bKash Platform Connector v1.14
Real Time Pull Service

Specification

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Document Control

| Date Modified	Version	Changes	Author
22-Oct-12	1.3	First draft of release candidate spec	Nawsher, Minhaz
27-Jan-13	1.4	Included parameter details	Nawsher
20-Mar-13	1.9	Modify response codes, Adjust in request and response message, Changes in Headers	Minhaz
24-Mar-13	1.10	Final draft	Nawsher
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1. Introduction

This document provides the specifications of the Connector that link the bKash Platform and third-party service partners. The purpose is to assist the partners, in this case Merchants, in preparing their infrastructure for integration with the bKash Platform in order to perform real time transaction verification against relevant services.

2. Protocol and Call Flow

- Merchant application will initiate the connect request to bKash platform connector.
- This can be achieved by merchant sending request to specific web service address at bKash with transaction reference (trxID, reference or pulling time) and bKash account no (11 digit MSISDN) as input parameter.
- HTTP(S) request method is **GET or POST.**
- All the request parameters are passed as part of query string along with the URL.
- **Basic Authentication** is used as the agreed-upon method to negotiate credentials via request header over HTTPS.
- Request Body Content-type is for XML: application/xml and for JSON: application/json.
- Http Header fields **Accept** and Request Body **Content-type** should remain the same.
- For the Success responses, response code will be HTTP Success (200) and the response content will be as **XML** or **JSON**. Merchant application may choose preferred format at their end.
- For failure responses, HTTP status codes will be as per standard W3C definitions.

Below diagram shows the request/response call flow between the bKash connector and merchant application.
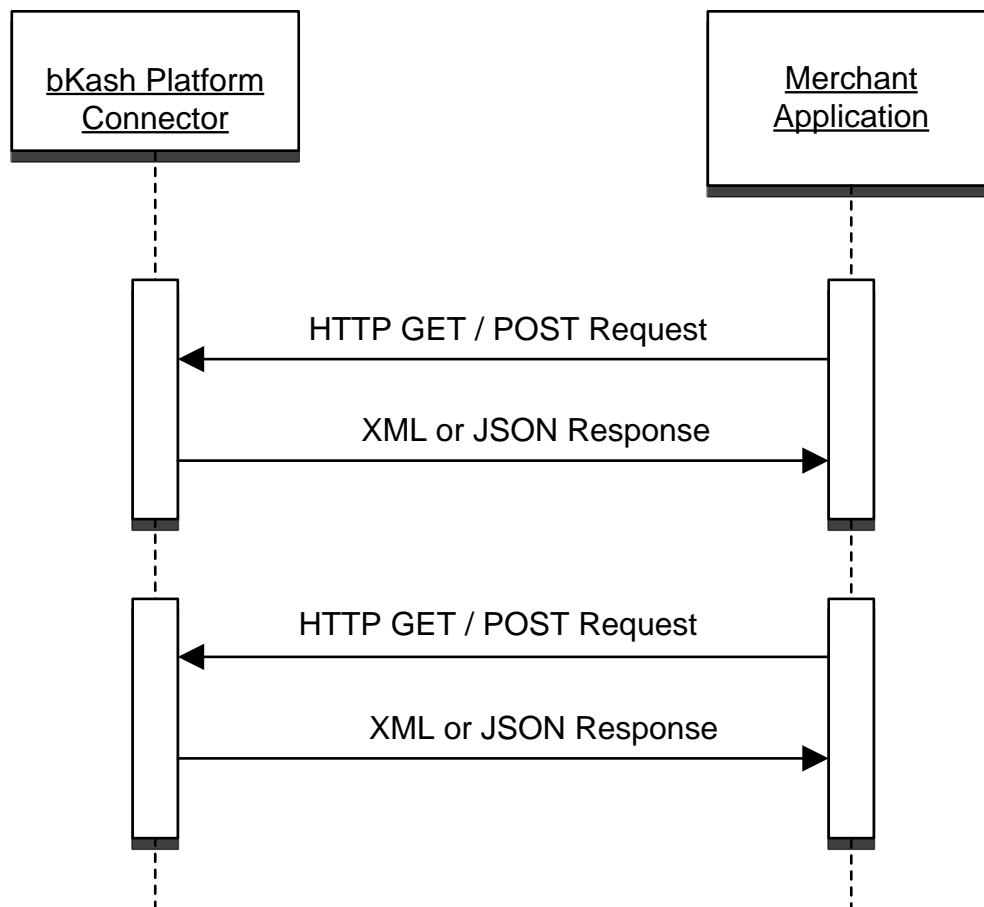
3. Check by Transaction ID

3.1 Request Parameters

Parameter	Mandatory	Data Format	Description	Sample Value
msisdn	Yes	11 digits mobile number	MSISDN which is to be verified whether it is eligible for remittance or not	01823073064
trxID	Yes	Digits, customer got after transaction.	TrxID received from bKash after successful payment transaction by customer to merchant	5652845
user	Yes	Given Credentials	Case sensitive	UserName
pass	Yes	Given Credentials	Case sensitive	Password12#

3.2 Response Fields

Field Name	Data Type	Description	Sample Value
trxId	Numeric	Unique transaction reference generated by bKash platform upon successful transaction	5652845
trxStatus	String	Status of the transaction	0000
reversed	String	Is the transaction reversed	0
service	String	bKash service type, in this case: Payment	Payment
sender	Numeric	Customer bKash Account No	01717171717
receiver	Numeric	Merchant bKash Account No	01818181818
currency	String	Currency format	BDT
amount	Decimal	Transaction amount	1999.50
reference	String	Reference input by Customer when doing transaction	abc
counter	Numeric	Merchant's counter no	1
trxTimestamp	Timestamp	Transaction timestamp	2012-04-25 19:06:35.0

3.3 Example (GET method)

3.3.1 Request sample

https://<service_address>/<service_connector>/merchant/trxcheck/sendmsg?user=USERNAME&pass=PASSWORD&msisdn=01823073064&trxid=5652845

3.3.2 Response sample
In XML:

```
<?xml version="1.0" encoding="UTF-8" ?>
<transactions>
        <transaction>
                <trxId>5652845</trxId>
                <trxStatus>0000</trxStatus>
                <service>Payment</service>
                <sender>01717171717</sender>
                <receiver>01818181818</receiver>
                <currency>BDT</currency>
                <amount>1999.50</amount>
                <reference>abc</reference>
                <counter>1</counter>
                <trxTimestamp>2012-04-25 19:06:35.0</trxTimestamp>
        </transaction>
</transactions>
```

In JSON:

```
{
 "transaction" : {
   "trx_id" : "5652845",
   "amount" : "1999.5",
   "counter" : "1",
   "currency" : "BDT",
   "datetime" : "2012-06-18T13:35:35+06:00",
   "receiver" : "01818181818",
   "reference" : "abc",
   "sender" : "01717171717",
   "service" : "Payment",
   "trx_status" : "0000"
 }
}
```

3.4 Example (POST method)

3.4.1 Request sample

https://<service_address>/<service_connector>/merchant/trxcheck/sendmsg

In XML:

```
<?xml version="1.0" encoding="UTF-8" ?>
<request>
<user>UserName</user>
<pass>Password12#</pass>
<msisdn>01823073064</msisdn>
<trxid>5652845</trxid>
</request>
```

In JSON:

```
{ "user":"UserName" ,
"pass":" Password12#" ,
"msisdn":"01823073064" ,
"trxid":"5652845" }
```

3.4.2 Response sample
In XML:

```
<?xml version="1.0" encoding="UTF-8" ?>
<transactions>
        <transaction>
                <trxId>5652845</trxId>
                <trxStatus>0000</trxStatus>
                <service>Payment</service>
                <sender>01717171717</sender>
                <receiver>01818181818</receiver>
                <currency>BDT</currency>
                <amount>1999.50</amount>
                <reference>abc</reference>
                <counter>1</counter>
                <trxTimestamp>2012-04-25 19:06:35.0</trxTimestamp>
        </transaction>
</transactions>
```

In JSON:

```
{
 "transaction" : {
   "trx_id" : "5652845",
   "amount" : "1999.5",
   "counter" : "1",
   "currency" : "BDT",
   "datetime" : "2012-06-18T13:35:35+06:00",
   "receiver" : "01818181818",
   "reference" : "abc",
   "sender" : "01717171717",
   "service" : "Payment",
   "trx_status" : "0000"
 }
}
```

4. Check by Transaction Reference

4.1 Request Parameters

Parameter	Mandatory	Data Format	Description	Sample Value
msisdn	Yes	11 digits mobile number	MSISDN which is to be verified whether it is eligible for remittance or not	01823073064
reference	Yes	Alpha numeric value that customer gave during performing the transaction.	Reference generally used for customers remark for individual transaction.	From Supermarket
User	Yes	Given Credentials	Case sensitive	UserName
Pass	Yes	Given Credentials	Case sensitive	Password12#

4.2 Response Fields

Field Name	Data Type	Description	Sample Value
trxId	Numeric	Unique transaction reference generated by bKash platform upon successful transaction	5652845
trxStatus	String	Status of the transaction	0000
reversed	String	Is the transaction reversed	0
service	String	bKash service type, in this case: Payment	Payment
sender	Numeric	Customer bKash Account No	01717171717
receiver	Numeric	Merchant bKash Account No	01818181818
currency	String	Currency format	BDT
amount	Decimal	Transaction amount	1999.50
reference	String	Reference input by Customer when doing transaction	abc
counter	Numeric	Merchant's counter no	1
trxTimestamp	Timestamp	Transaction timestamp	2012-04-25 19:06:35.0

4.3 Example (GET method)

4.3.1 Request sample

https://<service_address>/<service_connector>/merchant/trxcheck/refmsg?user=USERNAME&pass=PASSWORD&msisdn=01823073064&reference=abc

4.3.2 Response sample
In XML:

```
<?xml version="1.0" encoding="UTF-8" ?>
<transactions>
        <transaction>
                <trxId>5652845</trxId>
                <trxStatus>0000</trxStatus>
                <service>Payment</service>
                <sender>01717171717</sender>
                <receiver>01818181818</receiver>
                <currency>BDT</currency>
                <amount>1999.50</amount>
                <reference>abc</reference>
                <counter>1</counter>
                <trxTimestamp>2012-04-25 19:06:35.0</trxTimestamp>
        </transaction>
</transactions>
```

In JSON:

```
{
 "transaction" : {
   "trx_id" : "5652845",
   "amount" : "1999.5",
   "counter" : "1",
   "currency" : "BDT",
   "datetime" : "2012-06-18T13:35:35+06:00",
   "receiver" : "01818181818",
   "reference" : "abc",
   "sender" : "01717171717",
   "service" : "Payment",
   "trx_status" : "0000"
 }
}
```

4.4 Example (POST method)

4.4.1 Request sample

https://<service_address>/<service_connector>/merchant/trxcheck/refmsg

In XML:

```
<?xml version="1.0" encoding="UTF-8" ?>
<request>
<user>UserName</user>
<pass>Password12#</pass>
<msisdn>01823073064</msisdn>
<reference>abc</reference>
</request>
```

In JSON:

```
{  "user":"UserName" ,
"pass":" Password12#" ,
"msisdn":"01823073064" ,
"reference":"abc" }
```

4.4.2 Response sample
In XML:

```
<?xml version="1.0" encoding="UTF-8" ?>
<transactions>
        <transaction>
                <trxId>5652845</trxId>
                <trxStatus>0000</trxStatus>
                <service>Payment</service>
                <sender>01717171717</sender>
                <receiver>01818181818</receiver>
                <currency>BDT</currency>
                <amount>1999.50</amount>
                <reference>abc</reference>
                <counter>1</counter>
                <trxTimestamp>2012-04-25 19:06:35.0</trxTimestamp>
        </transaction>
</transactions>
```

In JSON:

```
{
 "transaction" : {
   "trx_id" : "5652845",
   "amount" : "1999.5",
   "counter" : "1",
   "currency" : "BDT",
   "datetime" : "2012-06-18T13:35:35+06:00",
   "receiver" : "01818181818",
   "reference" : "abc",
   "sender" : "01717171717",
   "service" : "Payment",
   "trx_status" : "0000"
 }
}
```

4. Periodic Transaction Pull

This module is not enabled for merchants by default. If this capacity is required, then the merchant must request to respective account manager. **If the merchant wants to enable this module, merchants account has to choose between Transaction Id / Reference pulling against Periodic Transaction Pull.**

- Merchant application pulls from bKash application periodically based on the request instant.

- For example, a merchant can pull a day's transaction **(6 hours)** through this API.

- It is advised that merchant application should maintain a tracking of last pull time at their end.

4.1 Request Parameters

Parameter	Mandatory	Data Format	Description	Sample Value
msisdn	Yes	11 digits mobile number	MSISDN which is to be verified whether it is eligible for remittance or not	01823073064
user	Yes	Given Credentials	Case sensitive	UserName
pass	Yes	Given Credentials	Case sensitive	Password12#
start_datetime	Yes	Date time (24 Hours)	Start date time of certain time period	2015-03-20 12:30:00
end_datetime	Yes	Date time (24 Hours)	End date time of certain time period	2015-03-20 15:30:00

4.2 Response Fields

Field Name	Data Type	Description	Sample Value
trxId	Numeric	Unique transaction reference generated by bKash platform upon successful transaction	5652845
trxStatus	String	Status of the transaction	0000
reversed	String	Is the transaction reversed	0
service	String	bKash service type, in this case: Payment	Payment
sender	Numeric	Customer bKash Account No	01717171717
receiver	Numeric	Merchant bKash Account No	01818181818
currency	String	Currency format	BDT
amount	Decimal	Transaction amount	1999.50
reference	String	Reference input by Customer when doing transaction	abc
counter	Numeric	Merchant's counter no	1
trxTimestamp	Timestamp	Transaction timestamp	2012-04-25 19:06:35.0

4.3 Example (GET method)

4.3.1 Request sample

https://<service_address>/<service_connector>/merchant/trxcheck/periodicpullmsg?user=USERNAME &pass=PASSWORD&msisdn=01823073064&start_datetime=2015-03-20 12:30:00&end_datetime=2015-03-20 15:30:00

4.3.2 Response sample
In XML:

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<transactions>
        <transaction>
                <trxId>5652845</trxId>
                <trxStatus>0000</trxStatus>
                <service>Payment</service>
                <sender>01717171717</sender>
                <receiver>01818181818</receiver>
                <currency>BDT</currency>
                <amount>1999.50</amount>
                <reference>abc</reference>
                <counter>1</counter>
                <trxTimestamp>2012-04-25 19:26:35.0</trxTimestamp>
        </transaction>
        <transaction>
                <trxId>5652845</trxId>
                <trxStatus>0000</trxStatus>
                <service>Payment</service>
                <sender>01717171717</sender>
                <receiver>01818181818</receiver>
                <currency>BDT</currency>
                <amount>2235.50</amount>
                <reference>xyz</reference>
                <counter>1</counter>
                <trxTimestamp>2012-04-25 19:31:22.0</trxTimestamp>
        </transaction>
</transactions>
```

In JSON:

```json
{
 "transaction" : {
   "trx_id" : "5652845",
```

```
    "amount" : "1999.5",
    "counter" : "1",
    "currency" : "BDT",
    "datetime" : "2012-06-18T13:35:35+06:00",
    "receiver" : "01818181818",
    "reference" : "abc",
    "sender" : "01717171717",
    "service" : "Payment",
    "trx_status" : "0000"
 }
"transaction" : {
    "trx_id" : "5652845",
    "amount" : "1999.5",
    "counter" : "1",
    "currency" : "BDT",
    "datetime" : "2012-06-18T13:35:35+06:00",
    "receiver" : "01818181818",
    "reference" : "abc",
    "sender" : "01717171717",
    "service" : "Payment",
    "trx_status" : "0000"
 }
}
```

4.4 Example (POST method)

4.4.1 Request sample

https://<service_address>/<service_connector>/merchant/trxcheck/periodicpullmsg

In XML:

```
<?xml version="1.0" encoding="UTF-8" ?>
<request>
<user>UserName</user>
<pass>Password12#</pass>
<msisdn>01823073064</msisdn>
<start_datetime>2015-03-20 12:30:00</start_datetime>
<end_datetime>2015-03-20 15:30:00</end_datetime>
</request>
```

In JSON:

```
{ "user":"UserName" ,
"pass":" Password12#" ,
"msisdn":"01823073064",
"start_datetime":"2015-03-20 12:30:00",
"end_datetime":"2015-03-20 15:30:00"
}
```

4.4.2 Response sample
In XML:

```
<?xml version="1.0" encoding="UTF-8" ?>
<transactions>
        <transaction>
                <trxId>5652845</trxId>
                <trxStatus>0000</trxStatus>
                <service>Payment</service>
                <sender>01717171717</sender>
                <receiver>0181818181818</receiver>
                <currency>BDT</currency>
                <amount>1999.50</amount>
                <reference>abc</reference>
                <counter>1</counter>
                <trxTimestamp>2012-04-25 19:26:35.0</trxTimestamp>
        </transaction>
        <transaction>
                <trxId>5652845</trxId>
```

```
                <trxStatus>0000</trxStatus>
                <service>Payment</service>
                <sender>01717171717</sender>
                <receiver>01818181818</receiver>
                <currency>BDT</currency>
                <amount>2235.50</amount>
                <reference>xyz</reference>
                <counter>1</counter>
                <trxTimestamp>2012-04-25 19:31:22.0</trxTimestamp>
        </transaction>
</transactions>
```

In JSON:

```
{
 "transaction" : {
   "trx_id" : "5652845",
   "amount" : "1999.5",
   "counter" : "1",
   "currency" : "BDT",
   "datetime" : "2012-06-18T13:35:35+06:00",
   "receiver" : "01818181818",
   "reference" : "abc",
   "sender" : "01717171717",
   "service" : "Payment",
   "trx_status" : "0000"
 }
"transaction" : {
   "trx_id" : "5652845",
   "amount" : "1999.5",
   "counter" : "1",
   "currency" : "BDT",
   "datetime" : "2012-06-18T13:35:35+06:00",
   "receiver" : "01818181818",
   "reference" : "abc",
   "sender" : "01717171717",
   "service" : "Payment",
   "trx_status" : "0000"
 }
}
```

5. Transaction Status Codes

Code	Message	Interpretation
0000	trxID is valid and transaction is successful.	Transaction Successful
0010, 0011	trxID is valid but transaction is in pending state.	Transaction Pending
0100	trxID is valid but transaction has been reversed.	Transaction Reversed
0111	trxID is valid but transaction has failed.	Transaction Failure
1001	Invalid MSISDN input. Try with correct mobile no.	Format Error
1002	Invalid trxID, it does not exist.	Invalid Reference
1003	Access denied. Username or Password is incorrect.	Authorization Error
1004	Access denied. trxID is not related to this username.	Authorization Error
2000	Access denied. User does not have access to this module.	Authorization Error
2001	Access denied. User date time request is exceeded of the defined limit.	Date time limit Error
3000	Missing required mandatory fields for this module	Missing fields Error
9999	Could not process request.	System Error