

SADAD PGW – Service Integration Document

Ver 2.0

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Versions

Version	Editor	Date	Remarks
1.0	Almadar Aljadid	1 st February 2019	
2.0	Almadar Aljadid	31 st March 2021	

Executive Summery

Sadad is a Mobile Wallet Service Launched by Almadar Aljadid and Aims to deliever a new way of digital payment using mobile money.

Due to the increase demand of exposing this service to the external entities who requires online payment operation with immediate result, Almadar has built this PGW system which exposes Sadad service to the outside world.

This document will describe the integration mechanism between SADAD PGW systems with any external Entity who wishes to integrate their online service with it.

Integration Specification

Merchants/ Third-party must implement the following points to have fully functional integration with the PGW:

1. Develop an e-commerce website or mobile app to integrate with the system.
2. Validate check-out from Sadad PGW (The screen back-logic will send a request to Almadar premises to validate the Customer details, sends an OTP and registers an unpaid invoice/transaction in same request).
 - 2.1. If the request is successful, the Customer must receive an OTP (There is an option for requesting an OTP, kindly review OTP Request section).
 - 2.2. If the request is failed, investigate the Customer input (i.e. they are not registered within Sadad Service, their birth-year is incorrect, etc.). The PGW shall clarify the error message in Arabic.
3. Confirming check-out process with received OTP (The third-party may decide on their own, to dedicate another screen or implement this functionality on checkout screen.).
 - 3.1. If the request is successful, the Sadad core system will send two SMS messages confirming the transaction. One for each side of the transaction customer and third-party. In some circumstances the third-party may require Transaction Enquiry to check the status of the transaction (i.e. in case of time-out, system failure of any side).
 - 3.2. If the request is failed, the system will return the corresponding textual message (i.e. incorrect OTP that could be solved by OTP Resend, unregistered transaction number that requires sending the Validate Request.)

Recommendations

4. Third-party must show the paid invoice and the reference no returned from Sadad.
5. It is advisable to keep a raw copy of every request/response that is sent to Almadar premises.
6. Its responsibility of the Merchant to design and implement the two-step check-out process.
7. The Authorization header must be Bearer followed by the token sent to the third-party.

Environments Details

Description	URL
PGW Test Environment	https://pgw-test.almadar.ly
PGW Production/Commercial Environment	https://pgw.almadar.ly

Authroization and Authentication

The new PGW Service uses Bearer Authorization with a static token sent to the third-party via email, any interaction with the PGW must include that golden token within the request headers.

KEY	VALUE
<input checked="" type="checkbox"/> Authorization ⓘ	Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJodHRwOi8vc2No...

Authorization Token/shared key will be sent to the email address used when the third-party has registered in the service. The email will contain a password-protected file named. That compressed file has a key.txt containing two keys as follows.

1. SharedKey: used to integrate in older versions of PGW and is out of scope for this documentation.
2. Token: used to integrate with this version of the PGW.

A password will be sent to the mobile number used in the registration process via SMS, that password is must be used to access the compressed file contents.

A sample of the Authorization keys contained in key.txt

```
SharedKey: nHh7Aw          hEZxovj7Ta
Token:
eyJhbGciOiJIUzI1NiIs          i8vc2NoZW1hcy54bWxz
b2FwLm9yZ          b3Jwb3JhdGV
y93cy8          A1YWIZNDMzN
TZXJ2a          - - -
iIs          cyNzI4OCwiaXNzIjoiQ29yZXRlYyIsImF1ZCI6I1NBREFEUEdXIn0.2z3
pihRwWft1bS0hFo8tWNI_UDrU3_zK0Fi9HQ9AWU8|
```

Note: the Token and Shared Key are partially obfuscated for demostation purposes only and must not be used in real case secarios.

The implementor must use the Token as Bearer Authorization when sending requests to PGW endpoint APIs.

Two-step checkout procedure

Validate Customer Identity

During this phase the third-party sends a request (as depicted below) to initiate the payment process.

Request

This request will validate the customer identity, sends OTP and registers an unpaid invoice.

Endpoint and Verb

POST	▼	https://pgw-test.almadar.ly/api/Validate
------	---	--

Payload

```
1 {  
2   .... "Msisdn": "911 07",  
3   .... "BirthYear": "19 4",  
4   .... "InvoiceNo": "123460",  
5   .... "Amount": 50,  
6   .... "Category": 1  
7 }
```

- Msisdn: Is the customer's phone number.
- Birth Year: Is the customer's year of birth.
- InvoiceNo: Is a number generated by the third-party's e-commerce platform.
- Amount: The amount of the invoice.
- Category: Is the category of the goods/services purchased by the customer, a list of IDs is included in table point 5

Response

An example of the response body is shown below:

```
1  {  
2    "statusCode": 0,  
3    "result": {  
4      "transactionId": 24,  
5      "merchantNo": "987611",  
6      "merchantName": "المركز الدولي للاكترونات",  
7      "commission": 0,  
8      "total": 50.0  
9    }  
10 }
```

where the statusCode = 0 indicates that the request is successful. Otherwise, it will include an error message text within the response body.

- transactionId: Is the new unpaid transaction id, this value is required for every interaction with the PGW (i.e. payment, requesting new OTP).
- merchantNo: Is the third-party merchant number as registered in the PGW.
- merchantName: the third-party merchant name as registered in the PGW.
- commission: the Sadad commission from the transaction.
- total: total amount to be deducted from the customer's wallet.

Pay Invoice

The third-party may settle the unpaid transaction (which was created from the previous step), by sending the request below.

Request

Endpoint and Verb

POST



<https://pgw-test.almadar.ly/api/Pay>

Payload

```
1  {  
2    "TransactionId": 24,  
3    "OTP": "985436"  
4  }
```


- TransactionId: is the transaction id which was returned from step 1.
- OTP: is always sent automatically by the PGW to the customer number via SMS.

Response

On successful transaction, the PGW will return the response below where result is the Sadad Transaction Number.

```
1 {  
2   "statusCode": 0,  
3   "result": "35954975"  
4 }
```

OTP Resend

If the customer didn't receive the OTP, the third-party may send a request to obtain a new OTP for the customer as follows. (OTP Validity is 10 minutes)

Request

Endpoint and Verb

POST

https://pgw-test.almadar.ly/api/ResendOTP?transactionId=23

transactionId: is the transaction id that the customer needs to settle.

Response

The response below indicates that the OTP was successfully sent (statusCode = 0) to the customer. Otherwise, the OTP resend will fail (statusCode != 0) and result property will be updated accordingly to display the error message.

```
1 {  
2   "statusCode": 0,  
3   "result": "تم اعادة ارسال رمز التحقق"  
4 }
```

Transaction Enquiry

Request

Endpoint and Verb

GET	▼	https://pgw-test.almadar.ly/api/Enquiry?InvoiceNo=123460
-----	---	--

- InvoiceNo: Is a number generated by the third-party's e-commerce platform.

Response

Below is the response of successfully paid invoice. Otherwise, the response will return the error message within the payload and statusCode will not equal zero.

```
1  {
2    "statusCode": 0,
3    "result": {
4      "transactionId": 24,
5      "invoiceNo": "123460",
6      "channel": 1,
7      "amount": 50.0000,
8      "commission": 0.0000,
9      "referenceNo": null,
10     "category": 5,
11     "createdOn": "2021-04-06T14:15:14.183",
12     "status": 0
13   }
```

- transactionId: is the transaction number as registered in PGW.
- InvoiceNo: Is a number generated by the third-party's e-commerce platform.
- channel: is an internal system value
- commission: the Sadad commission from the transaction.
- amount: total amount to be deducted from the customer's wallet.
- referenceNo: the Sadad Transaction Number after payment, initially after invoice creation it will contain a null value – after successful payment it will contain an appropriate value.
- createdOn: the time and time when the invoice was created in PGW.
- status: is the current status of invoice, 0 is settled invoice; 1 is settled invoice.

Service Categories

Please send the appropriate category key from the table below, in your requests to the PGW.

Service Category	ServiceCategoryKey
None	0
مواد صحية	5
صيدليات	6
مواد غذائية	7
مقاهي ومطاعم	8
ملابس وأحذية	9
قرطاسية	10
إلكترونيات	11
صيانة وقطع غيار	12
خدمات سياحية	13
مواد بناء	14
خدمات تعليمية	15
خدمات دعائية	16
مواد منزلية	17
أثاث ومفروشات	18
إطارات ونضائد	19
البيع الإلكتروني	20
العطور ومواد منزلية	21
المخابز والحلويات والمرطبات	22
البصريات والعدسات الطبية	23
ساعات ومجوهرات وإكسسورات	24
مستلزمات الام والطفل	25
ورش صيانة	26
مواد تنظيف	27
الالعاب	28
لحوم ودواجن	29
عيادات ومصحات	30
معامل تحاليل	32
الملابس التقليدية	36