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# ZaloPay APIs AgreementPay Integration Document

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## A. Overview

### Introduction

- This document provides APIs for merchants to integrate agreement pay solution to their applications.
- Definition: Agreement pay, also known as Auto-debit is a payment solution which allows merchants can debit money from user balances, accounts automatically after a user signed up an agreement

### Environment information

Environment	Link
Sanndbox	<a href="https://sb-openapi.zalopay.vn">https://sb-openapi.zalopay.vn</a>
Prod	<a href="https://openapi.zalopay.vn">https://openapi.zalopay.vn</a>

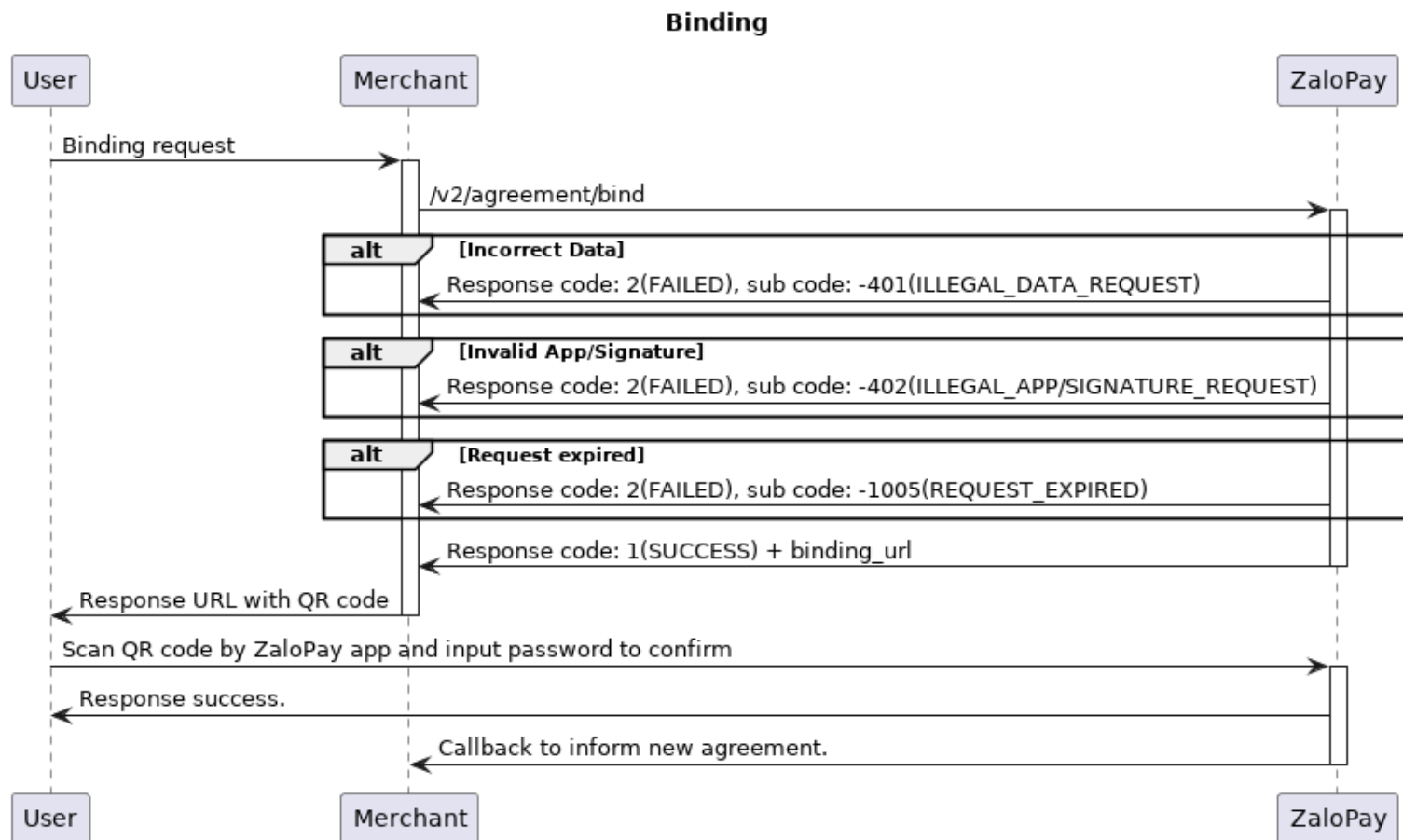
Interface Name	Entry Point	Direction
Create Binding	<a href="#">/v2/agreement/bind</a>	Merchant to ZaloPay
Query Payment Token	<a href="#">/v2/agreement/query</a>	Merchant to ZaloPay
Unbind	<a href="#">/v2/agreement/unbind</a>	Merchant to ZaloPay
Query Balance	<a href="#">/v2/agreement/balance</a>	Merchant to ZaloPay
Create Order	<a href="#">/v2/create</a>	Merchant to ZaloPay

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Pay By Token	<a href="#">/v2/agreement/pay</a>	Merchant to ZaloPay
Get Order's Status	<a href="#">/v2/query</a>	Merchant to ZaloPay
Refund Order	<a href="#">/v2/refund</a>	Merchant to ZaloPay
Refund Order's Status	<a href="#">/v2/query_refund</a>	Merchant to ZaloPay
Query User Info	<a href="#">/v2/query_user</a>	Merchant to ZaloPay
Payment Notification	Provided by the Merchant	ZaloPay to Merchant
Binding Notification	Provided by the Merchant	ZaloPay to Merchant
Un Binding Notification	Provided by the Merchant	ZaloPay to Merchant

## B. APIs Description

### 1. Binding



## 1.1. Create Binding For Agreement

- **Description:** This API is used for creating a new binding for an agreement of a user in auto-debit flow.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	/v2/agreement/bind

### Request parameters

No	Parameter	Data Type	Mandatory	Max Length	Description
1	app_id	Int	Required		The app identifier is provided by ZaloPay.
2	binding_data	JSON string	Required	2048	This field contains detail binding information for billing purposes. Use “ ” when empty
3	app_trans_id	String	Required	40	The transaction id is used to initialize a binding request, generated by merchant system, unique transaction ID of application (TXID of binding transaction), format: yyMMddxxxxxxxxxx.

4	binding_type	String	Required	20	Specify which type of binding, currently the only <b>WALLET</b> is allowed. Default is <b>WALLET</b> if not provided
5	identifier	String	Required	128	User's identifier on the merchant system, it can be the merchant user's id, phone number, email...
6	max_amount	Int64	Required		Maximum permissible amount. The default is real balance. Default is <b>0</b> if not provided
7	redirect_url	String	Optional	256	URL of merchant binding page(web), be used in the <b>desktop binding</b> scenario. After the binding process finished, ZaloPay auto-debit binding page will redirect to merchant binding page via redirect URL with the binding result
8	redirect_deep_link	String	Optional	256	deep-link of merchant app, be used in the mobile binding scenario. After the binding process finished, ZaloPay app will open the merchant app via redirect deep link with the binding result
9	callback_url	String	Optional	256	After the binding process finished successfully, ZaloPay auto-debit system will notify to merchant system via this URL
10	req_date	Int64	Required		Current timestamp in milliseconds - GMT+7
11	mac	String	Required	64	Authentication information

## Create authentication information

**mac** = HMAC(hmac\_algorithm, mackey, hmacinput)

### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey:** provided by ZaloPay at registration
- ✓ **hmacinput:** app\_id + "|" + app\_trans\_id + "|" + binding\_data + "|" + binding\_type + "|" + identifier + "|" + max\_amount + "|" + req\_date

## Response Parameters

No	Parameter	Data Type	Max Length	Description
1	return_code	Int		1: Success, 2: Failed
2	return_message	String	256	Description of return code
3	sub_return_code	Int		Detail error code
4	sub_return_message	String	256	Detail error message
5	binding_token	String	64	The token for confirming.
6	deep_link	String	256	The deep-link for confirming the agreement in the mobile scenario.
7	binding_qr_link	String	245	The URL for the user confirming the agreement in the web scenario. ZaloPay has generated QR code for Merchant.

8	short_link	String	245	The URL for the user agreement in the web scenario. Merchant need gen QR from this link.
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**Example:**

1. Case success

Request	Response
<pre>{   "app_id": "2638",   "binding_data": "",   "app_trans_id": "230407_13221300383",   "binding_type": "WALLET",   "identifier": "84903863801",   "max_amount": 0,   "redirect_url": "",   "redirect_deep_link": "",   "callback_url": "",   "req_date": "1680848533635",   "mac":   "886166ce767274046d3ba99ce361c96610f9147c479c86bb1a23fd76176cc3c9" }</pre>	<pre>{   "return_code": 1,   "return_message": "Giao dịch thành công.",   "sub_return_code": 1,   "sub_return_message": "Giao dịch thành công.",   "binding_token": "230407qQe7vGnqp0agyforLAy0D2b1x3",   "deep_link":   "zalopay://launch/app/732?view=authorize&amp;b=230407qQe7vGnqp0agyforLAy0D2b1x3",   "binding_qr_link": "https://dev-binding.zalopay.vn?binding_token=230407qQe7vGnqp0agyforLAy0D2b1x3",   "short_link": "https://zlpdev-agp.zalopay.vn/oauthbe/agreement/230407qQe7vGnqp0agyforLAy0D2b1x3" }</pre>



2. Case fail: This is mean signature wrong

Request	Response
<pre>{   "app_id": "2638",   "binding_data": "",   "app_trans_id": "230407_13221300383",   "binding_type": "WALLET",   "identifier": "84903863800",   "max_amount": 0,   "redirect_url": "",   "redirect_deep_link": "",   "callback_url": "",   "req_date": "1680848533635",   "mac":   "886166ce767274046d3ba99ce361c96610f9147c479c86bb1a23fd   76176cc3c9" }</pre>	<pre>{   "return_code": 2,   "return_message": "Giao dịch thất bại",   "sub_return_code": -402,   "sub_return_message": "Chữ ký không hợp lệ" }</pre>

## 1.2. Binding Notification

- **Description:** This API is implemented on the merchant site for receiving callbacks from ZaloPay for agreements that have been confirmed or updated.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	provided by the merchant

### Request Parameters

No	Parameter	Data Type	Max Length	Description	Comment
1	data	JSON string	4096	Data callback	See callback_agreement_data section for more information.
2	mac	String	64	Authentication information for validating the request.	
3	type	Int		Type of callback: 1: order 2: agreement	

### callback\_agreement\_data

No	Parameter	Data Type	Max Length	Description
1	app_id	Int		The app identifier is provided by ZaloPay.
2	binding_data	String	2048	The binding data was sent in bind request.
3	app_trans_id	String	40	App transaction id of binding request (TXID of binding transaction)
4	binding_id	String	64	The id of binding has been confirmed in the ZaloPay system.
5	pay_token	String	128	The public token is used when doing auto-debit. (This is used when doing <b>access_token</b> for query user info)
6	server_time	Int64		Server timestamp in seconds.
7	merchant_user_id	String	128	The <b>identifier</b> parameter in bind request.
8	zp_user_id	String	64	The identifier of ZaloPay user per merchant app_id
9	status	Int		1: Confirmed, 3: Cancelled, 4: Disabled.
10	msg_type	Int		Type of message: 1: The user confirms an agreement 2: The user updates the agreement
11	masked_user_phone	String	20	Masked user phone ( <i>Ex: masked_user_phone: "****6938"</i> )

### Example request:

```
{
  "data":
  "{ \"app_id\":2638, \"app_trans_id\": \"230407_13221300383\", \"binding_id\": \"230407qQe7vGnqp0agyforLay0D2b1x3\", \"pay_t
  oken\": \"NJLHNTRLZDETZGQYZI0ZNTBKL TGWZJKTMTKXYJHLMWI5NTFI\", \"merchant_user_id\": \"84903863801\", \"zp_user_id\": \"Bs8
  KJXf2GKyfVv_fnxG7IwG5VbQ8H_qGsOUW2UJAJSM\", \"masked_user_phone\": \"****3801\", \"server_time\":1680848564, \"status\":1
  , \"msg_type\":1, \"expiry_timestamp_in_ms\":1996467763977}",
  "mac": "bed74dc38e023d7402297107e1e518b16731d1689ebf77120872e12d9e36882a",
  "type": 2
}
```

### Create authentication information

**mac** = HMAC(hmac\_algorithm, callback key, hmacinput)

#### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **callback key:** provided by ZaloPay at registration
- ✓ **hmacinput:** data

## Response Parameters

Parameter	Data Type	Description
return_code	Int	1: Success, 2: Failed
return_message	string	Description of return code

### Example response:

```
{  
  "return_code":1,  
  "return_message":"SUCCESS"  
}
```

**Note:** After confirm, application will redirect to merchant website or merchant app with params

Parameter	Data Type	Max Length	Description
app_id	Int		The appid of merchant
binding_id	String	64	The ID of the binding token has been approved to auto-debit.
status	Int		1: Success, otherwise fail

Example: [https://docs.zalopay.vn/v2/?app\\_id=15111&binding\\_id=230420ZEGX4KQA3OeG7Sk7KAG3BXeAdZ&status=1](https://docs.zalopay.vn/v2/?app_id=15111&binding_id=230420ZEGX4KQA3OeG7Sk7KAG3BXeAdZ&status=1)

### 1.3. Query Payment Token

- **Description:** After the binding has been created successfully, this API is used to get merchant callback data.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	/v2/agreement/query

#### Request Parameters

No	Parameter	Data Type	Mandatory	Max Length	Description
1	app_id	Int64	required		The app identifier is provided by ZaloPay.
2	app_trans_id	String	required	40	The merchant's unique id for the binding (TXID of binding transaction)
3	req_date	Int64	required		Current timestamp in milliseconds
4	mac	String	required	64	Authentication information

## Create authentication information

**mac** = HMAC(hmac\_algorithm, mackey, hmacinput)

### With:

- ✓ **hmac\_algorithm**: is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey**: provided by ZaloPay at registration
- ✓ **hmacinput**: app\_id + "|" + app\_trans\_id + "|" + req\_date

## Response Parameter

No	Parameter	Data Type	Max length	Description
1	return_code	Int		1: Success, 2: Failed, 3: Pending
2	return_message	String	256	Description of return_code
3	sub_return_code	Int		Detail error code
4	sub_return_message	String	256	Description of sub_return_code
5	data	JSON object	4096	The merchant_callback_data

- Detail of merchant\_callback\_data

No	Parameter	Data Type	Max Length	Description
1	app_id	Int		The app identifier is provided by ZaloPay.
2	app_trans_id	String	40	The merchant's unique id for the binding (TXID of binding transaction)

3	binding_id	String	64	The id of binding has been confirmed in the ZaloPay system.
4	pay_token	String	128	The public token is used when doing auto-debit.
5	server_time	Int64		Server timestamp in seconds.
6	merchant_user_id	String	128	The <b>identifier</b> field in bind request.
7	status	Int		1: Confirmed, 3: Cancelled, 4: Disabled.
8	msg_type	Int		Type of message: 1: The user confirms an agreement 2: The user updates the agreement
9	zp_user_id	String	64	The identifier of ZaloPay user per merchant app_id.
10	masked_user_phone	String	20	Masked user phone ( <i>Ex: masked_user_phone: "****6938"</i> )

**Example:**

1. Case success

Request	Response
<pre>{   "app_id": "2638",   "app_trans_id": "230407_13221300383",   "req_date": "1680849004676",   "mac":   "d4f0c710f2a6145220fbb90a20f049e38867285fab1ae13804ea21a4049e3a25"</pre>	<pre>{   "return_code": 1,   "return_message": "Giao dịch thành công.",   "sub_return_code": 1,   "sub_return_message": "Giao dịch thành công.",   "data": {     "app_id": 2638,</pre>

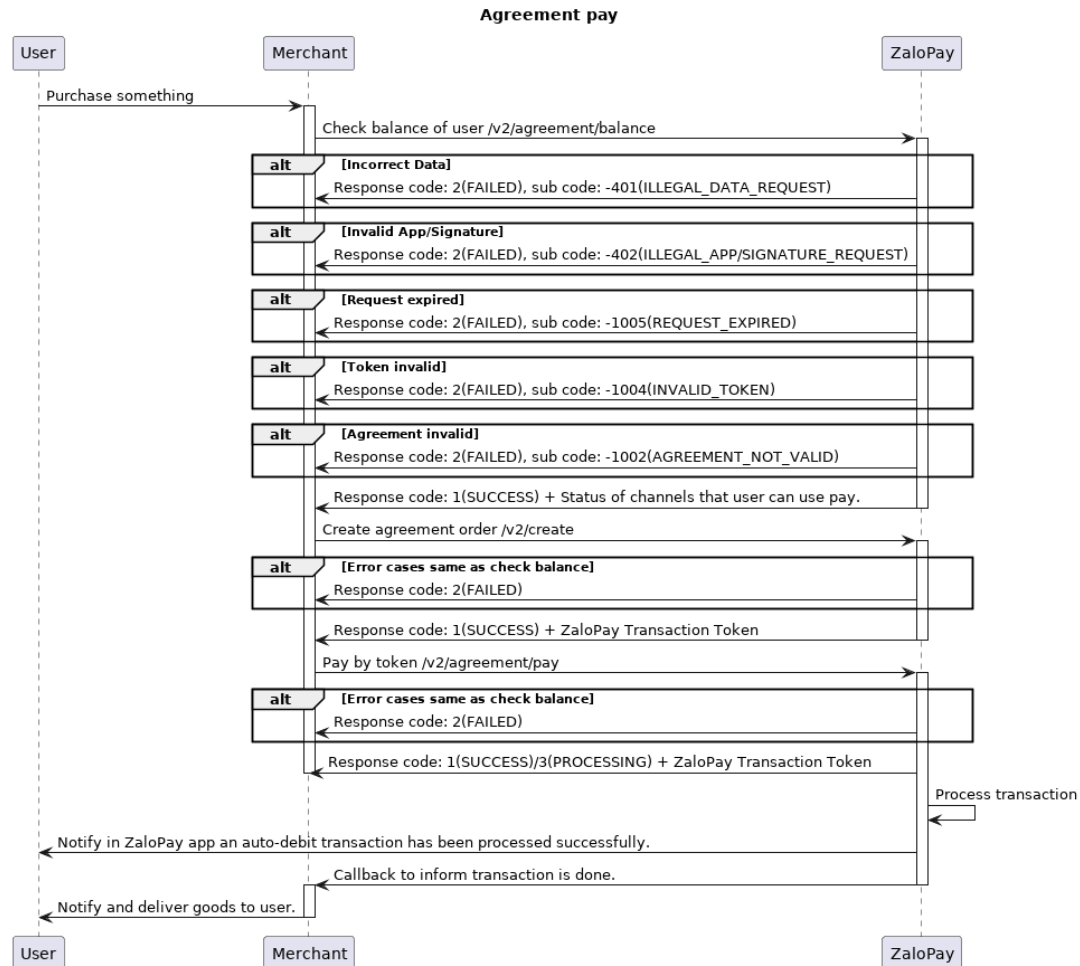


<pre>} </pre>	<pre>"app_trans_id": "230407_13221300383", "binding_id": "230407qQe7vGnqp0agyforLAy0D2b1x3", "pay_token": "NJLHNTRLZDETZGQYZI0ZNTBKLTGWZJKTMTKXYJH LMWI5NTFI", "merchant_user_id": "84903863801", "zp_user_id": "Bs8KJXf2GKyfVv_fnxG7IwG5VbQ8H_qGsOUW2UJAISM", "masked_user_phone": "****3801", "server_time": 1680849004, "status": 1, "msg_type": 1, "expiry_timestamp_in_ms": -62135596800000 } }</pre>
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2. Case fail: This is mean app\_trans\_id (TXID of binding transaction) not exists

Request	Response
<pre>{ "app_id": "2638", "app_trans_id": "230407_13221300384", "req_date": "1680937468033", "mac": "b9be6b6676e9362b96eb4e5b7e144fda927fba1cb4ecf26d6861441 aebe17c30" }</pre>	<pre>{ "return_code": 2, "return_message": "Giao dịch thất bại.", "sub_return_code": -101, "sub_return_message": "Đơn hàng không tồn tại.", }</pre>

## 2. Payment



## 2.1 Query Balance

- **Description:** This API to query the balance of a specific user before paying.
- **Integration**

Name	Description
Protocol	HTTPS
Method	POST
Content-Type	application/x-www-form-urlencoded application/json
URI	/v2/agreement/balance

### Request Parameter

No	Parameter	Data Type	Mandatory	Max Length	Description
1	app_id	Int	required		The app identifier is provided by ZaloPay.
2	identifier	String	required	128	User's identifier on the merchant system, it can be a merchant user's id, phone number, email...
3	pay_token	String	required	128	The public token of the payer.
4	req_date	Int64	required		Timestamp in milliseconds of request.
5	amount	Int64	required		Payment amount.
6	mac	String	required	64	Authentication information

## Create authentication information

mac = HMAC(hmac\_algorithm, mackey, hmacinput)

### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey:** provided by ZaloPay at registration
- ✓ **hmacinput:** app\_id + "|" + pay\_token + "|" + identifier + "|" + amount + "|" + req\_date

## Response Parameters

No	Parameter	Data Type	Max Length	Description	Comment
1	return_code	Int		1: Success, otherwise fail	To get more information, get from sub_return_code
2	return_message	String	256	Description of return_code	
3	sub_return_code	Int		Detail error code from acquiring api	
4	sub_return_message	String	256	Describe sub_return_code	
5	data	Array of objects		The array of detail balance for different channels	
6	discount_amount	Int		The discount amount of the best user's voucher for merchant's order	If discount_amount == 0 that means user has no voucher can apply for current order
7	reform_url	String		Link for users to upgrade fund-out limit or top-up balance	Open when sub_return_code = -1010 or -1800

### Balance detail object

No	Parameter	Data Type	Max Length	Description
1	channel	Int		Payment channel
2	payable	Boolean		If the user can pay on this channel.
3	bank_code	String	10	Bank code of the channel.

### Example

1. Case success

Request	Response
<pre>{   "app_id": "2638",   "identifier": "84903863801",   "mac":   "0c44254bc4943e064db3b3290c8df30cae03b56e10cefca26332cf4   9437fcf63",   "pay_token":   "NJLHNTRLZDETZGQYZIOZNTBKL TGWZJKTMTKXYJHL   MWI5NTFI",   "req_date": "1680849287580",   "amount": "50000" }</pre>	<pre>{   "return_code": 1,   "return_message": "Giao dịch thành công.",   "sub_return_code": 1,   "sub_return_message": "Giao dịch thành công.",   "data": [     {       "channel": 38,       "payable": true,       "bank_code": "zp_app"     }   ],   "discount_amount": 0 }</pre>

```

}

```

2. Case fail: This is mean user balance not enough

Request	Response
<pre> {   "app_id": "2638",   "identifier": "84903863801",   "mac":   "0c44254bc4943e064db3b3290c8df30cae03b56e10cefca26332cf4   9437fcf63",   "pay_token":   "NJLHNTRLZDETZGQYZI0ZNTBKL TGWZJKTMTKXYJHL   MWI5NTFI",   "req_date": "1680849287580",   "amount": "50000000" } </pre>	<pre> {   "return_code": 2,   "return_message": "Giao dịch thất bại.",   "sub_return_code": -1010,   "sub_return_message": "Người dùng không đủ tiền trong tài   khoản.",   "data": null } </pre>

**Note:** In this case merchant using call API Query balance for check user payment status, after receive data response, merchant should follow as bellow:

No	Return_code	Payable	Description
1	1	true	User can payment -> Call API Pay by token
		false	User can not payment -> Don't call API Pay by token
2	2		User can not payment -> Don't call API Pay by token

## 2.2 Create Order For Agreement

- **Description:** This API is used for creating order for agreement pay.
- **Integration**

Name	Description
Protocol	HTTPS
Method	POST
Content-Type	application/x-www-form-urlencoded application/json
URI	/v2/create

### Request Parameter

No	Parameter	Data Type	Max Length	Mandatory	Description
1	app_id	Int		Required	The app identifier is provided by ZaloPay.
2	app_user	String	50	Required	User's identifier on the merchant system, it can be the merchant user's id, phone number, email...
3	app_trans_id	String	40	Required	Unique transaction ID of application (TXID of order transaction), format: yyMMddxxxxxxxx. Max length is 40. For example: 180208181007242
4	app_time	Int64		Required	The timestamp that order was created at in milliseconds. The different limit is 15 minutes.

5	amount	Int64		Required	Amount of money will be charged.
6	order_code	String		Optional	Type of order. Default is GOODS. Supported list: GOODS, TRANSPORTATION, HOTEL, FOOD, P2P, TELCARD, BILLING
7	title	String	256	Optional	Optional title of order.
8	description	String	256	Required	Users will see this text when they are in the confirm payment screen.
9	callback_url	String		Optional	ZaloPay will notify the payment status of order when payment completed; callback is triggered in case of payment fail or success. If not provided, the default app callback URL will be used.
10	redirect_url	String		Optional	This URL is used for transactions on the payment gateway when a transaction completed; the user will be redirected to this URL. It's the responsibility of merchants to provide the correct link.
11	device_info	JSON string.	256	Optional	JSON string describes the device specification.
12	item	JSON array string	2048	Required	JSON array string describes order items. Use "[]" when empty
13	embed_data	JSON string	1024	Required	JSON string include special information of order. Use "{}" when empty See embed data section for more information.
14	mac	String		Required	<a href="#">Authentication information</a>
15	currency	String		Optional	The currency of order. Default is VND.



16	product_code	String	50	Required	Type of API that merchant use. Supported list: ESCROW, QR, DIRECT, AGREEMENT  For orders of auto-debit; This field must be AGREEMENT
17	bank_code	String	20	Optional	Bank code of request. Default is empty.
18	phone	String		Optional	User phone
19	email	String		Optional	User email
20	address	String		Optional	User address

#### embed\_data

No	Parameter	Data Type	Mandatory	Description	Example
1	zlppaymentid	String	Optional	Identifier of payment info. When a merchant has more than 1 payment info(as agreement), this value is required	PB0022
2	merchantinfo	JSON String	Optional	An JSON string which contains merchant brand id, store id, cashier id	"merchantinfo":{"branchId":"120028","storeId":"120071","cashierId":"120070"}
3	columninfo	JSON String	Optional	An JSON string which contains extra info Merchant wants to display on Merchant site report for reference	"columninfo":{"address":"111 Lê Hồng Phong","customercode":"4000827128","customername":"Nguyễn Văn A","data":[{"month":"08/2020","amount":20000}]}

4	promotioninfo	JSON String	Optional	<p>An JSON string which contains promotion information</p> <p>When the transaction needs to be applied promotion campaign, this value is required.</p>	<pre>"promotioninfo":{"campaigncode":"TNG_191125_081_001","productinfo":[{"manufacturer":"123Phim","category":"atyq","sku":"AnhTraiYeuQuai-DearDevilBrotherC13_386190923_0104","amount":170000,"count":2}]}</pre>
5	redirecturl	String	Optional	<p>Apply to Gateway payment method, merchant can define redirect url by order, if not define, system will redirect to the default url which was registered in app configuration</p>	<pre>"redirecturl": "https://docs.zalopay.vn/result"</pre>
6	submerchantid	String	Optional	<p>The unique ID is used to identify a sub merchant.</p>	112201

### Create authentication information

mac = HMAC(hmac\_algorithm, mackey, hmacinput)

#### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey:** provided by ZaloPay at registration
- ✓ **hmacinput:** app\_id + "|" + app\_trans\_id + "|" + app\_user + "|" + amount + "|" + app\_time + "|" + embed\_data + "|" + item

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### Response Parameters

No	Parameter	Datatype	Description
1	return_code	Int	1: Success, 2: Failed
2	return_message	String	Description of return code
3	sub_return_code	Int	Detail error code
4	sub_return_message	String	Detail error message
5	zp_trans_token	String	The token of order.
6	order_url	String	The URL which the user can use to pay by scanning QR code.

**Example:**

1. Case success

Request	Response
<pre>{   "app_id": "2638",   "app_user": "ZaloPay",   "app_trans_id": "230407_13583500399",   "app_time": "1680850715576",   "amount": "50000",   "item": "[]",   "embed_data": "{}",   "bank_code": "zalopayapp",   "order_type": "",   "product_code": "AGREEMENT",   "description": "Ant Group Agreement Pay Demo",   "callback_url": "",   "redirect_url": "",   "title": "",   "currency": "",   "phone": "",   "email": "",   "address": "",   "device_info": "",   "mac":   "8267f660e9b672ec985ff734b46faf03f654c6d256660f39a758d7a7   27b1c2fa" }</pre>	<pre>{   "return_code": 1,   "return_message": "Giao dịch thành công",   "sub_return_code": 1,   "sub_return_message": "Giao dịch thành công",   "zp_trans_token": "ACWH4QMH_wQUF_PxXGs4X4pg",   "order_url":   "https://qcgateway.zalopay.vn/openinapp?order=eyJ6cHRyYW5   zdG9rZW4iOiJBQ1dINFFNSF93UVVVGX1B4WEdzNFg0cGciL   CJhcHBpZCI6MjYzOH0=",   "order_token": "ACWH4QMH_wQUF_PxXGs4X4pg" }</pre>

2. Case fail: This is mean signature wrong

Request	Response
<pre>{   "app_id": "2638",   "app_user": "ZaloPay",   "app_trans_id": "230407_13595900401",   "app_time": "1680850799216",   "amount": "50000",   "item": "[]",   "embed_data": "{}",   "bank_code": "zalopayapp",   "order_type": "",   "product_code": "AGREEMENT",   "description": "Ant Group Agreement Pay Demo",   "callback_url": "",   "redirect_url": "",   "title": "",   "currency": "",   "phone": "",   "email": "",   "address": "",   "device_info": "",   "mac":   "b64b69b6a612ddba691ad451ae729887a18347945e7ce26f7a5a0383e13d8728" }</pre>	<pre>{   "return_code":2   "return_message":"Giao dịch thất bại"   "sub_return_code":-402   "sub_return_message":"Chữ ký không hợp lệ" }</pre>

## 2.3 Pay By Token

- **Description:** This API is used for submitting payment after merchants created the order for agreement pay successfully. After payment has been processed successfully, a callback will be sent to the merchant for detail of the payment.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	/v2/agreement/pay

### Request Parameters

No	Parameter	Data Type	Mandatory	Max Length	Description
1	app_id	Int	required		The app identifier is provided by ZaloPay.
2	identifier	String	required	128	User's identifier on the merchant system, it can be a merchant user's id, phone number, email... (The <b>identifier</b> parameter in bind request)
3	zp_trans_token	String	required	128	The token is generated by API after the order has been created successfully.
4	pay_token	String	required	128	The public token of the payer.

5	req_date	Int64	Required		Current timestamp in milliseconds (GMT + 7)
6	mac	String	Required	64	Authentication information

### Create authentication information

mac = HMAC(hmac\_algorithm, mackey, hmacinput)

#### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey:** provided by ZaloPay at registration
- ✓ **hmacinput:** app\_id + "|" + identifier + "|" + zp\_trans\_token + "|" + pay\_token + "|" + req\_date

### Response Parameters

No	Parameter	Data Type	Max Length	Description	Note
1	return_code	Int		1: Success, 2: Failed, 3: Processing	
2	return_message	String	256	Description of return code	
3	sub_return_code	Int		Detail error code	
4	sub_return_message	String	256	Detail error message	
5	app_trans_id	String	40	TXID of order transaction	
6	zp_trans_id	Int64		The ZaloPay's transaction code	
7	reform_url	String		Link for users to upgrade fund-out limit or top-up balance	Open when sub_return_code = -1010 or -1800

**Example:**

1. Case success

Request	Response
<pre>{   "app_id": "2638",   "identifier": "84903863801",   "req_date": "1680850891529",   "pay_token":   "NJLHNTRLZDETZGQYZI0ZNTBKL TGWZJKTMTKXYJHLMWI5NTFI",   "zp_trans_token": "ACWH4QMH_wQUF_PxXGs4X4pg",   "mac":   "ca205b7f86f03d3f43362bd333c5ac77abaa98f5dfd3ba94091ed2aa9d3e423c" }</pre>	<pre>{   "return_code": 3,   "return_message": "Giao dịch đang xử lý",   "sub_return_code": 3,   "sub_return_message": "Giao dịch đang xử lý",   "app_trans_id": "230407_13583500399",   "zp_trans_id": 230407000006575 }</pre>

2. Case fail: This case is mean transaction duplicate

Request	Response
<pre>{   "app_id": "2638",   "identifier": "84903863801",   "req_date": "1680850498529",   "pay_token":   "NJLHNTRLZDETZGQYZI0ZNTBKL TGWZJKTMTKXYJHLMWI5NTFI",   "zp_trans_token": "AC6b5Qbe0EVmbRBbNPZt7nUg",   "mac":   "e74629a0cba2535bc2bd470c39eeac95008be92fe198ff219ac98bfe9463fd01" }</pre>	<pre>{   "return_code": 2,   "return_message": "Giao dịch thất bại.",   "sub_return_code": -68,   "sub_return_message": "Mã giao dịch bị trùng", }</pre>



## 2.4 Query Order

- **Description:** This API is used for querying the status of the order that has been responded by API pay by token.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	/v2/query

### Request Parameters

No	Parameter	Data Type	Mandatory	Description
1	app_id	Int	required	The app identifier is provided by ZaloPay.
2	app_trans_id	String	required	The transaction ID that is used for querying application (TXID of order transaction)
3	mac	String	required	Authentication information

## Create authentication information

**mac** = HMAC(hmac\_algorithm, mackey, hmacinput)

### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey:** provided by ZaloPay at registration
- ✓ **hmacinput:** app\_id + "}" + app\_trans\_id + "}" + mackey

## Response Parameters

No	Parameter	Data Type	Description
1	return_code	Int	1: Success, 2: Failed, 3: Processing
2	return_message	String	Description of return code
3	sub_return_code	Int	Detail error code
4	sub_return_message	String	Detail error message
5	is_processing	Boolean	Transaction process's status
6	amount	Long	Transaction amount
7	zp_trans_id	Long	The ZaloPay's transaction code
8	server_time	Long	ZaloPay's Transaction trading time (unix timestamp in milliseconds)
9	discount_amount	Long	Transaction discount

**Example:**

1. Case success

Request	Response
<pre>{   "app_id": "2638",   "app_trans_id": "230407_13583500399",   "mac":   "0af146bca9a93842c2e8e983212550e825c06e5db88f72a19ef4f49   34c283c2d" }</pre>	<pre>{   "return_code": 1,   "return_message": "",   "sub_return_code": 1,   "sub_return_message": "",   "is_processing": false,   "amount": 50000,   "zp_trans_id": 230407000006575,   "server_time": 1680850894406,   "discount_amount": 0 }</pre>

2. Case fail: This is mean order not exists

Request	Response
<pre>{   "app_id": "2638",   "app_trans_id": "230407_135835003999",   "mac":   "0af146bca9a93842c2e8e983212550e825c06e5db88f72a19ef4f49   34c283c2d" }</pre>	<pre>{   "return_code": 2,   "return_message": "Giao dịch thất bại",   "sub_return_code": -101,   "sub_return_message": "Đơn hàng không tồn tại" }</pre>

## 2.5. Payment Notification

- **Description:** This callback link is also used for the callbacks if an order of the merchant via ZaloPay is processed successfully.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	provided by the merchant

### Request Parameters

No	Parameter	Data Type	Description	Comment
1	data	JSON string	Data callback	See the callback_order_data section for more information.
2	mac	String	Authentication information for validating the request.	
3	type	Int	Type of callback: 1: order 2: agreement	

**callback\_order\_data**

No	Parameter	Data Type	Description
1	app_id	Int	The app identifier is provided by ZaloPay.
2	app_trans_id	String	App transaction id of order request
3	app_time	Int64	The timestamp of the app in milliseconds.
4	app_user	String	The user of order.
5	amount	Int64	Amount of order.
6	embed_data	String	
7	item	String	
8	zp_trans_id	Int64	The ZaloPay transaction id.
9	server_time	Int64	Server timestamp in milliseconds.
10	channel	Int	Payment channel
11	zp_user_id	String	The identifier of ZaloPay user per merchant app_id
12	user_fee_amount	Int64	Fee amount.
13	discount_amount	Int64	Discount amount.

### Example request:

```
{
  "data":
  "{\\"app_id\\":2638,\\"app_trans_id\\":\\"230407_13583500399\\",\\"app_time\\":1680850715576,\\"app_user\\":\\"ZaloPay\\",\\"amount\\":50000,\\"embed_data\\":\\"{\\"}\\",\\"item\\":\\"[\\"\\",\\"zp_trans_id\\":230407000006575,\\"server_time\\":1680850894407,\\"channel\\":38,\\"merchant_user_id\\":\\"Bs8KJXf2GKyfVv_fnxG7IwG5VbQ8H_qGsOUW2UJAJSM\\",\\"zp_user_id\\":\\"Bs8KJXf2GKyfVv_fnxG7IwG5VbQ8H_qGsOUW2UJAJSM\\",\\"user_fee_amount\\":0,\\"discount_amount\\":0}",
  "mac": "761c9be42fd419b7078e4cf42e5034238ced266b2e094bfd4ce242f99e61b172",
  "type": 1
}
```

### Create authentication information

mac = HMAC(hmac\_algorithm, callback key, hmacinput)

#### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **callback key:** provided by ZaloPay at registration
- ✓ **hmacinput:** data

---

### Response Parameters

No	Parameter	Data Type	Description
1	return_code	int	1: Success, 2: Failed, 3: Processing
2	return_message	string	Description of return code

### Example response:

```
{  
  "return_code":1,  
  "return_message":"SUCCESS"  
}
```

## 2.6 Refund Order

- **Description:** This API is used refunds the order's amount that has been successfully paid via ZaloPay.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	/v2/refund

### Request Parameters

No	Parameter	Data Type	Max Length	Mandatory	Description
1	m_refund_id	String	45		Unique transaction ID of application (TXID of refund order transaction), format: yyMMdd_appid_XXXXXXXXXX. Max length is 45.
2	app_id	Int		required	The app identifier is provided by ZaloPay.
3	zp_trans_id	Long	15	required	Transaction code, which want to be refund. Transaction code of ZaloPay, retrieved from callback data or using API query order
4	amount	Long			Refund amount for users



5	timestamp	Long	13		Time to refund (unix timestamp in millisecond). The time of making the refund, is calculated in milliseconds
6	description	String	100		Refund reason
7	mac	String		required	Authentication information

### Create authentication information

**mac** = HMAC(hmac\_algorithm, mackey, hmacinput)

#### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey:** provided by ZaloPay at registration
- ✓ **hmacinput:** app\_id + "|" + zp\_trans\_id + "|" + amount + "|" + description + "|" + timestamp

### Response Parameters

No	Parameter	Data Type	Description
1	return_code	Int	1: Success, 2: Failed, 3: Processing
2	return_message	String	Description of return code
3	sub_return_code	Int	Detail error code
4	sub_return_message	String	Detail error message
5	refund_id	Long	ZaloPay refund's transaction code, need to save for cross-check then

**Example:**

3. Case success

Request	Response
<pre>{   "app_id": "124705",   "m_refund_id": "220420_124705_11360700093",   "zp_trans_id": "220420000029880",   "amount": "69000",   "timestamp": "1650429367066",   "mac":   "1772f6fe1dd3ac6b1c52d12ff4cb3349707abe697d628c06319f   82a3052fa524",   "description": "ZLP - Refund TransID 220420000029880" }</pre>	<pre>{   "return_code": 3,   "return_message": "Giao dịch đang refund!",   "sub_return_code": 2,   "sub_return_message": "Giao dịch đang refund!",   "refund_id": 220420000028403 }</pre>

## 2.7 Query Refund Order's Status

- **Description:** This API is used to query the refund status of a refund transaction.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	/v2/query_refund

### Request Parameters

No	Parameter	Data Type	Max Length	Mandatory	Description
1	m_refund_id	String	45		Unique transaction ID of application (TXID of refund order transaction), format: yyMMdd_appid_XXXXXXXXXX. Max length is 45.
2	app_id	Int		required	The app identifier is provided by ZaloPay.
3	timestamp	Long	13		Time to refund (unix timestamp in millisecond). The time of making the refund, is calculated in milliseconds
4	mac	String		required	Authentication information

---

## Create authentication information

`mac = HMAC(hmac_algorithm, mackey, hmacinput)`

### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey:** provided by ZaloPay at registration
- ✓ **hmacinput:** `app_id + "|" + m_refund_id + "|" + timestamp`

### Response Parameters

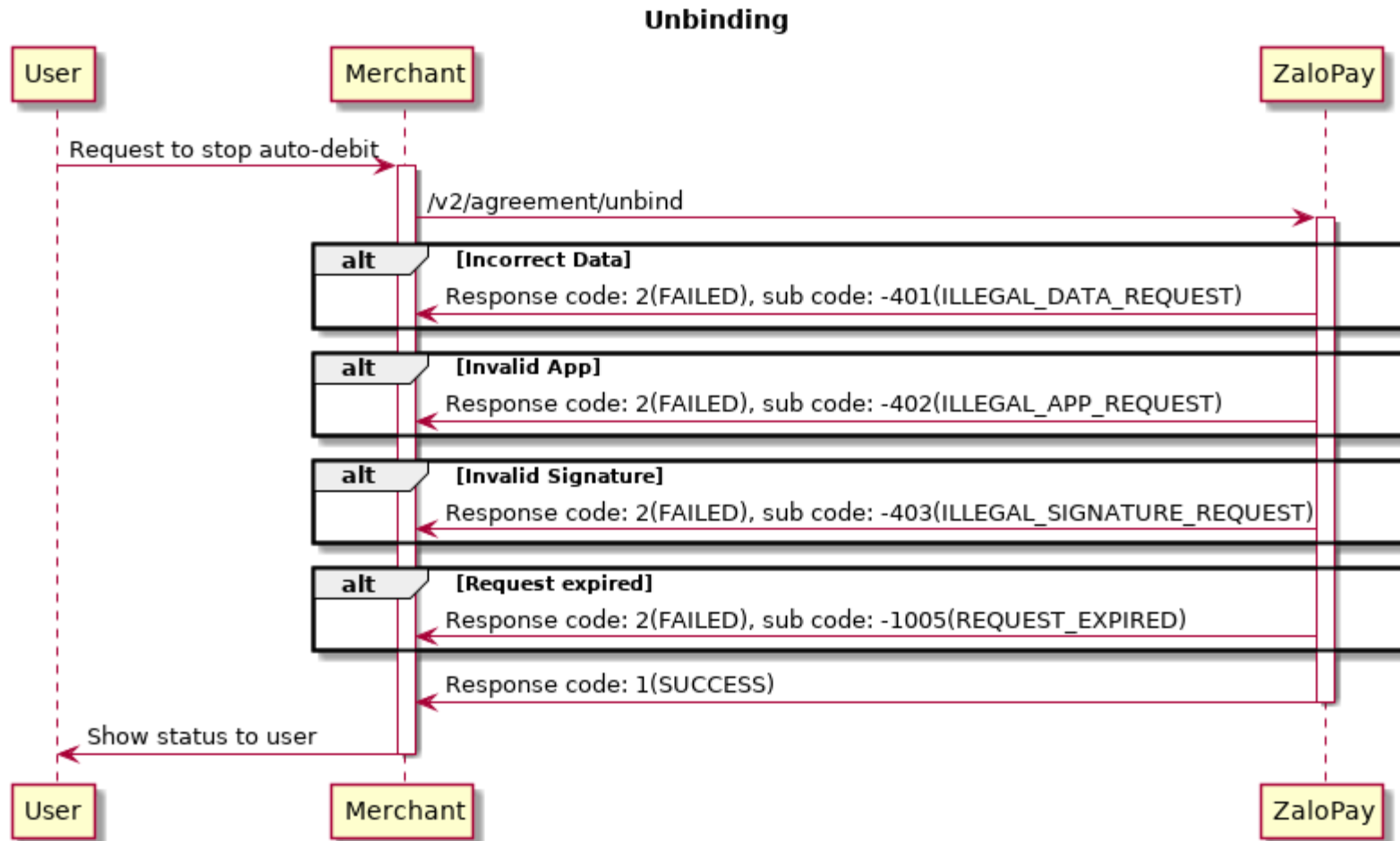
No	Parameter	Data Type	Description
1	return_code	Int	1: Success, 2: Failed, 3: Processing
2	return_message	String	Description of return code
3	sub_return_code	Int	Detail error code
4	sub_return_message	String	Detail error message

**Example:**

4. Case success

Request	Response
<pre>{   "app_id": "124705",   "m_refund_id": "220420_124705_11360700093",   "timestamp": "1650429570877",   "mac":   "f689e80854fbc7d3473eb558a8f415628160e46e238af307d5f2   c24cc3151211" }</pre>	<pre>{   "return_code": 1,   "return_message": "Giao dịch thành công!",   "sub_return_code": 1,   "sub_return_message": "Giao dịch thành công!" }</pre>

### 3. Un Binding



### 3.1 Un Binding

- **Description:** This API will request to unbind an agreement in case a user doesn't want to use the auto-debit feature.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	/v2/agreement/unbind

#### Request Parameters

No	Parameter	Data Type	Mandatory	Max Length	Description
1	app_id	Int	Required		The app identifier is provided by ZaloPay.
2	identifier	String	Required	128	User's identifier on the merchant system, it can be a merchant user's id, phone number, email...
3	binding_id	String	Required	128	The ID of binding that the user wants to unbind.
4	req_date	Int64	Required		Current timestamp in milliseconds.
5	mac	String	Required	64	Authentication information

---

## Create authentication information

mac = HMAC(hmac\_algorithm, mackey, hmacinput)

### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey:** provided by ZaloPay at registration
- ✓ **hmacinput:** app\_id + "|" + identifier + "|" + binding\_id + "|" + req\_date

### Response Parameters

No	Parameter	Data Type	Max length	Description
1	return_code	Int		1: Success, 2: Failed
2	return_message	String	256	Description of return code
3	sub_return_code	Int		Detail error code
4	sub_return_message	String	256	Detail error message



**Example:**

1. Case success

Request	Response
<pre>{   "app_id": "2638",   "identifier": "84903863801",   "binding_id": "230407qQe7vGnqp0agyforL Ay0D2b1x3",   "req_date": "1680852760499",   "mac":   "d5a6f071642ff556d3a1d78548eb099799ad45ad5eb888f2faf2dda   0d64aef8c" }</pre>	<pre>{   "return_code": 1,   "return_message": "Giao dịch thành công",   "sub_return_code": 1,   "sub_return_message": "Giao dịch thành công" }</pre>

2. Case fail: This is binding id not exists

Request	Response
<pre>{   "app_id": "2638",   "identifier": "84903863801",   "binding_id": "230407qQe7vGnqp0agyforL Ay0D2b1x7",   "req_date": "1680852826463",   "mac":   "7ce918cf2adb603c21d96b214f4f08ef3933faf50d0512f736d9759d   ef200534" }</pre>	<pre>{   "return_code": 2,   "return_message": "Giao dịch thất bại.",   "sub_return_code": -101,   "sub_return_message": "Binding không tồn tại" }</pre>

### 3.2 Un Binding Notification

- **Description:** This API is implemented on the merchant site for receiving callbacks from ZaloPay for agreements that have been confirmed or updated.
- **Integration**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	provided by the merchant

#### Request Parameters

No	Parameter	Data Type	Max Length	Description	Comment
1	data	JSON string	4096	Data callback of unbind	See callback_agreement_data section for more information.
2	mac	string	64	Authentication information for validating the request.	
3	type	int		Type of callback: 1: order 2: agreement	.

### callback\_agreement\_data

No	Parameter	Data Type	Max Length	Description
1	app_id	Int		The app identifier is provided by ZaloPay.
2	binding_data	String	2048	The binding data was sent in bind request.
3	app_trans_id	String	40	App transaction id of binding request
4	binding_id	String	64	The id of binding has been confirmed in the ZaloPay system.
5	pay_token	String	128	The public token is used when doing auto-debit. (This is used when doing <b>access_token</b> for query user info)
6	server_time	Int64		Server timestamp in seconds.
7	merchant_user_id	String	128	The <b>identifier</b> field in bind request.
8	zp_user_id	String	64	The identifier of ZaloPay user per merchant app_id
9	status	Int		1: Confirmed, 3: Cancelled, 4: Disabled.
10	msg_type	Int		Type of message: 1: The user confirms an agreement 2: The user updates the agreement
11	masked_user_phone	String	20	Masked user phone ( <i>Ex: masked_user_phone: "****6938"</i> )

### Example request:

```
{
  "data":
  "{ \"app_id\":2638, \"app_trans_id\": \"230407_13221300383\", \"binding_id\": \"230407qQe7vGnqp0agyforLAy0D2b1x3\", \"pay_t
  oken\": \"NJLHNTRLZDETZGQYZI0ZNTBKLTGWZJKTMTKXYJHLMWI5NTFI\", \"merchant_user_id\": \"84903863801\", \"zp_user_id\": \"Bs8
  KJXf2GKyfVv_fnxG7IwG5VbQ8H_qGsOUW2UJAJS\", \"masked_user_phone\": \"****3801\", \"server_time\":1680852761, \"status\":3
  , \"msg_type\":2, \"expiry_timestamp_in_ms\":-6213559680000}",
  "mac": "d0c88f1dd61cd3f885418e35f81ed5399cc9627b39724f91a8f1445da7c94443",
  "type": 2
}
```

### Create authentication information

**mac** = HMAC(hmac\_algorithm, callback key, hmacinput)

#### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **callback key:** provided by ZaloPay at registration
- ✓ **hmacinput:** data

---

### Response Parameters

Parameter	Data Type	Description
return_code	Int	1: Success, 2: Failed
return_message	string	Description of return code

### Example response:

```
{  
  "return_code":1,  
  "return_message":"SUCCESS"  
}
```

## 4. User

### 4.1 Query user info

- **Description:** This API is used for query the basic user info by the access token.
- **Integration:**

Name	Description
<b>Protocol</b>	HTTPS
<b>Method</b>	POST
<b>Content-Type</b>	application/x-www-form-urlencoded application/json
<b>URI</b>	/v2/agreement/query_user

### Request Parameters

No	Parameter	Data Type	Mandatory	Max Length	Description
1	app_id	int	required		The app identifier is provided by ZaloPay.
2	access_token	string	required	128	The access token of the user after binding success.(This is <b>pay_token</b> value)
3	req_date	int64	required		Current timestamp in milliseconds.
4	mac	string	required	64	Authentication information

## Create authentication information

mac = HMAC(hmac\_algorithm, mackey, hmacinput)

### With:

- ✓ **hmac\_algorithm:** is a security method registered by Merchant with ZaloPay, the default is HmacSHA256
- ✓ **mackey:** provided by ZaloPay at registration
- ✓ **hmacinput:** app\_id + "|" + access\_token + "|" + req\_date

### Response Parameters

No	Parameter	Data Type	Max Length	Description
1	return_code	Int		1: Success, 2: Failed, 3: Processing
2	return_message	String	256	Description of return code
3	sub_return_code	Int		Detail error code
4	sub_return_message	String	256	Detail error message
5	phone	String	20	Masked phone of user. For example: ****1234

**Example:**

1. Case success

Request	Response
<pre>{   "app_id": "1721"   "access_token": "ZJVKY2M3OTYTNZUZY0ZZWYZ LWJMNJITZJRHZMUXOWM5YMUX"   "req_date": "1651802573993"   "mac": "a77c1b1f7bd8760ba3b2487bafbef82e33071dc04 6fd850d32802c0b01a286" }</pre>	<pre>{   "phone": "*****2606",   "return_code": 1,   "return_message": "Giao dịch thành công.",   "sub_return_code": 1,   "sub_return_message": "Giao dịch thành công." }</pre>

2. Case fail: This is access\_token not exists

Request	Response
<pre>{   "app_id": "1721"   "access_token": "ZJVKY2M3OTYTNZUZY0ZZWYZL WJMNJITZJRHZMUXOWM5"   "req_date": "1651802573993"   "mac": "47f6b2176915e6ca0bdc1bdb6900e5a5cf8798f5fe8 fe50f9c9fb3bd49699cf7" }</pre>	<pre>{   "return_code": 2,   "return_message": "Giao dịch thất bại.",   "sub_return_code": -401,   "sub_return_message": "Invalid token" }</pre>



## C. Error Code Information

### 1. Create Binding For Agreement

No.	Return_code	Sub_return_code	Short description
1	1	1	SUCCESS
2	2	-68	DUPLICATE_APPS_TRANS_ID
3		-401	ILLEGAL_DATA_REQUEST
4		-402	ILLEGAL_APP/SIGNATURE_REQUEST
5		-500	SYSTEM_ERROR
6		-1801	SYSTEM_MAINTENANCE

### 2. Query Payment Token

No.	Return_code	Sub_return_code	Short description
1	1	1	SUCCESS
1	2	-401	ILLEGAL_DATA_REQUEST
2		-402	ILLEGAL_APP_REQUEST
3		-403	ILLEGAL_SIGNATURE_REQUEST
4		-1000	ILLEGAL_IDENTIFIER

### 3. Create Order For Agreement

No.	Return_code	Sub_return_code	Short description
1	1	1	SUCCESS
2	2	-2	APPID_INVALID
3		-53	HMAC_INVALID
4		-68	DUPLICATE_APPS_TRANS_ID
5		-401	ILLEGAL_DATA_REQUEST
6		-402	ILLEGAL_APP/SIGNATURE_REQUEST
7		-405	ILLEGAL_CLIENT_REQUEST
8		-429	LIMIT_REQUEST_REACH
9		-500	SYSTEM_ERROR

### 4. Query Balance

No.	Return_code	Sub_return_code	Short description
1	1	1	SUCCESS
2	2	-101	TOKEN_NOT_EXITS
3		-401	ILLEGAL_DATA_REQUEST
4		-402	ILLEGAL_APP/SIGNATURE_REQUEST

5		-1000	ILLEGAL_IDENTIFIER
6		-1002	AGREEMENT NOT VALID
7		-1003	ILLEGAL_PRODUCT_CODE
8		-1004	ILLEGAL_TOKEN
9		-1005	REQUEST_EXPIRED
10		-1007	ARGREEMENT_EXPIRED
11		-1009	USER_HAS_BEEN_LOCKED
12		-1010	USER_CANNOT_PAY
13		-1011	PERMISSION_DENIED
14		-1013	PAYMENT_AMOUNT_EXCEED_LIMIT
15		-1019	USER_EXCEED_MERCHANT_LIMIT_BINDING
16		-1500	SYSTEM_ERROR
17		-1800	USER_EXCEED_KYC_LIMIT
18		-1801	SYSTEM IS MAINTENANCE

## 5. Pay By Token

No.	Return_code	Sub_return_code	Short description
1	2	-101	ORDER_NOT_FOUND
2		-401	ILLEGAL_DATA_REQUEST
3		-402	ILLEGAL_APP/SIGNATURE_REQUEST
4		-500	SYSTEM_ERROR
5		-1000	ILLEGAL_IDENTIFIER
6		-1002	AGREEMENT NOT VALID
7		-1003	ILLEGAL_PRODUCT_CODE
8		-1004	ILLEGAL_TOKEN
9		-1005	REQUEST_EXPIRED
10		-1007	ARGREEMENT_EXPIRED
11		-1009	USER_HAS_BEEN_LOCKED
12		-1010	USER_CANNOT_PAY
13		-1011	PERMISSION_DENIED
14		-1013	PAYMENT_AMOUNT_EXCEED_LIMIT
15		-1019	USER_EXCEED_MERCHANT_LIMIT_BINDING
16		-1800	USER_EXCEED_KYC_LIMIT

17		-1801	SYSTEM IS MAINTENANCE
18	3		PROCESSING

### 6. Query Order's Status

No.	Return_code	Sub_return_code	Short description
1	1	1	SUCCESS
2	2	-53	HMAC_INVALID
3		-54	TIME_INVALID
4		-63	ZPW_BALANCE_NOT_ENOUGH
5		-92	APPTRANSID_INVALID
6		-101	ORDER_NOT_EXIT
7		-217	BANK ERROR
8		-332, -333	PROMOTION ERROR
9		-401	ILLEGAL_DATA_REQUEST
10		-402	ILLEGAL_APP/SIGNATURE_REQUEST
11		-500	SYSTEM_ERROR
12		-503	SYSTEM_MAINTENANCE
13		-1330, -1331,	EXCEED_MAX_FUND_OUT_PER_DAY

		-1332, -1333	
14		-1340, -1341, -1342, -1343	EXCEED_MAX_FUND_OUT_PER_MONTH
15	3		PROCESSING

### 7. Refund Order

No.	Return_code	Sub_return_code	Short description
1	2	-10	APPID_INVALID
2		-101	ORDER_NOT_FOUND
3		-401	ILLEGAL_DATA_REQUEST
4		-402	ILLEGAL_APP_REQUEST
5		-403	ILLEGAL_SIGNATURE_REQUEST
6		-500	SYSTEM_ERROR
7		-503	SYSTEM_MAINTENANCE
8	3		PROCESSING

## 8. Query Refund Order's Status

No.	Return_code	Sub_return_code	Short description
1	1	1	SUCCESS
2	2	0	EXCEPTION
3		-1	REFUND_FAIL
4		-2	REFUND_TYPE_INVALID
5		-3	MAC_INVALID
6		-4	PMC_NOT_SUPPORT_REFUND
7		-5	TRANS_NOT_COMPLELE
8		-6	TRANS_FAIL
9		-7	TIME_INVALID
10		-8	TRANS_NOT_FOUND
11		-9	TRANSTYPE_NOT_SUPPORT_REFUND
12		-10	APPID_INVALID
13		-11	TRANS_ALREADY_SUCCESS
14		-12	REQUEST_FORMAT_INVALID
15		-13	REFUND_EXPIRE_TIME
16	-14	REFUND_AMOUNT_INVALID	

17		-15	INSERT_REFUND_PARTIAL_HISTORY_FAIL
18		-16	INSERT_REFUND_LOG_AR_FAIL
19		-17	UPDATE_REFUND_LOG_AR_FAIL
20		-18	TRANS_STATUS_NOT_SUPPORT_REFUND
21		-19	INSERT_REFUND_TRANSLOG_FAIL
22		-20	UPDATE_TOTAL_REFUND_AMOUNT_FAIL
23		-21	REFUND_NOT_FOUND
24		-22	REFUND_STATUS_NOT_SUPPORT_REFUND
25		-23	DUPLICATE_REFUND
26		-24	INVALID_MERCHANT_REFUNDID_FORMAT
27		-25	INVALID_MERCHANT_REFUNDID_DATE
28		-26	INVALID_MERCHANT_REFUNDID_APPID.
29		-27	CLIENTID_INVALID
30		-28	TRANS_INVALID
31		-29	NOT_FOUND_BANKSYSTEM
32		-30	REFUND_CACHE_AND_DB_INCONSISTENT
33		-31	REFUND_OVER_TIME
34		-32	TRANS_HAVE_STATUS_PROMOTION_NOT_SUPPORT_REFUND



35		-401	ILLEGAL_DATA_REQUEST
36		-402	ILLEGAL_APP_REQUEST
37		-403	ILLEGAL_SIGNATURE_REQUEST
38		-500	SYSTEM_ERROR
39		-503	SYSTEM_MAINTENANCE
40	3		PROCESSING

### 9. Un Binding

No.	Return_code	Sub_return_code	Short description
1	1	1	SUCCESS
2	2	-101	BINDING_NOT_EXITS
3		-401	ILLEGAL_DATA_REQUEST
4		-402	ILLEGAL_APP/SIGNATURE_REQUEST
5		-500	SYSTEM_ERROR
		-1011	PERMISSION_DENIED
6		-1801	SYSTEM_MAINTENANCE

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## 10. Query User Info

No.	Return_code	Sub_return_code	Short description
1	1	1	SUCCESS
2	2	-401	ILLEGAL_DATA_REQUEST
3		-402	ILLEGAL_APP_REQUEST
4		-403	ILLEGAL_SIGNATURE_REQUEST