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**Date** 3 May, 2019

Version

# Skandiabanken Technical documentation Open Banking

#### 1 Background

The purpose of this document is to help TPP developers to understand our Open banking-solution. This documentation will be continuously updated, and information will be added or changed over time.

#### 2 Test environment and sandbox

#### 2.1 General information

We currently offer test with static mocked data for three operations of the AIS-services.

Dynamic tests including PIS, SCA and eIDAS will be available in an iterative manner.

#### 2.2 Sandbox with static data

Testing with static mocked data is performed by calling the endpoints from Postman or your client of choice. Note that responses are static, you will get the same response regardless of input.

The endpoint is anonymously exposed:

- No registration of TPP in Portal etc
- No use of eIDAS certificate or OAuth2 tokens
- No use of SCA for PSU

HTTPS is the only supported protocol in the static mocked services.

Note: The response will include two product specific headers, X-RateLimit-Limit and X-RateLimit-Remaining that should be ignored.

The following operations for AIS in mocked service are currently available:

- Read Account List
- Read Balance
- Read transaction list of an account

General information for all static AIS operations:

Host: api.test.skandia.se

Schemes: https

Basepath: /open-banking/sandbox

For each operation in this document you will find an example for calling the static test operation.

PIS operations will be available later.



#### 3 Authentication and authorization of TPP

#### 3.1 Production

A TPP must be approved by local NCA (FI in Sweden) as an AISP or PISP to gain access to production environments. A TPP must obtain a Qualified eIDAS certificate from a QTSP. Upon registration in our developer portal you as a TPP will have to upload the certificate. The validity of the certificate will be checked by us on a regular basis.

#### 3.2 Test

In test environment an eIDAS certificate is not necessary. It is currently not possible to test with eIDAS certificate.

# 4 Authentication of PSU (SCA)

#### 4.1 Production

SCA of the PSU is performed with Swedish BankID. We use a redirect solution for this.

#### 4.2 Test

Currently it is not possible to test SCA.

### 4.3 Security

In the production environment, to be able to invoke an API, you are required to obtain an access token following the Authorization Code Grant flow of the OAuth2 specification.

Security features and requirements will be clarified further shortly.

#### 5 AIS-operations

AIS-operations can be called by a TPP regulated as an AISP.

To call the AIS service you need an OAuth2 token which will contain the ID of the PSU.

The AIS will allow a TPP to access all payments accounts for a given PSU. Only the account owner can give consent to an account. We do not offer shared ownership of accounts.

A customer AIS-consent will give a TPP access to the customer's payment accounts (present and future created) for 90 days.

We follow the Berlin-group standard NextGenPSD2.



# 5.1 Read Account List

The operation will return a list of all payment accounts owned by a given PSU.

# 5.1.1 Request description

Name	Туре	Information
X-Request-ID	string	In: header
		Required: true
		Format: uuid
		Description: ID of the request, unique to the call, as determined by the initiating
		party.
Consent-ID	String	In: header
		Required: true
		Description. The consent id. This is typically a Swedish SSN ("personnummer") of
		the PSU. In the static examples a fictive SSN is used.

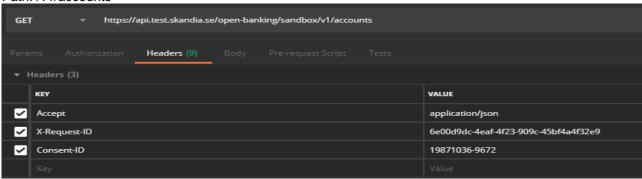
# Request example (static tests)

Host: api.test.skandia.se

Schemes: https

Basepath: /open-banking/sandbox

Method: GET Path: /v1/accounts





# 5.1.2 Response description

Name	Туре	Description
accountList	list	The list of accounts for the given customer
Parameters of accoun	ntList	
accountList		
resourceId	string	Id of an account (used to call other AIS operations)
iban	string	Iban of an account (can used to call PIS operations)
bban	string	Bban identifier (clearing + number) (can used to call PIS operations)
currency	string	The currency code of the account ISO 4217
cashAccountType	string	Always "CACC"
Name	string	Our product name of the account type
		Example:
		<ul> <li>"Allt i Ett-konto" (transaction account)</li> </ul>
		<ul><li>"Sparkonto" (savings account)</li></ul>
bic	string	BIC code of Skandiabanken: SKIASESS
Usage	string	Always "PRIV" (private personal account, natural person)
_links		linked resources
_links		
balances	string	link to get balances
transactions	string	link to get transactions



#### 5.2 Read Balance

The Operation will return the balances of an account.

# 5.2.1 Request description

Name	Туре	Information
Account-ID	string	In: path
		Required: true
		Type: string
		Description: This identification is denoting the addressed account. The account-
		id is retrieved by using a "Read Account List" call. The account-id is the "id"
		attribute of the account structure.
X-Request-ID string		In: header
		Required: true
		Format: uuid
		Description: ID of the request, unique to the call, as determined by the initiating
		party.
Consent-ID	String	In: header
		Required: true
		Description. The consent id. This is typically a Swedish SSN ("personnummer")
		of the PSU. In the static examples a fictive SSN is used.

# Request example (static tests)

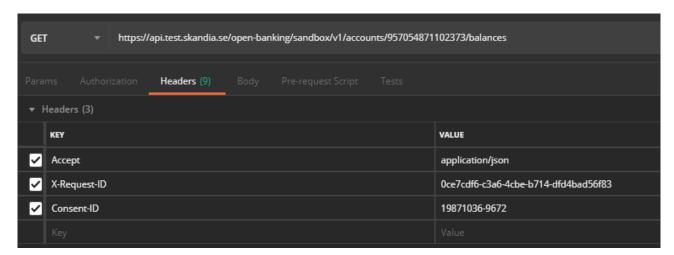
Host: api.test.skandia.se

Schemes: https

Basepath: /open-banking/sandbox

Method: GET

Path: /v1/accounts/{account-id}/balances





# Response description

Name	Туре	Description
Iban	String	Iban of an account
Currency	String	the currency code of the account ISO 4217
Balances		list of balances
BalanceType "closingBooked"	List	booked transactions
BalanceAmount		
Currency	String	The currency of the amount
Amount		Balance amount of booked credit and debit transactions
		when the request was initiated
Balances		
BalanceType "available"	List	booked transactions
BalanceAmount		
Currency	String	The currency of the amount
Amount		Balance amount of booked credit and debit transactions when the request was initiated. Reserved card authorizations are not included.
referenceDate	Date	Now



# 5.3 Read transaction list of an account

The operation will return a list of booked or pending transaction for a given account. Booked payments are definite booked transactions. Pending transactions are future payments (future transfers, future bill payments etc). Note that reserved card authorizations are currently not delivered in the service.

# 5.3.1 Request description

The below parameters are the only required parameters.

Name	Туре	Information			
Account-ID	string	In: path			
		Required: true			
		Type: string			
		Description: This identification is denoting the addressed account. The account-			
		id is retrieved by using a "Read Account List" call. The account-id is the "id"			
		attribute of the account structure. Its value is constant at least throughout the			
		lifecycle.			
BookingStatus	string	In: query			
		required: true			
		Enum:			
		Booked – booked payments on the account			
		<ul> <li>Pending – future payments (not including reserved card authorizations)</li> </ul>			
		<b>Description</b> : Permitted codes are			
		• "booked"			
		• "pending"			
		Reserved card authorizations cannot currently be retrieved. To get both booked			
		and pending transactions you will need to call the operation twice.			
X-Request-ID string		In: header			
		Required: true			
		Format: uuid			
		Description: ID of the request, unique to the call, as determined by the			
		initiating party.			
Consent-ID	String	In: header			
		Required: true			
		Description. The consent id. This is typically a Swedish SSN ("personnummer")			
		of the PSU. In the static examples a fictive SSN is used.			



# Request example (static tests)

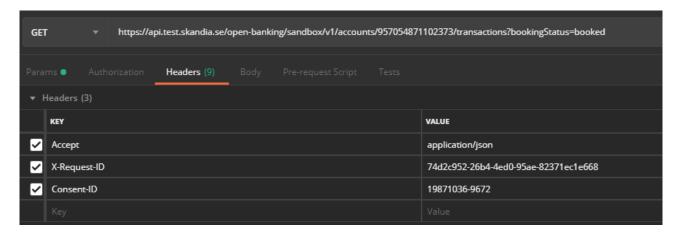
Host: api.test.skandia.se

Schemes: https

Basepath: /open-banking/sandbox

Method: GET

Path: /v1/accounts/{account-id}/transactions





**5.3.2 Response description**Information for each transaction will differ depending on payment type.

Name	Type	Description
transactions	list	list of transactions for the given account
Account		
iban	string	Iban of the account
currency	string	Currency code of the account
Transactions		
booked	list	List of booked transactions (based on input parameter)
pending	list	List of pending transactions (based on input parameter)
transactionsid	string	The Id of the payment initiation request
entryReference	string	A reference based on execution date and time
creditorAccount	list	
bban	string	Bban identifier (clearing + account number)
debtorName	string	
debtorAccount	string	
iban	string	Iban of an account
currency	string	
amount	string	
Parameters of pending a	nd booke	d list
bookingDate	string	Date when entry was posted to the account
valueDate	string	Date when assets become available (credit)
remittanceInformation	string	message to a payee
Unstructured		



# 5.4 PIS-operations

Documentation for PIS is currently not available.



6 Document revision history

Version	Description	
1.01	Updates for testing with mocked data	
1.00	Initial version	