.
E0218	You are not allowed to do transaction because of invalid/incorrect amount. Please re-enter correct amount and redo transaction.
E0219	Requested transaction date is not same as Effective Date in eMCI
E0220	Your Password/PIN was invalid. Please re-enter it. If invalid more than 3 times, please contact your Main Account branch.
E0256	Sorry!! An exception while processing your request. In case of financial transaction, please checking your statement
E0257	Sorry !! Company or Company Account not found in CBS. Please contact KTB contact center.
E0258	Please pay with your student ATM card
E0259	Sorry! User is not Authorize for this action.
E0260	There is no applicable account to perform this transaction.
E0261	Please Login KTB Online to change your User ID and Password before payment.
E0262	User is not registered mobile number for receive TOP
E0263	Incorrect TOP or TOP expired Please enter correct TOP or request new TOP/
E0264	Invalid Mobile Number or Email Address. Please enter a valid mobile number or Email address
E0265	Sorry! The Bank Limit Amount Exceeded
E0266	Invalid Payment Reference

E0267	Transaction could not be processed.
E0268	Transaction is not found.
E0269	Transaction failed, please contact bank.
Z0101	Sorry !! Internal system in error, unable to serve you now. Please login again later.
Z0102	Format message to host failed, unable to process.
Z0105	Password entered was invalid. Please re-enter it.
Z0106	Account number was invalid. Please re-enter it
Z0110	Sorry !! Internet Banking Host currently unable to handle transaction. Please try again later.
Z0111	Sorry !! Currently host time out because of so many users thus slowing down host response. Please try again later.
Z0117	Invalid amount entered. Please reenter information.
Z0123	Date input length exceeded that specified. Please check it again.
Z0127	Data entered incomplete. Please check it again
Z0135	Sorry !! You already login to system and not allowed to login again since your User ID is be utilized. In case of doubt, please re-check it.
Z0137	Invalid Input field. Please check it again
Z0161	Invalid Configuration File setting.
Z0163	Session Timed out. Please logout and login again.
Z0164	Invalid Session.
Z0165	Cannot format the response page.
Z0166	Sorry !! Server down unable to serve you now. Please try again later.
Z0190	Invalid Terminal ID or Sequence No.
Z0191	Invalid Reference No.
Z0192	Invalid site name.
Z0199	Unknown Error Code, please check.

#### SCB\_IB\_U

Status	Response Code	Response Message
001*	280	Schedule Success
001*	282	Schedule Partially Success
002	001	Payment Success



003	022	INSUFFICIENT AVAILABLE BALANCE
003	023	ACCOUNT DOES NOT EXIST
005	141	Payment canceled by payer
006	001	Invalid Command
006	011	Terminal id is Required
006	012	Invalid Ref. Number or Ref. Date
006	032	Internal Error
006	098	Invalid Parameter ( payee_id )
006	098	Invalid Parameter ( cust_id )
006	098	Invalid Parameter ( ref_no )
006	098	Invalid Parameter ( currency )
006	099	Internal Error
006	122	Internal Error
006	123	Internal Error
006	131	Signon Fail
006	136	Invalid currency code
006	137	Invalid debit amount
006	138	Invalid profile ID
006	139	Internal Error
006	140	Duplicate Transaction
006*	35	Duedate is required
006*	135	Invalid Duedate(YYYYMMDD)
006*	281	Schedule failed. Please try again.
006*	283	Transaction failed
009*	284	Edit Schedule date
009*	285	Cancel Schedule transaction
010	145	Payment result questionable (time out)
Note : * for Future/Recurring use only.		
ShopeePay		

Value	Description
-2	A server dropped the connection
-1	A server error occurred
0	Success
1	Request parameters error
2	Permission denied
4	Merchant/store not found
6	The user making the payment has not activated their wallet
7	Expired
9	User's account is banned
11	Duplicate request/transaction
24	User's account is frozen
42	Insufficient balance
101	One of the user's wallet limits has been exceeded
102	One of the user's wallet limits has been exceeded
103	User exceeded daily payment limit Limit will reset the next day
104	One of the user's wallet limits has been exceeded
105	Authorisation code is invalid
121	Client attempts to update completed transaction
301	Invalid payment code or QR content
303	Merchant is trying to make payment to their own user account
304	Refund/void cannot be processed due to payment exceeding validity period
305	Merchant invalid
601	Request to refund/void a payment transaction does not meet rules
602	Request to refund/void a payment transaction is unsuccessful

DuitNow OBW

Code	Description	Status Code
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U000	Success/ Transaction Accepted	ACSP
U002	Success/ Transaction Accepted Stored in SAF	ACTC
U110	Payment Not Accepted	RJCT
U111	Minimum Amount Check Failed	RJCT
U112	Maximum Amount Check Failed	RJCT
U115	Date Sent Tolerance Check failed	RJCT
U119	Session Validation Failed	RJCT
U121	Inbound Bank Not Found	RJCT
U122	Inbound Bank Not Active	RJCT
U124	Bank Code Not found in message	RJCT
U125	Inbound Bank Id Cannot be Determined (Bank Classifier not found)	RJCT
U126	Outbound Bank Cannot be Determined	RJCT
U128	Outbound Bank Not Active	RJCT
U130	Inbound Settlement Bank not found	RJCT
U131	Outbound Settlement Bank not found	RJCT
U132	Inbound Settlement Bank Inactive	RJCT
U134	Outbound Settlement Bank Inactive	RJCT
U149	Duplicate Transaction	RJCT

# RESOURCES

## Logos of all brand name

Merchant may download the logos from <https://Fiuu.com/media-library/>  
password: RazerMerchantServices

## Mobile SDK/XDK

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

## Supported Shopping Cart

PG has been integrated with many popular shopping carts, globally. Merchant may refer the complete list on <https://github.com/FiuuPayment>  
Some payment plugins/add-on/modules can be downloaded from GitHub.

## ISO References

[http://www.iso.org/iso/country\\_codes.htm](http://www.iso.org/iso/country_codes.htm)  
[http://en.wikipedia.org/wiki/ISO\\_3166-1](http://en.wikipedia.org/wiki/ISO_3166-1)  
[http://www.iso.org/iso/currency\\_codes](http://www.iso.org/iso/currency_codes)  
[http://en.wikipedia.org/wiki/ISO\\_4217](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.