

# Kopo Kopo, Inc. (“K2”)

## Developer User Guide K2 - HTTP(S) POST Notification API v 1.0

### OVERVIEW

The K2 HTTP(S) POST Notification API is designed to help developers integrate third-party applications with the Kopo Kopo System (K2). This guide provides the technical information about integrating and configuring a system with K2 using a RESTful HTTP(S) POST as the method of notification for Mobile Money transaction information. Enterprises can leverage the API to allow real-time acquisition of mobile money transactions processed via the K2 System. This document describes the HTTP POST parameters and the format of the expected response.

### Synchronous or Near Real-Time Transactions

Enterprises who want to receive their mobile money transaction details as they are processed will utilize the XML over HTTP(S) bridge or the HTTP(S) POST Notification API. This document details the HTTP(S) POST Notification API option. The HTTP POST Notification API requires that the Enterprise system in question (Back Office MIS) expose a URL that HTTP or HTTPS (preferable) POST requests can be sent to.

#### 1.) Authentication

Authentication currently supported is “Basic” authentication. If authentication is required, the user name and password will have to be provided to the K2 application. If a different authentication method such as an API key/token is desired, one should be provided.

Requirements: “Basic” authentication credentials (if in use)

#### 2.) Request

The POST request will be sent to a URL provided by the enterprise. The following POST parameters that will be passed will be as follows.

Parameter	Remarks	Example
k2_account_id	The Account Id within the K2 system	12
k2_transaction_id	The K2 assigned transaction id	15
mm_system_id	The Mobile Money System id	M-PESA
mp_transaction_id	The transaction is assigned to this transaction by the Mobile Payment System	54445
biller_number	The Paybill phone number of the biller	888555
transaction_date	The Date of the transaction	26/4/11

Parameter	Remarks	Example
transaction_time	The transaction time	1:03 PM
transaction_type	They type of transaction	Paybill
ac_no	The account number of the subscriber within the enterprise MIS	A123333
sender	The phone number of the sender	0723456789
first_name	The sender's first name	John
last_name	The sender's last name	Doe
middle_name	The Sender's middle name	K.
amount	The transaction amount	1500
currency	The Currency	KES

The actual POST call is made to the enterprise MIS (your server) as follows:

[https://yourdomain.com/yourscript?k2\\_account\\_id=12&k2\\_transaction\\_id=15&mm\\_system\\_id=M-PESA&mp\\_transaction\\_id=54445&biller\\_number=888555&transaction\\_date=26%2F4%2F11&transaction\\_time=1%3A03%20PM&transaction\\_type=Paybill&ac\\_no=A123333&sender=0723456789&first\\_name=John&last\\_name=Doe&middle\\_name=K.&amount=1500&currency=KES](https://yourdomain.com/yourscript?k2_account_id=12&k2_transaction_id=15&mm_system_id=M-PESA&mp_transaction_id=54445&biller_number=888555&transaction_date=26%2F4%2F11&transaction_time=1%3A03%20PM&transaction_type=Paybill&ac_no=A123333&sender=0723456789&first_name=John&last_name=Doe&middle_name=K.&amount=1500&currency=KES)

If using Basic Authentication the user name and password will be encoded in the header. In this case, the K2 system will be assigned authentication credentials to authenticate with the enterprise MIS. An example using the 'curl' command and basic authentication is displayed below:

```
curl -d " k2_account_id=12&k2_transaction_id=15&mm_system_id=M-PESA&mp_transaction_id=54445&biller_number=888555&transaction_date=26%2F4%2F11&transaction_time=1%3A03%20PM&transaction_type=Paybill&ac_no=A123333&sender=0723456789&first_name=John&last_name=Doe&middle_name=K.&amount=1500&currency=KES" https://k2login:K2Password@yourdomain.com/yourscript
```

### 3.) Response:

Upon the successful processing of the POST request, a JSON encoded response will be expected in the following format:

```
{  
  "status":01,  
  "description": "Accepted"  
}
```

## Status Codes

A status code of 01 should be returned upon successful reconciling and posting of the transaction. Other codes are:

Status Code	Description
01	Accepted
02	Account not Found
03	Invalid Payment

Any response code greater than 01 will be flagged as an error and the corresponding transactions will be flagged on the K2 dashboard for manual reconciliation / processing. In addition to the status codes above, HTTP status codes will also be checked for errors. A 200 http status code will signify that the transaction information was successfully sent.

## HTTP Status Codes:

Code	Name	Meaning
200	OK	Standard response for successful HTTP requests
400	Bad Request	Bad syntax in the request
401	Unauthorized	Username and/or password is incorrect. The session could not be authenticated
500	Internal Server Error	A generic error message, given when no more specific message is suitable