Dutch-Bangla Bank Limited
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Sample API document for Integration with Rocket Bill Payment Module

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Revision History

Date	Revision No	Modified By	Reviewed By	Description
29/08/2021	1.0	Iftekher Mahmud	Kamal Krishna Dey	Initial Version

Contents

Conventions and Terminology

Definitions

For the purposes of understanding the document, the following terms and definitions are needed:

AN	Alpha-Numeric
A	Alpha
N	Numeric
API	Application Program Interface
VPN	Virtual Private Network
DBBL	Dutch-Bangla Bank Limited
ROCKET	DBBL Bill Payment System

1. Introduction

This document describes the connectivity APIs between Rocket Bill Payment Report Gateway and client system. These APIs are listed below:

a) Validation

b) Confirmation API

c) Inquiry API

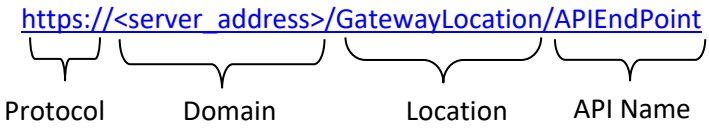
This manual is intended as a guide to the interfaces used for the Bill Payment Report Gateway System. It also describes the details of the methods and parameters.

2. API Connectivity and Security

Connectivity of Payment Gateway API can go through HTTP/HTTPS.

2.1 URL

A URL (Uniform Resource Locator) is a form of URI and is a standardized naming convention for addressing documents accessible over internet between Rocket and client. URL format of Gateway API is given below.



Protocol: - We use http/https connection over internet/VPN.

Domain: - It contains host address with port number.

Location: - This is the service location.

API Name: - This portion indicates API which method will be called by client for different operations.

2.2 Basic Authentication

Each time any request is formed, API method can send the following authorization information along with the request.

User ID:	test
Password:	test
Host:	xxx.xxx.xxx.xxx

This basic authorization information's must reside inside HTTP header. For each request through API, firstly checks basic authentication. If basic authentication fails, then execution will be stopped and the client system will be notified about wrong user ID/password.

To access our API, basic authentication is needed for which following username and password to be added in request header encoding them into base64.

Parameter Name: Authorization
Parameter Value: Basic + base64_encode(User ID:Password)

3. List of APIs

SL	API Name	API Description
1	Validation API	This API will be used to validate a payment. Necessary information for the payment such as payment reference number(s) and amount will be validated from partner's server before the payment. The amount can be taken from user input and validated by the API or the amount can be fixed by the API response.
2	Confirmation API	This API will be used to get transaction details including transaction ID, amount, time and reference number(s).
3	Inquiry API	This will help in automatic reconciliation if any timeout issue will occur during the confirmation API call. For timed out cases Rocket system will call the inquiry API using a scheduler. If success found in inquiry API response then payment status will be updated as success at Rocket otherwise the confirmation API will be called again.

4. API Details

4.1 API Summary

a) Validation API

Request data URL (Test):

http:// HOST_IP:PORT/APIGateway/paymentValidation

Request Fields:

Parameters	Data Type	Description	Mandatory
userid	AN(20)	User ID provided by Partner.	N
password	AN(50)	Password provided by Partner.	N
refNo1	AN (25)	Payment Reference Number	Y
refNo2	AN (25)	Payment Reference Number	N
refNo3	AN (25)	Payment Reference Number	N
amount	N	Amount	N

Response Fields:

Parameters	Data Type	Description	Mandatory
errCode	AN(7)	Error Code (Appendix: A)	Y
errMsg	AN(30)	Error Message (Appendix: A)	Y
customerName	A (60)	Customer Name	N
optionalInfo1	AN (25)	Optional Information of the Customer	N
optionalInfo2	AN (25)	Optional Information of the Customer	N
optionalInfo3	AN (25)	Optional Information of the Customer	N
amount	N	Payable Amount	N

b) Confirmation API

Request data URL (Test):

http:// HOST:PORT/APIGateway/paymentConfirmation

Request Fields:

Parameters	Data Type	Description	Mandatory
userid	AN(20)	Requesting Biller's User ID provided by DBBL.	N
password	AN(50)	Requesting Biller's Password provided by DBBL.	N
txnId	N(15)	Transaction ID	Y
txnDate	AN (25)	Transaction Date Time	N
refNo1	AN (25)	Payment Reference Number	N
refNo2	AN (25)	Payment Reference Number	N
refNo3	AN (25)	Payment Reference Number	N
amount	N	Amount	N

Response Fields:

Parameters	Data Type	Description	Mandatory
errCode	AN(7)	Error Code (Appendix: A)	Y
errMsg	AN(30)	Error Message (Appendix: A)	Y

c) Inquiry API

Request data URL (Test):

http:// HOST:PORT/APIGateway/getPaymentStatus

Request Fields:

Parameters	Data Type	Description	Mandatory
userid	AN(20)	Requesting Biller's User ID provided by DBBL.	N
password	AN(50)	Requesting Biller's Password provided by DBBL.	N
txnId	N(15)	Transaction ID	Y
refNo1	AN (25)	Payment Reference Number	N
refNo2	AN (25)	Payment Reference Number	N
refNo3	AN (25)	Payment Reference Number	N

Response Fields:

Parameters	Data Type	Description	Mandatory
errCode	AN(7)	Error Code (Appendix: A)	Y
errMsg	AN(30)	Error Message (Appendix: A)	Y

4.2 Sample Request Response Format

a) Validation API (Amount Input From Customer)

Request Structure:

```
{
        "usrid": "{USER_ID}",
        "pswrd": "{PASSWORD}",
        "refNo1": "{REF_NO1}",
        "refNo2": "{REF_NO2}",
        "refNo3": "{REF_NO3}",
        "amount": "{AMOUNT}"
}
```

Request Example:

```
{
        "usrid": "Rocket",
        "pswrd": "Rocket123",
        "refNo1": "123456",
        "refNo2": "02",
        "refNo3": "2022",
        "amount": "500"
}
```

Success Response Structure:

```
{
        "errCode": "{ERR_CODE}",
        "errMsg": "{ERR_MSG}",
        "customerName": "{CUSTOMER_NAME}",
        "optionalInfo1": "{OPT_INFO1}",
        "optionalInfo2": "{OPT_INFO2}",
        "optionalInfo3": "{OPT_INFO3}"
}
```

Success Response Example:

```
{
        "errCode": "00",
        "errMsg": "Sucessful",
        "customerName": "Iftekher Mahmud",
        "subzone": "Badda",
        "zone": "Dhaka",
        "email": "xxxx@xxx.com"
}
```

b) Validation API (Amount Provided From Partner API)

Request Structure:

```
{
        "usrid": "{USER_ID}",
        "pswrd": "{PASSWORD}",
        "refNo1": "{REF_NO1}",
        "refNo2": "{REF_NO2}",
        "refNo3": "{REF_NO3}"
}
```

Request Example:

```
{
        "usrid": "Rocket",
        "pswrd": "Rocket123",
        "refNo1": "123456",
        "refNo2": "02",
        "refNo3": "2022"
}
```

Success Response Structure:

```
{
        "errCode": "{ERR_CODE}",
        "errMsg": "{ERR_MSG}",
        "customerName": "{CUSTOMER_NAME}",
        "optionalInfo1": "{OPT_INFO1}",
        "optionalInfo2": "{OPT_INFO2}",
        "optionalInfo3": "{OPT_INFO3}",
        "amount": "{AMOUNT}"
}
```

Success Response Example:

```
{
        "errCode": "00",
        "errMsg": "Sucessful",
        "customerName": "Iftekher Mahmud",
        "subzone": "Badda",
        "zone": "Dhaka",
        "email": "xxxx@xxx.com",
        "amount": "500"
}
```

c) Confirmation API

Request Structure:

```
{
        "userid": "{USER_ID}",
        "password": "{PASSWORD}",
        "txnid": "{TXN_ID}",
        "txndate": "{TXN_DATE}",
        "refno1": "{REF_NO1}",
        "refno2": "{REF_NO2}",
        "refno3": "{REF_NO3}",
        "amount": "{AMOUNT}"
}
```

Request Example:

```
{
        "userid": "Rocket"
        "password": "Rocket123",
        "txnid": "20210829000001",
        "txndate": "29-Aug-2021 04:18:32 AM",
        "refno1": "123456",
        "refno2": "02",
        "refno3": "2022",
        "amount": "500"
}
```

Success Response Structure:

```
{
        "errCode": "{ERR_CODE}",
        "errMsg": "{ERR_MSG}"
}
```

Success Response Example:

```
{
        "errCode": "00",
        "errMsg": "Payment Information Updated Successfully"
}
```

d) Inquiry API

Request Structure:

```
{
        "userid": "{USER_ID}",
        "password": "{PASSWORD}",
        "txnid": "{TXN_ID}",
        "refno1": "{REF_NO1}",
        "refno2": "{REF_NO2}",
        "refno3": "{REF_NO3}"
}
```

Request Example:

```
{
        "userid": "Rocket"
        "password": "Rocket123",
        "txnid": "20210829000001",
        "refno1": "123456",
        "refno2": "02",
        "refno3": "2022"
}
```

Success Response Structure:

```
{
        "errCode": "{ERR_CODE}",
        "errMsg": "{ERR_MSG}"
}
```

Success Response Example:

```
{
        "errCode": "00",
        "errMsg": "Payment Information Updated Successfully"
}
```

APPENDIX

Appendix: A – Error Code

Error Code	Error Message
SUC000	Success
01	Invalid Basic Authentication
02	Invalid Host Authentication
03	Invalid Authentication
04	Invalid Report Type
05	Biller Short Code Missing
06	User ID Missing
07	Password Missing
08	Invalid From Date
09	Invalid To Date
10	Couldn't find the request body
11	Not a valid JSON in request body
12	IP Not Allowed
13	Report Type Is Not Allowed For The Biller
14	Date Range Limit Exceeded
99	Unable to process
999	Unable to process GET method request