

OIS BIZCRAFT E-COMMERCE PLUGIN

INTEGRATION SPECIFICATIONS

V1.6
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Change Log

| Version | Date | Description | Updated By |
|---------|----------|---|------------|
| 1.0 | 20200522 | First Release | LK |
| 1.1 | 20211201 | Updated section “Pre-integration Setup – Backend callback URL” to include notes on valid “status” values and their descriptions | LK |
| 1.2 | 20220421 | <ol style="list-style-type: none">Checking Out -> Step 2: Generate Checkout URL: Updated URL for both Dev and ProdChecking Out -> Step 4: Payment Return / Transaction Status -> “Manual transaction status check”: Updated URL for both Dev and Prod | LK |
| 1.3 | 20221122 | Add example code for HMAC generator | HW |
| 1.4 | 20230725 | General update to format | HW |
| 1.5 | 20240529 | <ol style="list-style-type: none">Checking Out: Added optional display preference fields | LK |
| 1.6 | 20240910 | Updated “Manual transaction status check” to include additional parameters | LK |

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Introduction

This document provides information on how Shopping Carts and Payment Pages can integrate with OIS Bizcraft's E-Commerce plugin for their payment.

Pre-requisite

In order to use the plugin, the merchant will need to

1. Be onboarded as an OIS Bizcraft E-Commerce Merchant
2. Possess OIS Bizcraft issued "cust_code", "MID" and "TID" for their e-commerce outlet
3. Possess OIS Bizcraft issued "secret key"

Pre-integration Setup – Backend Callback URL

After your e-commerce account is set up, you will need to register a backend callback URL. Please notify OIS Bizcraft of your backend URL when it is ready. This is the URL that the e-commerce plugin will call to notify shopping cart of transaction status regardless of whether the browser is redirected back to the shopping cart. It acts as a secondary means of being notified of a transaction status. Please refer to the note below for valid status values and their descriptions.

The format of the Payload from the e-commerce plugin will be as follows:

| Request payload | Descriptions |
|---|---|
| <pre>{ "order_id": "585a6sd2ASD65", "status": "A", "timestamp": "1669179575", "amount_cent": 10000, "currency": "SGD", "raw_response": { "timeStamp": "1669179575", ... } "hash": "D488ACB1B1D4568EC1F4312AF427B5996 DB816E703941B9E22FE579E36860316" }</pre> | <p>"order_id" → Transaction order id</p> <p>"status" → Transaction payment status Valid "status" values are as follows:</p> <ul style="list-style-type: none">• "A" – Approved / Captured• "F" – Failed• "AR" – Authorized but not captured• "cancelled" – Cancelled <p>"timestamp" → Transaction payment timestamp</p> <p>"amount_cent" → Transaction amount in cent \$1 = 100</p> <p>"currency" → Transaction currency</p> <p>"raw_response" → Transaction raw response Note : Do not use this raw_response for the data processing</p> <p>"hash" → Generated by HMAC algo (SHA1) with secret_key source_string={order_id}{status}{amount_cent}{currency}</p> <p>Note : Hash is value for authentication purposes, Please use HMAC to generated the hash value click here to see the example (HMAC - Backend callback)</p> |

Hash String Generation

For security purpose, we use HMAC encryption to authenticate API calls. You will be required to generate Hash Strings when calling e-commerce APIs.

In order to create the Hash String, you will need the Secret Key which can be obtained from OIS Bizcraft after your ecommerce account has been created.

You then:

1. convert the string data with HMAC with secret_key
2. encrypt in algo method (SHA1 / SHA256)
3. convert to Uppercase.

Example in PHP:

- HMAC- Backend callback

```
$string = $data['order_id'].$data['status'].$data['amount_cent'].$data['currency'];  
  
// Note: required to use 'SHA1'  
return strtoupper(hash_hmac('SHA1', $string, $secret_key));
```

- HMAC- Generate Checkout URL

```
$string = $data['cust_code'].$data['merchant_outlet_id'].$data['terminal_id'].  
$data['merchant_return_url'].$data['description'].$data['currency'].$data['amount'].$data['order_'.  
id'].$data['user_fullname'];  
  
// Note: you can still use 'SHA1'  
// but start from April 2022, it is recommended to use 'SHA256' instead  
return strtoupper(hash_hmac('SHA256', $string, $secret_key));
```

- HMAC- Check Transaction Status

```
$string = $data['cust_code'].$data['MID'].$data['TID'].$data['currency'];  
  
// Note: you can still use 'SHA1'  
// but start from April 2022, it is recommended to use 'SHA256' instead  
return strtoupper(hash_hmac('SHA256', $string, $secret_key));
```

Checking Out

Step 1: Create hashed string of transaction data to be used in generate_url API

Data required for checkout:

| URL Param | Description |
|---------------------|---|
| order_id | Unique ID to be generated by shopping cart |
| merchant_outlet_id | MID issued by OIS Bizcraft |
| terminal_id | TID issued by OIS Bizcraft |
| cust_code | Custcode issued by OIS Bizcraft |
| merchant_return_url | Shopping Cart Frontend return URL to be redirected after payment is made |
| amount | Transaction amount in Cents |
| currency | USD/SGD |
| user_fullname | This will be displayed in receipt and email to user |
| user_email | This will auto fill the email into the payment page |
| description | Description of payment (if any) |
| optional_currency | [Optional Field] This string will be inserted in FRONT of the payment amount and currency if included as a parameter. Max 20 Characters. This is just a display preference. Please DO NOT INCLUDE IN HMAC HASH CALCULATION |
| optional_footnote | [Optional Field] This string will be included as footnote in the payment page if included as a parameter. Max 120 Characters This is just a display preference. Please DO NOT INCLUDE IN HMAC HASH CALCULATION |

The above data will be required for transaction request. For security, HMAC authentication is done. To do this, a hash of the transaction data will need to be sent along with the payment request.

Hash String Message Format

The hash string message format to be used for generate_url API is :

{cust_code}{merchant_outlet_id}{terminal_id}{merchant_return_url}{description}{currency}
{amount}{order_id}{user_fullname}

[click here to see the example \(HMAC - Generate Checkout URL \)](#)

Step 2: Generate Checkout URL

URL: https://dev.host.oisbizcraft.com/generate_url

Note: From April 2022, please use the URLs below instead:

Dev URL:

<https://devapiportal.oisbizcraft.com/api/payments>

Prod URL:

<https://portalapi.oisbizcraft.com/api/payments>

| Request | Response |
|--|--|
| <pre>{ "cust_code": "001008", "merchant_return_url": "https://google.com", "merchant_outlet_id": "01", "terminal_id": "001", "description": "", "currency": "SGD", "amount": 10, "order_id": "uuid_1_uuid", "user_fullname": "Michael Scott", "user_email": "userEmail@test.com", "optional_currency": "7.40 USD", "optional_footnote": "Note that payment will be made in SGD." "hash": "hmac_string_value" }</pre> | <pre>{ "data": { "url": "https://dev.host.oisbizcraft.com/checkout.html?2c2p_mid=7 02702000000378&cust_code=001008&terminal_id=001&merchant_o utlet_id=01&merchant_return_url=https%3A%2F%2Fgoogle.com&a mount=10&currency=SGD&description=&order_id=uuid_1_uuid&ha sh_string=B6D79B80E19BAF5155F00A98B6B733E03321C7B8" }, "status": 200 }</pre> |

Example:

```
method: 'POST',
body: JSON.stringify({
  order_id: uuid,
  merchant_outlet_id: "02",
  terminal_id: "001",
  cust_code: "001010",
  merchant_return_url: "https://likkhai.wixsite.com/website-1/succesful-page",
  amount: tonumber,
  currency: "SGD",
  user_fullname: "Callum Scott",
  description: value.description,
  hash: hash
}),
headers: {
  "Content-type": "application/json; charset=UTF-8",
}
```

Step 3: Redirect to payment page

If step 2 is successful, you will receive an output similar to this:

```
data: {...}
url: "https://dev.host.oisbizcraft.com/checkout.html?2c2p_mid=702702000000378&cust_code=001010&terminal_id=001&merchant_outlet_id=02&merchant_return_url=https%3A%2F%2Flikkhai.wixsite.co
m%2Fwebsite-1%2Fsuccesful-page&amount=1&currency=SGD&description=custcode%3A%2C+invoice%3A%2C+comment%3A&order_id=2c14dcbb-fe12-4453-a9ad-72d2e91b1978&hash_string=11EF060C5AB50512B06F707FE
0844DAF905D0974&user_fullname=None"
status: 200
```

If so, redirect the browser to the resultant "URL" value.

Browser will be redirect to the payment page:

You are paying to







OIS Cafe JTPL2

Via 2CP BIZCRAFT

Transaction Code: 010020012005191107G9

Amount: 0.01 SGD

Description: custcode; invoice; comment:

| | | | |
|---|----------------------------------|--|----------------------|
| Remarks(Optional) To be displayed on receipt | <input type="text"/> | Email(Optional) Receipt will be sent to this email if entered | <input type="text"/> |
| Credit Card Payment Accepted Cards:      | | QR Payment  | |
| Card Number: | <input type="text"/> | | |
| Name on card: | <input type="text"/> | | |
| Expiry Date: | <input type="text" value="02"/> | <input type="text" value="2021"/> | OR |
| CCV/CCV2: | <input type="text" value="***"/> | | |
| <input type="button" value="Continue Payment"/> | | <input type="button" value="Cancel"/> | |

Step 4: Payment Return / Transaction Status

Once payment is made, the e-commerce plugin will display a receipt and prompt user to return to Shopping Cart.

The plugin will then return the browser to the merchant_return_url defined in the parameter described in Step 2.

Format: {{merchant_callback_url}}?return_code=XX&message=XX

| Return code | Description |
|-------------|-------------|
| 00 | success |
| 01 -> 99 | Error |

Separately, the plugin will also make a Backend Callback URL to the URL described in the earlier section of this document (Pre-integration Setup – Backend Callback URL)

Manual transaction status check

In the event where the browser is not redirected to the shopping cart and the backend callback URL is not received, the shopping cart can POST an API query to check transaction status:

URL: https://dev.host.oisbizcraft.com/company/{{cust_code}}/transaction-status

(insert the merchant custcode as assigned by OIS Bizcraft.)

NOTE:

From April 2022, please use the below URLs instead:

Dev URL:

https://devapiportal.oisbizcraft.com/api/payments/{{cust_code}}/transaction-status

(insert the merchant custcode as assigned by OIS Bizcraft.)

Prod URL:

https://portalapi.oisbizcraft.com/api/payments/{{cust_code}}/transaction-status

| Payload | Response |
|---------|----------|
|---------|----------|

| | |
|---|---|
| <pre>{ "merchant_outlet_id": "01", "terminal_id": "001", "order_id": "585a6sd2ASD65", "hash_string": "E723517771F0BED950448DB8660C7DC2C9F8E0DB" }</pre> | <pre>{ "data": { "order_id": "585a6sd2ASD65", "status": "A", "timestamp": "1669179575", "amount_cent": 10000, "currency": "SGD", "masked_card_number": "444444*****1234", "transaction_code": "099010011890983p9", "raw_response": { "timeStamp": "1669179575", ... } } }</pre> |
|---|---|

Hash String Message Format

The format to create the hash string for this API is:

(secret_key,{{cust_code}}{{merchant_outlet_id}}{{terminal_id}}{{order_id}}).

[click here to see the example \(HMAC - Check Transaction status \)](#)