

**Gulf International Bank – Open Banking API Specifications**

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## 1. INTRODUCTION

GIB - Bahrain facilitates Open Banking API for the following Third-Party Providers (TPPs):

- AISP (Account Information Service Provider).
- PISP (Payment Initiation Service Provider).

## 2. TPP Onboarding

The Registration Process for TPP

1. Interested Account Information Service Providers & Payment Initiation Service Providers (TPPs) should contact GIB on following email [openbanking\\_bh@meem.com](mailto:openbanking_bh@meem.com).
2. TPPs will have to furnish details such as CBB licensing certificate, Contact information, Application details, App certificate from QTSP etc. and share with the Bank when asked.
3. If the information shared by TPPs is verified by Bank as satisfactory, then Bank will Onboard the TPPs with Bank for Open banking.
4. Once TPPs are onboarded, the Bank will share the "client ID" Generated for TPP via email along with Instructions for Sand box testing & support contact Matrix.
5. TPP to perform sandbox testing using above document.

## 3. Security

TPPs Must follow the Open Banking Security standards defined by Bahrain Open Banking Framework.

<https://bahrainob.atlassian.net/wiki/spaces/BH/pages/309985587/Security+Standards+and+Guidelines>

## 4. Account Information Services(AIS) Open Banking API Specification

Account Information Open Banking API provides information of all of the accounts in active status that a customer has with bank.

Following are the AIS APIs supported by GIB – Bahrain for open Banking

### 4.1 Accounts Consents

The Account Access Consents API is used by an AISP to request an ASPSP to create a new account-access-consents resource, retrieve the status of account-access-consents resource and patch the account-access-consents resource.

#### 4.1.1 POST /account-access-consents

1. User should give consent to an AISP accessing their account information and AISP should connect to Bank's API to create an account-access-consent resource using POST /account-access-consents.
2. The account-access-consent resource includes the fields below which describe data the PSU has consented with the AISP:
  - **Permissions** - List of data clusters that have been consented by user for data access
  - Only following permissions are supported by GIB – Bahrain, and AISPs are required to send requests with only the supported permissions.
    - ReadAccountsBasic
    - ReadAccountsDetail
    - ReadBalances
    - ReadBeneficiariesBasic
    - ReadBeneficiariesDetail
    - ReadStandingOrdersBasic
    - ReadStandingOrdersDetail
    - ReadTransactionsBasic
    - ReadTransactionsCredits
    - ReadTransactionsDebits
    - ReadTransactionsDetail
  - **Expiration Date** – Date after which the AISP will no longer have access to the User's data.
  - **Transaction Validity Period** - The To / From date range specifying historical period for transactions which can be accessed by the AISP.
2. This informs Bank that their customers is granting access to account information to an AISP and Bank responds with an identifier for the resource (ConsentId) and redirection URL.
3. The AISP should redirect the customer to GIB- Bahrain's Login page and bank will use two factor authentications to authenticate the customer. During authorization, the customer must select accounts which customer wishes to grant access to AISP.
4. Once the consent has been authorized/declined, the customer will be redirected back to the AISP's page with an auth code.
5. TPP has to retrieve user access token using the auth code

### **Security Requirements:**

- Mutual TLS
- Digital Signature
- TPP Application Access Token

### **Sample Request**

POST / <https://BANKOBURL:PORT/>

### **Mandatory field(s)**

Authorization =Application\_Access\_Token

Body =



Accounts\_Consents  
\_Body\_Request.txt

### **Sample Response**



Accounts\_Consents  
\_Post\_Response.txt

### 4.1.2 GET /account-access-consents/{ConsentId}

This API may be used by AISP to get details and status of any specific ConsentId provided by Bank.

### **Security Requirements:**

- Mutual TLS
- Digital Signature
- TPP Application Access Token

### **Sample Request**

GET / <https://BANKOBURL:PORT/open-banking/v3.1/aisp/account-access-consents>

### **Mandatory field(s)**

Authorization =Application\_Access\_Token

ConsentID = ConsentId

## Sample Response



Accounts\_Consents  
\_Get\_Response.txt

### 4.1.3 PATCH /account-access-consents/{ConsentId}

This API may be used by AISP to update the status of any specific ConsentId to revoked. Once Any consent status is changed to Revoked, any subsequent request related to that consent ID will return unauthorized response.

#### **Security Requirements:**

- Mutual TLS
- Digital Signature
- TPP Application Access Token

#### **Sample Request**

PATCH / <https://BANKOBURL:PORT/open-banking/v3.1/aisp/account-access-consents/{ConsentId}>

#### **Mandatory field(s)**

Authorization =Application\_Access\_Token

ConsentID = ConsentId

## **Sample Response**



Accounts\_Consents  
\_PATCH\_Response.t

## **4.2 Accounts**

After successful authorization of account access consent, an AISP may retrieve account information using the following API End points

### 4.2.1 GET /accounts

First step after successful authorization of account access consent by AISP is to call this GET/accounts API to retrieve details for all authorized accounts (AccountID) linked to the account access consent. These Account IDs must be used for other AIS APIs.

#### **Security Requirements:**

- Mutual TLS

- Digital Signature
- TPP Application Access Token

### **Sample Request**

[GET / https://BANKOBURL:PORT/open-banking/v3.1/aisp/accounts](https://BANKOBURL:PORT/open-banking/v3.1/aisp/accounts)

### **Mandatory field(s)**

Authorization =User\_Access\_Token

### **Sample Response**



**Bulk\_accounts\_Response.txt**

#### 4.2.2 GET/accounts/{AccountId}

This API may be called by AISPs to retrieve details for any specific AccountID linked to the account access consent

### **Security Requirements:**

- Mutual TLS
- Digital Signature
- TPP Application Access Token

### **Sample Request**

GET/ <https://BANKOBURL:PORT/open-banking/v3.1/aisp/accounts/{AccountId}>

### **Mandatory field(s)**

Authorization =User\_Access\_Token

AccountID = Unique identification as assigned by the Bank to uniquely identify the account access consent resource.

### **Sample Response**



**Specific\_accounts\_Response.txt**



## 4.3 Balances

After successful authorization of account access consent, an AISP may retrieve Balance information for a specific AccountID using the following API End point.

### 4.3.1 GET /accounts/{AccountID}/balances

#### Security Requirements:

- Mutual TLS
- Digital Signature
- TPP Application Access Token

#### Sample Request

GET/ <https://BANKOBURL:PORT/open-banking/v3.1/aisp/accounts/{AccountID}/balances>

#### Mandatory field(s)

Authorization =User\_Access\_Token

AccountID = Unique identification as assigned by the Bank to uniquely identify the account access consent resource.

#### Sample Response



Specific\_Balances\_Response.txt

## 4.4 Transactions

After successful authorization of account access consent, an AISP may retrieve list of transactions for a specific AccountID using the following API End point. Transaction Period may be included in the request.

Pagination will be used for this API if number of records to be returned is more.

### 4.4.1.GET/accounts/{AccountID}/transactions

#### Security Requirements:

- Mutual TLS
- Digital Signature
- TPP Application Access Token

#### Sample Request

GET/ <https://BANKOBURL:PORT/open-banking/v3.1/aisp/accounts/{AccountID}/transactions>

GET/ <https://BANKOBURL:PORT/open-banking/v3.1/aisp/accounts/{AccountID}/transactions?pg=2>

### **Mandatory field(s)**

Authorization =User\_Access\_Token

AccountID = Unique identification as assigned by the Bank to uniquely identify the account access consent resource.

### **Sample Response**



Specific\_Transactions\_Response.txt

## **4.5 Beneficiaries**

After successful authorization of account access consent, an AISP may retrieve list of beneficiaries for a specific AccountID using the following API End point.

4.5.1 GET /accounts/{AccountID}/beneficiaries

### **Security Requirements:**

- Mutual TLS
- Digital Signature
- TPP Application Access Token

### **Sample Request**

GET/ <https://BANKOBURL:PORT/open-banking/v3.1/aisp/accounts/{AccountID}/beneficiaries>

### **Mandatory field(s)**

Authorization =User\_Access\_Token

AccountID = Unique identification as assigned by the Bank to uniquely identify the account access consent resource.

### **Sample Response**



Specific\_Beneficiary\_Response.txt

## 4.6 Standing Orders

After successful authorization of account access consent, an AISP may retrieve list of standing orders for a specific AccountID using the following API End point.

4.6.1.GET /accounts/{AccountId}/standing-orders

### Security Requirements:

- Mutual TLS
- Digital Signature
- TPP Application Access Token

### Sample Request

GET/ <https://BANKOBURL:PORT/open-banking/v3.1/aisp/accounts/{AccountId}/standing-orders>

### Mandatory field(s)

Authorization =User\_Access\_Token

AccountID = Unique identification as assigned by the Bank to uniquely identify the account access consent resource.

### Sample Response



Specific\_Standing  
Orders\_Response.tx

## 4.7. Sharing Product Details

This API allows AISPs to request for GIB-Bahrain's products details. If Requested Bank will return details about products and services offered by Bank.

### 4.7.1.GET /sharing-product-details

#### Security Requirements:

- Mutual TLS
- Digital Signature
- TPP Application Access Token

#### Sample Request

GET/ <https://BANKOBURL:PORT/OB2accountservice/sharing-product-details>

#### Mandatory field(s)

Authorization =Application\_Access\_Token

#### Sample Response



Sharing Product  
Details\_Response.tx

## 5. AIS Swagger File

Please Find the swagger files for PIS



account-info-swag  
ger-3.1.5.yaml

## 6. Payment Initiation Services(PIS) Open Banking API Specification

GIB -Bahrain supports following payment types via Open banking. Customers will maintain full control for such payments initiated from TPPs portal by authenticating each payment on Bank's Portal.

### **Domestic Payments**

Fawri

Fawri+

### **International Payments**

SWIFT

## 5.1 Domestic Payments

### 5.1.1 Domestic Payments Consents

Every domestic Payment request must be preceded with Payment consents, and this Payment consent must be authorized by the customer at GIB Bahrain page.

### 5.1.2 POST /domestic-payment-consents

1. User should give consent to a PISP to make a payment on behalf a customer, after this the PISP uses this API to create a payment-consent resource
2. The domestic payment consent resource includes all the required payment related fields which are consented by the user with PISP. Below are the main fields which are supported by bank. Payment Resources with any of the unsupported Enums will be Rejected.

**LocalInstrument:** Following Enums are supported by Bank

OB Enum	Mode of Payment
BH.OBF.DNS	Fawri
BH.OBF.NRT	Fawri+

**DebtorAccount\SchemeName:** Enum values for this fields depends on the LocalInstrument value as follows.

LocalInstrument	SchemeName
BH.OBF.DNS	BH.OBF.IBAN
BH.OBF.NRT	BH.OBF.IBAN

**AppliedAuthenticationApproach:** For this field only supported Enum is SCA as for each payment request must go through SCA.

3. If the payment Consent request is as per expectation then bank will return a Consent ID

### Sample Request

**API:** <https://{Bank.OB.URL}/open-banking/v3.1/pisp/domestic-payment-consents>

### **Mandatory field(s)**

Authorization =Application\_Access\_Token

Body =



Domestic payment  
consent request.txt

**Sample Response**



PIS\_Domestic\_Cons  
ent\_POST\_Response

### 5.1.3 GET /domestic-payment-consents/{ConsentId}

A PISP can retrieve a payment consent resource that they have created to check its status with the consent id provided by bank.

#### **Sample Request**

**API:** https://{Bank.OB.URL}/open-banking/v3.1/pisp/domestic-payment-consents/{ConsentId}

#### **Mandatory field(s)**

Authorization = Application\_Access\_Token

ConsentID = ConsentId

#### **Sample Response**



PIS\_Domestic\_Consent\_GET\_Response.1



#### 5.1.4 GET /domestic-payment-consents/{ConsentId}/funds-confirmation

The API endpoint allows the PISP to ask an ASPSP to confirm funds on a domestic-payment-consents resource and if the domestic-payment-consents resource has an Authorized status the bank will respond to a funds confirmation request with True/ False.

#### Sample Request

#### Security Requirements:

- Mutual TLS
- Digital Signature
- TPP Application Access Token

#### Sample Request

**API :** <https://{Bank.OB.URL}/open-banking/v3.1/pisp/domestic-payment-consents/{ConsentId}/funds-confirmation>

#### Mandatory field(s)

Authorization =Application\_Access\_Token

ConsentID = ConsentId

#### Sample Response



PIS\_Domestic\_Consent\_Fund Confirmat

## 5.2 Domestic Payments Initiation

### 5.2.1 POST /domestic-payments

Once the domestic-payment-consents has been authorized by the user/customer, the PISP can proceed to submit the domestic-payment for processing

The PISP must ensure that the Initiation and Risk sections of the domestic-payment match the corresponding Initiation and Risk sections of the domestic-payment-consents resource. If the two do not match, the ASPSP must not process the request

If the Request is as per expectations then Bank will initiate the payment and share the DomesticPaymentId which may be used by PISP to get status of the payment request.

#### Security Requirements:

- Mutual TLS
- Digital Signature
- TPP Application Access Token

#### Sample Request

**API :** <https://{Bank.OB.URL}/open-banking/v3.1/pisp/domestic-payments>

#### Mandatory Fields:

Authorization =User\_Access\_Token

Body =



Domestic payment  
Initiation request.tx

#### Sample Response



PIS\_Domestic\_Initiat  
ion\_POST\_Responce

## 5.2.2 GET /domestic-payments/{DomesticPaymentId}

A PISP can retrieve the domestic-payment to check its status using DomesticPaymentId provided bank.

### **Security Requirements:**

- Mutual TLS
- Digital Signature
- TPP Application Access Token

### **Sample Request**

**API :** <https://{Bank.OB.URL}/open-banking/v3.1/pisp/international-payment-consents/{domesticPaymentId}>

### **Mandatory Fields:**

Authorization =User\_Access\_Token

domesticPaymentId = domesticPaymentId Received in Response of Post Domestic-Payments

### **Sample Response**



PIS\_Domestic\_Initiat  
ion\_Get\_Responce.t

## 5.3 International Payments Consents

Every domestic Payment request must be preceded with Payment consents, and this Payment consent must be authorized by the customer at GIB Bahrain page.

### 5.3.1 POST /International-payment-consents

1. User should give consent to a PISP to make an international payment on behalf a customer, after this the PISP uses this API to create a payment-consent resource
2. The International payment consent resource includes all the required payment related fields which are consented by the user with PISP. Below are the main fields which are supported by bank. Payment Resources with any of the unsupported Enums will be Rejected.

**LocalInstrument:** For this Field Supported Enum is only BH.OBF.SWIFT

**InstructionPriority:** For this Field Supported Enum is only Normal

**ChargeBearer:** Following Enums are supported by bank

BorneByCreditor

BorneByDebtor

Shared

**ExchangeRateInformation:** International Transfers/Payments will always be processed with exchange rates by Bank. Values provided in this data set will be ignored.

**DebtorAccount\SchemeName:** For this Field Supported Enum is only BH.OBF.IBAN

**CreditorAgent\ SchemeName:** For this Field Supported Enum is only BH.OBF.BICFI

**DestinationCountryCode** field is mandatory if Creditor account scheme name is not IBAN

3. If the payment Consent request is as per expectation then bank will return a Consent ID

### Sample Request

**API:** <https://{Bank.OB.URL}/open-banking/v3.1/pisp/international-payment-consents>

### **Mandatory field(s)**

Authorization =Application\_Access\_Token

Body =



**International  
payment Consent re**

**Sample Response**



**International  
payment Consent R**

### 5.3.2 GET /international-payment-consents/{ConsentId}

A PISP can retrieve a payment consent resource that they have created to check its status with the consent id provided by bank.

#### **Sample Request**

**API:** https://{Bank.OB.URL}/open-banking/v3.1/pisp/international-payment-consents/{ConsentId}

#### **Mandatory field(s)**

Authorization =Application\_Access\_Token

ConsentID = ConsentId

#### **Sample Response**



**International  
payment Consent R**

### 5.3.3 GET/international-payment-consents/{ConsentId}/funds-confirmation

The API endpoint allows the PISP to ask an ASPSP to confirm funds on an International-payment-consents resource and if the international-payment-consents resource has an Authorized status the bank will respond to a funds confirmation request with True/ False.

#### **Sample Request**

**API:** <https://{Bank.OB.URL}/open-banking/v3.1/pisp/international-payment-consents/{ConsentId}/funds-confirmation>

#### **Mandatory field(s)**

Authorization =Application\_Access\_Token

ConsentID = ConsentId

#### **Sample Response**



PIS\_International\_C  
onsent\_Fund Confir

## 5.4 International Payments Initiation

### 5.4.1 POST /international-payments

Once the international-payment-consents has been authorized by the user/customer, the PISP can proceed to submit the international -payment for processing

The PISP must ensure that the Initiation and Risk sections of the international -payment match the corresponding Initiation and Risk sections of the international -payment-consents resource. If the two do not match, the ASPSP will not process the request

If the Request is as per expectations then Bank will initiate the payment and share the internationalpaymentId which may be used by PISP to get status of the payment request.

#### Security Requirements:

- Mutual TLS
- Digital Signature
- TPP Application Access Token

#### Sample Request

**API :** <https://{Bank.OB.URL}/open-banking/v3.1/pisp/international-payments>

#### Mandatory Fields:

Authorization =User\_Access\_Token

Body =



**International  
payment initiation** |

#### Sample Response



**PIS\_International\_P  
ayment\_Initiation\_P**



## 5.4.2 GET / international-payments/{ internationalPaymentId}

A PISP can retrieve the international-payment to check its status using internationalPaymentId provided bank.

### **Security Requirements:**

- Mutual TLS
- Digital Signature
- TPP Application Access Token

### **Sample Request**

**API :** https://{Bank.OB.URL}/open-banking/v3.1/pisp/international-payments /{InternationalPaymentId}

### **Mandatory Fields:**

Authorization =User\_Access\_Token

InternationalPaymentId = InternationalPaymentId Received in Response of Post International-Payments

### **Sample Response**



PIS\_International\_P  
ayment\_Initiation\_G

## 6. PIS Swagger File

Please Find the swagger file for PIS



payment-swagger-3  
.1.6.yaml