Sonali Bank Limited

Sonali Payment Gateway (SPG)

(Payment Collection)

Ver 3.0.1

Prepared by

MD. Hasan Monsur (Programmer)
01710563521, skype: hasanmonsur14
hasanmcse@sonalibank.com.bd
ITD(Business IT),
Sonali Bank Limited, Head Office, Dhaka

Nazrul Islam
Skype: exc3ption
Mail: nazrul.islam@sonalibank.com.bd

Disclaimer

This document has been prepared for only Software Engineers or Professional Programmers. The person who has knowledge of **REST** API **& Web portal redirect** with Post Data may understand this document better. This document is not understandable who has no knowledge of Software Engineering and Professional Programming. All content is subject to copyright and may not be reproduced in any form without express written consent of Sonali Bank Limited.

Table of Contents

1. Introduction

This document provides the specifications of the Connector that link the Sonali Payment Gateway (SPG) and Service Portal. The purpose is to assist Service Portal in preparing their infrastructure for integration with the Sonali Payment Gateway (SPG) in order to perform real time transaction verification against relevant services.

In Live you will get below like value, so keep the value on separate site.

"userName":"a2i@pmo",
"password":"sbPayment0002"

"Authorization":"Basic ZHVVc2VyMjAxNDpkVVzZXJQYXltZW50MjAxNA==" (Header)

Url: Base url will be changed, rest portion and port will be same. like
https://spg.sblesheba.com:6313 to https://xyz.com.bd:6313 [redirect]
https://spg.sblesheba.com:6314 to https://xyz.com.bd:6314 [api]

any url attached to the base url will be same.

2. Protocol and Call Flow

Service Portal will initiate the connect request to Sonali Payment Gateway (SPG) connector. This can be achieved by Service Portal sending request to specific address at Sonali Payment Gateway with User Information and Payment Information as input parameter.

SPG API Integration Diagram
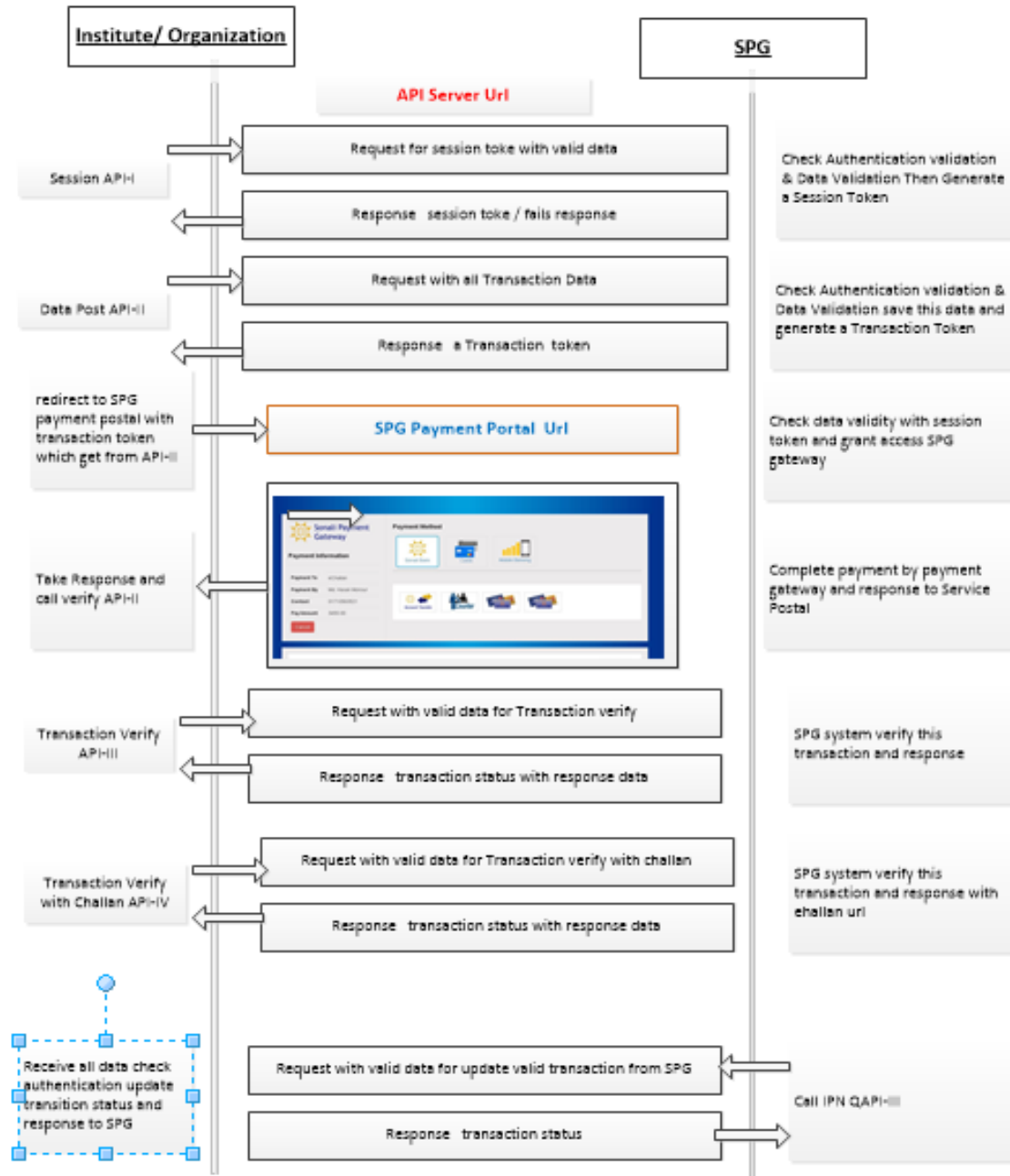
3. Integration Procedure (Operational)

- **Step 1:** The Applicant access **Service portal** (like. eChallan) of and give Payment information like Applicant Name, Contact No. etc.
- **Step 2:** Call SPG Session **API-I** for session key, if session key get successful then go next steps.

- **Step 3:** Call API **API-II** for Post Transactional Data to SPG, if data & authentication. Data save and generate a transaction token for redirect to SPG.

- **Step 4:** redirect to service portal with transaction token. and customer view a Payment portal page.

- **Step 5:** Sonali Payment Gateway (SPG) verify authenticity of data & source and store all request information then return the payment UI to The Service Applicant chooses the payment option.

- **Step 6:** If the payment channel successfully done and response POST to return url of service portal

- **Step 7:** Service Portal receive this response and call Transaction verify API-II and confirm transaction before service available to customer.

Poratal url: **https://spg.sblesheba.com:6313/SpgLanding/SpgLanding/{session_token}**
Rest API url: **https://spg.sblesheba.com:6314/**

4. Sample of All Data Format

4.1: Session Token (API -I)
Request body is 2 account credit, If party has 1 account, remove the last cr account block.

POST /api/v2/SpgService/GetAccessToken
Host: https://spg.sblesheba.com:6314
Content-Type: application/json
Authorization: Basic ZHVVc2VyMjAxNDpkdVVzZXJQYXltZW50MjAxNA==

Request:

```
{
"AccessUser":{
       "userName":"a2i@pmo",
       "password":"sbPayment0002"
},
"invoiceNo":"INV155422121443",
"amount":"1000",
"invoiceDate":"2023-01-01",
"accounts": [
    {
  "crAccount": "0002601020864",
  "crAmount": 500
   } ,
    {
  "crAccount": "0002601020871",
  "crAmount": 500
   }
  ]
 }
```

Response :

```
Response:
{
   "status": "200",
   "msg": "success",
   "access_token":
   "QaAu8rkDr1gcR3XwWXCs9nb7ASymYwfxf6er81DlHjb0tIFlNc7WkS/mXWGcjRpnfOfWVXP8GsD9JHpn
   RPdM0bpYXmcPCIvU0r64mippoqBpTzoKSJJzRQ=="
}
```

4.2: Post Transactional Data (API -II)
According to Request Parameter Table 5

apiAccessToken comes from api 1. Keep api 1(GetAccessToken) and api 2(CreatePaymentRequest) value same like invoiceDate, totalAmount, InvoiceNo, crAccount.

POST /api/v2/SpgService/CreatePaymentRequest

Host: spgapi.sblesheba.com:6314

Content-Type: application/json

Authorization: Basic ZHVVc2VyMjAxNDpkdVVzZXJQYXltZW50MjAxNA==

Request:

```
{
"authentication":{
  "apiAccessUserId": "a2i@pmo",
  "apiAccessToken":
"QaAu8rkDr1gcR3XwWXCs9nb7ASymYwfxf6er81DlHjb0tIFlNc7WkS/mXWGcjRpnfOfWVXP8G
sD9JHpnRPdM0bpYXmcPCIvU0r64mippoqBpTzoKSJJzRQ=="
},
 "referenceInfo": {
 "InvoiceNo": "INV155422121443",
 "invoiceDate": "2023-01-01",
 "returnUrl": "http://localhot",
 "totalAmount": "1000",
 "applicentName": "Md. Hasan Monsur",
 "applicentContactNo": "01710563521",
 "extraRefNo": "2132"  },
 "creditInformations": [
  {   "slno": "1",
   "crAccount": "0002601020864",
   "crAmount": "500",
   "tranMode": "TRN"   },
  {   "slno": "2",
   "crAccount": "0002601020871",
   "crAmount": "500",
   "tranMode": "TRN"   }
 ]
}
```

Response :

```
{
    "status": "200",
    "session_token": "8217fe3de07b00e50186209059f91dfb09ff6b9c",
    "message": "success"
}
```

4.3: Post Redirect Operation TO SPG (POST & Redirect)

```
<html><head></head>
<body onload='document.forms[0].submit()'><form name='PostForm' method='GET'
    action='https://spg.sblesheba.com:6313/SpgLanding/SpgLanding/{session_token}'  />
</textarea></form></body></html>
```

4.4: Redirect Response from SPG (GET & Redirect)

According to Response Parameter Table 6

```
<html><head></head>
<body onload='document.forms[0].submit()'><form name='PostForm' method='GET' action='
{returnUrl}/?session_token={session_tocken}&status={StatusCode}'
            />
</textarea></form></body></html>
```

4.4: Transaction Verification (API-III)

POST /api/v2/SpgService/TransactionVerificationWithToken
Host: https://spg.sblesheba.com:6314
Content-Type: application/json
Authorization: Basic ZHVVc2VyMjAxNDpkVVzZXJQYXltZW50MjAxNA==

Request:

```
{
  "session_Token": "8217fe3de07b00e50186209059f91dfb09ff6b9c"
}
```

Response:

```
{
    "status": "200",
    "msg": "Success",
    "transactionId": "1902269000000000",
    "transactionDate": "2022-02-10 00:00:00",
    "InvoiceNo": "INV155422121443",
    "invoiceDate": "2023-01-01",
    "brCode": "00018",
    "applicentName": "Md. Hasan Monsur",
    "applicentContactNo": "01710563521",
    "totalAmount": "1000",
    "paymentStatus": "200",
    "payMode": "M04",
    "payAmount": "1015",
    "vat": "2",
    "commission": "13",
    "scrollNo": "N"
}
```

4.6: Webhook Transaction Update {IPN} (API-V) this API provide by Service Institute:

We will call every success transaction to check you update the transaction or not. We will send request body, you need to accept the request and give me proper response.

Post:
url: { **service portal url** }/api/DataUpdate
Content-Type: application-json

Request Body:

```
{
```

```
"Credentials": {
    "userName":"yourUser",
    "password":"userPassword"
},
"data": {
    "session_Token": "8217fe3de07b00e50186209059f91dfb09ff6b9c",
    "TransactionId": "1902269000000000",
    "InvoiceNo": "INV155422121443",
    "InvoiceDate": "2019-02-26"
    }
}
```

Response :
```
{
    "status": "200",-------201
    "msg": "Success",  -----fail
    "TransactionId": "8217fe3de07b00e50186209059f91dfb09ff6b9c"
}
```

5. Request Parameter Table

Parameter	Mandatory	Data Format	Description	Sample Value
apiAccessUserId	Yes	String(50)	This Access Id provided by Sonali Bank	userId
apiAccessToken	Yes	String(max)	This Key get from GetAccessToken	Hruasdadasd44YqOviHuE
session_token	Yes	String(50)	Session Token of each transaction	
brCode		String(5)	sonali bank branch code	
transactionId		string(16)	sonali bank TRxID for each Transaction	
transactionDate		string(20)	Transaction Date of SPG	
invoiceNo	Yes	String (80)	Invoice Number with Unique EIN/ other identification of you	100000001
invoiceDate	Yes	Date String	Invoice Date	2017-10-08
totalAmount	Yes	String(20,2)	Transaction Amount	500.00
applicentName	Yes	String(200)	Individual Applicant Name	Md. Rabiul Alam
applicentContactNo	Yes	String(11)	Individual Applicant Mobile No.	01706355722
extraRefNo	No	String(20)	If Business Have any Extra Ref #	
returnUrl	Yes	String(200)	to redirect to service portal	https://yourportaldomain.com
slno	Yes	String(2)	list sequence number	
crAccount	Yes	String(13)	credit account number	
crAmount	Yes	String(20,2)	amount of Pay without charge	
paymentStatus	Yes	String(4)	Transaction Status of each Tran.	
payMode		string(5)	transaction payment channel	
payAmount		string(20,2)	total paid by customer	
tranMode	Yes	String(5)	Purpose short code	Purpose: CHL=Challan/ TRAN=Fee Transaction/ VAT=vat/ COM=Commission
brCode		String(5)		

6. Transaction StatusCodes

Code	Message	Interpretation
200	Success	Success Transaction
201	Unpaid	Transaction Unpaid
400	Cancel	Cancel By Client
5017	Counter Select,Unpaid	Counter Payment Transation Waiting for Paymemt
5555	Error data not Proces	System Error/ Cancel Payment

6. Operation Status List

Code	Message	Interpretation
200	OK.	Success Operation
404	Fails	Fail Operation

THANK'S