

INTERGRATION SPECIFICATION

INTERNATIONAL PAYMENT GATEWAY

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Version 2.1



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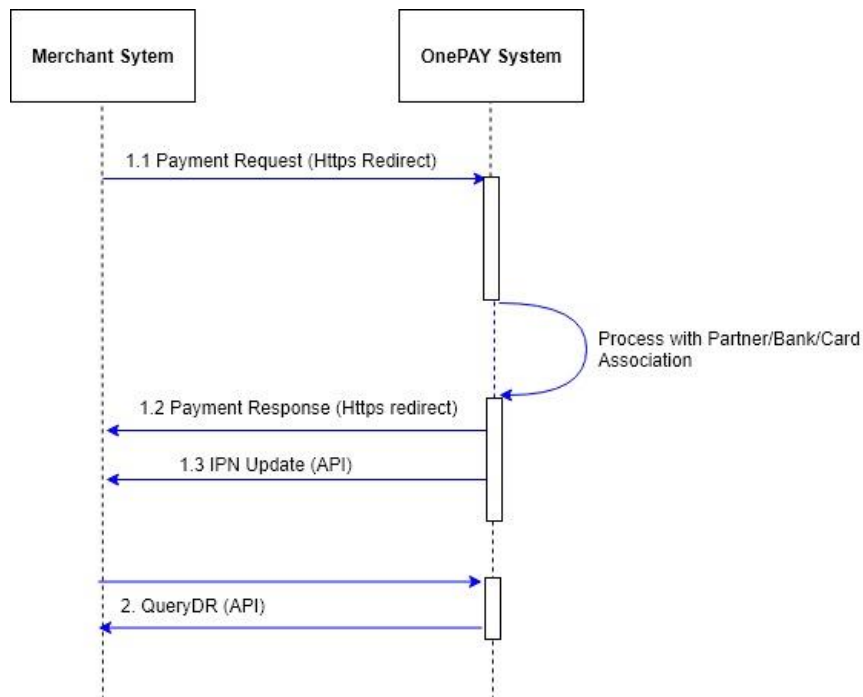
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I. OVERVIEW

- This document is used for International Credit/Debit cards.
- This document describes how to integrate merchant's website with OnePAY payment gateway.
- These information, Merchant ID, Hash code, Access code, URL are used for testing purpose only.

II. TECHNICAL DESCRIPTION

1. Transaction flow



- **Step 1 (1.1): Payment request:** Merchant sends payment request to OnePAY using https Redirect GET protocol to process transaction.
- **Step 2 (1.2) Payment response:** OnePAY will process and response the transaction result back to Merchant site using https Redirect GET. Merchant also receives the transaction result by back-end as the same with URL front-end return (https redirect). Merchant should implement IPN update (1.3)

Note:

- (2) Moreover, OnePAY also provide QueryDR function, which allow Merchant calls OnePAY to get the current transaction status.

2. Payment Request

- Payment URL structure:

[https://mtf.onepay.vn/vpcpay/vpcpay.op?\[key=value\]&\[Key=value\]&...](https://mtf.onepay.vn/vpcpay/vpcpay.op?[key=value]&[Key=value]&...) (Keys and Values are described in the table below, not required in order.)

- Keys and Values are used on Payment URL:

Keys	Values			
	Required or Optional	Data type	Length	Description
Static parameters: OnePAY Account, payment gateway parameter				
vpc_Version	M	Number	2	Module of payment gateway, default is "2"
vpc_Command	M	String	16	Payment Function, value default is "pay"
vpc_AccessCode	M	String	8	Unique value for each merchant is provided by OnePAY.
vpc_Merchant		String	12	
vpc_Locale	M	String	2	Language is used on the payment site Vietnamese: vn, English: en
vpc_ReturnURL	M	String	128	Merchant's URL Website for redirect response
Website's parameters which have active value: Price, Order ID, ...				
vpc_MerchTxnRef	M	String	40	A unique value is created by merchant then send to OnePAY.
vpc_OrderInfo	M	String	34	Order information, it could be an order number or brief description of order
vpc_Amount	M	String	12	The amount of the transaction, this value does not have decimal comma. Add "00" before redirect to payment gateway. If transaction amount is VND 25,000 then the amount is 2500000
vpc_TicketNo	M	String	15	IP address of customer – Do not set a fixed IP
AgainLink	M	String	64	The link of website before redirecting to OnePAY.
Title	M	String	64	Title of payment gateway is shown on the cardholder's browser
Parameter encryption string, encrypted from above parameters				
vpc_SecureHash	M	String	64	Hash encryption is for merchant to authenticate and ensure data integrity.
Customer info - Optional				
vpc_Customer_Phone	O	String	16	Customer's phone
vpc_Customer_Email	O	String	24	Customer's email
vpc_Customer_Id	O	String	64	Customer's Id

Notes:

- M: Mandatory
- O: Optional
- Value of parameters using Vietnamese fonts and special **characters** are not accepted.

3. Payment Response

- Payment Response URL structure:
[vpc_ReturnURL]?[key=value]&[key=value]&... (keys and values are described in the table below, not required in order)
- Keys and Values are used in Payment Response URL:

Key	Value		
	Data type	Length	Description
vpc_Command	String	3	The value of the vpc_Command from DO that is returned in the DR
vpc_Locale	String	2-5	Language is used on the payment site Vietnamese: vn, English: en
vpc_CurrencyCode	String	3	Payment currency, default is VND
vpc_MerchTxnRef	String	1-40	The value of the vpc_MerchTxnRef from DO that is returned in the DR
vpc_Merchant	String	1-12	The value of the vpc_Merchant from DO that is returned in the DR
vpc_OrderInfo	String	1-34	The value of the vpc_OrderInfo from DO that is returned in the DR
vpc_Amount	String	1-12	The value of the vpc_Amount from DO that is returned in the DR
vpc_TxnResponseCode	String	2	A response code that is generated by the Payment Server to indicate the status of the transaction. Value is "0" indicates that the transaction was processed successfully. Any other value indicates that the transaction was delined. For a list of values, see Response code table.
vpc_TransactionNo	String	1-12	A unique number generated by payment gateway for each transaction. It is saved on payment gateway as mapping to allow users doing function as refund or capture. This information is used in Merchant portal as a reference to perform refund or capture transaction
vcp_Message	String	1-200	Indicate transaction error maybe available when making payment
vpc_AcqResponseCode	String	2	Acquirer Response code
vpc_Authorizeld	String	12	A code generated by Acquirer Bank to accept or reject transaction.

vpc_Card	String	2	Cards type: VC, MC, JC, AE
vpc_CardNum	String	15-19	First 6-digit number and last 3 digits number of cards. Default is not response back.
vpc_3DSECI	String	2	3D Secure program registration of cardholder. 05-participation, 06-no participation
vpc_3Dsenrolled	String	1	This Field is determined cardholder's 3D-Secure enrolled or not. Y-Yes, N-No, U-Unknown
vpc_3Dsstatus	String	1	This Field is determined 3DS apply or not: Y-Yes, N-No, A- Attempted, U-Unavailable.
vpc_CommercialCard	String	3	Indicate if Commercial card or not.
vpc_SecureHash	String	64	This value allows merchant to check whether Payment Response is valid or not.

A transaction is successful if 2 conditions are correct

- vpc_TxnResponseCode Response = 0 and
- Secure hash is valid (hash validate)

In case of vpc_TxnResponseCode <> 0: refers to response code table to show message detail to customer.

Parameters in this table is not all parameters returned.

4. QueryDR API

- Using this function to call OnePAY after 15 minutes since Merchant sent payment request
- Using redirect, type GET
- URL Query of test system: <https://mtf.onepay.vn/vpcpay/Vpcdps.op>

4.1. Request

Key	Value			
	Requirement	Value type	Length	Description
vpc_Command	M	String	16	Default is "queryDR"
vpc_Version	M	String	2	Default is 1
vpc_MerchTxnRef	M	String	34	Value of vpc_MerchTxnRef send to OnePAY
vpc_Merchant	M	String	12	Unique value for each merchant, which are provided by OnePAY
vpc_AccessCode	M	String	8	
vpc_User	M	String	32	User OnePAY issued with account
vpc_Password	M	String	50	Password OnePAY issued with account
vpc_SecureHash	M	String	64	Secure Hash value

4.2. Response

Key	Value		
	Value type	Length	Description
vpc_DRExists	String	1	Confirm whether transaction is existed or not ✓ N: Transactions not exist ✓ Y: Exist transaction
vpc_TxnResponseCode	String	3	Response code, confirm whether transaction is successful or not ✓ 0: Successful transaction ✓ <> 0: Unsuccessful transaction

5. IPN Update API (IPN-Instant Payment Notification)

- Merchant creates a Webservice which has function as transferred URL in vpc_ReturnURL. This Webservice is called by OnePAY gateway to update transaction status
- Protocol: GET through URL

5.1. Parameter when OnePAY calls IPN Update:

- Similar to Payment Response parameter, type Key=Value&Key=Value&...

5.2. Parameter responses to OnePAY when calls IPN Update:

- Parameter responses responsecode=1&desc=confirm-success
 - o Responsecode = 1: received
 - o Responsecode = 0: received and invalid hash

III. TEST ENVIRONMENT INFORMATION AND REFERENCE

1. How to check SecureHash (vpc_SecureHash)

- Format: Hexa value UPPERCASE, 64 digits.
- Use encryption parameter HMAC-SHA256 (parameter string, key)

Rules of creating SecureHash:

- Beginning with “?” mark after Payment URL or Return URL
- Parameter have prefix “vpc_”
- Parameter is sorted in **alphabetical order**.
- Key used for Hash is hexa string which provided by OnePAY for each Merchant ID (Hash code or SECURE_SECRET)

How to check response from OnePAY:

- Create Hash string as above rules then compare with vpc_SecureHash in response.

2. Test environment information

- Merchant ID (vpc_Merchant): TESTONEPAY
- Access code (vpc_AccessCode): 6BEB2546
- Hash Key: 6D0870CDE5F24F34F3915FB0045120DB
- Card information:

Card Type	Card Number	Date (MM/YY)	CVV
Master Card	5313581000123430	05/21	123
Visa	4000000000000002	05/21	123

3. Response Code table (vpc_TxnResponseCode)

RC	Response code description – English/Vietnamese	
0	Transaction is successful	Giao dịch thành công
1	The transaction is unsuccessful. This transaction has been declined by issuer bank or card have been not registered online payment services. Please contact your bank for further clarification.	Giao dịch không thành công, Ngân hàng phát hành thẻ không cấp phép cho giao dịch hoặc thẻ chưa được kích hoạt dịch vụ thanh toán trên Internet. Vui lòng liên hệ ngân hàng theo số điện thoại sau mặt thẻ được hỗ trợ chi tiết.
2	The transaction is unsuccessful. This transaction has been declined by issuer bank. Please contact your bank for further clarification.	Giao dịch không thành công, Ngân hàng phát hành thẻ từ chối cấp phép cho giao dịch. Vui lòng liên hệ ngân hàng theo số điện thoại sau mặt thẻ để biết chính xác nguyên nhân Ngân hàng từ chối.
3	The transaction is unsuccessful. OnePAY did not received payment result from Issuer bank. Please contact your bank for details and try again.	Giao dịch không thành công, Cổng thanh toán không nhận được kết quả trả về từ ngân hàng phát hành thẻ. Vui lòng liên hệ với ngân hàng theo số điện thoại sau mặt thẻ để biết chính xác trạng thái giao dịch và thực hiện thanh toán lại
4	The transaction is unsuccessful. Your card is expired or You have entered incorrect expired date. Please check and try again.	Giao dịch không thành công do thẻ hết hạn sử dụng hoặc nhập sai thông tin tháng/ năm hết hạn của thẻ. Vui lòng kiểm tra lại thông tin và thanh toán lại
5	The transaction is unsuccessful. This transaction cannot be processed due to insufficient funds. Please try another card.	Giao dịch không thành công, Thẻ không đủ hạn mức hoặc tài khoản không đủ số dư để thanh toán. Vui lòng kiểm tra lại thông tin và thanh toán lại
6	The transaction is unsuccessful. An error was encountered while processing your transaction. Please contact your bank for further clarification.	Giao dịch không thành công, Quá trình xử lý giao dịch phát sinh lỗi từ ngân hàng phát hành thẻ. Vui lòng liên hệ ngân hàng theo số điện thoại sau mặt thẻ được hỗ trợ chi tiết.
7	The transaction is unsuccessful.	Giao dịch không thành công,

	An error was encountered while processing your transaction. Please contact your bank for further clarification.	Đã có lỗi phát sinh trong quá trình xử lý giao dịch. Vui lòng thực hiện thanh toán lại.
8	The transaction is unsuccessful. Ecommerce transaction is not supported for this card. Please contact your issuer bank or try another card.	Giao dịch không thành công, Ngân hàng phát hành thẻ không hỗ trợ giao dịch thanh toán trên Internet. Vui lòng sử dụng thẻ của Ngân hàng khác để thực hiện thanh toán.
9	The transaction is unsuccessful. This transaction has been declined by issuer bank. Please contact your bank for further clarification.	Giao dịch không thành công, Ngân hàng phát hành thẻ từ chối giao dịch. Vui lòng liên hệ ngân hàng theo số điện thoại sau mặt thẻ được hỗ trợ chi tiết.
99	The transaction is unsuccessful. The transaction has been cancelled by card holder. Please try again.	Giao dịch không thành công do người dùng hủy giao dịch
B	The transaction is unsuccessful. The card used in this transaction is not authorized 3D-Secure complete. Please contact your bank for further clarification.	Giao dịch không thành công do không xác thực được 3D-Secure. Vui lòng liên hệ ngân hàng theo số điện thoại sau mặt thẻ được hỗ trợ chi tiết.
E	The transaction is unsuccessful. You have entered wrong CSC or Issuer Bank declined transaction. Please contact your bank for further clarification.	Giao dịch không thành công do nhập sai CSC (Card Security Card) hoặc ngân hàng từ chối cấp phép cho giao dịch. Vui lòng liên hệ ngân hàng theo số điện thoại sau mặt thẻ được hỗ trợ chi tiết.
F	The transaction is unsuccessful. Due to 3D Secure Authentication Failed. Please contact your bank for further clarification.	Giao dịch không thành công do không xác thực được 3D-Secure. Vui lòng liên hệ ngân hàng theo số điện thoại sau mặt thẻ được hỗ trợ chi tiết.
Z	The transaction is unsuccessful. Transaction restricted due to OFD's policies. Please contact OnePAY for details (Hotline 1900 633 927)	Giao dịch không thành công do vi phạm quy định của hệ thống. Vui lòng liên hệ với OnePAY để được hỗ trợ (Hotline: 1900 633 927)
Other	The transaction is unsuccessful. Please contact OnePAY for details (Hotline 1900 633 927)	Giao dịch không thành công. Vui lòng liên hệ với OnePAY để được hỗ trợ (Hotline: 1900 633 927)

4. Abbreviations of the Document

No	Abbreviations	Description
1	OnePAY	OnePAY payment gateway
2	Bank	Card/Bank Account management system and transaction processing
3	Merchant	Merchant/website/applications accepts online payment
4	URL	Uniform Resource Locator, link to website
5	OTP	One-time password generated by issuer bank system then sent to customer mobile by SMS to confirm the transaction.

6	CVV	Card Verification Value: Verification code located behind the card surface
7	SSL	Secure Sockets Layer: Protocol to encrypt and secure information transmitted through the Internet