

# PESAFLOW

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## INTERGRATION SPECIFICATION

## Document History:

Author	Release	Date
Evid Sibi	1.0.0.0 Review By - James Ayugi	9th December 2014
Evid Sibi	1.1.0.0 Review By - Evid Sibi	15th December 2014
Evid Sibi	1.2.0.0	10th January 2015
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## Approval:

Project Manager	Release	Date
James Ayugi	1.3.0.0	15th February 2016

## 1. Purpose

Purpose of this document is to describe the integration between third-party systems and pesafLOW. The third party in this place is any system that wishes to provide online payments via the e-citizen payment platform, PesafLOW.

## 2. Preamble

This integration allows PesafLOW to collect payments on behalf of a third-party via different payment options, and for PesafLOW to notify the third party all payments made via the different payment channels.

The main points of integration are:

- 1. Online Checkout via IFRAME.**
- 2. Instant Payment Notification (Push API)**
- 3. Query Payment Status API**

### 3. Online Checkout

A third party system is expected to consume an I-frame via http-post and pass in the valid parameters to the Pesaflow URL in order to have a display as in the figure below.

CHOOSE YOUR PAYMENT METHOD	BILLING DETAILS
<input type="radio"/> Mpesa	 <b>EVID ARAKA SIBI</b> ID. No: 27759855 Email: evidsibi@gmail.com Phone: +254701748548 Reference: 463/51523/63973
<input type="radio"/> Debit/Credit/Prepaid Card	<b>ORDER SUMMARY</b>
<input type="radio"/> Airtel Money	Name Search - Company / Business KES 150
<input type="radio"/> Mobikash	<b>Total: KES 150</b>
<input type="radio"/> E-Agent	<b>Need Help?</b> Call us now <b>+254 708 206 206</b>
<input type="radio"/> Cash	
<input type="radio"/> Bank Transfer	

**URL -** <https://pesaflow.ecitizen.go.ke/PaymentAPI/iframev2.1.php>

**Protocol - HTTPS POST**

Below is a list of expected parameters.

Parameter	Description	Type
<b>apiClientID</b>	API client ID, assigned on activation	(M)String (Provided)
<b>secureHash</b>	<p>This is a SHA256 hmac_hash that signs the payload. Give a security.</p> <p>secure_hash = hmac_hash(sha256, 'apiClientID+amount+serviceID+clientIDNumber+currency+billRefNumber+billDesc+clientName+secret, key)</p> <p>Base64.encode (secure_hash)</p>	(M)String (Derived)
<b>billDesc</b>	Description of the Bill	(M)String
<b>billRefNumber</b>	Reference or Invoice Number of The Bill	(M)String(Unique)
<b>currency</b>	Currency (KES or USD)	(M)Char(3)
<b>serviceID</b>	Customer service ID, assigned on activation	(M) Int (Provided)
<b>clientMSISDN</b>	Mobile Phone Number of the transacting client	(M) BigInt (eg.25472222222)
<b>clientName</b>	Name of the transacting client	(M) String
<b>clientIDNumber</b>	Identification Number of the transacting client	(M)String
<b>clientEmail</b>	Email address of the Transacting client	(M)String
<b>callBackURLOnSuccess</b>	Url the client is to be redirected to after successful payments	(M) URL
<b>pictureURL</b>	Clients Image to be shown on the Iframe	URL
<b>notificationURL</b>	Url instant payment notifications are sent after a successful transaction	(M)URL
<b>amountExpected</b>	Full amount expected from client	(M)Float + Convenience FEE

## 4. IPN (Instant Payment Notification)

The third-party systems implement the following API in order to receive payment notifications from pesafLOW.

**URL:** - Provided by third-party as notificationURL in section 3 above

**PROTOCOL:** - HTTPS POST

Below are the parameters to be pushed to the third party system.

Parameter	Description	Type
<b>api_key</b>	Transaction Authentication	(M)String (Derived/Provided)
<b>transaction_id</b>	PesafLOW Unique Payment ID	(M)String
<b>transaction_date</b>	Date the payment was made	(M)String
<b>transaction_status</b>	Confirmed status of the payment	(M)String
<b>amount</b>	Amount that was Paid	(M)Float + Convenience Fee
<b>paidby</b>	Name of the Customer that made the payment	(M) String
<b>invoiceNumber</b>	Third party transaction Identifier will be the same as the billRefNumber pushed to the Iframe.	(M)

## **RESPONSES**

Format: JSON ENCODED STRING Pesaflow expects the following responses.

📄 If the wrong API key is used, you will give the following response.

HTTP STATUS CODE: 500

```
{"query_status":"unauthorized"}
```

📄 If the wrong invoice number is used, you will give the following response.

HTTP STATUS CODE: 500

```
{"query_status":"invalid invoice"}
```

📄 If no transaction id is specified by the payment provider

HTTP STATUS CODE: 500

```
{"query_status":"invalid transaction id"}
```

📄 If the amount paid is less than what is need for the invoice

HTTP STATUS CODE: 500

```
{"query_status":"invalid transaction amount"}
```

If both the API key and the invoice number is correct, you will give the following response.

HTTP STATUS CODE: 200

## 5. Query Payment Status API

**URL:** - <https://pesaflow.ecitizen.go.ke/PaymentAPI/getStatus.php>

**PROTOCOL:** - HTTPS POST

Parameter	Description	Type
api_key	Authentication key	(M)String (Derived/Provided)
billRefNumber	Transaction unique number	(M)String

### RESPONSE

```
{"status":4,"amount":650,"billRefNumber":"123\517199\2714553"}
```

### Status Definition

1 or 4 => Successful Payment.

2 => Pending Payment



## APPENDIX I

### SECURE HASH – SAMPLE PHP CODE

```
<?php
```

```
//create your data_string
```

```
$data_string =
```

```
“apiClientID”.”amount”.”serviceID”.”clientIDNumber”.”currency”.”billRefNumber”.”billDesc”.
```

```
”clientName”.”secret”
```

```
//hash the values
```

```
    $hash = hash_hmac('sha256', $data_string, $key);
```

```
//append the has values
```

```
    $secureHash = base64_encode($hash);
```

```
?>
```