



# IME Pay WEB CHECKOUT V2 INTEGRATION GUIDE

Version  
1.1.0

**By**  
IME Digital Solution Ltd.  
IME Complex, Panipokhari  
Kathmandu, Nepal



## Documentation Control

### Revision History

Version	Date	Author	Summary of Changes
1.0.0	09/01/2024	Sanjay Manandhar	Initial Draft
1.1.0	11/14/2024	Sanjay Manandhar	Mobile banking, Internet banking, Card payment page segregation and QR payment introduced.

## Contents

Documentation Control .....	2
Revision History .....	2
Introduction .....	4
Background .....	4
IME pay Checkout Process Overview: .....	5
Introduction .....	5
Steps in IME pay Checkout: .....	6
STEP 1 .....	6
STEP 2 .....	7
STEP 3 .....	9
STEP 4 .....	11
STEP 5 .....	13
Step 6 .....	14
Contacts .....	15

## Introduction

### Background

IME Digital Solution Ltd. is a subsidiary of IME Group established under the payment and settlement by laws 2072, with an aim to provide digital financial services to customers in partnerships with banks/FIs as well as telecom operators and aggregators, deployed through self-service as well as agent-based delivery channel.

IME Digital intends to introduce mobile money service, with name IME pay, under its digital financial services initiative and offer a wide range of payment services to remittance customers existent with money transfer associate company IME Ltd. and also cater to the vast majority of unbanked and under-banked customers of Nepal. IME pay can be accessed via mobile and can be serviced through any of the 20000 plus strong agent network of IME and beyond.

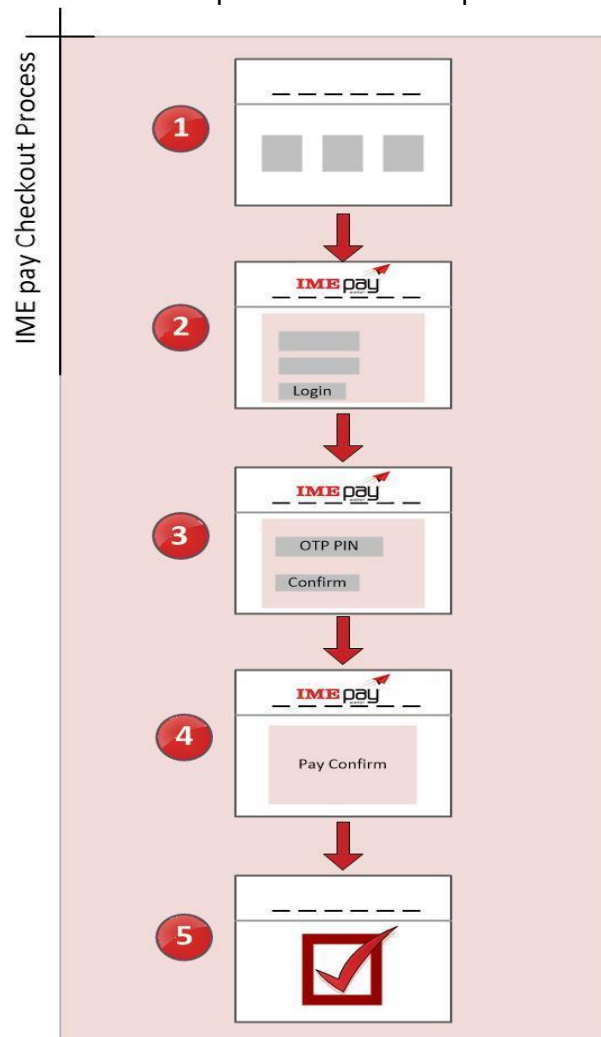
## IME pay Checkout Process Overview:

### Introduction

This document describes the process for successfully integrating IME pay into your transaction process, explaining how to facilitate communication between your website and the IME pay, and how to receive and process the authorization response messages sent back to your website after a transaction has been processed.

IME Pay has payment options through IME Pay wallet, Debit/Credit card, Mobile banking, Ebanking and Dynamic QR. Merchants need to introduce these payment options at merchant's end. If customer has selected IME Pay option, Merchant should redirect user to <https://stg.imepay.com.np:8555/WebCheckout/Checkout> else if card, internet banking or mobile banking option is selected user should be directed to <https://stg.imepay.com.np:8555/WebCheckout/NPSCheckout>.

IME Pay checkout process will be completed in 5 to 6 steps.



## Steps in IME pay Checkout:

### STEP 1

The first step involves payment method selection in the merchant site by customer. In this step customer selects the payment option pay by “IME pay” among available payment options. To start payment process, merchant needs to get TokenId for each transaction processing using IME pay. IME pay system generates TokenId against the MerchantCode, RefId and Amount for security and authenticity purpose. RefId should be always unique from merchant side to reconcile any conflicting transaction.

Merchant portal needs to send request to IME pay API to get TokenId using following parameters.

The merchant credentials shared with you and URL used in the whole document is for UAT Integration purpose. Please consult merchant team for live credentials and URLs.

API URL to get token ID <https://stg.imepay.com.np:8555/api/Web/GetToken> with type=”POST”.

Also Authorization header and Module\* should be sent to API for authentication purpose. The Apiuser and Password should be used in header.

```
Authorization header = Basic {Apiuser:Password} **  
Module = {Module} **
```

**Request** JSON parameters will be as below:

```
{  
  "MerchantCode": "M0001",  
  "Amount": "10.75",  
  "RefId": "Ref-9901"  
}
```

**Response** JSON values will be as below:

```
{  
  "ResponseCode": 0,  
  "TokenId": "201612151220041022", ***  
  "Amount": "10.75",  
  "RefId": "Ref-9901"  
}
```

NOTE:

\* [ApiUser, Password, Module] will be provided by IME pay at the time of registration.

\*\* Values should be encoded using Base64.

\*\*\* TokenId will be valid for only one time. For every new transaction new TokenId should be used.

## STEP 2

Merchant should maintain a database table to store responses received from IME pay. The table must contain following columns in exact table format as mentioned below. The records of each transaction are stored on this Db table with an added feature to recheck the transactions (explained on step 7). This allows merchants to reconfirm and complete the failed transactions, which may have occurred due to various reasons.

Once TokenId is received from IME pay, merchant portal should store these values (MerchantCode, TranAmount, RefId, TokenId) into the specified table format.

Column Name	Size	Description
<b>MerchantCode</b>	VARCHAR(10)	Will be provided by IME Pay
<b>TranAmount</b>	MONEY	Amount involved in the transaction
<b>RefId</b>	VARCHAR(20)	Unique id generated by merchant's system
<b>TokenId</b>	VARCHAR(20)	Will be provided by IME Pay at the end of Step 1
<b>TransactionId</b>	VARCHAR(20)	IME Pay Unique Id returned after successful payment
<b>Msisdn</b>	VARCHAR(20)	IME Pay Wallet Id returned after successful payment
<b>ImeTxnStatus</b>	TinyInt	0-Success,1-Failed,2-Error,3-Cancelled
<b>RequestDate</b>	DATETIME	DateTime of Merchant's request
<b>ResponseDate</b>	DATETIME	DateTime of IME Pay response
<b>ProductName</b>	VARCHAR(150)	List of comma separated product names supplied by merchant
<b>Remarks</b>	VARCHAR(256)	Remarks for the payment supplied by merchant
<b>Category</b>	VARCHAR	MBNK / EBNK / CCARD / QR

Merchant portal, now, should either post values to the IME pay Web Checkout page or redirect the data in specific format with following parameters.

### GET Request Format:

Prepare a payload string comprising data parameters and encode those data into Base64 string and redirect to our Url as below:

Payload data composition if Mobile banking / Ebanking / Card payment is selected:

**TokenId|MerchantCode|RefId|TranAmount|Method|RespUr1|CancelUr1|ProductID|ProductName|Remarks|TotalAmount|Category**

If IME Pay/ QR option is selected by user:

**TokenId|MerchantCode|RefId|TranAmount|Method|RespUr1|CancelUr1|ProductID|ProductName|Remarks|TotalAmount**

Payload string after Base64 Encoding with URL Encoding look like below:

Oi8vaw1lcGF5LmNvbS5ucC9mYWlscXJ1fDUyODF8SU1FMjAyNHxQYX1tZW50IGZyb20gSU1FIFBheXwxMDB8TUJOS  
w==

**As mentioned above, If customer has selected IME Pay option, Merchant should redirect user to**

<https://stg.imepay.com.np:8555/WebCheckout/Checkout?data=VG9rZW5JZHxNZXJjaGFudENvZGV8UmVmSWR8VHJhbGkFtb3VudHxNZXRob2R8UmVzcFVybHxhdyw5jZWxVcmw=>

**If customer has selected QR option, Merchant should redirect user to**

<https://stg.imepay.com.np:8555/SCT/QR?data=VG9rZW5JZHxNZXJjaGFudENvZGV8UmVmSWR8VHJhbGkFtb3VudHxNZXRob2R8UmVzcFVybHxhdyw5jZWxVcmw=>

**Else if debit/credit card, internet banking or mobile banking option is selected user should be directed to**

<https://stg.imepay.com.np:8555/WebCheckout/NPSCheckout?data=VG9rZW5JZHxNZXJjaGFudENvZGV8UmVmSWR8VHJhbGkFtb3VudHxNZXRob2R8UmVzcFVybHxhdyw5jZWxVcmw=>



## POST Request Format:

```
<form action="https://stg.imepay.com.np:8555/WebCheckout/Checkout"method="post">

  <input type="hidden" name="TokenId" value="201612151220041022">
  <input type="hidden" name="MerchantCode" value="M0001">
  <input type="hidden" name="RefId" value="Ref-9901">
  <input type="hidden" name="TranAmount" value="150">
  <input type="hidden" name="Method" value="GET">
  <input type="hidden" name="RespUrl" value="http://abc.com/result.aspx">
  <input type="hidden" name="CancelUrl" value=" http://abc.com/cancel.aspx ">
  <input type="hidden" name="ProductId" value="32123">
  <input type="hidden" name="ProductName" value="Product one, Product two">
  <input type="hidden" name="Remarks" value="Payment through IME Pay">
  <input type="hidden" name="TotalAmount" value="100">
  <input type="hidden" name="Category" value="EBNK / MBNK / CCARD">

</form>
```

### Note:

- **Method:** The way of response sent to merchant's portal (RespUrl or CancelUrl) by IME pay.
  - Options are GET and POST. If GET then URL redirection will be done with response values in query string else form post will be done.
- **RespUrl:** URL of Merchant where Transaction Response is expected to post by IME Pay.
- **CancelUrl:** URL of Merchant where user cancelled transaction is expected to post by IME Pay.
- **Category:** It should only be posted when customer is doing mobile banking, internet banking or card payment. It should not be posted for IME Pay wallet payment or QR payment.
  - EBNK should be requested for Internet banking
  - MBNK should be requested from Mobile banking
  - CCARD should be requested for Payment from card

Field Name	Data Type	Size	Description	Required
TokenId	String	18	Unique TokenId	Y
MerchantCode	String	9	Unique Code assigned to Merchant	Y
RefId	String	20	Unique Code for Transaction generated by Merchant's system.	Y
TranAmount	Float		Amount with 2 decimal places. E.g. 1200.45	Y
ProductId	Integer		Product ID of Item at merchant's end if any	N
ProductName	String	150	Product name of product, customer is trying to purchase	N

<b>Remarks</b>	String	256	Remarks on the transaction if any	N
<b>TotalAmount</b>	Float		Differential amount than TranAmount if any	N
<b>Category</b>	String		Only need to request when payment from mbanking, ebanking or card. MBNK – For Mobile banking EBNK – For Ebanking CCARD – For payment from card	Y

Note:

- MerchantCode and Module are assigned by IME pay.
- Source URL will be validated to prevent processing unauthorized requests.

## Step 3:

### 1. If user has selected IME Pay option in merchant's portal

- STEP 1: Merchant's page is redirected to IME pay Webcheckout page. It initially validates the TokenId against the MerchantCode, RefId, and Amount sent. In case of failure, error page is displayed. If successful, IME Pay landing page is displayed.
  - STEP 2: On proceeding from landing page, User should be directed to "Enter your wallet ID page" where IME Pay QR should also be displayed.
    - User should be able to scan the QR from IME Pay app.
    - Website should be changed to "Processing" state after QR is scanned.
    - User should land in IME Pay review page for transaction in IME Pay app after scan is successful.
    - User should be able to make payment from IME Pay app if all criteria is fulfilled.
    - User's webcheckout web screen should automatically direct user to Merchant's success page after payment is successful.
    - Payment should have been made within displayed expiry time.
  - STEP 3: User should be able to enter wallet ID in "Enter your wallet ID page" if payment from QR is not user's desired way for payment.
  - STEP 4: User should be directed to "Enter your PIN page" after proceeding with valid wallet ID.
  - STEP 5: User should be displayed with pop up asking OTP option after pin and valid captcha is entered. Send OTP to phone number and Send OTP to email address options (if user has verified email address) should be displayed.
  - STEP 6: On clicking one of OTP option displayed, User's pin will be validated, balance will be checked and if user is eligible for payment, OTP will be triggered and User will be directed to "Enter your OTP page".
  - STEP 7: After User enters received valid OTP and proceed, payment will be processed in IME Pay system. If payment is successful User will be directed to merchant success URL else if payment fails if user will be directed to failure screen.
-

## 2. If User has selected Debit / Credit card, Internet banking, Mobile banking options

- STEP 1: User should land in the page for selecting payment options in mobile banking, internet banking or Debit / Credit card, on the basis of category value supplied in the webcheckout post request by merchant. In bank selection page, bank name with their logos should be displayed.
- STEP 2: User should be able to search for desired bank and select it out of displayed payment options. On selecting any option, User should be displayed with the confirmation pop up with product information and payable amount.
- STEP 3: On clicking “Continue” in the confirmation dialogue, User should be directed to selected bank’s login page or “Enter Payment Details” page of Visa if card option is selected.
- STEP 4: After completing all the login and payment procedures in selected partner payment portal, User should be automatically redirected to merchant’s success page if payment is successful Else User should be directed to merchant failure page.

## 3. If User has selected QR option

- Step 1: User will be displayed with an IME Pay landing page with the details posted by merchant.
- Step 2: User will be displayed with a dynamic QR on clicking make payment. User will also be displayed with a timer. User must scan the QR from any mobile banking app or Wallet like IME Pay whichever supports SCT QR before timer expires.
- Step 3: After payment is successful user will automatically be redirected to merchant success page. Or if user clicks cancel button user will be redirected to merchant cancel URL posted earlier in post request to IME Pay.

## STEP 4:

If merchant specified the Method parameter as POST then transaction response is posted to the merchant's portal (RespUrl) by IME pay. Merchant should provide the RespUrl in which IME pay would post transaction response and redirects customer to Merchant's portal.

### RESPONSE:

```
<form action="RespUrl" method="post">
  <input type="hidden" name="ResponseCode" value="0">
  <input type="hidden" name="ResponseDescription" value="Success">
  <input type="hidden" name="RefId" value="Ref-9901">
  <input type="hidden" name="TranAmount" value="10.75">
  <input type="hidden" name="Msisdn" value="9849079513">
  <input type="hidden" name="TransactionId" value="201609271720522269">
  <input type="hidden" name="TokenId" value="201612151220041022">
  <input type='hidden' name='ProductName' value='' > (If was posted by merchant)
</form>
```

Field Name	Data Type	size	Description	Required
<b>ResponseCode</b>	TinyInt		0-Payment request Success	Y
			1-Payment request failed	
			2-Error	
			3-Cancel	
<b>RefId</b>	String	20	Unique Code for Transaction generated by Merchant's system Communicated in Step 1.	Y
<b>TranAmount</b>	Float		Amount with 2 decimal values. Same data sent by merchant's portal	Y

<b>Msisdn</b>	String	10	Customer mobile number (IME pay Wallet ID) of the payer.	Y
<b>TransactionId</b>	String	18	ID generated by IME pay to identify Payment.	Y
<b>TokenId</b>			TokenId sent on the request at step 2	Y
<b>Product Name</b>	String		Product name posted by merchant	N

If merchant specified the Method parameter as GET then transaction response is routed to the merchant's portal (RespUrl) in a Base64 query string by IME pay. The response url will be like:

<http://abc.com/result.aspx?data=M3xPcGVyYXRpb24gQ2FuY2VsbGVkIEJ5IFVzZXJ8MDAwfDAwMHx0aG15VVB1ckN1cF8xMC4xNXwxMC4xNXwyMDIwMDQwNDE5MzEzOTgzOTI%3d>

Now get the string in query string parameter named 'data' which is in Base64 format so decode it from Base64 into plain text then split it into string array by splitting plain text with '|' character. The index of each parameters are as below:

- [0]-> ResponseCode
- [1]-> ResponseDescription
- [2]-> Msisdn
- [3]-> TransactionId
- [4]-> RefId
- [5]-> TranAmount
- [6]-> TokenId
- [7]-> ProductName

After receiving the transaction response values, merchant should update the record created in step 1 with TransactionId and Msisdn and ImeTxnStatus by validating their RefId and Amount in the above database table.

ImeTxnStatus should be mapped to the value of ResponseCode posted by IME Pay.

ResponseCode: 0 -> Success

ResponseCode: 1 -> Fail

ResponseCode: 2 -> Error

ResponseCode: 3 ->Cancelled

## NOTE:

Once response is posted to the Merchant's RespUrl then Merchant can process further to complete their transaction.

If merchant receives ResponseCode 2 as error then they need to recheck the status of the transaction for making the transaction as success or fail for their customer.

If merchant does not receive the response at all from IME Pay then they can do run some background job or manual action to recheck the transaction status and do the needful for their customer.

## Step 5

In step 5, merchant must verify the transaction status. Merchant needs to call a new API with details stored in Step 2 and others received in Step 5. It will validate the transaction status and provide response.

API URL to recheck confirmation <https://stg.imepay.com.np:8555/api/Web/Confirm> with type ="POST".

Also Authorization header and Module\* should be sent to API for authentication purpose. The same Apiuser and password as in step 1 should be used in header.

```
Authorization = Basic {Apiuser:Password} *  
Module = {Module} **
```

NOTE:

- \* Values should be encoded using Base64.
- \*\* Module will be provided by IME pay.

**Request** JSON parameters will be as below:

```
{ "MerchantCode": "M0001",  
  "RefId": "Ref-9901",  
  "TokenId": "201612151220041022",  
  "TransactionId": "201609271720522269",  
  "Msisdn": "9849079513" //Not mandatory  
}
```

**Response** JSON values will be as below:

```
{ "ResponseCode": "0",  
  "Msisdn": "9849079513",  
  "TransactionId": "201609271720522269",  
  "ResponseDescription": "Success",  
  "RefId": "Ref-9901",  
  "TokenId": "201612151220041022"  
}
```

ResponseCode: 0 -> Success

ResponseCode: 1 -> Not found or failed

## Step 6

In step 6, if it fails to post transaction response in the URL provided by merchant then merchant needs to recheck the transaction status. Merchant needs to call a new API with parameters stored in Step 2. It will validate the transaction status and provide response.

API URL to recheck confirmation <https://stg.imepay.com.np:8555/api/Web/Recheck> with type = "POST".

Also Authorization header and Module\* should be sent to API for authentication purpose. The same Apiuser and password as in step 1 should be used in header.

```
Authorization = Basic {Apiuser:Password} *  
Module = {Module} **
```

NOTE:

- \* Values should be encoded using Base64.
- \*\* Module will be provided by IME pay.

**Request** JSON parameters will be as below:

```
{  
  "MerchantCode": "M0001",  
  "RefId": "Ref-9901",  
  "TokenId": "201612151220041022",  
}
```

**Response** JSON values will be as below:

```
{  
  "transactionId": "202408201524360253",  
  "responseCode": 0,  
  "responseDescription": "Success",  
  "otp": null,  
  "refId": "STSBIP0000630",  
  "tokenId": "202408201522458777",  
  "accCode": null,  
  "msisdn": "9801190994",  
  "uniqueCode": null,  
  "merchantCode": null,  
  "signature": null,  
  "customerTxnResponse": null,  
  "neaHookResponse": null  
}
```



}

ResponseCode: 0 -> Success

ResponseCode: 1 -> Not found or failed

After receiving the transaction response, update TransactionId, Msisdn and ImeTxnStatus by validating particular RefId and Amount in the above created table.

## Contacts

Bibek Chaudhary  
bibek.chaudhary@imepay.com.np  
Ph: 9801190834