



# M-Changa

**M-Changa API Developer Integration Manual**

# Overview

M-Changa offers the following application programming interfaces (APIs) for incorporating M-Changa related functionality into your web sites and applications. The API uses HTTP verbs and a RESTful endpoint structure.

## API CALL

The core principle behind the M-Changa Tagged Fundraisers Widget is providing an API that listens to API calls with queries to the M-Changa system to check for the transactions, contributor numbers, amount raised and other related fundraiser statistics. An API call made to M-Changa is may accompanied by a fundraiser key (the account number) which defines a fundraiser distinctively and this in-turn retrieves the requested variables in three formats JSON, XML or HTML.

## Different Methods to Interact with M-Changa RESTful

### API

The different ways to make API calls depend on which format is used on the client side. At the end of the URL is the "format" parameter. This is a reserved parameter that will modify the output format of the requested data like so:

XML	JSON	HTML					
data/format/xml	data/format/json	data/format/html					
<pre>&lt;xml&gt; &lt;amount&gt;21423&lt;/amount&gt; &lt;target&gt;30000&lt;/target&gt; &lt;/xml&gt;</pre>	<pre>{   "amount": 21423,   "target": 30000 }</pre>	<table><tr><td>amount</td><td>target</td></tr><tr><td>21423</td><td>30000</td></tr></table>		amount	target	21423	30000
amount	target						
21423	30000						

API calls are made to base URI: **<https://secure.changa.co.ke/api/tagged/>**

## The different API calls to be made include:

### 1. Check Server Status

**Operation:** `GET /status/format/json`

Use this call to check on the status of the server.

**Request:**

**URI:** `https://secure.changa.co.ke/api/tagged/status/format/json`

**Param:** not required

#### Response

Property	Type	Description
Status	<i>string</i>	Live while server is up

#### Response sample

```
{  
  "status": "live"  
}
```

## 2. Detailed fundraiser list

**Operation:** GET [/all\\_fundraisers/format/json](#)

Use this call to retrieve a detailed list of variables from all the tagged fundraisers

**Request:**

**URI:** [https://secure.changa.co.ke/api/tagged/all\\_fundraisers/format/json](https://secure.changa.co.ke/api/tagged/all_fundraisers/format/json)

**Param:** not required

**Response**

Property	Type	Description
historical_amt	<i>string</i>	Amount collected in the lifetime of the fundraiser
current_balance	<i>string</i>	The current balance (could be the derived from [historical_amt - total cashouts])
date_created	<i>datetime</i>	Date the fundraiser was created
payments_count	<i>int</i>	Total Number of payments made into this fundraiser
status	<i>int</i>	Active (1) or Inactive (0) state of the fundraiser
fundraiser_name	<i>string</i>	The name of the fundraiser
fundraiser_originator	<i>string</i>	The name of the fundraiser originator (owner)
fundraiser_statement_link	<i>string</i>	weblink of the fundraiser online statement

**Response sample**

```
{  
  "historical_amt":774,  
  "current_balance":194,  
  "date_created":"2013-06-05 05:14:47",  
  "payments_count":48,  
  "status":"1",  
  "fundraiser_name":"Arts For Life",  
  "fundraiser_originator":"jekton",  
  "fundraiser_statement_link":"http://tinyurl.com/ovdublg"  
}
```

### 3. Detailed fundraiser list (individual fundraiser)

**Operation:** `GET /indiv_fundraisers/key/<int>/format/json`

Use this call to retrieve a detailed list of variables from an individual tagged fundraiser

**Request:**

**URI:** `https://secure.changa.co.ke/api/tagged/indiv_fundraisers/key/<*int>/format/json`

**Param:** pass the fundraiser key <\*int> which is the fundraiser account number on the M-Changa platform. Also accepts a string <\*string> in the case the fundraiser uses a synonym

**Response**

Property	Type	Description
historical_amt	<i>string</i>	Amount collected in the lifetime of the fundraiser
current_balance	<i>string</i>	The current balance (could be the derived from [historical_amt - total cashouts])
date_created	<i>datetime</i>	Date the fundraiser was created
payments_count	<i>int</i>	Total Number of payments made into this fundraiser
status	<i>int</i>	Active (1) or Inactive (0) state of the fundraiser
fundraiser_name	<i>string</i>	The name of the fundraiser
fundraiser_originator	<i>string</i>	The name of the fundraiser originator (owner)
fundraiser_statement_link	<i>string</i>	weblink of the fundraiser online statement

**Response sample**

```
{
  "historical_amt":774,
  "current_balance":194,
  "date_created":"2013-06-05 05:14:47",
  "payments_count":48,
  "status":"1",
  "fundraiser_name":"Arts For Life",
  "fundraiser_originator":"jekton",
  "fundraiser_statement_link":"http://tinyurl.com/ovdublg"
}
```

## 4. Payment Parameters (individual fundraiser)

**Operation:** GET /pay\_params/key/<int>/format/json

Use this call to retrieve payment instruction of a tagged fundraiser

### Request:

**URI:** [https://secure.changa.co.ke/api/tagged/pay\\_params/key/<\\*int>/format/json](https://secure.changa.co.ke/api/tagged/pay_params/key/<*int>/format/json)

**Param:** pass the fundraiser key <\*int> which is the fundraiser account number on the M-Changa platform. Also accepts a string <\*string> in the case the fundraiser uses a synonym

### Response

Property	Type	Description
fundraiser_name	string	name of the fundraiser
fundraiser_acno	string	account number of the fundraiser
m-changa_paybill	string	M-changa PAYBILL number
instruction	string	sentence instruction

### Response sample

```
{
  "fundraiser_name": "Arts For Life",
  "fundraiser_acno": "MUTALE",
  "m-changa_paybill": "891300",
  "instruction": "To donate on Safaricom: Go to MPESA Paybill 891300 Account MUTALE"
}
```

## 5. List Of All Payments

**Operation:** GET [/all\\_payments/format/json](#)

Use this call to retrieve a detailed list of payments from all the tagged fundraisers

**Request:**

**URI:** [https://secure.changa.co.ke/api/tagged/all\\_payments/format/json](https://secure.changa.co.ke/api/tagged/all_payments/format/json)

**Param:** not required

**Response**

Property	Type	Description
fundraiser_name	<i>string</i>	The name of the fundraiser
m-changa_acno	<i>int</i>	Fundraiser acno on the M-Changa platform
amount	<i>float</i>	Transaction Amount
contributor_mobno	<i>string</i>	Contributor MSISDN
contributor_name	<i>string</i>	Contributor Name
payment_date	<i>datetime</i>	Date the transaction was made

**Response sample**

```
{  
  "fundraiser_name": "Arts For Life",  
  "m-changa_acno": "1489",  
  "m-pesa_tr_id": "FP75H0069",  
  "amount": "10",  
  "contributor_mobno": "254720978838",  
  "contributor_name": "JEFKINE KAFUNAH",  
  "payment_date": "2014-09-06 12:44:00"  
}
```

## 6. List Of All Payments (given Date Range)

**Operation:** GET /all\_payments\_in\_range/start/<\*datetime>/end/<\*datetime>/format/json

Use this call to retrieve a detailed list of payments from all the tagged fundraisers for a given set of date range (start, end)

**Request:**

**URI:**

[https://secure.changa.co.ke/api/tagged/all\\_payments\\_in\\_range/start/<\\*datetime>/end/<\\*datetime>/format/json](https://secure.changa.co.ke/api/tagged/all_payments_in_range/start/<*datetime>/end/<*datetime>/format/json)

**Param:** pass the start and end <\*datetime> params for the required date ranges

**Response**

Property	Type	Description
fundraiser_name	<i>string</i>	The name of the fundraiser
m-changa_acno	<i>int</i>	Fundraiser acno on the M-Changa platform
amount	<i>float</i>	Transaction Amount
contributor_mobno	<i>string</i>	Contributor MSISDN
contributor_name	<i>string</i>	Contributor Name
payment_date	<i>datetime</i>	Date the transaction was made

**Response sample**

```
{
  "fundraiser_name": "Arts For Life",
  "m-changa_acno": "1489",
  "m-pesa_tr_id": "FP75H0069",
  "amount": "10",
  "contributor_mobno": "254720978838",
  "contributor_name": "JEFKINE KAFUNAH",
  "payment_date": "2014-09-06 12:44:00"
}
```



## 7. Single Payment Details (given mmp transaction id)

**Operation:** GET /single\_payment/key/<\*varchar>/format/json

Use this call to retrieve a detailed list of variables for a single payment from the tagged fundraisers list given mobile money provider transaction id (mmp\_transact\_id)

### Request:

**URI:** [https://secure.changa.co.ke/api/tagged/single\\_payment/key/<\\*varchar>/format/json](https://secure.changa.co.ke/api/tagged/single_payment/key/<*varchar>/format/json)

**Param:** pass the mobile money provider transaction id <\*varchar> params for the required cashout

### Response

Property	Type	Description
fundraiser_name	<i>string</i>	The name of the fundraiser
m-changa_acno	<i>int</i>	Fundraiser acno on the M-Changa Platform
mmp_trid	<i>varchar</i>	Mobile Money Provider Transaction ID
amount	<i>float</i>	Payment Amount
contributor_mobno	<i>string</i>	MSISDN of the contributor
contributor_name	<i>string</i>	Name(s) of the contributor
payment_date	<i>datetime</i>	Date the Payment was made

### Response sample

```
{
  "fundraiser_name": "Arts For Life",
  "m-changa_acno": "MUTALE",
  "mmp_trid": "FH62UW715",
  "amount": "10",
  "contributor_mobno": "254714353019",
  "contributor_name": "JEFKINE KAFUNAH",
  "payment_date": "2014-07-04 00:13:20"
}
```

## 8. Single Cashout Details (given cashout id)

**Operation:** GET /single\_cashout/key/<\*int>/format/json

Use this call to retrieve a detailed list of variables for a single cashout from the tagged fundraisers list given cashout id

### Request:

**URI:** [https://secure.changa.co.ke/api/tagged/single\\_cashout/key/<\\*int>/format/json](https://secure.changa.co.ke/api/tagged/single_cashout/key/<*int>/format/json)

**Param:** pass the cashout id <\*int> params for the required cashout

### Response

Property	Type	Description
fundraiser_name	string	The name of the fundraiser
m-changa_acno	int	Fundraiser acno on the M-Changa Platform
fundraiser_status	string	If the fundraiser was (ENDED or EXTENDED)
cashout_amount	float	Amount Withdrawn
prev_cashout_date	datetime	Date of the previous Cashout
cur_cashout_date	datetime	Date the Cashout was requested
cashout_id	int	Cashout ID on the M-Changa Platform

### Response sample

```
{
  "fundraiser_name": "Arts For Life",
  "m-changa_acno": "MUTALE",
  "fundraiser_status": "EXTENDED",
  "cashout_amount": "356",
  "prev_cashout_date": "2013-07-03 14:24:47",
  "cur_cashout_date": "2013-07-03 14:24:47",
  "cashout_id": "124"
}
```

\*prev\_cashout\_date: will return the same date as the current date in case there is no previous cashout

## 9. All Cashout Details

**Operation:** GET [/all\\_cashouts/format/json](#)

Use this call to retrieve a detailed list of variables for all cashouts from the tagged fundraisers list

**Request:**

**URI:** [https://secure.changa.co.ke/api/tagged/all\\_cashouts/format/json](https://secure.changa.co.ke/api/tagged/all_cashouts/format/json)

**Param:** none

**Response**

Property	Type	Description
fundraiser_name	<i>string</i>	The name of the fundraiser
m-changa_acno	<i>int</i>	Fundraiser acno on the M-Changa Platform
fundraiser_status	<i>string</i>	If the fundraiser was (ENDED or EXTENDED)
cashout_amount	<i>float</i>	Amount Withdrawn
cashout_date	<i>datetime</i>	Date the Cashout was requested
cashout_id	<i>int</i>	Cashout ID on the M-Changa Platform

**Response sample**

```
{  
  "fundraiser_name": "Arts For Life",  
  "m-changa_acno": "MUTALE",  
  "fundraiser_status": "EXTENDED",  
  "cashout_amount": "356",  
  "cashout_date": "2013-07-03 14:24:47",  
  "cashout_id": "124"  
}
```

## 10. Cashout Details (given a date)

**Operation:** GET /all\_cashouts\_by\_date/date/<\*datetime>/format/json

Use this call to retrieve a detailed list of variables for all cash outs from the tagged fundraisers list given a date

**Request:**

**URI:**

[https://secure.changa.co.ke/api/tagged/all\\_cashouts\\_by\\_date/date/<\\*datetime>/format/json](https://secure.changa.co.ke/api/tagged/all_cashouts_by_date/date/<*datetime>/format/json)

**Param:** pass the cash out date <\*datetime> params for the required cashout

**Response**

Property	Type	Description
fundraiser_name	<i>string</i>	The name of the fundraiser
m-changa_acno	<i>int</i>	Fundraiser acno on the M-Changa Platform
fundraiser_status	<i>string</i>	If the fundraiser was (ENDED or EXTENDED)
cashout_amount	<i>float</i>	Amount Withdrawn
cashout_date	<i>datetime</i>	Date the Cashout was requested
cashout_id	<i>int</i>	Cashout ID on the M-Changa Platform

**Response sample**

```
{  
  "fundraiser_name": "Arts For Life",  
  "m-changa_acno": "MUTALE",  
  "fundraiser_status": "EXTENDED",  
  "cashout_amount": "356",  
  "cashout_date": "2013-07-03 14:24:47",  
  "cashout_id": "124"  
}
```

## 11. Cashout Details (given a date range)

**Operation:** GET /all\_cashouts\_in\_range/start/<\*datetime>/end/<\*datetime>format/json

Use this call to retrieve a detailed list of variables for all cashouts from the tagged fundraisers list given a date range

**Request:**

**URI:**

[https://secure.changa.co.ke/api/tagged/all\\_cashouts\\_in\\_range/start/<\\*start\\_date>/end/<\\*end\\_date>format/json](https://secure.changa.co.ke/api/tagged/all_cashouts_in_range/start/<*start_date>/end/<*end_date>format/json)

**Param:** pass the start date <\*datetime> and the end date <\*datetime> params for the required cashout

**Response**

Property	Type	Description
fundraiser_name	<i>string</i>	The name of the fundraiser
m-changa_acno	<i>int</i>	Fundraiser acno on the M-Changa Platform
fundraiser_status	<i>string</i>	If the fundraiser was (ENDED or EXTENDED)
cashout_amount	<i>float</i>	Amount Withdrawn
cashout_date	<i>datetime</i>	Date the Cashout was requested
cashout_id	<i>int</i>	Cashout ID on the M-Changa Platform

**Response sample**

```
{  
  "fundraiser_name": "Arts For Life",  
  "m-changa_acno": "MUTALE",  
  "fundraiser_status": "EXTENDED",  
  "cashout_amount": "356",  
  "cashout_date": "2013-07-03 14:24:47",  
  "cashout_id": "124"  
}
```