O'Pay Electronic Payment Co., Ltd.

O'Pay All-In-One Payment Services API Specification

V 1.2.31

2023-08-22

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Version History:

	n History:	
Version	Date	Content
V1.0.0	2013/09/13	Create
V1.0.1	2013/09/18	Remove credit card parameters and add parameter descriptions.
V1.0.2	2013/10/08	Add/delete payment methods.
V1.0.3	2013/10/18	Modify the description of checksum mechanism
V1.0.4	2013/11/07	Add parameters related to installment payment of credit card transactions
V1.0.5	2013/11/20	Add parameter [OrderResultURL] for client (so that O'Pay can return payment result to the URL designated by the merchant)
V1.0.6	2013/11/26	Revise payment method list.
V1.0.7	2013/11/26	Add information related to interface testing in preliminary preparation.
V1.0.8	2013/12/16	Add parameter [PaymentInfoURL] for payment method as [ATM], [CVS], or [BARCODE], server can reply information related to payment. Add [ATM], [CVS] or [BARCODE] number retrieval reply format.
V1.0.9	2013/12/19	When creating an order, add the parameter [NeedExtraPaidInfo]. When set to Y, the
V1.1.0	2014/01/21	payment result notification and order inquiry can have additional returned parameters. Add parameter [ALL] in payment method
V1.1.1	2014/02/05	Add parameter [DeviceSource] in "Create Order" API.
V1.1.2	2014/02/10	Add parameter [UnionPay] for credit card payment.
V1.1.3	2014/03/10	Add Payment Method Response List.
V1.1.4	2014/03/28	Add refund API.
V1.1.5	2014/05/12	Add parameter [ClientRedirectURL]: when selecting payment as ATM, CVS or BARCODE, details of payment can be directed to the URL set to this parameter.
V1.1.6	2014/05/22	Add the API: obtaining the checksum.
V1.1.7	2014/05/27	Add parameter [IgnorePayment]: when selecting [ALL], setting [IgnorePayment] will not display other payments.
V1.1.8	2014/07/28	Add parameter [PlatformID] for cooperation with platform merchant.
V1.1.9	2014/09/15	Add new API for inquiring order of periodic fixed-amount purchase by credit card.
V1.1.10	2014/10/15	Add error code of e-wallet when using E-SUN bank.
V1.1.11	2014/10/24	Add payment sub-method for ATM when choosing E-SUN bank.
V1.1.12	2014/10/27	Add parameter for using English interfacing route when creating order and choosing credit card for payment.
V1.1.14	2014/11/14	Add parameter of charge fee for platform.
V1.1.15	2015/01/30	Add parameters related to electronic invoice in "Create Order" API.
V1.1.16	2015/02/02	Add parameter [HoldTradeAMT] in "Create Order" API.
V1.1.17	2015/02/02	Add Disbursement and Refund API for merchant.
V1.1.18	2015/02/02	Add parameters related to binding O'Pay's account to merchants' in "Create Order" API.
V1.1.19	2015/03/09	Add "Downloading Merchant Balance Statement" API
V1.1.20	2015/04/20	Add payment deadline parameter when payment method as CVS and BARCODE
V1.1.21	2015/05/12	Add parameter [EncryptType]
V1.1.22	2015/05/15	Revise transaction process and description. Revise description of parameter [CarruerNum] and [DelayDay].
V1.1.23	2015/05/28	Remove payment sub-method for ATM when choosing E-SUN bank.
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Version	Date	Content	
V1.1.24	2015/06/04	Remove parameter [PlatformChargeFee] in "Create Order" API.	
V1.1.25	2015/06/17	Revise error in documentation, description of Checksum Mechanism, and add URLEncode Conversion Table.	
V1.1.26	2015/06/29	Add description in "Merchant Disbursement" and "Refund" API.	
V1.1.27	2015/07/30	Update API of "inquiring order of periodic fixed-amount purchase by credit card".	
V1.1.28	2015/11/23	Add example for Checksum Mechanism of PHP URL-Encode function.	
V1.1.29	2015/11/30	Delete parameters related to binding O'Pay's account to merchants' in "Create Order" API.	
V1.1.30	2016/01/27	Add promotional discount function for members. Update following API: "Create Order", "Payment Result Notification", and "Order Search".	
V1.1.31	2016/02/23	Correct errors in document and adjust format.	
V1.1.32	2016/03/22	Add parameter [PayAmt] for payment as ATM, CVS or BARCODE in the API of "ATM and CVS Code Retrieval Notification".	
V1.1.33	2016/03/30	Remove API related to AliPay.	
V1.1.34	2016/04/01	Adjust the content returned of parameter [TradeStatus] in "Order Search" API. Adjust Inquiring transaction information through admin website.	
V1.1.35	2016/05/26	Remove API related to "E-SUN Bank Payment e-wallet".	
V1.1.36	2016/06/16	Add API for inquiring single order of credit card payment.	
V1.1.37	2016/07/21	Adjust description of Checksum Mechanism.	
V1.1.38	2016/07/22	Add example of how to obtain checksum.	
V1.1.39	2016/08/17	Remove BARCODE payment.	
V1.1.40	2016/08/30	Adjust the descrption for refund and cancellation of credit card.	
V1.1.41	2016/09/06	Add chapter 16 "Downloading the Credit Card Disbursement Balance Statement File" API	
V1.1.42	2016/09/14	Add the following parameters: [credit card authorization order number], [the last four digit of credit card number] and [promotion discount amount] in "Downloading Merchant Balance Statement" API.	
V1.1.43	2016/09/20	Adjust description of firewall description in special note in preliminary preparation.	
V1.1.44	2016/10/04	Add testing username and password for buyer in Stage (in preliminary preparation).	
V1.1.45	2016/10/05	Remove the parameter [Language] when payment is credit card in "Create Order" API. Remove the description of [UnionPay] of credit card payment (due to the Law of Electronic Payment).	
V1.1.46	2016/10/07	Add TAISHIN Bank to payment method of [ATM] and Mega Bank and TAISHIN Bank to [WebATM] (on the basis of the Law of Electronic Payment).	
V1.1.47	2016/10/12	Enhance the description of credit card installment.	
V1.1.48	2016/10/17	Adjust the description of the rule for refund of credit card payment according to the Law of Electronic Payment.	
V1.1.49	2016/10/27	Remove member's name and phone number in "Refund Notification" and "Merchant Disbursement" API.	
V1.1.50	2016/11/03	Add the example for the parameter in "Payment Results Notification" API.	
V1.1.51	2016/11/10	Add special note in [ChoosePayment] in "Create Order" API: the payment [WebATM] cannot be used on mobile.	
V1.1.52	2016/12/19	Add description related to [PlatformID] in preliminary preparation.	
V1.1.53	2017/03/13	Adjust the description for using credit card as a payment.	
V1.1.54	2017/03/20	Adjust the format of documentation.	
V1.1.55	2017/04/17	Add the parameter [StoreID] and renew the following API: "Create Order", "ATM and CVS Code Retrieval Notification", "Payment Results Notification", and "Order Search".	

Version	Date	Content
V1.2.00	2017/04/28	Change the logo and English name of the company (O'Pay).
V1.2.01	2017/05/15	Optimize parameter [AllocateStatus] and the description of preliminary preparation.
V1.2.02	2017/06/01	Optimize following parameters: [NotifyURL], [QRCode_Left], [QRCode_Right], [CarruerNum]
V1.2.03	2017/06/05	Optimize special note for parameters related to issuing invoice, redund, [InvoiceItemTaxType], [CarruerNum]. Adjust payment methods [ATM], [WEBATM].
V1.2.04	2017/06/15	Adjust the parameter of credit card installment.
V1.2.05	2017/06/28	Remove credit card [InstallmentAmount] parameter.
V1.2.06	2017/06/29	Optimize the description of [DeviceSource]. Add the value of [APP] into parameter[DeviceSource].
V1.2.07	2017/07/10	Optimize the content of "Credit card settlement/refund/cancel/forfeit" API. Add returned parameter of Downloading Merchant Balance Statement. Adjust the description of the parameter in "Additional Parameter Returns" API.
V1.2.08	2017/07/31	Optimize the description of parameter [PaymentInfoURL], [PeriodReturnURL] and [RtnMsg] in "ATM and CVS Code Retrieval Notification" API.
V1.2.09	2017/08/24	Adjust the description of parameter [Print], [Donation] and [CarruerType].
V1.2.10	2017/09/01	Remove [TenPay]. Add [AccountLink].
V1.2.11	2017/10/13	Remove the interfacing path (Stage) in Refund Notification.
V1.2.12	2017/11/10	Adjust the description of [CarruerType].
V1.2.13	2017/11/17	Adjust descriptiom of [LoveCode].
V1.2.14	2017/11/30	Adjust domain name in the document (.allpay.com.tw ->.opay.tw) Add the value of [WeiXinpay] to parameter [ChoosePayment] in "Create Order" API. Remove repeated parameter in the document ([TenpayTradeNo]) in "Additional Parameter Returns" API, and add new parameters [TenpayTradeNo] and [WeiXinpayTradeNo] in "Additional Parameter Returns" API.
V1.2.15	2017/12/07	Adjust the parameter [Donation].
V1.2.16	2017/12/27	Add reminder into Overview (add the link to Green World's official website)
V1.2.17	2017/12/28	Adjust the description of [ItemName].
V1.2.18	2018/01/25	Corret the error of parameters related to WeiXinPay in this document (V1.2.14).
V1.2.19	2018/01/29	Add special note in [ChoosePayment]. Adjust interfacing path to V5 in "Create Order"and "Order Search" API. Remove [AccountLink] in Appendix 4.
V1.2.20	2018/02/02	Adjsut [Donation] in "Create Order" API. Adjust special note in "Downloading Merchant Balance Statement" and "Downloading the Credit Card Disbursement Balance Statement File" API.
V1.2.21	2018/02/26	Enhance special note for [WeiXinopay] in "Create Order" API. Revise format in the document. Optimize special note in preliminary preparation.
V1.2.22	2018/03/03	Add new special note in preliminary preparation.
V1.2.23	2018/03/22	Revise the description regarding WeiXinpay in change history of V1.2.19 and V1.2.21 in this document. Add new special note regarding WeiXinpay in "Create Order" and "OrderSearch" API. Revise the description of [ChoosePayment] regarding WeiXinpay. Revise the description of scenario in "Refund Notification" API.
V1.2.24	2018/04/02	Revise the description of refunding in special note in Refund Notification API.
V1.2.25	2018/04/30	Enhance the description of refunding in special note in Refund Notification API.

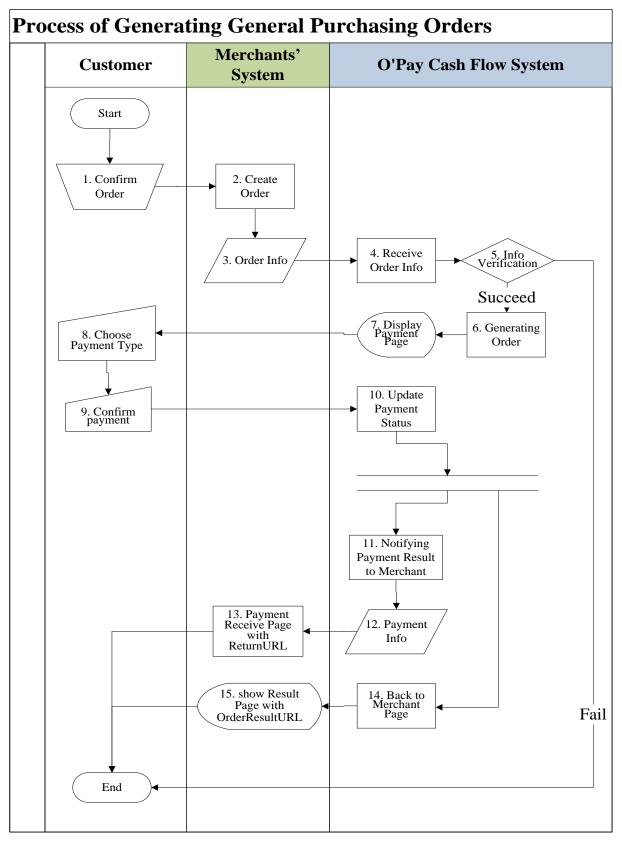
Version	Date	Content
V1.2.26	2018/06/22	Revise the name of parameter [LoveCode] (in Chinese).
V1.2.27	2018/09/13	Revise [ClearanceMark] description
V1.2.28	2018/11/02	Adjust description of [ItemName] in "Create Order"API.
V1.2.29	2019/01/07	Remove contents related to E-invoice.
V1.2.30	2019/01/24	Adjust description of [ItemName] in "Create Order"API.
V1.2.31	2023/08/22	Adjust testing username and password for buyer in Stage (in preliminary preparation).

1. Overview

O'Pay Electronic Payment Co., Ltd. (hereinafter referred to as "O'Pay") provides contracted stores (hereinafter referred to as "merchant") with a comprehensive application programming interfacing (API) technology for more convenient transaction, which offers a variety of methods for merchants to receive payment and for customers to pay for their purchase, such as credit cards, WebATM, ATM(cash machines/cashpoints), reference numbers (using a reference number to pay purchase at convenience store chains), AccountLink (connect users' O'Pay's account to personal bank account) and e-wallet. This article mainly describes the API specifications for each payment or receiving payment method, as well as when and how to use the various transaction APIs.

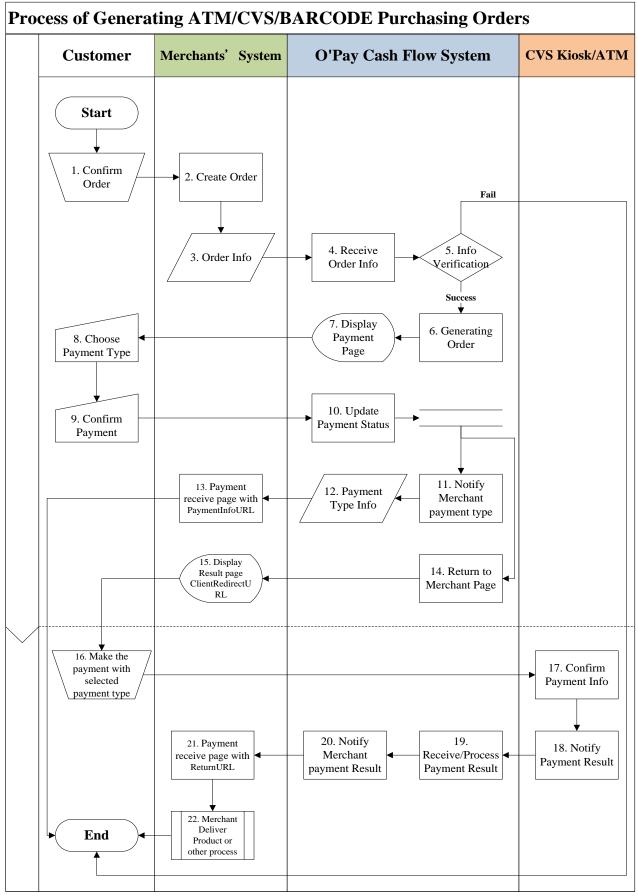
※ Reminder: if you do not have the need to use O'Pay e-wallet function and require only other cash flow services (e.g. "credit card", "paying reference number at convenience store") please have a look of the <u>cash flow interfacing</u> services from our another payment processing company "Green Wrold FinTech Service Co., Ltd." (We both belong to the same group).

2. Transaction Process



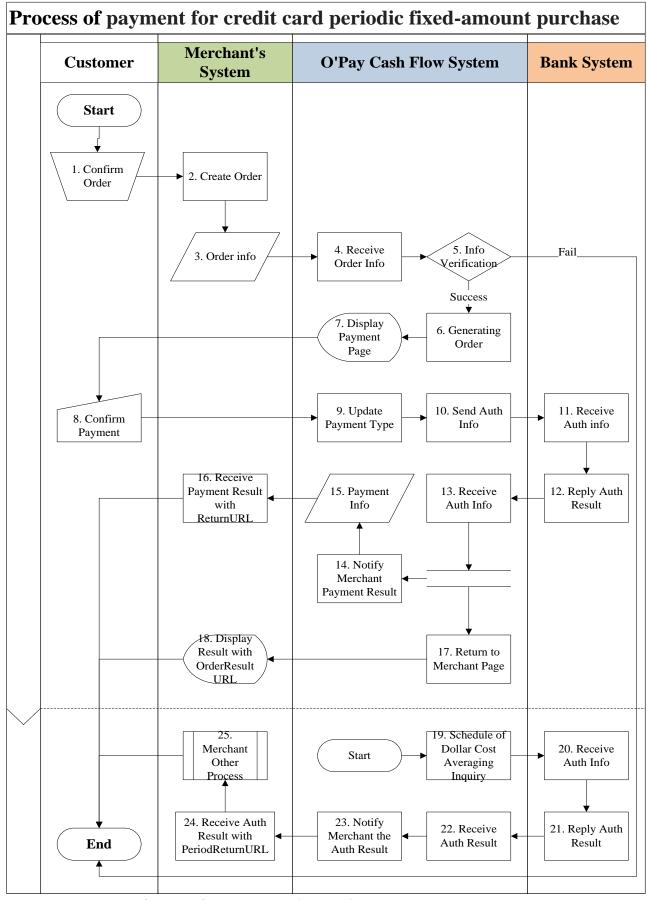
[Figure 2-1] Merchant and O'Pay Interfacing Sequence Diagram

Role	When	Process name	Process details
Customers		Purchase confirmed	Customer makes purchase with merchant
Merchant	After purchase	Order created	The merchant receives the request and creates order.
Merchant		Transmit order	Transmit the order details to O'Pay, API (AioCheckOut) begins payment process
O'Pay		Receive order	Receive and analyze the order details transmitted by the merchant.
O'Pay		Check details	Check the correctness of the order data. If it is correct, enter the next payment stage. If it is incorrect, stop payment and return error information.
O'Pay		Create order	Once the order details are confirmed to be correct, the order is created on O'Pay.
O'Pay		Display payment page	Display available payment methods according to the payment method parameters transmitted by the merchant.
Customers		Choose payment method	The customer selects a payment method. Selecting a payment method is not required if it is already specified in the order details [ChoosePayment].
Customers		Confirm payment	Customer pays
O'Pay		Update payment status	After the customer pays, update the order's payment status.
O'Pay		Notify merchant payment results in background	O'Pay will notify the merchant in the background (Server POST) once it confirms that payment is complete.
O'Pay		Payment details	Payment completion information is sent to the merchant through the return URL [ReturnURL] set in the order details.
Merchant	Upon receiving payment notification	Background (Server POST) receives payment results	The merchant receives and analyzes the Payment Results Notification information transmitted by O'Pay, and updates the order payment status.
O'Pay		Return to merchant page	After the background process (Server POST) has sent the order payment status, the foreground (webpage) is redirected to the payment result URL [OrderResultURL] specified in the order details. If the payment result URL [OrderResultURL] parameter has no value, it will be directed to the O'Pay's payment results page. The payment results page displayed by O'Pay can display a "Back to Merchant" Button, under the the condition that a value has been entered in the return to merchant URL [ClientBackURL] in the order details.
Merchant		Display order results	After receiving the redirect request from O'Pay, the merchant will display the payment results page so that the customer knows that the transaction has been completed.



[Figure 2-2] Merchant and O'Pay Interfacing Sequence Diagram

Role	When	Process name	Process details
Customers		Purchase confirmed	Customer confirms purchase
Merchant	After	Order created	The merchant receives the request and creates order.
35 3	purchase	0.1.1.2	
Merchant		Order details Receive order details	Begin payment via API (<u>AioCheckOut</u>) once order is created.
O'Pay			O'Pay receives and analyzes the order details transmitted by the merchant.
O'Pay			Check the correctness of the order details, if the data is abnormal,
			then payment is stopped, otherwise the transaction enters the next processing stage.
O'Pay		Order created	Once the order details are confirmed to be correct, create an order.
O'Pay		Display payment page	After the order is created, available payment methods are displayed according to the payment method in the order details.
Customers		Choose payment	The customer selects a payment method.
		method	Selecting a payment method is not required if it is already specified in the order details [ChoosePayment].
Customers		Confirm payment	Customer pays
O'Pay		method Update payment	Confirm and update payment method depending on the customer's
Oray		method	payment method.
O'Pay		Notify the merchant the	Notify the merchant the payment method in the background once
·		payment method in the background	the customer's payment is confirmed.
O'Pay		Payment method	O'Pay will send information like customer payment method and
		details	payment information to the merchant through [PaymentInfoURL] according to the return URL set in the order details.
Merchant	After creating	Receive payment	The merchant receives and analyzes the payment method and
	a virtual	method details in the	payment information transmitted by O'Pay.
	account	background	
O'Pay		Return to merchant	After O'Pay has informed the merchant the customer's payment
		page	method and payment information in the background, it will redirect to the payment information notification URL
			[ClientRedirectURL] set in the order details in the foreground.
Merchant		Display order results	When the merchant receives O'Pay's direction request, it will
			show a results pages like payment information inform the
			customer of the payment information related to the order and
Customers		Pay according to	proceed with payment. Customers will complete payment according to the payment
Customers		payment method	method displayed in the payment information.
		1 7	1 3 1 3
Bank/Conven	After payment	Confirm payment	After the customer has paid, the bank/convenience store will
ience store		details	receive the customer's payment information, confirm, and update
Bank/Conven		Notify payment results	payment status. The bank/convenience store will notify O'Pay in the background.
ience store		in the background	The bank convenience store win notify of ray in the background.
O'Pay		Receive/process	O'Pay receives and analyzes the payment information transmitted
		payment results in the background	by the bank
O'Pay		Notify merchant	O'Pay will send the payment completion information to the return
		payment results in the	URL [ReturnURL] set in the order details.
		background	
Merchant	Upon	Background (Server	The merchant receives and analyzes the payment information
	receiving payment	POST) receives payment results	transmitted by O'Pay, and updates the order payment status.
	notification	payment results	
Merchant		Ship merchandise	Merchant ships merchandise or other merchant processing.
		and/or other merchant	
		processing	



[Figure 2-3] Merchant and O'Pay Interfacing Sequence Diagram

Role	When	Process name	Process details
Customers	Wileii	2. Purchase	Customer confirms purchase
		confirmed	The state of the s
Merchant	After purchase	3. Order created	The merchant receives the request and creates order.
Merchant		4. Order details	Begin payment via (<u>AioCheckOut</u>) API with order details once order is created.
O'Pay		5. Receive order details	O'Pay receives and analyzes the order details transmitted by the merchant.
O'Pay		6. Check details	Check the correctness of the order details, if the data is abnormal, then payment is stopped, otherwise the transaction enters the next processing stage.
O'Pay		7. Order created	Once the order details are confirmed to be correct, the order is created on O'Pay.
O'Pay		8. Display payment page	After the order is created, O'Pay will display the available payment methods according to the payment method.
Customers		9. Confirm payment	Customer enters credit card information to pay.
O'Pay		10. Update payment method	O'Pay will confirm and update payment method according to the payment method.
O'Pay		11. Transmit authorization data	Transmit customer's credit card information, such as card number, CVV, and expiration date to the bank in the background
Bank		12. Receive authorization data	The bank receives and analyzes the authorization data transmitted by O'Pay
Bank		13. Return authorization results	The bank will notify O'Pay the authorization results in the background
O'Pay		14. Receive authorization results	O'Pay receives and analyzes the authorization results information transmitted by the bank
O'Pay		15. Notify merchant payment results in the background	O'Pay will notify the merchant in the background once payment is confirmed
O'Pay		16. Payment details	O'Pay will send the customer's payment completion data to the return URL [ReturnURL] set in the order details.
Merchant	After authorizati on is complete,	17. receive payment results in the background (Server POST)	The merchant receives and analyzes payment information transmitted by O'Pay, and updates the order payment status.
O'Pay		18. Return to merchant page	After O'Pay has informed the merchant of the order's payment status in the background (Server POST), it will redirect to the payment information notification URL [OrderResultURL] set in the order details. If the payment result URL [OrderResultURL] parameter has no value, it will be directed to the O'Pay's payment results page. The payment results page displayed by O'Pay can display a "Back to Merchant"Button, under the the condition that a value had been entered in the return to merchant URL [ClientBackURL] in the order details.
Merchant		19. Display order results	After receiving the redirect request from O'Pay, the merchant will display the payment results page so that the customer knows that the transaction has been completed.
O'Pay		20. Periodic Fixed-Amount Purchase Authorization Schedule	O'Pay will schedule authorizations for periodic fixed-amount purchases at designated times according to the purchase period, frequency, and number of purchases set by the customer. O'Pay will also transmit the customer's credit card information such as the card number, CVV, and expiration date to the bank in the background.
Bank		21. Receive authorization data	The bank receives and analyzes the authorization data transmitted by O'Pay
Bank		22. Return authorization	The bank will notify O'Pay the authorization results in the background

		results	
O'Pay		23. Receive	O'Pay receives and analyzes the authorization results information
		authorization	transmitted by the bank
		results	
O'Pay		24. Notify merchant	Once the order's authorization is confirmed to be successful,
		authorization	O'Pay will send the information in the background to the
		results in the	merchant using the return URL [PeriodReturnURL] set by the
		background	merchant.
Merchant	After	25. receive	The merchant receives and analyzes payment information
	authorizati	authorization	transmitted by O'Pay, and updates the order payment status.
	on is	results in	
	complete,	background	
Merchant		26. Other merchant	Other merchant operations
		processing	

3. Preliminary Preparation

Information related to interface testing:

Please use the following information on Stage

Special Note:

- (1) The following information is for Stage. Do not use it on Production in case it may not interface correctly.
- (2) When changing to Production, please replace the following information with the formal information that merchants have.

 Please click here to obtain a Production key.

The user login information for testing (signing in as a merchant)

Description	Merchant	PlatformID
Merchant ID (MerchantID)	2000132	2012441
User name / password for merchant login on admin website for vendors	StageTest/test1234 stagetest2/test1234	
Admin website for merchants (Stage)	https://vendor-stage.opay.tw/ This website can provide: 1. inquiring O'Pay orders 2. simulating paying the payment and informing the merchant. If payment notifications cannot be received under simulated payment, please refer to the Special Note following this table.	
ALL IN ONE HashKey interfacing	5294y06JblSpM5x9	bkuAEQufy2bpEng1
ALL IN ONE HashIV interfacing	v77hoKGq4kWxNNIS	B0lzARI9ZSdhW9jg
External IP Please refer to the O'Pay FAQ: Can I restrict company server to access to O'Pay IPs only?		

The user login information for testing (signing in as a buyer)

Description	Merchant	PlatformID			
Login information	 Individual members need to log in through the app by scanning the code. Please install the test environment version of the app first. Download path Android: https://developers.opay.tw/app/mobilepay/stage/opay.apk iOS: https://developers.opay.tw/app/mobilepay/stage/opay iOS X APP Login Information Cellphone: 0920123456 Last four digits of the ID: 3123 Secure password: 121212	 User name: stageuser002 Unified business number: 04792433 password: test1234 Secure password: 121212 			
Credit card number for test	4311-9522-2222 (Special Note: only this credit card number can be used for testing	transactions)			
Credit card CVV for test	222				
Credit card expiry date month/year for test	ry date after 05/2016 (including				

When receiving and transmitting O'Pay API notifications, for developers of merchant system, please confirm the following details to ensure the normal transmission of all notices:

- (1) Please confirm that the payment complete notification return URL [ReturnURL] for creating order is open for external connections. Please configure it so it can [receive] the payment results information returned by O'Pay via Server POST. Before returning 1 OK to O'Pay, the checksum must be checked and must match the credentials.
- (2) Please confirm whether the membership system server has enabled a firewall exception for postgate.opay.tw, in order to prevent the firewall from blocking payment notifications. Do not bind the exception directly to the IP address.
- (3) The connection port for O'Pay API calls provided is limited to only the https (443 port) option. Please connect using a legitimate domain name system (DNS).
- (4) Please confirm that every transaction parameter is transmitted to the O'Pay API via http POST.
- (5) Make sure that the Server URL connection port is http 80 port and https 443 port.
- (6) HTML tags are not permitted for labeling the contents of the transmitted parameters (e.g.,
 <h1>).
- (7) Please do not keep or display cryptographic key information, such as Javascript, HTML, or CSS on the front page to prevent the loss or theft of transaction information due to stolen keys.
- (8) When transmitting the platform merchant ID parameter PlatformID, please use the HashKey and HashIV of the platform merchant and create a checksum. The [PlatformID] is the merchant ID [MerchantID] binded to the platform.
- (9) Chinese URLs are not supported for the return URL. For the URL parameter, please use URLs encoded by punycode. For example, 中文.tw is converted into xn--fiq228c.tw.
- (10) To protect the rights and online transaction security for consumers, O'Pay's (or ECPay's) API service supports only TLS 1.2 and above.

4. Create order

Scenario:

An order is transmitted once customers make a purchase.

Step 1. Merchant: Transmit order details to O'Pay via POST (HTTP Method), and proceed to checkout. Step 2. O'Pay: accepts order from merchant and check details.

Special Note:

- (1) Using built-in frames (iframe) may cause the transaction to fail so it is not recommended.
- (2) If the customer is using an iOS device, please proceed the transaction by opening on the original page.
- (3) Online simulated payment tutorial could be viewed from: tutorial of using O'Pay API.
- (4) The interfacing path of this API "Create Order" is V5 (adding [WeiXinpay] as a payment). All of O'Pay's interfacing API has backward compatibility, so for merchants who alrealy use V4 can still use V4 and do not have to change to V5 (if merchants do not have the need of using [WeiXinpay]).

Interfacing path:

■ Production: https://payment.opay.tw/Cashier/AioCheckOut/V5

Stage: https://payment-stage.opay.tw/Cashier/AioCheckOut/V5

Merchant parameter transmission description (items with a red asterisk * are required):

Parameter	Parameter name	Туре	Description	Example
*MerchantID	rchantID Merchant ID String(10) (provided by O'Pay) 1. Merchant ID (on Stage) 2. Obtain a cryptographic key for Production		2000132	
*MerchantTradeNo			Opay1234	
StoreID	Merchant store ID	String(20)	Allows merchants to enter specific store ID. This parameter only allows a combination of upper and lower case alphanumeric characters.	
*MerchantTradeDate	Transaction time	String(20)	Format: yyyy/MM/dd HH:mm:ss	2012/03/21 15:40:18
*PaymentType	Transaction type	String(20)	Please fill in aio	aio
*TotalAmount	Transaction amount	Int	Only an integer is allowed. Decimals are not accepted. New Taiwan Dollars only. The amount cannot be \$0. The amount of [CVS] (reference number to be paid at convenience store) is restricted between NTD \$27 and NTD	5000

			400.000	
			\$20,000. It the merchant neither belongs to	
			O'Pay's member nor the third level	
			member (individual member/Business	
			Diamond, required to be contracted),	
			the amount should not less than NTD\$5.	
*TradeDesc	Transaction	String(200)	Please URL-encode the value of this	opay Mall Purchase
	description		parameter firstly before sending this	
			parameter to O'Pay.	
*ItemName	Merchandise	String(200)	If there are multiple items under	Cell phone \$20x2#USB
	name		merchandise name and they need to be	Drive \$60x1
			individually displayed line by line, please separate the merchandise names with a	
			hash (#).	
			Special note:	
			1.It the payment [Weixinpay] is selected,	
			the format of entering the value for this	
			parameter should be 【Product 1 Unit	
			priceXQuantity#Product 2Unit	
			priceXQuantity 】, and the limit of word	
			length is 40 alphanumeric characters	
			(either in Chinese or in English).	
			2. To avoid unsuccessfully creating order,	
			if the word length exceeds the above	
			length limit, O'Pay's system will cut the length automatically.	
*ReturnURL	A return URL	String(200)	When the customer completed the	http://your.web.site/re
	for payment		payment, O'Pay will return the payment	ceive.php
	notification		results parameter to the URL in the	
			background via Server POST.	
			For details, please refer to the <u>payment</u>	
			result notification	
			Special note:	
			1. Do not set it as the same address to	
			the parameter of receiving payments	
			[OrderResultURL] on the client end in	
			order to prevent program errors.	
			2. Upon receiving the payment results	
			notification from the server, please respond with 1 OK to O'Pay.	
*ChoosePayment	Choose	String(20)	O'Pay provides the following payment	Credit
22.2.3. 473.10	default		methods which are transmitted at the	
	payment		time the order is created:	
	method		Credit: Credit card	
			<u>WebATM</u> : WebATM	
			ATM: ATM (cash machines/cashpoints)	
			CVS: the function of paying reference	
			numbers (using a reference number to	
			pay purchase at convenience store	
			chains)	
			AccountLink: the function of connecting users' O'Pay's account to his/her	
			personal bank account.	
			WeiXinpay: paying purchase through a	
			Wei-Xin account.	
			TopUpUsed: the function of using O'Pay	
	i			ı

/S

			method and payment sub-method.	
			Other payment sub-methods cannot	
			be selected.	
		St. 1 (200)	Please refer to the payment methods list	1 //
OrderResultURL	The client	String(200)	If merchants set a URL in this parameter,	http://your.web.site/cli
	end returns		when a payment is completed, O'Pay will	ent.php
	the payment		direct the page with the payment result	
	result URL		to the URL set.	
			Special Note:	
			If this parameter is not set, it is the	
			O'Pay's payment completed page that	
			will be shown (instead of the merchant's	
			website).	
			Therefore, if merchants wish to have the	
			payment result displayed on merchants'	
			page, please set this parameter.	
			If this parameter is set with	
			[ClientBackURL], O'Pay will accept this	
			parameter but ignore [ClientBackURL].	
			For some specific banks, the transaction	
			completed page will stay on the bank's	
			page after successful WebATM	
			transactions instead of redirecting the	
			page back to O'Pay. In this case, O'Pay	
			will not direct the page to the	
			[OrderResultURL] page.	
			This parameter does not support	
			UnionPay cards or non-real-time	
			transactions (ATM, CVS, BARCODE).	
			It is not recommended to set this	
			parameter in Stage. The page will stay on	
			O'Pay so you can see the error messages	
			sent by O'Pay for debugging purposes.	
			If this parameter is set, displaying the	
			successful/failed payment page can only be displayed on the transaction status	
			returned.	
			Some browsers may display a warning if	
			the return URL is not an https address.	
NeedExtraPaidInfo	Do you	String(1)	Additional payment information:	N
INCCUENTIALATAIUIIIIU	require	Default value:	Please return N for parameter value if	IV
	additional	N	you do not need to return additional	
	payment	,	payment information.	
	information		Please return Y for parameter value if	
			you need to return additional payment	
			information. After payment is	
			completed, O'Pay will return the	
			additional payment information via	
			Server POST.	
			※ Special Note:	
			Please refer to the <u>additional returns</u>	
			<u>parameter</u> page for information on	
			returning additional payment	
DoulooCourse	Daviss	Ctrin =/10\	information parameters.	
DeviceSource	Device	String(10)	If the merchant wishes to use default	
	source		website template, please set this	
	1	<u> </u>	parameter as null value.	

			If the members of the case	
			If the merchant wishes to use APP	
IgnorePayment	Hide payment method	String(100)	template, please set it as APP. When the payment method [ChoosePayment] is ALL, you can hide other unwanted payment methods. For multiple entries, please separate them using a hash (#). Available parameter values: Credit: Credit cards WebATM: WebATM ATM: ATM (cash machines/cashpoints) CVS: the function of paying reference numbers (using a reference number to pay purchase at convenience store chains) AccountLink: the function of connecting users' O'Pay's account to his/her personal bank account. TopUpUsed: the function of using O'Pay account as e-wallet	ATM#WebATM
PlatformID	Platform merchant ID (Provided by O'Pay)	String(10)	Used by contracted platform merchants. For general merchants or platform merchant interfacing, please leave empty. For use by platform merchants, please set [MerchantID] as the parameter.	
HoldTradeAMT	Defer payments state	Int Default value: 0	Defer payments state. If payment is not to be deferred, please enter 0. After the buyer has paid, O'Pay will disburse the payment to the merchant at an agreed time indicated by contract. If payment is to be deferred, please enter 1. After the buyer has paid, the Merchant Disbursement Request API needs to be called for O'Pay to disburse the payment. Special Note: If the merchant does not request disbursement, the funds will be stored by O'Pay until the merchant requests payment. Credit cards payments cannot be deferred	0
* EncryptType	Type of checksum mechanism	Int	Please set 1 (using SHA256 as encryption).	1
UseRedeem	Whether bonus points can be used as discount	String(1) Default value: N	This parameter allows the function of whether to use promotional discount or not. If yes, please set to Y; if no, please set to N. ** Special note: The rule and condition of promotional discount could be set in admin website for vendors (merchants) > Setting promotional discount.	

O'Pay can provide free exporsure for	or
merchant member if the merchant	uses
promotional discount, but the mere	chant
should take the fee of promotic	onal
discount should pay for the the fee	of
promotional discount.	
If using this function, please note the	hat in
"Payment Results Notification" API	,
merchants should use [TradeAmt] t	:0
check order amount.	

When the ChoosePayment parameter is set as ALL or ATM payment:

Parameter	Parameter	Туре	Description	Example
ExpireDate	Time window allowed for payment	Int	The value should be between 1 and 60 days. If the paramer is unknot set, the default is 3 days ** Special Note: The unit is in days	7
PaymentInfoURL	The server end will return payment related information	String(200)	If this parameter is set, after the order is created (not payment completed), O'Pay will return the customer's payment method information via server POST (e.g. the bank code, the payment deadline for virtual accounts, etc.). Please refer to [ATM/CVS Retrieval Results Notification Result]. ** Special Note: The page will stay on O'Pay to display relevant payment information.	http://your.web.site /paymentinfo.php
ClientRedirectURL	The client end will return payment related information	String(200)	If this parameter is set, after the order is created (not payment completed), O'Pay will return the customer's payment information on the client's end (for example, the bank code, the payment deadline for virtual accounts, etc.), and will direct to the merchant's designated page. ** Special Note: If this parameter is set, it will invalidate the hyperlink button [ClientBackURL] to return to the merchant. Some browsers may display a warning if the return URL is not an https address.	http://your.web.site /ClientRedirectURL. php

When the ChoosePayment parameter is set as ALL or CVS payment:

Parameter	Parameter name	Туре	Description	Example
StoreExpireDate	Convenience store payment deadline	int	Special Note: <u>CVS</u> : if parameter value is over 100, the unit is in minutes; if parameter value is less 100, the unit is in days.	7

		If this parameter is not set, the default value of payment deadline is 7 days. For example, if you make a purchase at 20:15 on 08/01, the default payment deadline is 7 days, you must pay at the convenience store before 20:15 on 08/08.	
Transaction Description 1	String(20)	This will appear on the payment platform screen of the convenience store	Transaction Description 1
Transaction Description 2	String(20)	This will appear on the payment platform screen of the convenience store	Transaction Description 2
Transaction Description 3	String(20)	This will appear on the payment platform screen of the convenience store	Transaction Description 3
Transaction Description 4	String(20)	This will appear on the payment platform screen of the convenience store	Transaction Description 4
The server end will return payment related information	String(200)	If this parameter is set, when an order is created (not payment completed), O'Pay will return the customer's payment information via server POST (for example, reference number to be paid at convenience store and specific convenience stores). Please refer to [ATM, CVS Retrieval Results Notification Result]. ** Special Note: The page will stay on O'Pay to display relevant payment information.	
The client end returns payment method related information.	String(200)	If this parameter is set, after an order is created (not payment completed), O'Pay will return the customer's payment information to the client's end (for example, reference number to be paid at convenience store and specific convenience stores), and will direct to the merchant's designated page. Please refer to [ATM and CVS Code Retrieval Notification]. Special Note: If this parameter is set, it will invalidate the hyperlink button [ClientBackURL] to return to the merchant.	
	Transaction Description Transaction Description Transaction Description Transaction Description Uescription The server end will return payment related information The client end returns payment method related	Description 1 Transaction Description 2 Transaction Description 3 Transaction Description 4 The server end will return payment related information The client end returns payment method related	value of payment deadline is 7 days. For example, if you make a purchase at 20:15 on 08/01, the default payment deadline is 7 days, you must pay at the convenience store before 20:15 on 08/08. Transaction Description 1

When the parameter [ChoosePayment] is ALL or Credit, there are 3 types of payment.

• Pay at once: customers can select whether to redeem their credit card bonus points for this payment.

The following parameters are for pay at once. If you use this function, the following parameters must be sent to O'Pay:

Parameter	Parameter name	Туре	Description	Example
Redeem	Are bonus	String(1)	When set to Y, the bonus point	Υ

points redeer for the credit	ned	redemption process will be enabled when the merchant selects credit card payment; if not, please set ti N.	
purcha		Special Note: Refer here for bonus point redemptions Credit card bonus point redemption details	

• Installment payment: this function allows customers to authorize their card once. The installment amount will be confirmed by the bank.

The following parameters are for installment payments. If you enable this function, the following parameters must be sent to O'Pay:

Parameter	Parameter name	Туре	Description	Example
*CreditInstallment	Credit card installment periods.	String(20)	This parameter allows the following installment periods: 3,6,12,18,24 ** Special Note: Merchants should apply for the installment periods with O'Pay firstly before using this function. The periods that can be used are only those approved after merchants apply with O'Pay.	3,6

Special Note:

- (1) This cannot be set with the periodic fixed-amount parameter.
- (2) If the installment function is used, subsequent installment payments will be confirmed and provided by the bank.
- (3) To pay with a credit card in <u>Stage</u>, please use the <u>test credit card number</u> provided by O'Pay for payment simulation.
- (4) When requesting this parameter, please provide the total amount of all installments. Merchants do not need to calculate the amount of each installment. Indivisible remainders will be collected by the bank in the first installment. For example, a total of \$1733 is to be paid in 6 installments. The indivisible remainder will be collected in the first installment: 293,288,288,288,288,288
- (5) Installment payment does not support VISA, MasterDebit Card, and JCB Debit card.
- Periodic fixed-amount payment: this payment can be used when a periodic and fixed amount of each installment needs to be collected. Customers only need to authorize their card once, and O'Pay will process authorizations periodically according to the settings. The payment page will display the amount for each purchase, the number of installments (i.e. the frequency), and number of authorizations. It can be set to "once every x days" or "once every x years", and the number of payments (authorizations) can be predetermined.

The following parameters are used for periodic fixed-amount purchases. If you need this function, the following parameters must be sent to O'Pay:

Parameter	Parameter name	Туре	Description	Example
*PeriodAmount	Amount of per authorization	Int	The amount of per authorization. Special Note: The subsequent fixed-authorized amount will be based on the first authorized amount [PeriodAmount]. The transaction amount [TotalAmount] must be identical to the authorized amount [PeriodAmount]. Only integer is allowed. Decimals are not accepted. New Taiwan Dollars only.	
*PeriodType	Types of periods	String(1)	This parameter allows the following values: D: Days as unit of frequency	

			M: Months as unit of frequency Y: Years as unit of frequency	
*Frequency	Execution frequency	Int	This parameter is used to define how often the action is executed Special Note: The value must be at least or equal to 1 When the value of [PeriodType] is set to D, it can be set up to 365 times. When the value of [PeriodType] is set to M, it can be set up to 12 times. When the value of [PeriodType] is set to Y, it can be set up to 1 time.	
*ExecTimes	Number of executions	Int	Number of executions in total Special Note: The value must be greater than 1 When the value of [PeriodType] is set to D, it can be set up to 999 times. When the value of [PeriodType] is set to M, it can be set up to 99 times. When the value of [PeriodType] is set to Y, it can be set up to 9 times.	Example 1: When the periodic fixed-amount purchase is set to once a month for \$500 for a total of 12 times, enter 500 into the parameter (TotalAmount) PeriodAmount = 500, PeriodType = M Frequency = 1 ExecTimes = 12 Example 2: When the periodic fixed-amount purchase is set to once every 6 months for \$6000 for a total of 2 times, enter 6000 into the parameter (TotalAmount), PeriodType = M Frequency = 6 ExecTimes = 2
PeriodReturnURL	Periodic fixed-amount execution results response URL	String(200)	If the transaction is a periodic fixed-amount purchase, authorization results will be returned to this URL after each authorization. The returned content please refer to Payment Results Notification.	

Special Note:

- (1) This cannot be used with the installment payment parameter.
- (2) The amount of per authorization is identical.
- (3) If the first authorization fails, the subsequent authorizations will not be scheduled. Please re-create an order.
- (4) If the parameter [PeriodReturnURL] is not set, the merchant should only ship the merchandise after confirming that the authorization state is successful via admin website for merchants.
- (5) For detailed examples please refer to the <u>Periodic Fixed-Amount Purchases Examples</u>.
- (6) To disable the function of periodic fixed-amount purchases, please log in to the <u>admin website for merchants</u>. The operation to disable it can be found under Credit card acquiring > Periodic fixed-amount purchases inquiry > Details/Edit.
- (7) Android Pay does not support the function of Periodic fixed-amount payment.
- (8) The service fee of platform cannot be

5. ATM and CVS Code Retrieval Notification

• Scenario:

After an order with payment methods ATM / CVS has been created, the following parameters will be sent to the returned payment URL [PaymentInfoURL] specified in the order details via Server POST.

Step1. O'Pay: The code (virtual account number) retrieval results message will be transmitted via ServerPost to the merchant's server URL [PaymentInfoURL]

Step2. Merchant: Upon receiving the code retrieval message from O'Pay, check and verify whether the checksum value is correct.

Step3. Merchant: If the checksum value is correct, respond 1 OK on the webpage end.

• Return parameter details for O'Pay merchants:

Parameter	Parameter name	Туре	Description	Example
MerchantID	Merchant ID	String(10)		2000132
MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to ecpay when order was created.	123456abc
StoreID	Merchant store ID	String(20)	Thie parameter allows merchants to enter specific store ID. This parameter only allows a combination of upper and lower case alphanumeric characters.	
RtnCode	Transaction status	Int	1. When the ATM return value is 2, this means the transaction status is success. The rest indicates failure.	2
RtnMsg	Transaction message	String(200)		Get VirtualAccount Succeeded
TradeNo	O'Pay transaction ID	String(20)	Please save the link between the O'Pay transaction ID and the merchant transaction ID [MerchantTradeNo].	201203151740582564
TradeAmt	Transaction amount	Int		22000
PayAmt	The real amount of payment	Int	[PayAmt]=[TradeAmt]-[RedeemAmt] Special note: 1. O'Pay will not return this parameter if the payment is simulated. 2. Only when [UseRedeem]=Y will this parameter be returned.	20000
RedeemAmt	Discount amount	Int	The amount of discount. Special note: 1. O'Pay will not return this parameter if the payment is simulated. 2. Only when [UseRedeem]=Y during creating order can O'Pay return this parameter.	2000
PaymentType	Merchant payment	String(20)	Please refer to the <u>list of payment</u> method responses	WebATM_TAISHIN

	method			
TradeDate	Transaction time	String(20)	The format is yyyy/MM/dd HH:mm:ss	2012/03/15 17:40:58
Barcode1	First barcode strip number	String(20)	It only returns null value.	
Barcode2	First barcode strip number	String(20)	It only returns null value.	
Barcode3	Third barcode strip number	String(20)	It only returns null value.	
CheckMacValue	Checksum	String	The merchant must check the checksum [CheckMacValue] to verify. Please refer to the Appendix Checksum Mechanism.	

When the ChoosePayment parameter is set as ATM payment:

Parameter	Parameter name	Туре	Description	Example
BankCode	Payment bank code	String(3)		812
vAccount	Payment virtual account number	String(16)		9103522175887271
ExpireDate	Payment deadline	String(10)	The format is yyyy/MM/dd	2013/12/16

When the ChoosePayment parameter is set as CVS payment:

Parameter	Parameter name	Туре	Description	Example
PaymentNo	Payment code	String(14)	If it is a barcode, this field will returned blank	GW130412257496
ExpireDate	Payment deadline	String(20)	The format is yyyy/MM/dd HH:mm:ss	2013/12/16 18:00:00

Merchant parameter transmission details:

Parameter	Parameter name	Туре	Description	Example
		String	The value returned is a text string and does not have parameter names If the first digit returned is 1, it is success. If the first digit returned is 0, it is failure. 0 ErrorMessage refers (error code - error message).	1 OK

When receiving code retrieval results notifications, please confirm the following details in order to receive the code retrieved notification sent by O'Pay.

- (1) Please make sure that parameter for the return URL [PaymentInfoURL] used to confirm the order creation parameter has been developed and completed.
- (2) Please confirm that the return URL [PaymentInfoURL] for payment is available externally.

6. Payment Results Notification

Scenario I:

When the payment has been completed, the merchant will receive O'Pay's payment results notification and respond to it.

Step1. O'Pay: Transmit payment results message to the merchant's server URL [ReturnURL]

Step2. Merchant: Upon receiving the payment results message from O'Pay, check and verify whether the checksum is correct.

Step3. Merchant: If the checksum is correct, respond 1 | OK on the webpage end.

O'Pay Return Parameter Details I:

Parameter	Parameter name	Туре	Description	Example
MerchantID	Merchant ID	String(10)		2000132
MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created. A combination of upper and lower case alphanumeric characters	123456abc
StoreID	Merchant store ID	String(20)	Allows merchants to enter specific store ID. This parameter only allows a combination of upper and lower case alphanumeric characters.	
RtnCode	Transaction status	Int	If the value returned is 1, then payment was successful. Other values indicate transaction failed and please do not ship merchandise.	1
RtnMsg	Transaction message	String(200)		Transaction success
TradeNo	O'Pay transaction ID	String(20)	Please save the link between the O'Pay transaction ID and the merchant transaction ID [MerchantTradeNo].	2012031517405825 64
TradeAmt	Transaction amount	Int		22000
PayAmt	The real amount of payment	Int	 [PayAmt]=[TradeAmt]-[RedeemAmt] Special note: 1. O'Pay will not return this parameter if the payment is simulated. 2. Only when [UseRedeem]=Y will this parameter be returned. 	
PaymentDate	Payment time	String(20)	The format is yyyy/MM/dd HH:mm:ss	2012/03/16 12:03:12
PaymentType	Merchant payment method	String(20)	Please refer to the <u>list of payment</u> method responses	Credit_CreditCard
PaymentTypeChargeFee	Retail fee	Int		25
TradeDate	Transaction	String(20)	The format is yyyy/MM/dd HH:mm:ss	2012/03/15

	time			17:40:58
SimulatePaid	Is it a simulated payment?	Int	Returned value: If it is 1, the transaction's payment was simulated. Do not ship the product. If it is 0, the transaction's payment was not simulated. ** Special Note: The merchant can facilitate interfacing API testing by configuring a simulation for O'Pay to transmit a payment	0
			notification for a single order through the <u>admin website for merchants</u> .	
CheckMacValue	Checksum	String	The merchant must check the check [CheckMacValue] to verify. Please refer to the Appendix Checksum Mechanism.	

Merchant parameter transmission details:

Parameter	Parameter name	Туре	Description	Example
		String	The value returned is a text string and does not have parameter names If the first digit returned is 1, it is success. If the first digit returned is 0, it is failure. 0 ErrorMessage refers (error code - error message).	1 OK

- (1) The merchant must check if the checksum [CheckMacValue] is correct, whether a payment notice has been made for the order, and whether relevant actions have been taken to prevent losses due to unsynchronized transaction status.
- (2) If a correct message has not been received, the system will re-send it to the merchant after 5–15 minutes. After 3 unsuccessful attempts, the system will try sending again the next day.
- (3) If the merchant continues to receive returned payment information from O'Pay, please check if O'Pay is receiving the correct response 1|OK. A common wrong return value error is ("1|OK", 1|ok, OK, 1\OK,blank).
- (4) If the customer has paid but has not received payment completed information from O'Pay, please check the server receiving return parameters is working properly.
- (5) When the value of [SimulatePaid] is 1, it means that the order information received is a payment notification test message from a simulated payment from the merchant back-stage management system. It is not a customer's order, so O'Pay will not pay the merchant. Please do not ship the merchandise to avoid losses.
- (6) The merchant must determine if the transaction status [RtnCode] is 1, if it is not 1, do not ship the merchandise and request transaction information [RtnMsg] to record reason of failure.

The payment results notification will be returned to the page in parameters in chart as follows. It is displayed in "parameter=value" format. Parameters are separated by an ampersand (&). For example:

MerchantID=2000132&MerchantTradeNo=TEST8477&PayAmt=300&PaymentDate=2016/11/02&11:41:12&PaymentType=Credit CreditCard&PaymentTypeChargeFee=3&RtnCode=1&RtnMsg=交易成功

&SimulatePaid=0&TradeAmt=300&TradeDate=2016/11/02&11:40:33&TradeNo=1611021140332409&CheckMacValue=F 5587E192EACB414A31127C1E370CD55

Scenario II:

When an order is a periodic fixed-amount purchase, O'Pay will transmit payment results notification after every successful authorization.

- Step 1. O'Pay: The second authorization is scheduled and processed by O'Pay. Upon successful authorization, the payment notification will be transmitted to the payment complete notification return URL [PeriodReturnURL], transmitted by the merchant, via Server POST.
- Step 2. Merchant: Merchants are required to check and verify whether the checksum is correct upon receiving the payment notification message from O'Pay.
- Step 3. Merchant: If the checksum is correct, respond 1 OK on the webpage end.
- Special Note: If the first authorization is successful, the payment result parameter will be returned to the payment complete notification return URL [ReturnURL].
- ** The second authorization is scheduled and processed by O'Pay. From the second authorization, the data will be returned to the payment complete notification return URL PeriodReturnURL] set.

O'Pay Return Parameter Details II:

Parameter	Parameter name	Туре	Description	Example
MerchantID	Merchant ID	String(10)		2000132
MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to merchant when order was created.	123456abc
StoreID	Merchant store ID	String(20)	Allows merchants to enter specific store ID. This parameter only allows a combination of upper and lower case alphanumeric characters.	
RtnCode	Transaction status	Int	1: authorization successful. Other values indicate failure.	1
RtnMsg	Transaction message	String(200)	Transaction message	Transaction success
PeriodType	Types of periods	String(1)		М
Frequency	Execution frequency	Int		2
ExecTimes	Number of executions	Int		12
Amount	Authorization amount for this transaction	Int		2000
Gwsr	Transaction authorization ID	Int	Authorization ID for this transaction	120326
ProcessDate	Process Time	String(20)	Process time (yyyy/MM/dd HH:mm:ss)	2013/11/12 12:01:32
AuthCode	Authorization code	String(6)	Authorization code	777777
FirstAuthAmount	Initial authorized amount	Int	First authorized amount for periodic fixed-amount purchases	2000
TotalSuccessTimes	Number of successful authorizations	Int		3

SimulatePaid	Is it a simulated payment?	Int	Return value: If it is 1, the transaction's payment was simulated If it is 0, the transaction's payment was not simulated. Special Note:	0
			Currently periodic simulated payment notifications may only be trigged through the fixed-amount purchase inquiries function on the admin website for merchants. Payment notifications sent from scheduled periodic fixed-amount purchases will not transmit this parameter. When the value of [SimulatePaid] is 1, [RtnCode] will also be 1, indicating that the order is a simulated payment. Please do not ship the merchandise to avoid losses.	
CheckMacValue	Checksum	String	The merchant must check the [CheckMacValue] to verify. Please refer to the Appendix Checksum Mechanism.	

Merchant parameter transmission details:

Parameter	Parameter name	Туре	Description	Example
		String	The value returned is a text string and does not have parameter names If the first digit returned is 1, it is success. If the first digit returned is 0, it is failure. 0 ErrorMessage refers (error code - error message).	1 OK

- (1) The merchant must check if the checksum [CheckMacValue] is correct, whether a payment notice has been made for the order, and whether relevant actions have been taken to prevent losses due to unsynchronized transaction status.
- (2) If a correct message has not been received, the system will re-send it to the merchant after 3 minutes. After 3 unsuccessful attempts, the system will try sending again the next day.
- (3) If the merchant continues to receive returned payment information from O'Pay, please check if O'Pay is receiving the correct response 1|OK. Common wrong returned value errors could be like ("1|OK", 1|ok, _OK,1\OK, blank).
- (4) If the customer has paid but has not received payment completed information from O'Pay, please check the server receiving return parameters is working properly.
- (5) When the value of [SimulatePaid] is 1, it means that the order information received is a payment notification test message returned from a simulated payment from the O'Pay merchant back-stage management system. Please do not ship the merchandise to avoid losses.
- (6) The merchant must determine if the transaction status [RtnCode] is 1, if it is not 1, do not ship the merchandise and request transaction information [RtnMsg] to record the cause to failure.

7. Order Search (The API can be created according to the merchant's needs)

Scenario:

This API provides merchants to search order information and allows them to filter valid orders. For more details please have a look of [FAQ].

- Step 1. Merchant: Transmit the following parameters to the API URL via Server POST.
- Step 2. O'Pay: Return order information parameters once received and verified correctness.

Interfacing path:

- Production: https://payment.opay.tw/Cashier/QueryTradeInfo/V5
- Stage: https://payment-stage.opay.tw/Cashier/QueryTradeInfo/V5

The interfacing path of this API "Order Search" is V5 (adding [WeiXinpay] as a payment). All of O'Pay's interfacing API has backward compatibility, so for merchants who alrealy use V4 can still use V4 and do not have to change to V5 (if merchants do not have the need of using [WeiXinpay]).

Merchant parameter transmission description (items with a red asterisk * are required):

Parameter	Parameter name	Туре	Description	Example
*MerchantID	Merchant ID (Provided by O'Pay)	String(10)		2000132
*MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created.	ecpay1234
*TimeStamp	Verification time	Int	Convert current time to UnixTimeStamp (see example) to verify the time interval of this interfacing. O'Pay verification time interval is currently set to be under 3 minutes and interfacing will expire if time is exceeded. Reference: http://www.epochconverter.com/	1234567890
PlatformID	Platform merchant ID (Provided by O'Pay)	String(10)	Used by contracted platform merchants. For general merchants or platform merchant interfacing, please leave empty. For use by platform merchants, please set [MerchantID] as the parameter.	
*CheckMacValue	Checksum	String	Please refer to the Appendix <u>Checksum</u> <u>mechanism</u> .	

O'Pay Return Parameter Details:

The order results will be returned to the page in parameters in the chart as follows. It is displayed in "parameter=value" format. Parameters are separated by an ampersand (&). For example:

MerchantID=123456789&MerchantTradeNo=123456abc&TradeNo=201203151740582564

Parameter	Parameter name	Туре	Description	Example
MerchantID	Merchant ID	String(9)		2000132
MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created.	123456abc
StoreID	Merchant store ID	String(20)	Allows merchants to enter specific store ID. This parameter only allows a combination of upper and lower case alphanumeric characters.	
TradeNo	O'Pay transaction ID	String(20)		201203151740 582564
TradeAmt	Transaction amount	Int		22000
PayAmt	The real amount of payment	Int	[PayAmt]=[TradeAmt]-[RedeemAmt]	20000
PaymentDate	Payment time	String(20)	The format is yyyy/MM/dd HH:mm:ss	2012/03/16 12:03:12
PaymentType	Payment method selected by merchant	String(20)		Credit
HandlingCharge	Total processing fee	Int	Only calculated after completion - \$0 before calculation	0
PaymentTypeChargeFee	Retail fee	Int		25
TradeDate	Transaction time	String(20)	The format is yyyy/MM/dd HH:mm:ss	2012/03/15 17:40:58
TradeStatus	Transaction status	String(8)	Return value: If it is 0, the order has been created but payment has not been completed. If it is 1, the order has been created and payment is complete. If it is v342, the order is invalid since it is over the payment deadline.	0
ItemName	Merchandise name	String(200)		Merchandise 1
CheckMacValue	Checksum	String	The merchant must check the checksum [CheckMacValue] to verify. Please refer to the Appendix Checksum Mechanism.	

8. Additional Parameter Returns

Scenario:

When the merchant is <u>creating order</u>, if the value of "Required additional payment information" [NeedExtraPaidInfo] is Y, additional parameters will be returned (see table below).

Step 1. Merchant: When <u>creating an order</u>, if the required additional payment information parameter [NeedExtraPaidInfo] is set to Y.

Step 2. O'Pay: Return the following additional parameters when transmitting the <u>payment results</u> notification and <u>order search</u> to the merchant

※ Special Note: all the additional parameter returned must be checked by checksum mechanism.

O'Pay Response Parameter Details:

Parameter	Parameter name	Туре	Description	Example
WebATMAccBank	Payment Bank Code	String(3)	If the bank did not provide such information, it will be returned blank	812
WebATMAccNo	Last 5 digits of the payer's bank account	String(5)	If the bank did not provide such information, it will be returned blank	12345
WebATMBankName	Bank name	String(10)	Please refer to the payment method list	TAISHIN
ATMAccBank	Payment Bank Code	String(3)	If the bank did not provide such information, it will be returned blank	812
ATMAccNo	Last 5 digits of the payer's bank account	String(5)	If the bank did not provide such information, it will be returned blank	12345
PaymentNo	Payment code	String(14)	If it is BARCODE, return blank	GW120821847169
PayFrom	Convenience store payment	String(10)	family: FamilyMart hilife: Hi-Life okmart: OK • MART ibon:7-11	family
gwsr	Transaction authorization ID	Int		10123456
process_date	Process Time	String(20)	The format is yyyy/MM/dd HH:mm:ss	2013/12/19 13:55:20
auth_code	Authorization code	String(6)		777777
amount	Amount	Int		400
stage	Installment periods	Int		3
stast	Amount of initial installment	Int		134
staed	Amount per remaining installment	Int		133
eci	3D(VBV)	Int	Return value (eci = 5,6,2,1 means that transaction was a 3D transaction)	5
card4no	Last 4 digits of credit card	String(4)		2222
card6no	First 6 digits of credit card	String(6)		431195
red_dan	Bonus points deducted	Int		0
red_de_amt	Amount deduced from bonus points	Int		0

red_ok_amt	Actual amount charged	Int	0
red_yet	Remaining bonus points	Int	0
PeriodType	Type of periods set	String(1)	D
	when order was created		
Frequency	Execution frequency set	Int	2
	when order was created		
ExecTimes	Execution frequency set	Int	5
	when order was created		
PeriodAmount	Amount per	Int	200
	authorization set when		
	order was created		
TotalSuccessTimes	Number of successful	Int	5
	authorizations to date		
TotalSuccessAmount	Amount authorized to	Int	1000
	date		
WeiXinpayTradeNo	Transaction	String(50)	
	number/trade number		
	of WeiXinpay		

9. Order Search for Periodic Fixed-Amount Purchases on Credit Cards

Scenario:

The merchant can search for authorization details of every transaction under order inquiry for periodic fixed-amount purchases.

- Step 1. Merchant: Transmit the following parameters to API URL via Server POST.
- Step 2. O'Pay: Return periodic fixed-amount order information once received and verified to be correct.

• Interfacing path:

- Production:https://payment.opay.tw/Cashier/QueryCreditCardPeriodInfo
- Stage:https://payment-stage.opay.tw/Cashier/QueryCreditCardPeriodInfo

Merchant return parameter details:

Parameter	Parameter name	Туре	Description	Example
*MerchantID	Merchant ID	String(10)		1050123
*MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created.	ecpay1234
*TimeStamp	Verification time	Int	Convert current time to UnixTimeStamp (see example) to verify the time interval of this interfacing. O'Pay verification time interval is currently set to be under 3 minutes and interfacing will expire if time is exceeded. Reference: http://www.epochconverter.com/	1234567890
*CheckMacValue	Checksum	String	Please refer to the Appendix <u>Checksum</u> <u>Mechanism</u>	

The search results will be returned to the page in JSON chart format.

Return example (for illustration purposes, the following example has been reformatted):

```
"MerchantID": "1050123",
"MerchantTradeNo": "ecpay1234",
"TradeNo":"20140721173014442498",
"RtnCode":1,
"PeriodType":"D",
"Frequency":1,
"ExecTimes":12,
"PeriodAmount":1000,
"amount":1000,
"gwsr":24548751,
"process_date":"2014/07/21 17:35:45",
"auth code": "237523",
"card4no":"2369",
"card6no":"523782",
"TotalSuccessTimes":3,
"TotalSuccessAmount":3000,
"ExecStatus":"1",
```

The returned JSON can be categorized as (I) Main authorization information and (II) Periodic fixed-amount purchase details. Their respective details are as follows:

(I) Main authorization information (highlighted in the example below):

```
"MerchantID": "1050123",
"MerchantTradeNo": "ecpay_123
"TradeNo": "2014072117301444
2498",
"RtnCode":1,
"PeriodType":"D",
"Frequency":1,
"ExecTimes":12,
"PeriodAmount":1000,
"amount":1000,
"gwsr":24548751,
"process_date":"2014/07/21
7:35:45",
"auth_code": "237523",
"card4no": "2369",
"card6no": "523782",
"ExecLog":
```

{"RtnCode":1,"amount":1000,"gwsr":24548751,"process_date":"2014/07/21 17:35:45","auth_code":"237523"}, {"RtnCode":1,"amount":1000,"gwsr":24549277,"process_date":"2014/07/22 01:12:30","auth_code":"185279"}, {"RtnCode":1,"amount":1000,"gwsr":24552639,"process_date":"2014/07/23 01:12:25","auth_code":"693851"}]

Main authorization information parameter details:

Parameter	Parameter name	Туре	Description	Example
MerchantID	Merchant ID	String(9)		1050123
MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created.	oPay1234
TradeNo	O'Pay transaction ID	String(20)	The O'Pay transaction ID generated in the first authorization	20140721173014442498
RtnCode	Transaction status	Int	A return value of 1 indicates successful authorization, while any other value indicates failure. For more information on error codes,	1

		1		
			please refer to the list of transaction status codes.	
PeriodType	Types of periods	String(1)	Period type set when creating order.	D
Frequency	Execution frequency	Int	This parameter is used to define how often the action of creating order is executed.	1
ExecTimes	Number of executions	Int	Number of executions in total when creating order.	12
PeriodAmount	Amount per authorization	Int	The amount of per authorization when creating order.	1000
amount	Authorized amount	Int	The amount authorized.	1000
gwsr	Transaction authorization ID	Int	ID authorized for the transaction.	24548751
process_date	Time of successful authorizatio n	String(20)	The format is yyyy/MM/dd HH:mm:ss	2014/07/21 17:35:45
auth_code	Authorizatio n code	String(6)		237523
card4no	Last 4 digits of credit card	String(4)	Last 4 digits of credit card	2369
card6no	First 6 digits of credit card	String(6)	First 6 digits of credit card	523782
TotalSuccessTimes	Total number of successful authorizatio ns	Int		3
TotalSuccessAmount	Total amount successfully authorized	Int	Total amount successfully authorized	3000
ExecStatus	Execution status	String(1)	The return value is as follows: 1. If it is 0, the authorization has been canceled 2. If it is 1, the authorization is being processed 3. If it is 2, the authorization has been completed	2
ExecLog	Details of each authorizatio n	None	Individual authorization records. For example, if authorization has been successful for 3 times already (TotalSuccessTimes is 3), you will see 3 authorization records. For field details, see the authorization detail parameters for periodic fixed-amount purchases below.	

(II) Periodic fixed-amount purchases authorization details (highlighted in the example below):

```
"MerchantID":"1050123",
"MerchantTradeNo": "ecpay1234",
"TradeNo":"20140721173014442498",
"RtnCode":1,
"PeriodType":"D",
"Frequency":1,
"ExecTimes":12,
"PeriodAmount":1000,
"amount":1000,
"gwsr":24548751,
"process_date":"2014/07/21 17:35:45",
"auth_code":"237523",
"card4no":"2369",
"card6no":"523782",
"TotalSuccessTimes":3,
"TotalSuccessAmount":3000,
"ExecStatus":"1",
"ExecLog":
     {"RtnCode":1,"amount":1000,"gwsr":24548751,"process_date":"2014/07/21
17:35:45", "auth_code": "237523"},
    {"RtnCode":1,"amount":1000,"gwsr":24549277,"process_date":"2014/07/22
01:12:30", "auth_code": "185279"},
```

Details of parameters about periodic fixed-amount purchase authorizeds:

Parameter	Parameter name	Туре	Description	Example
RtnCode	Transaction status	Int	A return value of 1 indicates successful authorization, while any other value indicates failure. For more information on error codes, please refer to the list of transaction status codes.	1
amount	Authorized amount	Int	Authorized amount	1000
gwsr	Transaction authorization ID	Int	Transaction ID authorized	24549277
process_date	Time of successful authorization	String(20)	The format is yyyy/MM/dd HH:mm:ss	2014/07/22 01:12:30
auth_code	Authorization code	String(6)		185279

10.Checksum Mechanism

When transmitting data to O'Pay, all parameters must go through a checksum check, with the exception of the checksum [CheckMacValue] and parameters with "unavailable" in the note field. The following example is an order created with [AioCheckOut] and a checksum value calculated in SHA256 encryption mode. The order has a parameter value EncryptType = 1 (only orders created with AioCheckOut will have this parameter).

The following is an example of a word string to be encrypted:

TradeDesc=促銷方案&PaymentType=aio&MerchantTradeDate=2013/03/12

15:30:23 & Merchant TradeNo= all pay 20130312153023 & Merchant ID=2000132 & Return URL=https://www.all pay.0130312153023 & Merchant ID=2000132 &

com.tw/receive.php&ItemName=Apple iphone 7 手機殼

&TotalAmount=1000&ChoosePayment=ALL&EncryptType=1

The checksum is calculated as follows:

- (1) The parameters to be transmitted will be sorted alphabetically and linked via an ampersand (&). ChoosePayment=ALL&EncryptType=1&ItemName=Apple iphone 7 手機設 &MerchantID=2000132&MerchantTradeDate=2013/03/12 15:30:23&MerchantTradeNo=allpay20130312153023&PaymentType=aio&ReturnURL=https://www.allpay.com.tw/receive.php&TotalAmount=1000&TradeDesc=促銷方案
- (2) The parameter will be sandwiched by HashKey in the front and HashIV in the back.

 HashKey=5294y06JbISpM5x9& ChoosePayment=ALL&EncryptType=1&ItemName= Apple iphone 7 手機殼
 &MerchantID=2000132&MerchantTradeDate=2013/03/12
 15:30:23&MerchantTradeNo=allpay20130312153023&PaymentType=aio&ReturnURL=https://www.allpay.com.tw/receive.php &TotalAmount=1000&TradeDesc=促銷方案&HashIV=v77hoKGq4kWxNNIS
- (3) The entire string will go through URL encoding

HashKey%3d5294y06JbISpM5x9%26ChoosePayment%3dALL%26EncryptType%3d1%26ItemName%3dApple+iphone+7+%e6%89%8b%e6%a9%9f%e6%ae%bc%26MerchantID%3d2000132%26MerchantTradeDate%3d20 13%2f03%2f12+15%3a30%3a23%26MerchantTradeNo%3dallpay20130312153023%26PaymentType%3daio% 26ReturnURL%3dhttps%3a%2f%2fwww.allpay.com.tw%2freceive.php%26TotalAmount%3d1000%26TradeDe sc%3d%e4%bf%83%e9%8a%b7%e6%96%b9%e6%a1%88%26HashIV%3dv77hoKGq4kWxNNIS If PHP is used for URL encoding:

HashKey%3d5294y06JbISpM5x9%26ChoosePayment%3dALL%26EncryptType%3d1%26ItemName%3dApple %20iphone%207%20%e6%89%8b%e6%a9%9f%e6%ae%bc%26MerchantID%3d2000132%26MerchantTradeD ate%3d2013%2f03%2f12%2015%3a30%3a23%26MerchantTradeNo%3dallpay20130312153023%26Payment Type%3daio%26ReturnURL%3dhttps%3a%2f%2fwww.allpay.com.tw%2freceive.php%26TotalAmount%3d100 0%26TradeDesc%3d%e4%bf%83%e9%8a%b7%e6%96%b9%e6%a1%88%26HashIV%3dv77hoKGq4kWxNNIS

(4) Switched to lowercase

hashkey % 3d5294y06jb is pm5x9%26 choose payment % 3dall%26 encrypt type % 3d1%26 itemname % 3dapple+iph one+7+%e6%89%8b%e6%a9%9f%e6%ae%bc%26 merchantid % 3d2000132%26 merchant traded at e% 3d2013%2f03%2f12+15%3a30%3a23%26 merchant tradeno % 3dall pay 20130312153023%26 payment type % 3daio % 26 returnurl % 3dhttps % 3a%2f%2fwww.all pay.com.tw % 2freceive.php % 26 total amount % 3d1000%26 traded esc % 3d%2f%83%e9%8a%b7%e6%96%b9%e6%a1%88%26 has hiv % 3dv77hokgq4kwxnnis

If PHP is used for URL encoding:

hashkey%3d5294y06jbispm5x9%26choosepayment%3dall%26encrypttype%3d1%26itemname%3dapple%20 iphone%207%20%e6%89%8b%e6%a9%9f%e6%ae%bc%26merchantid%3d2000132%26merchanttradedate% 3d2013%2f03%2f12%2015%3a30%3a23%26merchanttradeno%3dallpay20130312153023%26paymenttype% 3daio%26returnurl%3dhttps%3a%2f%2fwww.allpay.com.tw%2freceive.php%26totalamount%3d1000%26tra dedesc%3d%e4%bf%83%e9%8a%b7%e6%96%b9%e6%a1%88%26hashiv%3dv77hokgq4kwxnnis

- (5) Characters will be converted via the urlencode conversion table (if you use PHP for URL encoding) hashkey%3d5294y06jbispm5x9%26choosepayment%3dall%26encrypttype%3d1%26itemname%3dap ple+iphone+7+%e6%89%8b%e6%a9%9f%e6%ae%bc%26merchantid%3d2000132%26merchanttrade date%3d2013%2f03%2f12+15%3a30%3a23%26merchanttradeno%3dallpay20130312153023%26pay menttype%3daio%26returnurl%3dhttps%3a%2f%2fwww.allpay.com.tw%2freceive.php%26totalamou nt%3d1000%26tradedesc%3d%e4%bf%83%e9%8a%b7%e6%96%b9%e6%a1%88%26hashiv%3dv77h okgq4kwxnnis
- (6) The string is then encrypted using SHA256 to generate a hash value 96fef7b076f58ddf5717e236f70923a3dbf0ddc33fd42e82fdd8ceccc9d10787
- (7) It is then converted into upper case to generate a CheckMacValue 96FEF7B076F58DDF5717E236F70923A3DBF0DDC33FD42E82FDD8CECCC9D10787

- (1) The merchant must check [CheckMacValue] to verify when they receive information transmitted by O'Pay. If the merchant does not check, they may suffer from losses.
- (2) Please use SHA256 encryption to generate hash values.
- (3) Please make sure that the the converted results after UrlEncode function in your language corresponds to the ".NET Encoding (ecpay)" value in the <u>URLENCODE CONVERSION TABLE</u>. If there are any unsupported characters, please use the character replacement function so the results will pass the checksum test.

For example: PHP urlencode function will encode! Into %21, which is not accepted according to the ".NET encoding (ecpay)" rules, so the %21 will have to be converted back into! With str_replace function after the PHP urlencode function. Here's a PHP conversion example:

```
$sMacValue = str_replace('%2d', '-', $sMacValue);

$sMacValue = str_replace('%5f', '_', $sMacValue);

$sMacValue = str_replace('%2e', '.', $sMacValue);

$sMacValue = str_replace('%21', '!', $sMacValue);

$sMacValue = str_replace('%2a', '*', $sMacValue);

$sMacValue = str_replace('%28', '(', $sMacValue);

$sMacValue = str_replace('%29', ')', $sMacValue);
```

For conversion functions in other programming languages, please refer to the relevant encoding conversion rules.

11.Credit card settlement/refund/cancel/forfeit

(if the API is not created, the functions can be accessed from the merchant's back-stage functions)

Scenario:

When the order's authorization is successful, you can view the "transaction status" via <u>14. Search single credit card single transaction details API</u>, before proceeding accordingly.

- "Settlement": The orders are automatically settled at 20:00 of each day. O'Pay will request/return funds from the bank according to the settlement amount.
 - Special Note: Orders must be settled within 21 days if the merchant has turned off the automatic settlement function. If orders are not settled, the account will not be able to be settled via API. The error message will be -error_overDAY and customer service must be contacted to settle.
 - If an order is not settled, a notice will be sent out on the 80th day informing that credit card settlement is still open. Unsettled orders over 90 days will be forfeited.
- "Refund": Price adjustments for order after settlement.
 - The limit is the value of the order.
 - Special Note: Installment payment transactions can only be refunded in full. Partial refunds are only available to orders made with standard authorization.
- "Cancel": Cancel settlement and revert order to pre-settlement status.
- "Forfeit": Forfeit to request funds before daily settlement.
 - Special Note: This API does not support the "disable payment" function for periodic fixed-amount purchases. To disable receiving funds for periodic fixed-amount purchases, please login to the back-stage management system to make adjustments.
 - The path is Credit card acquiring > Periodic fixed-amount purchases search > Details/Edit
- Interfacing path:
 - Production: https://payment.opay.tw/CreditDetail/DoAction
 - Stage: This API can not be used because no real authorizations can be provided
- Merchant return parameter description (items with a red asterisk * are required):

Parameter	Parameter name	Туре	Description	Example
*MerchantID	Merchant ID (Provided by O'Pay)	String(10)		2000132
*MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created.	epay1234
*TradeNo	O'Pay transaction ID	String(20)	Please save the link between the O'Pay transaction ID and the merchant transaction ID [MerchantTradeNo].	1234567890
*Action	Execute	String(1)	Perform designated action for order °	С

			C: Settlement R: Refund E: Cancel N: Forfeit	
*TotalAmount	Amount	Int		22000
*CheckMacValue	Checksum	String	Please refer to the Appendix <u>Checksum</u> <u>Mechanism</u>	
PlatformID	Platform merchant ID (Provided by O'Pay)	String(10)	Used by contracted platform merchants. For general merchants or platform merchant interfacing, please leave empty. For use by platform merchants, please set [MerchantID] as the parameter.	

O'Pay Response Parameter Details:

The order results will be returned to the page. It is displayed in "parameter=value" format. Parameters are separated by an ampersand (&). For example:

MerchantID=2000132&MerchantTradeNo=ecpay1234&TradeNo=201203151740582564

Parameter	Parameter name	Туре	Description	Example
MerchantID	Merchant ID	String(9)		2000132
MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created.	opay1234
TradeNo	O'Pay transaction ID	String(20)		2012031517405825 64
RtnCode	Transaction status	Int	Return value: 1: success, rest: fail	1
RtnMsg	Transaction message	String(200)		
RefundTradeNo	Refund transaction/tr ade number	String(20)	Transaction/trade number for refund.	

According to the "Law of Electronic Payment", the balance in the account should not be less than 0 NTD, so the rule of refund for credit card payment is revised as follows (since 2016/09/29):

Example 1: the refund service can be used when the balance amount is larger than the refund amount. For example, if there are 1000NTD in a user's O'Pay account, and the user applies for a refund of 500 NTD -> the refund service can be applied in this case. °

Example 1: the refund service can be used only when the balance amount is larger than the refund amount. For example, if there are 1000NTD in a user's O'Pay account (balance amount), and the user applies for a refund of 500 NTD -> the refund service can be applied in this case.

Example 2: on the contrary, the refund service cannot be used if the balance amount is less than the refund amount. For example, if there are 1000NTD in a user's O'Pay account (balance amount), and the user applies for a refund of 1500 NTD -> the refund service cannot be applied in this case. •

12. Refund Notification

Scenario:

Merchants can use this API to refund the amunt to consumer's O'Pay e-wallet or bank account (if consumer pays with Account-Link, a type of payment in O'Pay e-wallet)/credit card.

Step 1. Merchant's system: send the following refund parameters to API's URL.

Step 2. O'Pay: respond results to merchant.

- (1) If the value of [HoldTradeAMT] in "Create Order" API is 0, it indicates that the disbursement does not have to be deferred. Otherwise please use the "Merchant Disbursement" API.
- (2) This API is not applicable to refund of credit card transaction that is already. If merchants have the need to refund a credit card payment that is already settled please use "Credit card settlement/refund/cancel/forfeit" API.
- (3) Regarding refund of [WeiXinpay], O'Pay provides 2 solutions: A. merchants can go to Merchant's Admin Website (https://vendor.opay.tw/) to refund, or B. merchants can use this API to refund. If merchants select the former, please follow the condition a. as below:

a.If that transaction is not disbursed, the amount to be refunded is less than the original amount to be disbursed and the order is within 90 days.

b.Otherwise, if the order is disbursed, merchants cannot use neither Merchant's Admin Website nor this API to refund. In this case merchants can only contact O'Pay's customer services to do refund, so please contact +886-2-2655-0115 Mon-Fri 9:00 - 18:00 GMT+8:00.

Interfacing path:

■ Production: https://payment.opay.tw/Cashier/AioChargeback

■ Stage: https://payment-stage.opay.tw/Cashier/AioChargeback

Merchant returns parameter (items with a red asterisk * are required):

Parameter	Parameter name	Туре	Description	Example
*MerchantID	Merchant ID (Provided by O'Pay)	String(10)		2000132
*MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created.	oPay1234
*TradeNo	O'Pay transaction ID	String(20)	O'Pay transaction ID of order (if the transaction is success, O'pay will return this parameter).	20120315174058 2564
*ChargeBackTotalAmo unt	Amount for refund	Int		60
*CheckMacValue	Checksum	String	Please refer to the Appendix <u>Checksum</u> <u>Mechanism</u> .	
Remark	Remark °	String(100)	Please leave it blank.	
PlatformID	Contracted platform merchant ID (Provided by Green World)	String(10)	Used by contracted platform merchants. For general merchants or platform merchant interfacing, please leave empty. For use by platform merchants, please set [MerchantID] as the parameter.	

O'Pay Response Parameter Details:

Parameter	Parameter name	Туре	Description	Example
		String	The value returned is a text string and does not have parameter names	1 OK

		If the first digit of value returned is 1, it is	l
		success.	
		If the first digit of value returned is 0, it is	l
		failure. 0 ErrorMessage refers (error code -	
		error message).	

13. Merchant Disbursement

Scenario:

This API applies to transactions deferring disbursement. After the buyer has paid, please use this API so O'Pay can disburse payment to the merchant's O'Pay account.

Step 1. Merchant: Transmit the parameters to apply for disbursement or refund to the interfacing path of the API.

Step2. O'Pay: Reply the result of disbursement and refund to merchant.

- (1) A deferred payment transaction is a transaction where the deferred disbursement [HoldTradeAMT] is set to 1 hour at the time of order creation.
- (2) Transactions paid with credit cards are applicable to this API.
- Interfacing path:
 - Production:https://payment.opay.tw/Cashier/Capture
 - Stage:https://payment-stage.opay.tw/Cashier/Capture
- Merchant return parameter description (items with a red asterisk * are required):

Parameter	Parameter name	Туре	Description	Example
*MerchantID	Merchant ID (Provided by O'Pay)	String(10)		2000132
*MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created.	ecpay1234
*CheckMacValue	Checksum	String	Please refer to the Appendix <u>Checksum</u> <u>Mechanism</u>	
*CaptureAMT	Merchant Disbursement Amount	Int		500
*UserRefundAMT	Amount to be refunded to buyer	Int	O'Pay does not refund merchants, so this field is fixed at 0	0
PlatformID	Platform merchant ID (Provided by O'Pay)	String(10)	Used by contracted platform merchants. For general merchants or platform merchant interfacing, please leave empty. For use by platform merchants, please set [MerchantID] as the parameter.	200012345
Remark	Note	String(30)		

O'Pay Response Return Parameter Details:

The disbursement results will be returned to the page in parameters in the chart as follows. It is displayed in "parameter=value" format. Parameters are separated by an ampersand (&). For example:

MerchantID=2000132&MerchantTradeNo=ecpay1234&TradeNo=201403151740582564&RtnCode=1

&RtnMsg=OK&AllocationDate=2015-02-06

Parameter	Parameter name	Туре	Description	Example
MerchantID	Merchant ID	String(9)		2000132
MerchantTradeNo	Merchant transaction ID	String(20)	Merchant Transaction ID transmitted to O'Pay when order was created.	ecpay1234
TradeNo	O'Pay transaction ID	String(20)	O'Pay transaction ID of order	2014031517405825 64
RtnCode	Disbursement application status	Int	Return value: 1: success, rest: fail	1
RtnMsg	Response	String(200)		OK
AllocationDate	Estimated disbursement date	String(20)	The format is yyyy-MM-dd	2015-02-06

14.Downloading Merchant Balance Statement

Scenario:

Merchants can download their statements in CSV format.

- Step 1. Merchant: Transmit the specific order details and category to O'Pay via POST (HTTP Method).
- Step 2. O'Pay: Upon receiving a merchant's order inquiry and checking the details, return a CSV file for the merchant to download.

- (1) The API has restrictions on IP access. Please set up the IP under "Merchant Back-Stage Management System -> Basic information inquiry -> Basic merchant information".
- (2) Only 1 CSV may be downloaded per minute.
- Interfacing path:
 - Production :https://vendor.opay.tw/PaymentMedia/TradeNoAio
 - Stage:https://vendor-stage.opay.tw/PaymentMedia/TradeNoAio
- Merchant return parameter description (items with a red asterisk * are required):

Parameter	Parameter name	Туре	Description	Example
*MerchantID	Merchant ID (Provided by O'Pay)	String(10)		2000132
*DateType	Search date category	String(1)	The date category to be inquired 2: Check date paid 4: Check date disbursed date 5: Check date refunded 6: Check order date	2
*BeginDate	Query start date	String(10)	The start date of the query Date format is "yyyy-MM-dd"	2015-02-12
*EndDate	Query end date	String(10)	The end date of the query Date format is "yyyy-MM-dd"	2015-02-12
PaymentType	Payment method	String(2)	Check the payment method for an order 01: Credit cards 02: WebATM 03: ATM 04: Convenience store codes 05: Convenience store barcodes 08: Credit card (OTP) 09: O'Pay account 10: FamilyMart barcode Ignore this parameter: search all	02
PlatformStatus	Order category	String(1)	The order category to be inquired 1: General order 2: Platform order Ignore this parameter: search all	0
PaymentStatus	Payment status	String(1)	The order payment status to be inquired 0: Unpaid orders 1: Paid orders 2: Failed orders Ignore this parameter: All orders	1
AllocateStatus	Disbursement status	String(1)	The disbursement status of the order to be inquired	0

			O: Order has not been disbursed 1: Order has been disbursed Ignore this parameter: All orders	
*MediaFormated	CSV format	String(1)	The format of the file to be downloaded 0: Old file format 1: New file format	1
*CheckMacValue	Checksum	String	Please refer to the Appendix <u>Checksum</u> <u>Mechanism</u>	

• O'Pay Response CSV Old File Format Details:

Field name	Туре	Description
Transaction date	String	The default format is yyyy/MM/dd hh:mm:ss
O'Pay transaction ID	String	
Merchant order ID	String	
ATM barcode	String	
Transaction amount	Int	
Payment method	String	
Payment result	String	
Payment date	String	
Payment source (Bank/Convenience store)	String	
Retail fee	Int	
Rate (% or \$ per transaction)	String	
Retail fee sum	Int	
Receivables (net)	Int	
Disbursement status	String	
Disbursement date	String	The default format is yyyy/MM/dd hh:mm:ss
Note	String	

• O'Pay Response CSV New File Format Details:

Field name	Туре	Description
Order date	String	The default format is yyyy/MM/dd hh:mm:ss
Merchant order ID	String	
O'Pay order ID	String	
Store ID	String	
MID	String	
Platform name	String	
Payment method	String	
Rate (per transaction)	String	
Credit card authorization number	String	

Last 4 digits of credit card	String	
Convenience store information/ATM payment account	String	
Payment status	String	
Transaction amount	Int	
Refund date	String	The default format is yyyy/MM/dd hh:mm:ss
Refund amount	Int	
Transaction fee	Int	
Platform fee	Int	
Receivables (net)	Int	
Disbursement status	String	
Note	String	
Merchant Notes	String	
Merchandise name	String	
Transaction description	String	
Payer name	String	
Payer phone number	String	
Payer email	String	
Recipient name	String	
Recipient phone	String	
Recipient address	String	
Recipient email	String	
Business Tax ID	String	

- $(1) \quad \hbox{The download format is the same as the "General order inquiry/Overall payments" in the admin website for merchants.}$
- (2) If there is no data, the statement file will only contain the field names.
- (3) If an error occurs, the statement fill will include a data entry recording the messages returned at the time of execution at the "Notes" or "Merchant Notes" section, in addition to the field names. All remaining fields will be empty.
- (4) The file's default encryption method is BIG-5.

15. Search for a Single Credit Card Transaction

Scenario:

Enables merchants to check a single credit card transaction.

- Interfacing path:
 - Production: https://payment.opay.tw/CreditDetail/QueryTrade/V2
 - Stage: This API can not be used because no real authorizations can be provided
- Merchant return parameter description (items with a red asterisk * are required):

Parameter	Parameter name	Туре	Description	Example
*MerchantID	Merchant ID (Provided by ecPay)	String(10)		2000132
*CreditRefundId	Credit card authorization number	Int		10123456
*CreditAmount	Amount	Int		
*CreditCheckCode	Merchant Checksum	Int	This can be found in Merchant Back-Stage Management System -> Credit Card Acquiring-> Credit Card Authorization Information	59997889
*CheckMacValue	Checksum	String	Please refer to the Appendix Checksum Mechanism	

The search results will be returned to the page in JSON chart format.

Return example (for illustration purposes, the following example has been reformatted):

```
"RtnMsg":"",
"RtnValue":{
    "TradeID":"0015625112",,
    "amount":"1",
    "clsamt":"1",

    "status":"Has been settled ",
    "close_data":[
    {
        "status":"已關帳",
        "sno":"2782343",
        "amount":"1",

        "datetime":"2016/5/12 下午 08:00:00"
        }
    ]
    ]
}
```

The returned JSON can be categorized as (I) Main transaction information and (II) Detail information Their respective details are as follows:

(III) Main authorization information (highlighted in the example below):

Main authorization information parameter details:

Parameter	Parameter name	Туре	Description	Example
RtnMsg	Response	String(200)	If it is successful, the return value will be: ok If there is no merchant or the merchant has expired, the return value is: error_Stop If there is no such transaction authorization number, the return value is: error_nopay If an error occurs or the data check fails, the return value is: error	ok
RtnValue	Response			
TradeID	Authorization number	Int		0015625112
amount	Transaction amount	Int		100
clsamt	Amount settled	Int		100
authtime	Transaction time	String(24)		2016/5/12 PM 07:09:17
status	Transaction status	String(30)	If there are no settlement transaction details, the status return value will be: Canceled: This transaction has been canceled	Authorized

Unauthorized: Unauthorized by bank
Authorized: Bank has completed
authorization
If there are a settlement transaction
details, the status return value will
be:
Refused by bank
To be settled
Settling
Has been settled
To be canceled
Cancellation in process
Canceled
Bank chargeback in progress
Bank chargeback complete
Batch failed
unknown
Operation canceled

```
(IV) Detail Information (highlighted in the example below):
{
    "RtnMsg":",
    "RtnValue";{
        "TradeID":"0015625112",,
        "amount":"1",
        "authtime":"2016/5/12 下午 07:09:17",

    "status":"已關帳",

    "close_data":[
        {
             "status":"已關帳",
            "sno":"2782343",
            "amount":"100",
            "datetime":"2016/5/12 下午 08:00:00"
        }
        1
```

Parameter details on detail information:

Parameter	Parameter name	Туре	Description	Example
status	Status	String(30)	The status return value is as follows: Refused by bank To be settled Settling	Has been settled
			Has been settled To be canceled Cancellation in process Canceled Bank chargeback in progress Bank chargeback complete	

		_	Batch failed unknown Operation canceled	
amount	Transaction amount	Int		100
sno	Settlement serial number	String(30)		2782343
datetime	Settlement time	String(24)		2016/5/12 PM 08:00:00

16. Downloading the Credit Card Disbursement Balance Statement File

Scenario:

Merchants can download their credit card disbursement statement in CSV format.

Step 1. Merchant: Transmit the credit card disbursement details and category to O'Pay via POST (HTTP Method) for inquiry.

Step 2. O'Pay: Upon receiving merchant's credit card disbursement inquiry and checking details, return a CSV file for the merchant to download.

• Interfacing path:

- Production :https://payment.opay.tw/CreditDetail/FundingReconDetail
- Stage: This API can not be used because no real authorizations can be provided
- Merchant return parameter description (items with a red asterisk * are required):

Parameter	Parameter name	Туре	Description	Example
*MerchantID	Merchant ID (provided by O'Pay)	String(10)		123456789
*PayDateType	Search date category	String(10)	The date category to be inquired fund: Check disbursed date close: check settlement date enter: check entry date	close
*StartDate	Query start date	String(10)	The start date of the query Date format is "yyyy-MM-dd"	2015-02-12
*EndDate	Query end date	String(10)	The end date of the query Date format is "yyyy-MM-dd"	2015-02-12
*CheckMacValue	Checksum	String	Please refer to the Appendix <u>Checksum</u> <u>Mechanism</u>	

O'Pay Response CSV File Format Details:

Field name	Туре	Description
Serial number	String	
Authorization number	String	
Authorization code	String	
Order ID	String	
Transaction date	String	
Payment requested date	String	
Transaction amount	Int	
Service fee (%)	Int	
Amount of payment	Int	

- (1) This API allows to download a Balance Statement File per minute.
- (2) Please set the POST Header encoding to BIG5 to avoid the return data becoming garbled
- (3) The file's default encryption method is BIG-5.

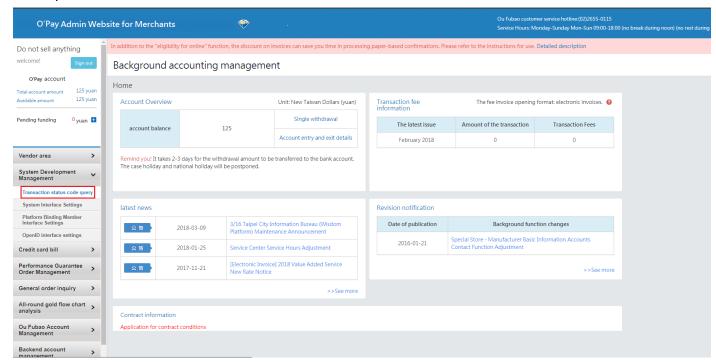
*

Appendix 1 Keyword list

Name	Description
Merchant	The seller who is providing O'Pay's payment services to the buyer
Merchant	The contracted store who has signed a contract with O'Pay for payment services
Platform merchant	A platform merchant who has signed a contract with O'Pay for payment services
AioCheckOut	API service provided by O'Pay
O'Pay order	Order generated on O'Pay after O'Pay has confirmed that the merchant's order details are correct
Checksum	The data information check string generated by the checksum generating mechanism after
	transmitting transaction details
OTP	Text message verification service for credit card transactions

Appendix 2 List of Transaction Status Codes

As new error codes are always being added, please visit the Merchant back-stage management system -> System Development Management -> transaction status code query on O'Pay for a comprehensive list of error codes.



Appendix 3 O'Pay API Tutorial

API	Payment method	Interfacing path
Create Order	Credit card	https://developers.opay.tw/AioCreditCard/CreateOrder
	(pay at once/installment)	
	credit card periodic	https://developers.opay.tw/AioCreditCard/PeriodCreateOrder
	fix-amount	
	CVS	https://developers.opay.tw/AioCvs/CreateOrder
	ATM	https://developers.opay.tw/AioAtm/CreateOrder
WebATM https://developers.opay.tw/AioWebAtm/CreateOrder Payment not specified https://developers.opay.tw/AioAll/CreateOrder		https://developers.opay.tw/AioWebAtm/CreateOrder
		https://developers.opay.tw/AioAll/CreateOrder

Appendix 4 Payment Method List

Payment method	Payment sub-method	Payment method name
WebATM	TAISHIN	WebATM_Taishin Bank
	ESUN	WebATM_E.SUN Bank
	BOT	WebATM_Bank of Taiwan
	FUBON	WebATM_Taipei Fubon Bank
	CHINATRUST	WebATM_Chinatrust Bank
	FIRST	WebATM_First Bank
	CATHAY	WebATM_Cathay United Bank:
	MEGA	WebATM_Mega International Commercial
		Bank
	LAND	WebATM_Land Bank
	TACHONG	WebATM_Ta Chong Bank
	SINOPAC	WebATM_Bank SinoPac
ATM	TAISHIN	ATM_Taishin Bank
	ESUN	ATM_E.SUN Bank
	ВОТ	ATM_Bank of Taiwan
	FUBON	ATM_Taipei Fubon Bank
	CHINATRUST	ATM_Chinatrust Bank
	FIRST	ATM_First Bank
	LAND	ATM_Land Bank
	CATHAY	ATM_Cathay United Bank
	TACHONG	ATM_Ta Chong Bank
CVS	CVS	Convenience store code payment
	ОК	OK·MART code payment
	FAMILY	FamilyMart code payment
	HILIFE	Hi-Life code payment
	IBON	7-11 ibon code payment
Credit	Credit	Credit card_MasterCard_JCB_VISA
TopUpUsed	AllPay	e-wallet for payment

Appendix 5 Payment Method Response List

Reply payment method (PaymentType)	Payment method name
WebATM_TAISHIN	Taishin Bank WebATM
WebATM_MEGA	Mega International Commercial Bank WebATM
WebATM_SHINKONG	SHINKONG Bank Bank of Taiwan WebATM
WebATM _FIRST	First Bank WebATM
ATM_ESUN	E.SUN Bank WebATM
ATM_FIRST	First Bank ATM
ATM_CHINATRUST	Chinatrust Bank ATM
ATM_TAISHIN	Taishin Bank ATM
CVS_CVS	Reference number to be paid at convenience store
CVS_OK	OK • MART code payment
CVS_FAMILY	FamilyMart code payment
CVS_HILIFE	Hi-Life code payment
CVS_IBON	7-11 ibon code payment
AccountLink_TAISHIN	Bank of TAISHIN
Credit_CreditCard	Credit cards
TopUpUsed_AllPay	e-wallet of O'Pay

Appendix 6 URLEncode Conversion Table

Symbol	URL-Encode results	.NET URL-Encode results
-	%2d	-
_	%5f	_
	%2e	
·!	%21	!
~	%7e	%7e
*	%2a	*
(%28	(
)	%29)
space	%20	+
@	%40	%40
#	%23	%23
\$	%24	%24
%	%25	%25
۸	%5e	%5e
&	%26	%26
=	%3d	%3d
+	%2b	%2b
;	%3b	%3b
?	%3f	%3f
/	%2f	%2f
\	%5c	%5c
>	%3e	%3e
<	%3c	%3c
%	%25	%25
`	%60	%60
[%5b	%5b
]	%5d	%5d
{	%7b	%7b
}	%7d	%7d
:	%3a	%3a
1	%27	%27
п	%22	%22
,	%2c	%2c
1	%7c	%7c

Appendix 7 Example of Periodic Fixed-Amount Purchases

Example 1 A subscription to a music platform (music stream service) for \$150/per month for a 1 year, and the service was effective on 2016/1/31. The service was paid by credit card with the payment type of fixed-amount being charged periodically (once per month) and automatically.

■ Period of charge:

No.₽	Date of authorization₽	Amount authorized by	Status of
		credit card₽	authorization₽
1₽	2016/1/31	150₽	Authorization
			successful ₽
2₽	2016/2/2947	150₽	Authorization
			successful₽
3₽	2016/3/314	150₽	Authorization
			successful₽
4₽	2016/4/304	150₽	Authorization
			successful₽
5€	2016/5/31	150₽	Authorization
			successful₽
6₽	2016/6/30₽	150₽	Authorization
			successful₽
7₽	2016/7/31	150₽	Authorization
			successful₽
8₽	2016/8/31	150₽	Authorization
			successful₽
9₽	2016/9/304	150₽	Authorization
			successful₽
10€	2016/10/314	150₽	Authorization
			successful₽
11₽	2016/11/304	150₽	Authorization
			successful₽
12₽	2016/12/314	150₽	Authorization
			successful₽

■ Parameter setting:

Parameter₽	Parameter name₽	Value of parameter₽
PeriodAmount <i>₽</i>	Amount of authorization₽	150₽
PeriodType₽	Type of period₽	M₽
Frequency₽	Frequency of execution₽	1€
ExceTimes₽	Times of execution₽	12₽

Example 2 A purchase for vitamins was made with a monthly payment amount of \$680 for 6 months. The Transaction was made on 2016/1/10.

■ Period of charge:

No.₽	Date of authorization	Amount authorized by	Status of
		credit card₽	authorization₽
1₽	2016/1/10₽	680₽	Authorization
	, ,		successful₽
2₽	2016/2/10₽	680₽	Authorization
	, ,		successful₽
3 ₽	2016/3/10₽	680€	Authorization failure@
3₽	2016/4/10₽	680₽	Authorization
			successful₽
4₽	2016/5/10₽	680₽	Authorization
			successful₽
5₽	2016/6/10₽	680₽	Authorization
			successful₽
6₽	2016/7/10₽	680₽	Authorization
	,		successful₽

On 2016/3/10, the third authorization to the credit card payment fails (propably due to the low credit card limit), so this charge will not be proceeded and will be held until the next time.

Parameter₽	Parameter name₽	Value of parameter₽
PeriodAmount₽	Amount of authorization₽	150₽
PeriodType₽	Type of period₽	M€
Frequency₽	Frequency of execution₽	1₽
ExceTimes₽	Times of execution₽	12₽

- Example 3 If the customer no longer wishes to proceed with the purchase and needs to cancel the periodic fixed-amount payment method, the merchant may cancel the transaction by logging in to the O'Pay admin website for merchants.
- 1. Login to the O'Pay admin website for merchants https://vendor.opay.tw/
- 2. (1) Credit card acquiring \rightarrow (2) Periodic fixed-amount purchases Inquiry \rightarrow (3) Search for the order to be canceled
- 3. Locate the order to be canceled and click details/edit



(1) Click Disable → (2) Modify state

