



# M-Changa

**M-Changa IPN Developer Integration Manual**

## Overview:

M-Changa Instant Payment Notification (IPN) is a message service that automatically notifies merchants of events related to M-Changa transactions. Merchants can use it to automate back-office and administrative functions, like fulfilling fundraiser contributions and providing customers with contribution status.

## How It Works:

Merchants provide a URL they established on their server where they want to receive automated notice of transaction-related events. When contributors make a donation to a fundraiser, M-Changa sends a secure FORM POST containing payment information to the URL. The IPN service detects and processes IPN messages with a listener. The listener is a custom script or program that resides on the merchant's server. It waits for messages, validates them with M-Changa, and passes them to various back-office applications.

The IPN message authentication protocol consists of four steps:

1. M-Changa HTTP POSTs your listener an IPN message that notifies you of an event.
2. Your listener returns an empty HTTP 200 response to M-Changa.  
header(HTTP/1.1 200 OK)
3. Transaction is marked as processed on M-Changa Side (Not to be resent)
4. In case the HTTP 200 response is not received, M-Changa IPN will resend the HTTP POST a maximum of 3 times in 5 seconds interval. After which the transaction will be marked as failed

**Note:** M-Changa IPN POST will also be repeated in the case of the following HTTP status code being returned by the listener server : 500, 503, 504, 400

Your listener must respond to *every* IPN message it gets, whether you take action on it or not. If you do not respond, M-Changa assumes the IPN was not received and re-sends it. Further, M-Changa continues to resend the message periodically until your listener responds.

### **M-Changa IPN send messages similar to the one below:**

mchanga\_acc=1489&mmp\_trx\_code=FP75HO069&mmp\_identifier=MPESA&trx\_sender=Jefkine+Kafunah&trx\_msisdn=254720978838&trx\_amount=10&trx\_payment\_date=2014-09-06+12%3A44%3A02

see an explanation of the variables in the above query string in the following table

Variable	Notes
mchanga_acc	Account Number/Name on M-Changa platform
mmp_trx_code	Mobile Money Provider Transaction Code
mmp_identifier	Mobile Money Provider Name
trx_sender	Contributor Name
trx_msisdn	Contributor MSISDN
trx_amount	Transaction Amount
trx_payment_date	Transaction Payment Date (YYYY-MM-DD H:M:S)

### **Additional Mobile Money Service Providers:**

There exists additional Mobile Money Service Providers that are integrated into the M-Changa service and are available on this IPN with little notable differences.

Airtel Money:

Here the most notable difference include:

The mmp\_trx\_code: which appears as numbers only as opposed to M-PESA which is a combination of both numbers and uppercase non-numerical characters.

The mmp\_identifier: which is the name of the mobile money service provider i.e. AIRTELMONEY