# Merchant Hosted - Online

Summary

Powerful and robust online payment solutions, which work on a range of platforms which include website, billing software and Applications. Latipay provides partnership merchants with the interface for developing custom built payment solution.

How it works?

Here are two scenarios based on the payment methods.

For Wechat Pay / Alipay
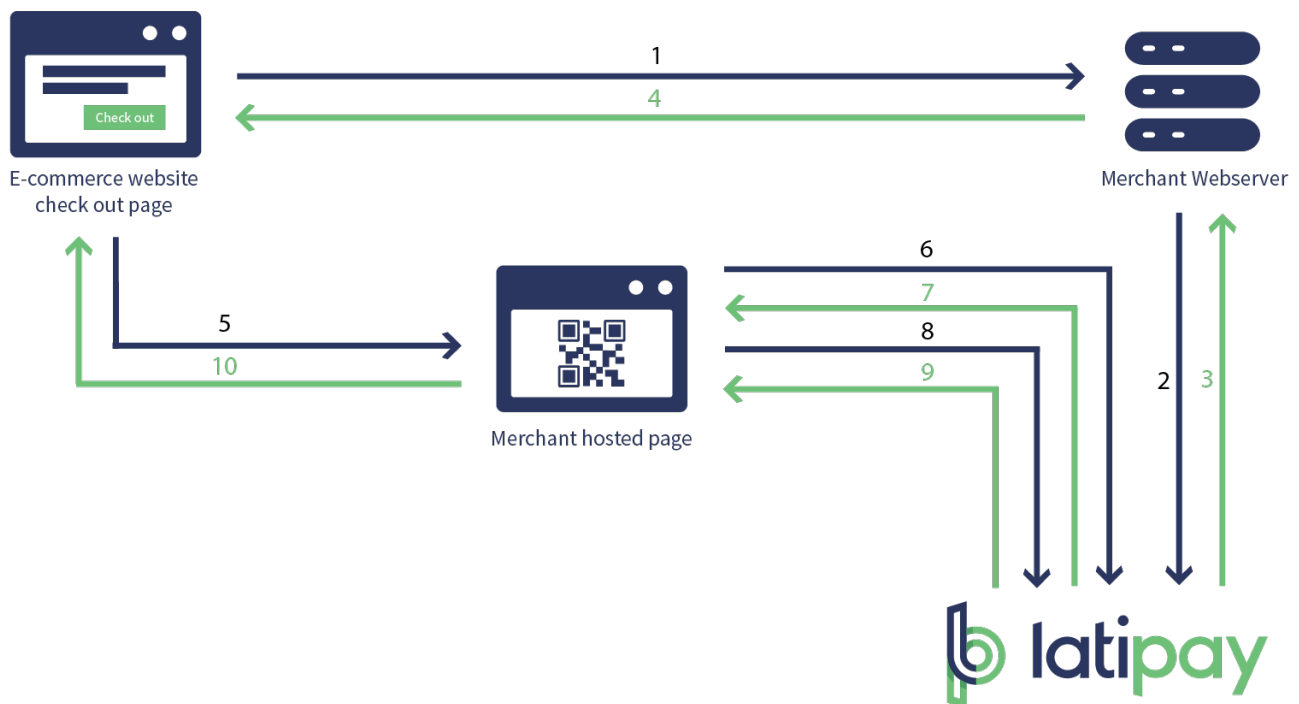
1. To process a transaction, customers select Latipay Wechat pay or Alipay as payment method, then the merchant sends a request to Latipay partnership merchant.

2. Latipay partnership merchant sends a request to /transaction with the authentication details

3. Latipay responds with a nonce and host_url

4. Latipay partnership merchant responds with a unique URI for an SSL secure payments page

5. The merchant shopping cart uses the returned URI to redirect the customer to the secure Latipay partnership merchant hosted payments page.

6. Latipay partnership merchant use the host_url and noune to request a QR code.

7. Latipay responds a QR code Url, then the QR code will display in Latipay partnership merchant hosted page. The customer will be prompted to scan the QR code and complete the payment.

8. Latipay partnership merchant query the payment status from Latipay

9. Latipay updates the payment status

10. The result is displayed and automatically redirected back to the merchant's website.
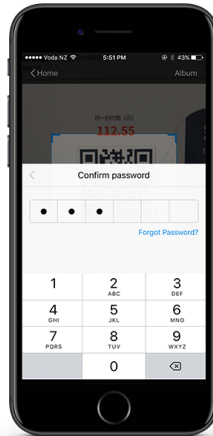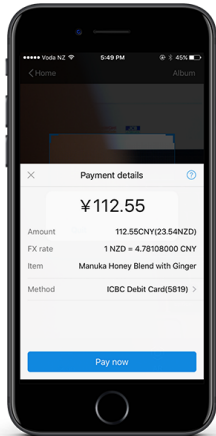
For Online Bank
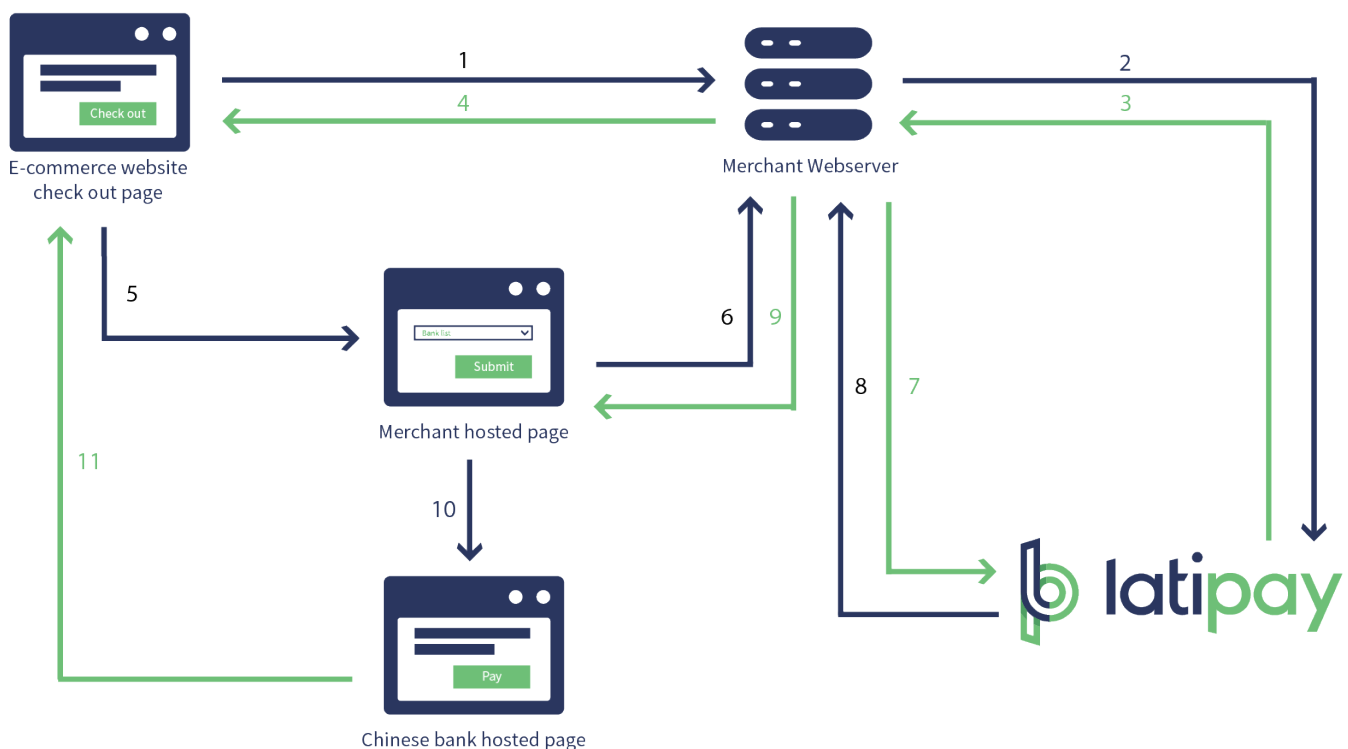
1. To process a transaction, customers select Latipay Online Banking as payment method, then the merchants send a request to Latipay partnership merchant.

2. Latipay partnership merchant sends a request to /queryBankList with the authentication details.

3. Latipay responds with a banklist JSON.

4. Latipay partnership merchant responds with a unique URI for an SSL secure payments to merchant website.

5. The merchant webpage will redirect to Latipay partnership merchant's hosted bank list webpage, then the customer can select the preferred Chinese bank.

6. A payment order request will be submitted to Latipay partnership merchant server

7. Latipay partnership merchant server will send the order

8. Once the payment completed, a response will be sent to Latipay partnership merchant's hosted bank webpage and Latipay partnership merchant server

9. Latipay partnership merchant sends a request to /unified Order with the authentication details

10. Latipay responds with the gateway data and gateway url

11. Latipay partnership merchant server responds the gateway data and gateway url to the Latipay partnership merchant's hosted webpage.

12. Latipay partnership merchant's hosted webpage submits the gateway data to gateway url. The Chinese bank webpage, which is selected by the customer, will be displayed. The customer will be prompted to enter their bank card's details and complete the payment.

13. The result is displayed and the customer is automatically redirected back to the merchant's website (success or fail page).
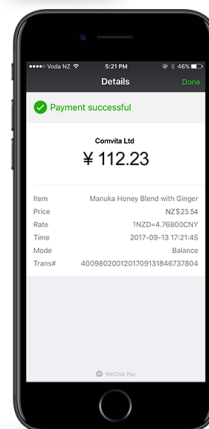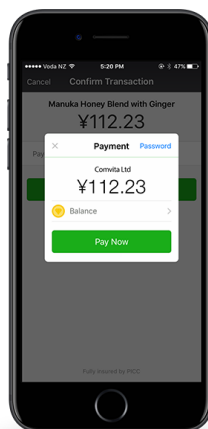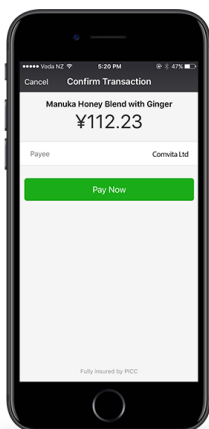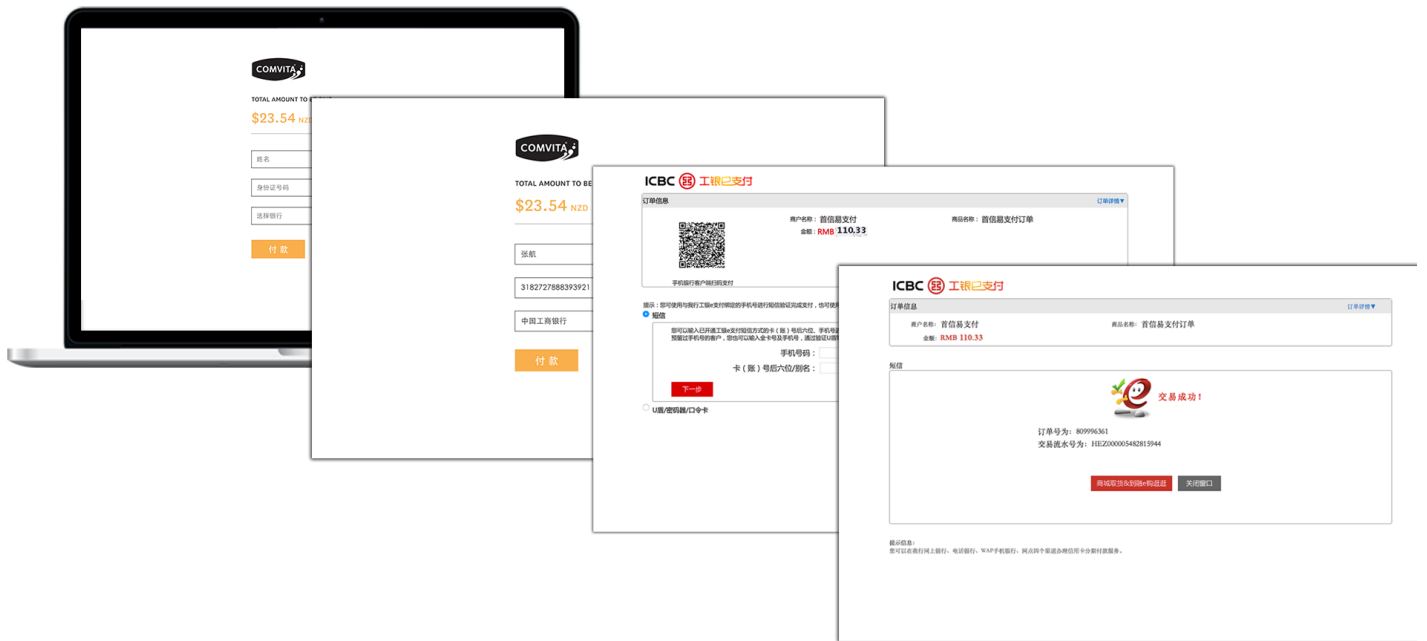
Payment Scenarios

Alipay

WeChat Pay

Online Bank

Website check-out page
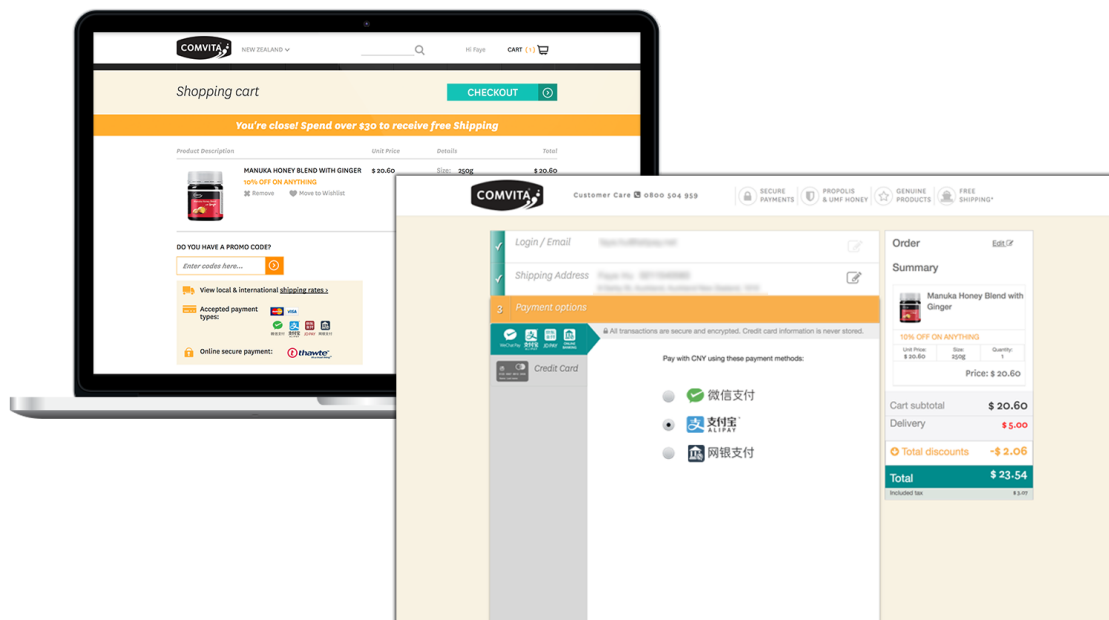
API List

Transaction Interface - WeChat and Alipay

```
POST https://api.latipay.net/v2/transaction
```

Parameters:

Name	Type	Description	Nullable
signature	String	The SHA-256 HMAC API signature.	No
wallet_id	String	The ID of the wallet you want to use.	No
amount	String	A decimal amount.	No
user_id	String	The user account you want to use to process the transaction.	No
merchant_reference	String	A field for identifying your transaction.	No
currency	String	The currency code of the transaction.	No
return_url	String	The URL of the landing page where Latipay will return the customer after payment.	No
callback_url	String	The URL of the callback address the transaction notification is sent after payment.	No
ip	String	The IP address of the customer.	No
version	String	The latest version of the platform.	No
product_name	String	The name of the product or service being sold.	No
payment_method	String	Payment method options are wechat, alipay, or onlineBank.	No
host_type	String	must be "1", which means Merchant hosted.	No

Example Parameters

```json
{
  "signature": "14d5b06a2a5a2ec509a148277ed4cbeb3c43301b239f080a3467ff0aba4070e3",
  "wallet_id": "W00000001",
  "amount": "120.00",
  "user_id": "U000334333",
  "merchant_reference": "dsi39ej430sks03",
  "currency": "AUD",
  "return_url": "https://merchantsite.com/checkout",
  "callback_url": "https://merchantsite.com/confirm",
  "ip": "122.122.122.1",
  "version": "2.0",
  "product_name": "Pinot Noir, Otago",
  "payment_method": "alipay",
  "host_type" : "1"
}
```

SHA-256 HMAC Signature

```
message: user_id + wallet_id + amount + payment_method + return_url + callback_url
secret: api_key
```

Example Signature

```
message: U000000001W000000010.01alipayhttp://merchant.com/returnhttp://merchant.com/callback
secret: 111222333

signature: 2367bcd9e9a2f9a547c85d7545d1217702a574b8084bbb7ae33b45a03a89983
```

Response

```json
{
  "signature": "14d5b06a2a5a2ec509a148277ed4cbeb3c43301b239f080a3467ff0aba4070e3",
  "host_url": "https://api.latipay.net/merchanthosted/transaction/",
  "nonce": "7d5a88119354301ad3fc250404493bd27abf4467283a061d1ed11860a46e1bf3"
}
```

Name	Type	Description
signature	String	The SHA-256 HMAC API signature.
host_url	String	The host URL to send your customer. The nonce should be appended to the end.
nonce	String	The transaction nonce must be appended to the pay URL.

Signature in Response

For security reasons, we highly recommend you verify the signature in the response.

```
message: nonce + host_url
secret: api_key
```

Payment Interface

```
POST {host_url}/{nonce}
```

Example

```
https://api.latipay.net/merchanthosted/transaction/7d5a88119354301ad3fc250404493bd
27abf4467283a061d1ed11860a46e1bf3
```

Response

Name	Type	Description
code	Integer	The response code of payment, 0 or error code.
message	String	The response message of payment interface.
data	Object	The response of payment interface.

the `data` object

Name	Type	Description
order_id	String	A unique transaction identifier generated by Latipay.
nonce	String	A unique transaction nonce generated by Latipay.
payment_method	String	Payment method options are wechat, alipay, or onlineBank.
amount	String	A decimal amount.
amount_cny	String	A decimal amount.
currency	String	The currency code of the transaction.
product_name	String	The name of the product or service being sold.
organisation_id	Integer	The merchant id which is used to process the transaction.
org_name	String	The merchant's name
user_id	String	The user account which is used to process the transaction.
user_name	String	The user account's name
wallet_id	String	The user wallet account which is used to process the transaction.
wallet_name	String	The wallet account's name
qr_code	String	The QR code is generate by Latipay or third gateway.
currency_rate	String	The rate which is used to the transaction.
merchant_reference	String	A field for identifying your transaction.
signature	String	The SHA-256 HMAC API signature.

Example

```
{
    "code": 0,
    "message": "SUCCESS",
    "data": {
        "order_id" : "20170829-alipay-3990527237343",
        "nonce" : "7d5a88119354301ad3fc250404493bd27abf4467283a061d1ed11860a46e1bf
3",
        "payment_method" : "alipay",
        "amount" : "1.00",
        "amount_cny" : "5.00",
        "currency" : "NZD",
        "product_name" : "test",
        "organisation_id": 18,
        "org_name" : "Latipay",
        "user_id" : "U000000051",
        "user_name" : "Latipay test",
        "wallet_id" : "W000000037",
        "wallet_name" : "aud01",
        "qr_code" : "https://qr.alipay.com/bax03286h4vlfpxldgwq4035",
        "currency_rate" : "5.29930",
        "merchant_reference" : "dsi39ej430sks03",
        "signature":"25e6e72cc6sdfecger95713afb101015aasdf3ca5faf3sdeer851f9cb7fb0
08a"
    }
}
```

SHA-256 HMAC Signature

Rearrange parameters in the `data` set alphabetically (except `signature` and other parameters with value of null or empty string) And connect rearranged parameters with &：

```
message: amount=1.00&amount_cny=5.00&currency=NZD&currency_rate=5.29930&merchant_r
eference=dsi39ej430sks03&nonce=7d5a88119354301ad3fc250404493bd27abf4467283a061d1ed
11860a46e1bf3&order_id=20170829-alipay-3990527237343&organisation_id=18&org_name=L
atipay&payment_method=alipay&product_name=test&qr_code=https://qr.alipay.com/bax03
286h4vlfpxldgwq4035&type=Online&user_id=U000000051&wallet_id=W000000037&wallet_nam
e=aud01
secret: api_key
```

Payment Result Asynchronous Notification

There is an asynchronous and back-end payment result notification sent by Latipay to merchant after the payment is done successfully. There is a re-try mechanism with the notification to ensure the notification could be delivered to the merchant.

```
POST merchant's callback_url
```

Parameters:

Name	Type	Description
signature	String	The SHA-256 HMAC API signature.
transaction_id	String	f66f-4f1b-9ef5-43cb917ff8a6 (string) - A unique transaction identifier generated by Latipay.
merchant_reference	String	A field for identifying your transaction.
currency	String	The currency code of the transaction.
amount	String	A decimal amount.
payment_method	String	The payment method used. Possible values are wechat, alipay, onlineBank.
status	String	The status of the transaction. Possible values are: pending, paid, or failed.
pay_time	String	Show the payment time of the transaction order.

Example input

```
{
  "signature": "14d5b06a2a5a2ec509a148277ed4cbeb3c43301b239f080a3467ff0aba4070e3",
  "transaction_id": "20170707-wechat-3473511594933",
  "merchant_reference": "dsi39ej430sks03",
  "currency": "AUD",
  "amount": "120.00",
  "payment_method": "wechat",
  "status": "paid",
  "pay_time": "2017-07-07 10:53:50"
}
```

SHA-256 HMAC Signature

Merchant backend need to validate the signature for protecting against malicious requests.

```
message: merchant_reference + payment_method + status + currency + amount
secret: api_key
```

Expected the text "sent" in Response's body

```
sent
```

Query Interface

All customers can send request to search their transaction order by merchant order id(that should be unique id for the merchant) as merchant_reference by HTTP GET request.

```
GET https://api.latipay.net/v2/transaction/{merchant_reference}
```

Parameters

Name	Type	Description
signature	String	The SHA-256 HMAC API signature.
user_id	String	The user account you want to use to process the transaction.

Example Parameters

```
{
  "signature": "14d5b06a2a5a2ec509a148277ed4cbeb3c43301b239f080a3467ff0aba4070e3",
  "user_id": "U000334333"
}
```

SHA-256 HMAC Signature

```
message: merchant_reference + user_id
secret: api_key
```

Response

Name	Type	Description
signature	String	The SHA-256 HMAC API signature.
transaction_id	String	A unique transaction identifier generated by Latipay.
merchant_reference	String	A field for identifying your transaction.
currency	String	The currency code of the transaction.
amount	String	A decimal amount.
payment_method	String	The payment method used. Possible values are wechat, alipay, jdpay, baidu-pay or onlineBank.
status	String	The status of the transaction. Possible values are: pending, paid, or failed.
pay_time	String	Show the payment time of the transaction order.

Example Response

```
{
  "signature": "14d5b06a2a5a2ec509a148277ed4cbeb3c43301b239f080a3467ff0aba4070e3",
  "transaction_id": "20170707-wechat-3473511594933",
  "merchant_reference": "dsi39ej430sks03",
  "currency": "AUD",
  "amount": "120.00",
  "payment_method": "wechat",
  "status": "paid",
  "pay_time": "2017-07-07 10:53:50"
}
```

Signature in Response

For security reasons, we highly recommend you verify the signature in the response.

```
message: merchant_reference + payment_method + status + currency + amount
secret: api_key
```

Query Bank List Interface - Online Banking

All customers can send a request to search one of the banks available.

```
GET https://api.latipay.net/v2/banklist
```

Response

Name	Type	Description
code	Integer	The response code of payment, 0 or error code.
message	String	The response message of bank list interface.
id	Integer	Bank id.
name	String	Bank name.

Example Response

```
{
    "code": 0,
    "message": "SUCCESS",
    "banklist": [{
            "id" : 1,
            "name" : "中国银行信用卡"
        },{
            "id" : 85,
            "name" : "中国银行"
        },{
            "id" : 4,
            "name" : "中国建设银行"
        },{
            "id" : 9,
            "name" : "中国工商银行"
        },{
            "id" : 14,
            "name" : "平安银行"
        }]
}
```

Transaction Interface - Online Banking

```
POST https://api.latipay.net/v2/transaction
```

Parameters:

Name	Type	Description	Nullable
signature	String	The SHA-256 HMAC API signature.	No
wallet_id	String	The ID of the wallet you want to use.	No
amount	String	A decimal amount.	No
user_id	String	The user account you want to use to process the transaction.	No
merchant_reference	String	A field for identifying your transaction.	No
currency	String	The currency code of the transaction.	No
return_url	String	The URL of the landing page where Latipay will return the customer after payment.	No
callback_url	String	The URL of the callback address the transaction notification is sent after payment.	No
ip	String	The IP address of the customer.	No
version	String	The latest version of the platform.	No
product_name	String	The name of the product or service being sold.	No
payment_method	String	Payment method options are wechat, alipay, or onlineBank.	No
host_type	String	must be "1", which means Merchant hosted.	No
bank_id	Integer	Bank id which is used to process this transaction.	No

Example Parameters

```json
{
  "signature": "14d5b06a2a5a2ec509a148277ed4cbeb3c43301b239f080a3467ff0aba4070e3",
  "wallet_id": "W00000001",
  "amount": "120.00",
  "user_id": "U000334333",
  "merchant_reference": "dsi39ej430sks03",
  "currency": "AUD",
  "return_url": "https://merchantsite.com/checkout",
  "callback_url": "https://merchantsite.com/confirm",
  "ip": "122.122.122.1",
  "version": "2.0",
  "product_name": "Pinot Noir, Otago",
  "payment_method": "online_banking",
  "host_type" : "1",
  "bank_id" : 85
}
```

SHA-256 HMAC Signature

```
message: user_id + wallet_id + amount + payment_method + return_url + callback_url
secret: api_key
```

Example Signature

```
message: U000000001W000000010.01alipayhttp://merchant.com/returnhttp://merchant.com/callback
secret: 111222333

signature: 2367bcd9e9a2f9a547c85d7545d1217702a574b8084bbb7ae33b45a03a89983
```

Response

```json
{
  "code": 0,
    "message": "SUCCESS",
    "gatewaydata": {
      "v_mid": "8321033",
      "v_oid": "20170913-8321033-3905576564619",
      "v_rcvname": "8321033",
      "v_rcvaddr": "8321033",
      "v_rcvtel": "00000000",
      "v_rcvpost": "8321033",
      "v_amount": "0.05",
      "v_ymd": "20170912",
      "v_orderstatus": 1,
```

```
      "v_ordername": "8321033",
      "v_moneytype": 0,
      "v_url": "http://api-staging.latipay.net/notify/sync/payease",
      "v_md5info": "4f34079e61711fd6c2a9cc01f96f99f8",
      "v_producttype": "",
      "v_idtype": "01",
      "v_idnumber": "000000000000000",
      "v_idname": "none",
      "v_idcountry": 156,
      "v_idaddress": "none",
      "v_userref": "U00001534",
      "v_merdata1": "",
      "v_pmode": null,
      "v_merdata5": "8f436",
      "v_merdata8": "8f4369c1",
      "v_itemquantity": "1",
      "v_itemunitprice": "0.05"
   },
   "paydata": {
      "order_id" : "20170829-alipay-3990527237343",
         "nonce" : "7d5a88119354301ad3fc250404493bd27abf4467283a061d1ed11860a46
e1bf3",
         "payment_method" : "online_banking",
         "amount" : "1.00",
         "amount_cny" : "5.00",
         "currency" : "NZD",
         "product_name" : "test",
         "organisation_id": 18,
         "org_name" : "Latipay",
         "user_id" : "U000000051",
         "user_name" : "Latipay test",
         "wallet_id" : "W000000037",
         "wallet_name" : "aud01",
         "qr_code" : "https://qr.alipay.com/bax03286h4vlfpxldgwq4035",
         "currency_rate" : "5.29930",
         "merchant_reference" : "dsi39ej430sks03",
         "signature":"25e6e72cc6sdfecger95713afb101015aasdf3ca5faf3sdeer851f9cb
7fb008a"
   },
   "gateway_url" : "https://pay.yizhifubj.com/customer/gb/pay_bank_utf8.jsp""
}
```

Name	Type	Description
code	Integer	The reponse code of payment, 0 or error code.
message	String	The reponse message of transaction interface.
gatewaydata	Object	Merchant should submit gateway data to gateway url to process the transaction.
paydata	Object	This field is used to display the transaction detail.
gateway_url	String	Merchant should submit gateway data to this url to process the transaction.

`paydata` parameters

Name	Type	Description
order_id	String	A unique transaction identifier generated by Latipay.
nonce	String	A unique transaction nonce generated by Latipay.
payment_method	String	Payment method options are wechat, alipay, or onlineBank.
amount	String	A decimal amount.
amount_cny	String	A decimal amount.
currency	String	
product_name	String	The name of the product or service being sold.
organisation_id	Integer	The merchant id which is used to process the transaction.
org_name	String	The merchant's name
user_id	String	The user account which is used to process the transaction.
user_name	String	The user account's name
wallet_id	String	The user wallet account which is used to process the transaction.
wallet_name	String	The wallet account's name
qr_code	String	The QR code is generate by Latipay or third gateway.
currency_rate	String	The rate which is used to the transaction.
merchant_reference	String	A field for identifying your transaction.
signature	String	The SHA-256 HMAC API signature.

SHA-256 HMAC Signature

Rearrange parameters in the `paydata` set alphabetically (except `signature` and other parameters with value of null or empty string) And connect rearranged parameters with &：

```
message: amount=1.00&amount_cny=5.00&currency=NZD&currency_rate=5.29930&merchant_r
eference=dsi39ej430sks03&nonce=7d5a88119354301ad3fc250404493bd27abf4467283a061d1ed
11860a46e1bf3&order_id=20170829-alipay-3990527237343&organisation_id=18&org_name=L
atipay&payment_method=alipay&product_name=test&qr_code=https://qr.alipay.com/bax03
286h4vlfpxldgwq4035&type=Online&user_id=U000000051&wallet_id=W000000037&wallet_nam
e=aud01
secret: api_key
```