

MobiKwik Wallet Technical Integration Document

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1. Technical Integration

Below are the steps that merchants need to follow for Technical Integration with

MobiKwik Wallet:

- 1. Downloading the sample code from below google drive link
- 2. Using below credentials for the testing

For further support please check Section "Sample HTML Code for POST Request to MobiKwik" to insert in your website to send POST parameters.

1.1 Integration Testing on Stage – Test Bed

MobiKwik provides a test bed for merchants to test their Wallet flow and run various test cases before going live on production.

Please follow the steps below to test the MobiKwik Wallet with MobiKwik:

1. Download Integration Kit

For *Java* Kit

https://drive.google.com/file/d/0B0vekz9ryfQ3RVZ3dGxLZnd1U1k/view?usp = sharing

For **PHP** Kit

https://drive.google.com/file/d/1rCm12_D-P_h-hzdGlcCO7AuXAJLLZqQX/view?usp=sharing

For .Net and C# Kit

https://drive.google.com/drive/folders/0B0vekz9ryfQ3cEJwcUVUOC1uNG8?usp=sharing

- 2. Using this test code you can test your integration changing POST parameters in the form.
- 3. Use the following Test cards to complete transaction

Note: While doing transaction in testing environment using any of the below Test

Cards, the Amount should be in between Rs. 10 to Rs. 499

1.2 Test Card Numbers

Туре	Card	CVV	Exipry	Name	Month
VISA	40000000000000000000 2	Any 3 digits	Year and month - Current or beyond	Any	Any
VISA	401200103714111 2	Any 3 digits	Year and month - Current or beyond	Any	Any
VISA	401288888888188 1	Any 3 digits	Year and month - Current or beyond	Any	Any
VISA	545301000009532 3	Any 3 digits	Year and month - Current or beyond	Any	Any

NOTE: for testing , mid = MBK9002 and Secret key = ju6tygh7u7tdg554k098ujd5468o

2. Request and Response Parameters

2.1 Request Parameters

Request Method : POST

Request URL : http://walletapi.mobikwik.com/wallet

Request URL for testing: http://test.mobikwik.com/wallet

Request Parameters:

Parameter Name	Parameter Description	m	Maxim um Length		Other Validations/C onstraints
email	Buyer's Email Id (may or may not be already registered on mobikwik.com) e.g. amit.gupta11@hotmail.com (optional)		32		Any valid and existing email id
amount	Transaction Amount with maximum two places of decimal e.g 345.45 or 345			and Decimals	No comma or any other special character allowed. Minimum

					value = Rs.5
cell	Mobile no of the buyer(May or may not be already registered on mobikwik.com e.g. 9812398123 (optional)	10	10	Numeric Only (0 to 9)	Starts with only 7, 8 or 9. Country code (like +91) not included
orderid	Unique id of every transaction, generated by merchant.	1	30	Alphanume ric only (A to Z, a to z, 0 to 9)	No special characters are allowed.
mid	Unique Merchant ID given by MobiKwik to merchant will remain same for all transactions for a merchant. Should not be shown to the user. e.g. MBK9002				
merchantna me	Merchant's website or brand name displayed to buyer during transaction flow. E.g. "snapdeal.com" or "Flipkart"	1	50	A-Z, a-z, 0- 9, dot (.), space, hyphen (-)	
redirecturl	URL on merchant's website on which MobiKwik will post response parameters when transaction is completed (either successful or failed transaction). e.g. http://www.snapdeal.com/ mobikwikpaymentresponse.jsp Use the protocol HTTP or HTTPS https://www.flipkart.com/ mobikwikpaymentresponse.jsp				Use the protocol HTTP or HTTPS

showmobile	If request is coming from Mobile,	4	4	Only one
	this parameter should be sent with value="true". This parameter is not required for Desktop requests.			possible value is "true"
	If merchant wants an extra parameter named as "refid" in	1	1	Only possible value is

	response from MobiKwik			"2". This value is required only if merchant wants "refid" parameter in response from MobiKwik else don't send this parameter
checksum	Checksum for the request parameters. Details to calculate checksum given below.	64	64	

Out of these, mid, redirecturl, merchant

2.1.1 How to calculate checksum

To calculate checksum, a secret key will be generated and will be shared with the merchant. This secret key must never be made public and must never be shared with any third party, as it may compromise the security of API communications.

Steps to calculate checksum is as follows:

a. Create a concatenated string of all raw data values that are to be passed in the API. While creating the concatenated String,

surround each parameter with single quotes.

For calculating checksum: Request Checksum: Create a concatenated string with variables in

following order:

""+cell+"""+email+"""+amount+"""+orderid+"""+redirecturl+"""+mid+""

Calculate checksum on this concatenated string using the provided secret key. Send the value of this calculated checksum as a parameter named "checksum" along with other parameters in the post request.

b. The order in which the data must be kept to make the concatenated string is the order in which the parameters are listed. This is important to preserve the data

order.

- c. Calculate checksum over the concatenated string using HMAC SHA-256 algorithm.
- **d**. Attach the calculated checksum in the request along with the list of parameters named "**checksum**".
- e. MobiKwik sends the list of response parameters named as: statuscode, orderid, amount, statusmessage, mid, checksum
- f. After receiving the response, calculate and match the response checksum.

HTML Example:

Response Checksum: After receiving response, merchant must calculate

checksum using response parameters and match it with the response checksum received.

Create a concatenated string with variables in following order:

When "**version**" parameter not sent by merchant at the time of request:

```
""+statuscode+""+orderid+""+amount+""+statusmessage+""+ mid+""
```

When "version" parameter sent by merchant at the time of request:

```
""+statuscode+""+orderid+""+amount+""+statusmessage+""+mid+""+refid+""
```

Calculate checksum on the above concatenated string and match with the checksum received in the response. If response checksum calculated by merchant does not match with checksum sent by MobiKwik in response, this call's response must be discarded and no changes must be done by merchants at their end on the basis of this call's response.

Request for the redirection:

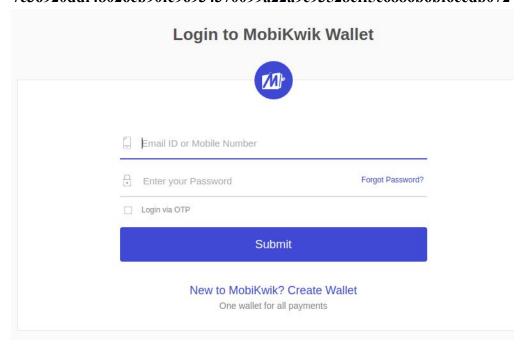
 $\frac{https://test.mobikwik.com/wallet?mid=MBK9002\&orderid=8928335.2375500649\&redirecturl=http://httpbin.org/post&checksum=7e36920ddf48026cb90fe96934370099a22a9e93528eff5e6886b6bf6eedb072\&amount=1$

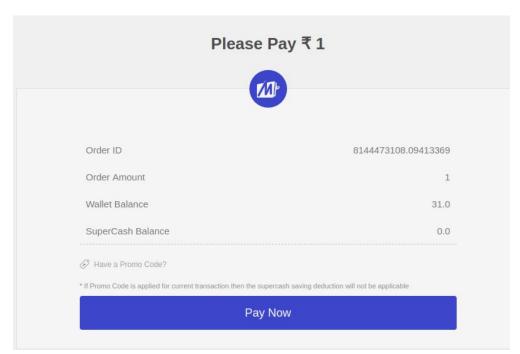
Checksum String ('amount"orderid"redirecturl"mid'):

'1"8928335.2375500649"http://httpbin.org/post"MBK9002'

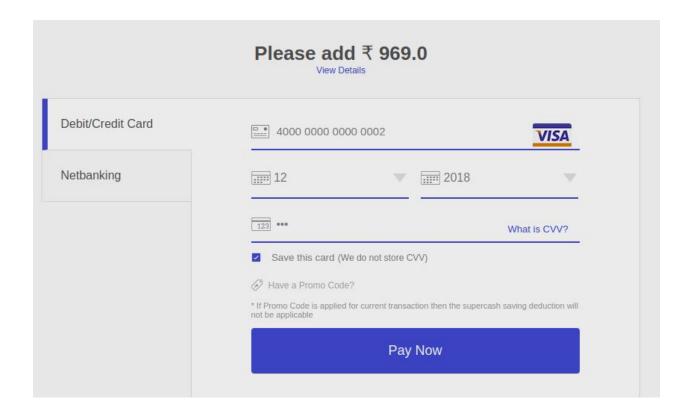
Secret Key: ju6tygh7u7tdg554k098ujd5468o generated checksum:

7e36920ddf48026cb90fe96934370099a22a9e93528eff5e6886b6bf6eedb072





In case when transaction amount is greater than balance then add money page is displayed.



2.2 Response Parameters

MobiKwik will POST transaction response on the *redirecturl* provided by merchant in request.

Response Parameters: There are 6 parameters that are sent in response

Parameter Name	Parameter Description	Parameter Value
statuscode	Transaction status at MobiKwik	For success=0, For failure please refer response codes table
orderid	Merchant order id, same as passed by merchant in request	
amount	Transaction Amount, same as passed by merchant in request e.g. 345	
statusmessag e	Transaction Status Message e.g. "Transaction completed Successfully"	Success or Failure message (refer response codes table)
mid	Merchant Identifier that was sent in the request	
refid	Unique Reference ID generated by MobiKwik. You'll	e.g. 1780811131213

	receive this parameter only when you've sent "version" in transact request	
checksum	Checksum of the response parameters.	Details given above.

Sample form response posted on redirect url:

statuscode=0&amount=1.00&orderid=742785406115157.450&statusmessage=T he+payment+has+been+successfully+collected&checksum=b1d6b5d091d031dec 35f13e22a17ec3a7758d83a5f3544f40ccff19d33bbf52a&mid=MBK9002

2.3 Response Codes Table

Response Code	Response Message
0	Transaction completed successfully
10	Merchant secret key does not exist
20	User Blocked
21	Merchant Blocked
22	Merchant does not Exist
23	Merchant not registered on MobiKwik
24	Orderid is Blank or Null
30	Wallet TopUp Failed
31	Wallet Debit Failed
32	Wallet Credit Failed
33	User does not have sufficient balance in his wallet
40	User canceled transaction at Login page
41	User canceled transaction at Wallet Top Up page
42	User canceled transaction at Wallet Debit page
50	Order Id already processed with this merchant.
51	Length of parameter orderid must be between 8 to 30 characters
52	Parameter orderid must be alphanumeric only
53	Parameter email is invalid

54	Parameter amount must be integer only
55	Parameter cell is invalid. It must be numeric, have 10 digits and start with 7,8,9
56	Parameter merchantname is invalid. It must be alphanumeric and its length must be between 1 to 30 characters
57	Parameter redirecturl is invalid
60	User Authentication failed
70	Monthly Wallet Top up limit crossed
71	Monthly transaction limit for this user crossed
72	Maximum amount per transaction limit for this merchant crossed

73	Merchant is not allowed to perform transactions on himself
74	KYC Transactions is not allowed
80	Checksum Mismatch
99	Unexpected Error

3. Advanced Integration using Checksum (Mandatory)

3.1 Check Status API

3.1.1 What is Check Status API

This is a **server to server call for transaction reconciliation.** For securing transactions through MobiKwik Wallet, you can additionally implement the below process to verify a transaction after MobiKwik has sent transaction response to your redirect URL.

This API returns transaction status at MobiKwik in more secure way. So after a transaction has completed, merchant can use this API to know transaction status at MobiKwik.

3.1.2 Why Check Status API should be used

- 1. In a normal browser based call, if browser is closed by user or if internet connection is lost during transaction, response from MobiKwik to merchant will be lost. So merchant will not come to know about the status of transaction. To know the status of such transactions, Check API must be used.
- 2. It is a server to server call which is more secure than browser based calls.
- 3. It is **Checksum** based. So any tampering with the parameter will be detected by matching checksum.

3.1.3 How to use Check Status API

When a response is received back from MobiKwik on a '**redirecturl**', an additional server to server call can done to confirm the status of transaction at MobiKwik server.

This server to server call will be checksum protected. The call should be initiated from merchant providing an orderid and MobiKwik will reply in an XML format the status of the order. Merchant system can use this response to

confirm and validate the transaction. Both Request and Response are protected by a checksum.

Refer section "Sample Codes for Calculating Checksum" to understand how to calculate the checksum.

3.1.4 Description of Check Status API

Post URL: http://walletapi.mobikwik.com/checkstatus

Post URL for testing: http://test.mobikwik.com/checkstatus

3.1.4.1 Request Parameters

Parameter Name	Parameter Description	Minimum Length	Maximum Length	Characters Allowed	Other Validations
mid	Unique Merchant ID given by MobiKwik to merchant. Will remain same for all transactions for a merchant. Should not be shown to the user. E.g. MBK9002				
orderid	This is the same orderid sent during the request by merchant.	8	50	Alphanumeric only(A to Z, a to z, 0 to 9)	No special characters allowed.
checksum	To be calculated using above 2 parameters				

HTML Example:

```
</form>
<script>
document.forms["checkstatus"].submit();
</script>
```

3.1.4.2 Response Parameters

MobiKwik sends a **XML response** with has following tags: **statuscode**, **orderid**, **refid**, **amount**, **statusmessage**, **ordertype**, **checksum**.

Parameter Name	Parameter Description	Parameter Value
statuscode	Transaction status at MobiKwik	For success=0 For failure=1
orderid	Merchant order id, same as passed by merchant in request	
refid	Unique Reference ID generated by MobiKwik for transaction e.g. 1780811131213	
amount	Transaction Amount ,e.g. 345	
statusmessage	Transaction Status Message e.g. "Transaction completed Successfully"	Success or Failure message
ordertype	Informative field to describe the type of request. eg "payment" "refund" etc.	
checksum		

Sample Success XML response:

If all goes well, the Transaction status URL will return an XML which looks like this:

Sample Failure XML response:

The Transaction Status URL will return a failure along with reason if there is some problem.

statuscode in this case will be non-zero and statusmessage tag will have the reason why this failure occurred.

3.1.5 How to calculate checksum for Check API?

To calculate checksum, a secret key will be generated and will be shared with the merchant. This secret key must never be made public and must never be shared with any third party, as it may compromise the security of API communications.

How to calculate checksum

</wallet>

To calculate checksum, a secret key will be generated and will be shared with the merchant. This secret key must never be made public and must never be shared with any third party, as it may compromise the security of API communications.

Steps to calculate checksum is as follows:

a. Create a concatenated string of all raw data values that are to be passed in the API. While creating the concatenated String, surround each parameter with single quotes.

For calculating checksum:

Request Checksum: Create a concatenated string with variables in following order:

"'"+mid+"'"+orderid+"'"

Calculate checksum on this concatenated string using the provided secret key. Send the value of this calculated checksum as a parameter named "**checksum**" along with other parameters in the post request.

- **b**. The order in which the data must be kept to make the concatenated string is the order in which the parameters are listed. This is important to preserve the data order.
- c. Calculate checksum over the concatenated string using **HMAC SHA-256** algorithm.
- **d**. Attach the calculated checksum in the request along with the list of parameters named "**checksum**".
- e. MobiKwik sends the list of response parameters named as:

statuscode, orderid, refid, amount, statusmessage, ordertype, checksum f.

After receiving the response, calculate and match the response checksum.

Response Checksum: After receiving response, merchant must calculate

checksum using response parameters and match it with the response checksum received. Create a concatenated string with variables in following order:

"'"+statuscode+"'"+orderid+"'"+refid+"""+amount+"""+statusmessage+"""+ ordertype+""

Calculate checksum on the above concatenated string and match with the checksum received in the response. If response checksum calculated by merchant does not match with checksum sent by MobiKwik in response, this call's response must be discarded and no changes must be done by merchants at their end on the basis of this call's response.

Sample Request for Check Status:

https://test.mobikwik.com/checkstatus?mid=MBK9002&orderid=SGN6000079000&checksum=54cf64f49a8fa0be82502dafbd5dae8853978dce991b562d0ceb8f3c1cd1b7a7

secret key:

ju6tygh7u7tdg554k098ujd5468o

Checksum String:

'MBK9002"SGN6000079000'

generated checksum:

54cf64f49a8fa0be82502dafbd5dae8853978dce991b562d0ceb8f3c1cd1b7a7

3.1.6 Response codes for Checkstatus API

Response Code	Response Description	
1	Failure	
0	Success	
0	Refund	
0	Partial Refund	

4. Refund API

4.1 What is Refund API

Refund API is a public API that a merchant can use to refund money to user's MobiKwik Wallet. Refund API is usually used by merchant when the product or services are declined by the user and he is claiming for a refund of money.

Please note that money will only be refunded into user's MobiKwik Wallet and not into his/her bank account. User can use this wallet balance to buy services from MobiKwik.com or buy product/services from any merchant using MobiKwik Wallet as payment option.

NOTE: Refund is possible only when merchant makes a request in order to transafer money to the user's wallet. <u>Refund is possible only when the Merchant's Mobikwik wallet has the balance more than or equal to the amount mentioned for refund.</u>

4.1.1 How to use Refund API

Like Check Status API, Refund API also is a URL with specific Request and Response parameters. The request parameter has a checksum protected by the secret provided to you.

POST URL: https://walletapi.mobikwik.com/walletrefund

POST URL: https://test.mobikwik.com/walletrefund

Credentials required to use the API for test environment:

1. Mid (Merchant Identifier) : MBK9002

2. Secret Key : ju6tygh7u7tdg554k098ujd5468o

```
HTML Example:

<form action="https://test.mobikwik.com/walletrefund" method="post" name =
    "refund101">

<input type="hidden" name="mid" value="MBK9005" />

<input type="hidden" name="txid" value="ORDR10100100001" />

<input type="hidden" name="amount" value="1" />

<input type="hidden" name="checksum"

value="8b714e99c2875f3d41a482f51e6e47a70cecc35312f1f1b73d3cd3edfdd61bd3" />

</form>

<script>

document.forms["refund101"].submit();

</script>
```

4.1.1.1 Request Parameters

Paramet er Name	Parameter Description	Minim um Length	Maxim um Length	Characters Allowed	Other Validations
mid	Unique Merchant ID given by MobiKwik to merchant. Will remain same for all transactions for a merchant. Should not be shown to the user. e.g. MBK9002				
txid	Order ID provided by merchant in the original transaction request.	8	50	Alphanumeri c only(A to Z, a to z, 0 to9)	No special character allowed.
email	Optional - Email Id of the User to whom refund has to be done. Sending this parameter is optional				A valid email id uniquely identifying the user who had done the transaction being refunded.
amount	The amount paid by user to merchant in this particular transaction.				The amount should be exactly same as the amount of transaction, otherwise refund will be declined.
checksu m	To be calculated using above 4 parameters				
ispartial	To be sent as 'yes' in case of partial refunds. Not to be included in checksum. Omit the parameter in case of full Refunds. (optional)				

4.1.1.2 Response Parameters

MobiKwik sends a **XML response** which has following tags: statuscode, status, refid, txid, statusmessage.

Parameter Name	Parameter Description	Parameter Value
statuscode		For success=0 For failure=1
status	Transaction status text at MobiKwik	For success="success", for failure
txid	Merchant transaction id, same as passed by merchant in request	
refid	Unique Reference ID generated by MobiKwik for refund transaction e.g. 1780811131213	
statusmessage Transaction Status Message in case of failure only e.g. "Merchant does not have sufficient balance"		Success or Failure message

Sample XML Response:

```
Success:
```

<refId>null</refId>

</wallet>

```
<wallet>
     <status>success</status>
     <statuscode>0</statuscode>
     <txid>ORDR10100100001</txid>
    <refId>959599</refId>
</wallet>
Failure:
<wallet>
      <status>failure</status>
      <statuscode>1</statuscode>
      <statusmessage> Merchant does not have sufficient balance</statusmessage>
      <txid>1234AC1</txid>
      <refId>124224209A</refId>
</wallet>
For already refunded transactions (most of times)
<wallet>
      <status>failure</status>
      <statuscode>45</statuscode>
       <statusmessage>Refund has failed, Kindly contact MobiKwik</statusmessage>
      <txid>ORDR10100100001</txid>
```

4.1.2 How to calculate checksum for Refund API?

To calculate checksum, a secret key will be generated and will be shared with the merchant in the merchant panel. This secret key must never be made public and must never be shared with any third party, as it may compromise the security of API communications.

The process to calculate checksum is as follows:

- a. Create a concatenated string of all raw data values that are to be passed in the API. While creating the concatenated String, surround each parameter with single quotes.
- **b**. The order in which the data must be kept to make the concatenated string is the order in which the parameters are listed. This is important to preserve the order of data.
- c. Calculate checksum over the concatenated string using **HMAC SHA-256** algorithm.
- **d**. Attach the calculated checksum in the request as the data for a parameter named "**checksum**".

Example:

For calculating checksum for getting transaction status request:

Create a concatenated string with variables in following order in case of **email id** being sent:

```
""+mid+"""+txid+"""+amount+"""+email+"""
```

Create a concatenated string with variables in following order in case **email id not** sent:

```
"""+mid+"""+txid+"""+amount +"""
```

Calculate checksum on this concatenated string using the secret key provided. Send the value of this calculated check sum in a parameter named "checksum" in the post request.

4.1.2. Response codes for Refund API

Response Code	Response Description
0	Success
1	Checksum mismatch
6	No refund on same transaction id within 5 minutes
7	Failed to debit from merchant
10	Refund can only be done to a user
22	Merchant insufficient balance
45	General error
92	Internal state error
93	Internal transaction void error
94	Email is not match
99	Merchant Blocked
101	No orderid found