SNAPPAY
ONLINE PAYMENT API

Snap Pay Inc.

Introduction

Audience

This document is for software developers who integrate their existing web products into SnapPay.

Parameters used for testing

```
partner=100000000000000
signKey=h7jjcXPx7n2bmtK7L3mb
version=N2
merchant_id=99911010019
push address: https://pay.foreseenewmedia.com/new_gateway.do
```

Notations

Note:

Note includes very helpful suggestions and very important explanations for the integration process.

Contact Us

Contact our technical team for any technical questions
Contact our business team for non-technical questions.

Pay By Scan

Push Order Request

This API call is used to implement SnapPay for customer who can scan by wechat and alipay .

Merchants send order information to SnapPay host, the host then returns QR Code for users to scan and make payment.

Parameters for Request

Params	Type(Len)	Description	Req'd	Examples
Basic Parameters				
input_charset	String(10)	Encoding format	NO	UTF-8
version	String(10)	Version of this API	NO	N2
partner	String(15)	Partner ID, a unique number assigned by SnapPay	NO	123456123456789
service	String(10)	Interface name	NO	push
sign_type	String(5)	Signing Algorithm, MD5 SHA1, in uppercase	NO	MD5
sign	String	Digital signature	NO	c8il4epm90wyn768fijgqhy8tay37gqa
Business Parameters				
amount	Number(10)	Transaction Amount in cent,eg:1 dollar, you must write like 100.	NO	100
pay_type	String(10)	Transaction Type: wx(for wechat) , aliPayN(Alipay international), aliWebPay(Alipay web payment) aliBarCodePay(Alipay BarCode)	NO	wx
order_id	String(26)	Order ID, variable len, max 26, unique number generated by merchant.	NO	20170707000001
business_time	String(19)	Transaction Time yyyy-MM-dd HH:mm:ss	NO	20 17-07-07 12:59:11
notify_url	String(50)	url for Async notification. No extra added to the url, must start with http or https	YES	http://www.baidu.com
order_desc	String(30)	Order Description	YES	IPHONE
merchant_id	String(15)	Merchant ID, unique ID assigned by SnapPay	NO	990513000000001
sub_merchant_id	String(15)	Sub-merchant ID, unique ID assigned by SnapPay	YES	990513000000002
authCode	String(15)	Authorization Code for Barcode Payment	YES	285972798240331033
returnUrl	String(100)	After payment successful,front side	YES	https://www.baidu.com

Basic Parameters				
Params	**Type(Len)**	**Description**	**Req'd**	**Examples**
		redirect to this URL		

Parameters for Response

Basic Parameters				
Params	**Type(Len)**	**Description**	**Req'd**	**Example**
is_success	String(1)	Request delivered to host T Succeeded F Failed	NO	T
error_msg	String(50)	Error description. Blank if no error. The example means Duplicate Transaction.	YES	Duplicate Transaction
sign_type	String(5)	Signing Algorithm, MD5 SHA1, uppercase	YES	MD5
sign	String(50)	Digital signature	YES	8342649bb0b3b818c9bed5952503b3df
Business Parameters				
errCode	Number(2)	Transaction Status, 00 success	YES	00
errCodeDes	String(40)	Error Description	YES	the example on right means success
codeStr	String(50)	QR Code returned	YES	weixin://wxpay/bizpayurl?pr=yQK9GXr
orderNo	String(30)	Order Number, unique, generated by SnapPay	YES	2920170718000001

Request Example

```
 sign_type=MD5&notify_url=http%3A%2F%2Fwww.baidu.com&input_charset=UTF-8&order_id=2017071
8000003&version=2.1&sign=1153023c272add92f7d8ebcceabf03b5&amount=100&business_time=2017-
07-17+12%3A59%3A36&order_desc=IPHONE&pay_type=wx&service=push&partner=111222333444555
&merchant_id=99911010019
<?xml version="1.0" encoding="utf-8"?>
<data>
    <sign>2f34765b5bf9de0b91b3ece954a43780</sign>
    <is_success>T</is_success>
    <sign_type>MD5</sign_type>
    <request>
        <sign_type>MD5</sign_type>
        <notify_url>http://www.baidu.com</notify_url>
        <input_charset>UTF-8</input_charset>
        <order_id>20170718000003</order_id>
        <version>2.1</version>
        <sign>1153023c272add92f7d8ebcceabf03b5</sign>
        <amount>100</amount>
        <business_time>2017-07-17 12:59:36</business_time>
        <order_desc>Student_Id=12345678, Student Name=Andy Liu</order_desc>
        <pay_type>wx</pay_type>
        <service>push</service>
        <partner>111222333444555</partner>
        <merchant_id>99911010019</merchant_id>
    </request>
    <response>
        <errCode>00</errCode>
```

```
        <orderNo>2920170718000003</orderNo>
        <errCodeDes>Order push successfully</errCodeDes>
        <codeStr>weixin://wxpay/bizpayurl?pr=mkW9mQf</codeStr>
    </response>
</data>
```

Response Example

```
<?xml version="1.0" encoding="utf-8"?>
<data>
    <error_msg>ILLEGAL_SIGN</error_msg>
    <is_success>F</is_success>
</data>
```

Order Query

This API call is used to get details of an order placed.

Parameters for Request

Basic Parameters				
Params	**Type(Len)**	**Description**	**Req'd**	**Example**
input_charset	String(10)	Encoding format	NO	UTF-8
version	String(10)	Version of this API	NO	N2
partner	String(15)	Partner ID, a unique number assigned by SnapPay	NO	123456123456789
service	String(10)	Services used	NO	query
sign_type	String(5)	Signing Algorithm, MD5 SHA1, in uppercase	NO	MD5
sign	String	Digital signature	NO	c8il4epm90wyn768fijgqhy8tay37gqa
Business Parameters				
order_id	String(26)	Order ID, variable len, max 26, unique number generated by a merchant.	NO	20170707000001
merchant_id	String(15)	Merchant ID, unique ID assigned by SnapPay	NO	990513000000001
order_no	String(30)	Order Number, unique, generated by SnapPay	YES	2920170718000001

Parameters for Response

Basic Parameters				
Params	**Type(Len)**	**Description**	**Req'd**	**Example**
is_success	String(1)	Request delivered to host T Succeeded F Failed	NO	T
error_msg	String(50)	Error description. Blank if no error.	YES	The example means Duplicate Transaction.
sign_type	String(5)	Signing Algorithm, MD5 SHA1, uppercase	YES	MD5
sign	String(50)	Digital signature	YES	8342649bb0b3b818c9bed5952503b3df
Business Parameters				
errCode	Number(2)	Transaction Status, 00 success	YES	00
errCodeDes	String(40)	Error Description,	YES	the example on right means success
codeStr	String(50)	QR Code returned	YES	weixin://wxpay/bizpayurl?pr=yQK9GXr
orderNo	String(30)	Order Number, unique, generated by SnapPay	YES	2920170718000001
id	Number(10)	Transaction Id generated by SnapPay	YES	100000
merchantId	String(15)	Merchant ID, unique ID assigned by SnapPay	YES	100000

Basic Parameters				
Params	**Type(Len)**	**Description**	**Req'd**	**Example**
merchantName	String(30)	Merchant Name	YES	Daddy Gao Delicious
orderId	String(20)	Order ID, variable len, max 26, unique number generated by a merchant.	YES	20170717100000
orderNo	String(30)	Order Number, unique, generated by SnapPay	YES	2920170717100000
tradeStatus	Number(2)	Number 3 is Payment Succeeded,	YES	3
bankOrderId	String(30)	Order ID from third party	YES	2121212121
subMchId	String(15)	Sub-Merchant ID	YES	12546789877877
reserved4	String(30)	Running Number from forth party, like wechat order id	YES	2920170717100000
t0Fee	Number	D0 menas service charge,eg : 200 means 2 CAD	YES	200
feeRate	Number(2,2)	Fee rate for Quick Payment. eg : 0.1 means 0.1%	YES	0.1

Refund

This API provide refund for customer. It provide refund many times,but total refund money does not go beyond the transaction

Parameters for Request

Basic Parameters				
Params	**Type(Len)**	**Description**	**Req'd**	**Example**
input_charset	String(10)	Encoding format	NO	UTF-8
version	String(10)	Version of this API	NO	N2
partner	String(15)	Partner ID, a unique number assigned by SnapPay	NO	123456123456789
service	String(10)	Services used	NO	query
sign_type	String(5)	Signing Algorithm, MD5 SHA1, in uppercase	NO	MD5
sign	String	Digital signature	NO	c8il4epm90wyn768fijgqhy8tay37gqa
Business Parameters				
order_id	String(26)	Order ID, variable len, max 26, unique number generated by a merchant.	NO	20170707000001
merchant_id	String(15)	Merchant ID, unique ID assigned by SnapPay	NO	990513000000001
old_order_id	String(30)	Original order id	NO	20170717000099
amount	Number(10)	Transaction Amount in cent,eg:1 dollar, you must write like 100.	NO	100

Parameters for Response

Basic Parameters				
Params	**Type(Len)**	**Description**	**Req'd**	**Example**
is_success	String(1)	Request delivered to host T Succeeded F Failed	NO	T
error_msg	String(50)	Error description. Blank if no error.	YES	The example means Duplicate Transaction.
sign_type	String(5)	Signing Algorithm, MD5 SHA1, uppercase	YES	MD5
sign	String(50)	Digital signature	YES	8342649bb0b3b818c9bed5952503b3df
Business Parameters				
resCode	Number(2)	Transaction Status, 00 success	YES	00
out_trade_no	String(30)	unique ID assigned by SnapPay	YES	2920170718000001

Asynchronous Notification

SnapPay asynchronously notifies merchant with processing result after payment is succeeded.
Merchant replies with SUCCESS so SnapPay will not keep posting this notification.
Note – In the case of Pay By Scan or Quick Payment, notification is sent when payment transaction is approved.

Basic Parameters				
Params	**Params**	**Params**	**Params**	**Params**
version	String(10)	Version of this API	NO	N2
sign_type	String(5)	Signing Algorithm, MD5 SHA1 in uppercase	YES	MD5
sign	String(50)	Digital Signature	YES	8342649bb0b3b818c9bed5952503b3df
input_charset	String(10)	Encoding Format	NO	UTF-8
Business Parameters				
errCode	Number(2)	Tran Status, 00 success	YES	00
errCodeDes	String(40)	Error Description,	YES	the example on right means success
codeStr	String(50)	QR Code returned	YES	weixin://wxpay/bizpayurl?pr=yQK9GXr
merchantId	String(15)	Merchant ID	YES	100000
merchantName	String(30)	Merchant Name	YES	ON Univ.
orderId	String(20)	Order ID, variable len, max 26, unique number generated by a merchant.	YES	20170717100000
orderNo	String(30)	Order Number, unique, generated by SnapPay	YES	2920170717100000
tradeStatus	Number(2)	Number 3 is Payment Succeeded	YES	3

Digital Signature

For a request, all fields, except sign and sign_type, are included in digital signature calculation. In some request, sign_type is also included.

For a response, all fields, except sign and sign_type, are included in digital signature calculation.

Form a String

Take the following fields as an example,

```
string[] parameters={
"sign_type=MD5",
"notify_url=http://www.baidu.com",
"input_charset=UTF-8",
"order_id=20170718000003",
"version=N2",
"sign=1153023c272add92f7d8ebcceabf03b5",
"amount=100",
"business_time=2017-07-17 12:59:36",
"order_desc=IPHONE",
"pay_type=wx",
"service=push",
"partner=111222333444555",
"merchant_id=99911010019"};
```

Put all fields in alphanumeric order, then append each filed with & separator,

```
amount=100&business_time=2017-07-17 12:59:36&input_charset=UTF-8&merchant_id=99911010019&n
otify_url=http://www.baidu.com&order_desc=IPHONE&order_id=20170718000003&partner=1112223334
44555&pay_type=wx&service=push&version=N2
```

Note:

- Fields without a value is not necessary to be included
- Byte encoding format for a character must be consistent with input_charset
- input_charset is included as well
- If value of a field includes special characters like &, @ and etc., the original value (e.g. @) is used in the calculation of digital signature. Do not use its value for URL Encoding (%40) in the calculation of digital signature.

- In use of MD5 algorithm, SanpPay Security Key Check Code, a 32 bit long alphanumeric string, is appended to the very end of the string to form a new string. MD5 algorithm is applied to the new string. The final 32 bit result is the signature. It is either assigned to sign in the case of request, or used to compare the value in sign in the case of a response.