THE Berlin GROUP

A EUROPEAN STANDARDS INITIATIVE

NextGenPSD2 XS2A Framework

Implementation Guidelines

Extended Services

AIS Endpoint for deposited Cheques

Version 1.0

29 May 2024

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  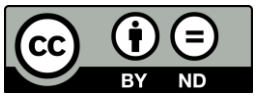

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Contents

1 Introduction

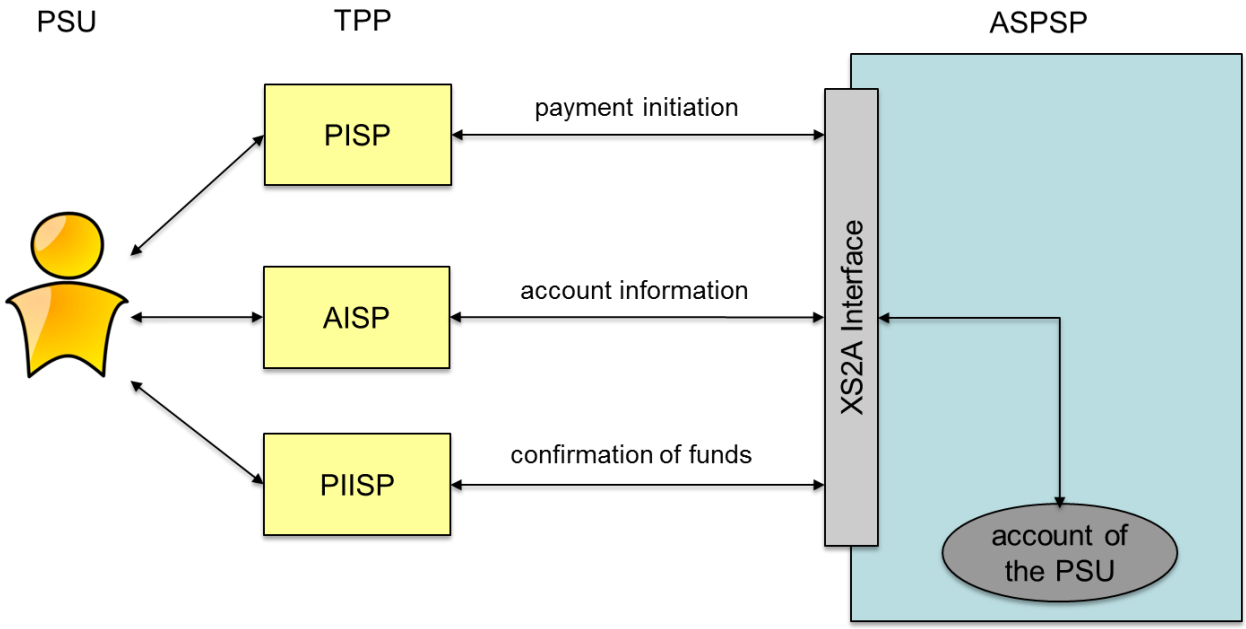
1.1 Background

With [PSD2] the European Union has published a new directive on payment services in the internal market. Member States had to adopt this directive into their national law until 13th of January 2018.

Among others [PSD2] contains regulations of new services to be operated by so called Third Party Payment Service Providers (TPP) on behalf of a Payment Service User (PSU). These new services are

- Payment Initiation Service (PIS) to be operated by a Payment Initiation Service Provider (PISP) TPP as defined by article 66 of [PSD2],
- Account Information Service (AIS) to be operated by an Account Information Service Provider (AISP) TPP as defined by article 67 of [PSD2], and
- Confirmation of the Availability of Funds service to be used by Payment Instrument Issuing Service Provider (PIISP) TPP as defined by article 65 of [PSD2].

For operating the new services a TPP needs to access the account of the PSU which is usually managed by another PSP called the Account Servicing Payment Service Provider (ASPSP). As shown in the following figure, an ASPSP has to provide an interface (called "PSD2 compliant Access to Account Interface" or short "XS2A Interface") to its systems to be used by a TPP for necessary accesses regulated by [PSD2]:



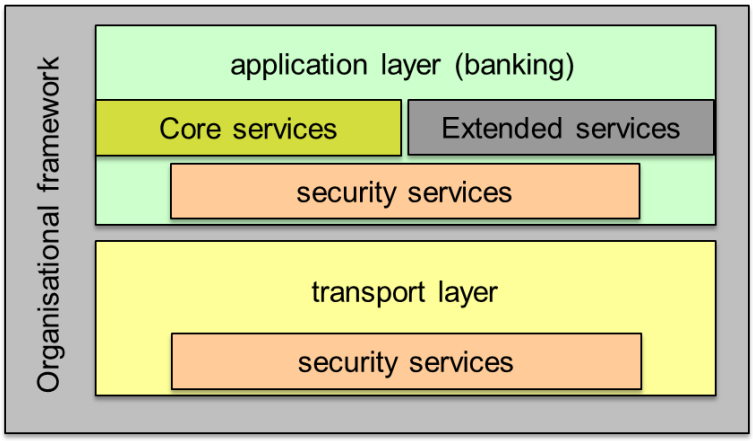
1.2 XS2A Interface Specification

This document is an extension of the NextGenPSD2 XS2A Specification which defines a standard for an XS2A Interface and by this reaching interoperability of the interfaces of ASPSPs at least for the core services defined by [PSD2].

The XS2A Interface is designed as a B2B interface between a TPP server and the ASPSP server. For the time being, the protocol defined in this document is a pure client-server protocol, assuming the TPP server being the client, i.e. all API calls are initiated by the TPP. In future steps, this protocol might be extended to a server-server protocol, where also the ASPSP initiates API calls towards the TPP.

The Interoperability Framework defines operational rules, requirements on the data model and a process description in [XS2A-OR].

This document details the standard in defining messages and detailed data structures for **extended services** of the XS2A Interface. For the specification the two layers shown in the following figure are distinguished:



This document at hand describes how the existing services for account information can be extended to provide information on cheques deposited for pay out to a payment (beneficiary) account. For this purpose, a new endpoint is defined. The underlying consent model will (currently) not be affected by this extension. Instead, an ASPSP that offers the new endpoint must grant access to the endpoint depending on the access right for "transactions" of the corresponding combination of consent and account.

Remark for Future: Please note that the Berlin Group NextGenPSD2 XS2A interface is still under constant development. Technical issues, which are already in discussion within the Berlin Group NextGenPSD2 working structure are mentioned in this document by "Remark for Future" to make the reader aware of upcoming potential changes.

Remark for Future: Please note that the Berlin Group NextGenPSD2 XS2A interface is already developing a follow-up version (2) of the interface. The approach described above might change for version 2 – in particular with regards to the consent model.

1.3 Document History

Version	Change/Note	Approved
1.0	First publication	openFinance TF 2024-05-29

2 Character Sets and Notations

For definition on character Sets and Notations as well as for request and response notations refer to Chapter 2 of [XS2A-IG].

3 Transport Layer

For details on the transport Layer, please refer to Chapter 3 in [XS2A-IG].

4 Application Layer: Guiding Principles

The following extension will define the additional request for a TPP to get information on cheques deposited for pay out to a payment account:

- Chapter 5 describes the extension for information on deposited cheques
- Chapters 6 describes the extension of existing Complex Data Types and the definition of new data types.

4.1 Sealing Requirements

The ASPSP may require the TPP to sign request messages. This requirement shall be stated in the ASPSP documentation. The signing requirements are defined in [XS2A-IG]. No specific requirements are defined for the purposes of this document.

4.2 API Access Methods

4.2.1 Cheque related Endpoints

The following table gives an overview on the extended HTTP access methods supported by the existing API endpoint for (payment) accounts for cheque related information.

Endpoints/Resources	Method	Condition	Description
/accounts/{account-id}/cheques	GET	Mandatory	Read a list of items, each representing one cheque deposited for pay out to the addressed account. Section 5.1.

4.3 Specifics in Submission of Consents

In order to organise access to the newly defined cheques endpoint, submission of consent does not need to be adapted. Instead, the ASPSP must extend its interpretation of the current consent model. Following the extended interpretation, a consent grants access to the cheques endpoint exactly if it grants access to the "transactions" endpoint as defined in [XS2A-IG], section 6.5.4 "Read Transaction List". Also, a request on the "cheques" endpoint **must not** affect how the ASPSP determines the (remaining) access rights granted by the consent with regards to other endpoints.

Example:

> Given a recurring consent with access right for "transactions" to an account with account-id "`acc1`" and "`frequencyPerDay`" = 1. Even if an ASPSP calculates the number of accesses on a "per request" basis, a request to the `/v1/accounts/acc1/cheques` endpoint **must not** lead the ASPSP declining a following request to the `/v1/accounts/acc1/transactions` endpoint.

Note: The version 2 of the openFinance API framework will define a dedicated access right for reading the cheques endpoint once the endpoint is integrated in version 2.

Multicurrency Accounts

With regards to multicurrency accounts, the ASPSP must obey the following rule to determine whether an item representing a deposited cheque must be present in a response to a "cheque" endpoint for one (of potentially multiple) (sub-) account of the multicurrency account:

> An item representing a deposited cheque to an account must be presented in the response if and only if the transaction resulted from the pay out of the check would be presented in a response to the corresponding "transactions" endpoint.

4.4 Additional Error Information

No specific additional error information is needed for the newly defined endpoint.

5 New Message Types for Cheques

New message types / endpoints are defined for this extended service as follows.

5.1 Read Cheques List

5.1.1 Request

Call

```
GET /v1/accounts/{account-id}/cheques?{query-parameters}
```

Reads a list of cheques deposited for pay out to the addressed account.

Query Parameters

Attribute	Type	Condition	Description
dateFrom	ISODate	Optional	Filter for element "depositDate" of the cheque. If not present, the request asks for information on cheques regardless of an earliest deposit date. The ASPSP may still restrict the response to a reasonable time interval.
dateTo	ISODate	Optional	Filter for element "depositDate" of the cheque. If not present, the request asks for information on cheques regardless of a latest deposit date.

Request Header

Attribute	Type	Condition	Description
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.
PSU-IP-Address	String	Conditional	The forwarded IP Address header field consists of the corresponding HTTP request IP Address field between PSU and TPP. It shall be contained if and only if this request was actively initiated by the PSU.

Attribute	Type	Condition	Description
Consent-ID	String	Mandatory	Identification of the corresponding consent as granted by the PSU.
Authorization	String	Conditional	Is contained only, if an OAuth2 based SCA was performed in the corresponding consent authorisation or if OAuth2 has been used in a pre-step.

Request Body

No request body.

5.1.2 Response

Response Code

HTTP Response Code equals 200.

Response Header

Attribute	Type	Condition	Description
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.

Response Body

Attribute	Type	Condition	Description
account	Account Reference	Mandatory	Identification of the addressed account.
cheques	Array of Deposited Cheque	Mandatory	Empty array if no cheques are to be displayed.

5.1.3 Examples

Request (without PSU involvement)

```
https://api.testbank.com/psd2/v1/accounts/qwer3456tzui7890/cheques?dateFrom
=2020-10-01&dateTo=2020-10-31


Accept:           application/json
X-Request-ID:           99391c7e-ad88-49ec-a2ad-99ddcb1f7756
Consent-ID:             qwer3456tzui7890
PSU-User-Agent:         Mozilla/5.0 (Windows NT 10.0; WOW64; rv:54.0)
Gecko/20100101 Firefox/54.0
Date:                   Thu, 29 Oct 2020 15:05:37 GMT
```

Response

```
HTTP/1.x 200 Ok
X-Request-ID:           99391c7e-ad88-49ec-a2ad-99ddcb1f7756
Content-Type:           application/json
Date:                   Thu, 29 Oct 2020 15:05:38 GMT
{
  "account": {"iban": "DE23100100101234567888" },
  "cheques": [
    {
      "chequeNumber": "123456789",
      "chequeType": "DRFT",
      "nominalAmount": {"currency": "EUR", "amount": "1000.00"},
      "expectedPayoutAmount": {"currency": "EUR", "amount": "1000.00"},
      "chequeDepositStatus": "deposited",
      "chequeMaturityDate": "2020-12-01",
      "depositDate": "2020-10-01"
    },
    {
      "chequeNumber": "0987654321",
      "chequeType": "DRFT",
      "nominalAmount": {"currency": "USD", "amount": "1000.00"},
      "payoutAmount": {"currency": "EUR", "amount": "899.00"},
      "chequeDepositStatus": "discountPayout",
      "chequeMaturityDate": "2020-11-01",
      "depositDate": "2020-10-02"
    }
  ]
}
```

6 Complex Data Types

To support the more detailed selection of consents existing Data types must be extended. This chapter describes the new data type definitions. Changes to the existing definition are highlighted.

6.1 Extension of existing Data Types

6.1.1 Account Details

Attribute	Type	Condition	Description
resourceId	String	Mandatory	This is the data element to be used in the path when retrieving data from a dedicated account, cp. [XS2A-IG], Section 6.5.3 or Section 6.5.4 below.
iban	IBAN	Optional	This data element can be used in the body of the Consent Request Message for retrieving account access consent from this payment account, cp. [XS2A-IG], Section 6.3.1.1.
bban	BBAN	Optional	This data element can be used in the body of the Consent Request Message for retrieving account access consent from this account, cp. [XS2A-IG], Section 6.3.1.1. This data elements is used for payment accounts which have no IBAN.
msisdn	Max35Text	optional	An alias to access a payment account via a registered mobile phone number. This alias might be needed e.g. in the payment initiation service, cp. [XS2A-IG], Section 5.3.1. The support of this alias must be explicitly documented by the ASPSP for the corresponding API Calls.
currency	Currency Code	Mandatory	Account currency
ownerNames	Array of Account Owner	Optional	List of owner names.

Attribute	Type	Condition	Description
psuName	Max140Text	Optional	Name of the PSU[2]. In case of a corporate account, this might be the person acting on behalf of the corporate.
name	Max70Text	Optional	Name of the account, as assigned by the ASPSP, in agreement with the account owner in order to provide an additional means of identification of the account.
displayName	Max70Text	Optional	Name of the account as defined by the PSU within online channels.
product	Max35Text	Optional	Product Name of the Bank for this account, proprietary definition
cashAccountType	Cash Account Type	Optional	ExternalCashAccountType1Code from ISO 20022
status	String	Optional	Account status. The value is one of the following: • "enabled": account is available • "deleted": account is terminated • "blocked": account is blocked e.g. for legal reasons If this field is not used, than the account is available in the sense of this specification.
bic	BICFI	Optional	The BIC associated to the account.
linkedAccounts	Max70 Text	Optional	This data attribute is a field, where an ASPSP can name a cash account associated to pending loan, savings or card transactions.

[2] Usage is following the mandate resulting from EBA Q&A 2020_5165.

Attribute	Type	Condition	Description
usage	Max4 Text	Optional	Specifies the usage of the account - PRIV: private personal account - ORGA: professional account
details	Max500 Text	Optional	Specifications that might be provided by the ASPSP - characteristics of the account - characteristics of the relevant card
balances	Array of Balances	Conditional	
_links	Links	Optional	Links to the account, which can be directly used for retrieving account information from this dedicated account. Links to "balances", "transactions" or "cheques". These links are only supported, when the corresponding consent has been already granted.

6.1.2 Links

In addition to the already defined links ([XS2A-IG], cp. 14.6), the following link shall be supported:

Attribute	Type	Condition	Description
cheques	href Type	Optional	A link to the resource providing an overview of deposited cheques to this account.

6.2 New Data Types

6.2.1 Deposited Cheque

Attribute	Type	Condition	Description
chequeNumber	Max35Text	Mandatory	Unique and unambiguous identifier for a cheque as assigned by the agent.
chequeType	Cheque Type Code	Optional	Specifies the type of cheque to be issued.
nominalAmount	Amount	Mandatory	Nominal amount as displayed by the cheque
expectedPayoutAmount	Amount	Optional	Amount that is expected to be paid out for the cheque. Normally identical to nominalAmount, but might diverge in case of additional fees or payout in a different currency. This data element does not necessarily represent a legally binding commitment by the ASPSP to payout the exact amount, it is instead only informative.
payoutAmount	Amount	Conditional	Present exactly if the cheque has already been paid out. In this case actually paid out amount.
isCollateralForLoan	Boolean	Conditional	If the cheque is used as a collateral of a loan, the ASPSP must provide the information. Missing element is to be interpreted as "false".
chequeDepositStatus	Cheque Deposit Status	Mandatory	Represents the status of the deposited cheque as a code or proprietary text.

Attribute	Type	Condition	Description
			Remark: ASPSP might extend the predefined code list.
chequeMaturityDate	ISODate	Optional	Maturity date of the cheque.
depositDate	ISODate	Mandatory	Date when the cheque has been deposited.
cancellationDate	ISODate	Optional	Date when the deposit has been cancelled by the PSU (payee).
chargeBackDate	ISODate	Optional	Date, when the cheque has been charged back.

6.2.2 Cheque Deposit Status

Code Name	Definition
deposited	The cheque is held by the ASPSP until due date, then paid out.
paidOut	The cheque has already been paid out.
discountPayout	The cheque has been paid out prematurely with a discount.
depositeCancelled	The deposit was cancelled by the PSU (payee). The cheque is no longer deposited at the account.
chargeBack	The cheque has been charged back.

6.2.3 Cheque Type Code

This code set is identical to ChequeType2Code as defined by ISO20022:

Code Name	Definition
CCHQ	**Customer Cheque**: Cheque drawn on the account of the debtor, and debited on the debtor's account when the cheque is cashed. Synonym is 'corporate cheque'.

Code Name	Definition
CCCH	**Certified Customer Cheque**: Cheque drawn on the account of the debtor, and debited on the debtor's account when the cheque is cashed. The financial institution prints and certifies the cheque, guaranteeing the payment.
BCHQ	**Bank Cheque**: Cheque drawn on the account of the debtor's financial institution, which is debited on the debtor's account when the cheque is issued. These cheques are printed by the debtor's financial institution and payment is guaranteed by the financial institution. Synonym is 'cashier's cheque'.
DRFT	**Draft**: A guaranteed bank cheque with a future value date (do not pay before], which in commercial terms is a 'negotiatable instrument': the beneficiary can receive early payment from any bank under subtraction of a discount. The ordering customer's account is debited on value date
ELDR	**Electronic Draft**: An instrument with a future value date (do not pay before), which in commercial terms is a 'negotiatable instrument': the beneficiary can receive early payment from any bank under subtraction of a discount. The ordering customer's account is debited on value date.

7 References

[XS2A-OR] NextGenPSD2 XS2A Framework, Operational Rules, The Berlin Group Joint Initiative on a PSD2 Compliant XS2A Interface, version 1.3, published 21 December 2018

[XS2A-IG] NextGenPSD2 XS2A Framework, Implementation Guidelines, The Berlin Group Joint Initiative on a PSD2 Compliant XS2A Interface, version 1.3.12, published 01 July 2022

[XS2A-DOM-IG] NextGenPSD2 XS2A Framework Domestic PIS and AIS Definitions, Implementation Guidelines, The Berlin Group Joint Initiative on a PSD2 Compliant XS2A Interface, version 1.3.11, published 05 May 2022.

[EBA-RTS] Commission Delegated Regulation (EU) 2018/389 of 27 November 2017 supplementing Directive 2015/2366 of the European Parliament and of the Council with regard to Regulatory Technical Standards for Strong Customer Authentication and Common and Secure Open Standards of Communication, C(2017) 7782 final, published 13 March 2018

[eIDAS] Regulation (EU) No 910/2014 of the European Parliament and of the Council on Electronic Identification and Trust Services for Electronic Transactions in the Internal Market, 23 July 2014, published 28 August 2014

[PSD2] Directive (EU) 2015/2366 of the European Parliament and of the Council on payment services in the internal market, published 23 December 2015