



openFinance API Framewok

Data Dictionary

Version 2.0

05 October 2023

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^{*} The 'Joint Initiative pan-European PSD2-Interface Interoperability' brings together participants of the Berlin Group with additional European banks (ASPSPs), banking associations, payment associations, payment schemes and interbank processors.

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1 Introduction

1.1 From Core XS2A Interface to openFinance API

With [PSD2] the European Union has published a directive on payment services in the internal market. Among others [PSD2] contains regulations on services to be operated by so called Third Party Payment Service Providers (TPP) on behalf of a Payment Service User (PSU). These 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 on the Availability of Funds Service (FCS) to be used by a Payment Instrument Issuing Service Provider (PIISP) TPP as defined by article 65 of [PSD2].

To implement these services (subject to PSU consent) a TPP needs to access the account of the PSU. The account is managed by another PSP called the Account Servicing Payment Service Provider (ASPSP). To support the TPP in accessing the accounts managed by an ASPSP, each ASPSP has to provide an "access to account interface" (XS2A interface). Such an interface has been defined in the Berlin Group NextGenPSD2 XS2A Framework.

This XS2A Framework is now extended to extended services and developed into a Version 2 API family. This interface is addressed in the following as **openFinance API**. This openFinance API differs from the XS2A interface in several dimensions:

- The extended services might not rely anymore solely on PSD2.
- Other important regulatory frameworks which apply are e.g. GDPR.
- The openFinance API can address different types of API Clients as access clients, e.g. TPPs regulated by an NCA according to PSD2, or corporates not regulated by an NCA.
- The extended services might require contracts between the access client and the ASPSP.
- While the client identification at the openFinance API can still be based on eIDAS certificates, they do not need to be necessarily PSD2 compliant eIDAS certificates.
- The extended services might require e.g. the direct involvement of the access client's bank for KYC processes.

Note: The notions of API Client and ASPSP are used because of the technical standardisation perspective of the openFinance API. These terms are analogous to "asset broker" and "asset holder" resp. in the work of the ERPB on a SEPA API access scheme.

Note: In implementations, the API services of several ASPSPs might be provided on an aggregation platform. Such platforms will be addressed in the openFinance API Framework as "API provider".

The following account access methods are covered by this framework:

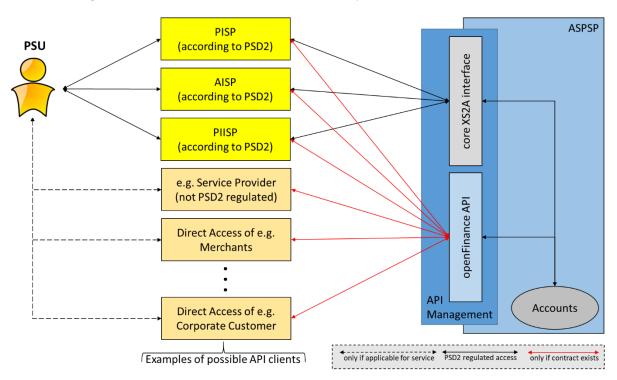


Figure 1: Core XS2A API and openFinance API

1.2 Data Dictionary for the openFiannce API Framework

This document specifies the complex data structure to support the core XS2A API Services as well as the consent API specified for the openFinance API Framework. Also first V2 Premium Services are already covered.

Future V2 Premium Services will rely on this data dictrionary as well, but might also define their own set of complex data structures which are not supported yet in the current version of the data dictrionary.

1.3 Document Structure

This document covers complex data types in Section 2 and code lists in Section 3.

1.4 Document History

Version	Change/Note	Approved

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

2 Complex Data Types

In the following constructed data types are defined as used within the openFinance API Framework.

NOTE: Some of the data models have been changed from Version 1.3.x to Version 2.x of the openFlnance API Framework. All attributes, where changes applied, are marked by yellow-colour.

2.1 Account Access

Attribute	Туре	Condition	Description
payments	Array of Account Access Rights	{Or Optional	Addressing required access rights to current accounts. The array may not be empty.
cards	Array of Account Access Rights	Or Optional	Addressing required access rights to card accounts. The accounts can be card reconciliation accounts as well as single credit cards, dependent of the AIS offer of the ASPSP. The array may not be empty.
savings	Array of Account Access Rights	Or Optional	Addressing required access rights to saving accounts. The array may not be empty.
loans	Array of Account Access Rights	Or Optional	Addressing required access rights to loan accounts. The array may not be empty.
securities	Array of Account Access Rights	Or Optional}	Addressing required access rights to security accounts. The array may not be empty.

2.2 Account Access Rights

The account access rights as posted by the API Client.

Attribute	Туре	Condition	Description
account	Account Reference	Conditional	Is mandated if the consentType equals "detailed", not supported otherwise
rights	List of Access Rights Codes	Mandatory	

2.3 Account Access Rights Extended

The account access rights as provided by the ASPSP.

Attribute	Туре	Condition	Description
account	Account Reference	Conditional	Provided after customer authentication if not already submitted by the API Client itself.
rights	List of Access Rights Codes	Mandatory	
_links	Links	Optional	A hyperlink to the endpoint of the related account category.

2.4 Account Access Extended

Attribute	Туре	Condition	Description
payments	Array of Account Access Rights Extended	{Or Optional	Addressing required access rights to current accounts. The array may not be empty.
cards	Array of Account	Or Optional	Addressing required access rights to card accounts. The accounts can be card

Attribute	Туре	Condition	Description
	Access Rights Extended		reconciliation accounts as well as single credit cards, dependent of the AIS offer of the ASPSP.
			The array may not be empty.
savings	Array of Account Access	Or Optional	Addressing required access rights to saving accounts.
	Rights Extended		The array may not be empty.
loans	Array of Account Access	Or Optional	Addressing required access rights to loan accounts.
	Rights Extended		The array may not be empty.
securities	Array of Account Access	Or Optional}	Addressing required access rights to security accounts.
	Rights Extended		The array may not be empty.

2.5 Account Details

Remark: The ASPSP shall give at least one of the account reference identifiers listed as optional below.

Attribute	Туре	Condition	Description
resourceld	String	Mandatory	This is the data element to be used in the path when retrieving data from a dedicated account.
iban	IBAN	Optional	IBAN of the account.
bban	BBAN	Optional	BBAN of the account. This data elements is used for payment accounts which have no IBAN.

Attribute	Туре	Condition	Description
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 services. The support of this alias must be explicitly documented by the ASPSP for the corresponding API Calls.
currency	Currency Code	Mandatory	Account currency
ownerName	Max140Text	Optional	Name of the legal account owner. If there is more than one owner, then e.g. two names might be noted here. For a corporate account, the corporate name is used for this attribute. Even if supported by the ASPSP, the provision of this field might depend on the fact whether an explicit consent to this specific additional account information has been given by the PSU.
ownerNames	Array of Account Owner	Optional	List of owner names.
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

Attribute	Туре	Condition	Description
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 card transactions.
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" and/or "transactions" These links are only supported, when the corresponding consent has been already granted.

2.6 Account Owner

Attribute	Туре	Condition	Description
name	Max70Text	Mandatory	Account owner name
role	Max35Text	Optional	The following proprietary codes are used:
			"owner", "legalRepresentative", authorisedUser"

2.7 Account Reference

This type is containing any account identification which can be used on payload-level to address specific accounts. The ASPSP will document which account reference type it will support. Exactly one of the attributes defined as "conditional" shall be used.

Remark: The currency of the account is needed, where the currency is an account characteristic identifying certain sub-accounts under one external identifier like an IBAN. These sub-accounts are separated accounts from a legal point of view and have separated balances, transactions etc.

Attribute	Туре	Condition	Description
iban	IBAN	Conditional	
bban	BBAN	Conditional	This data elements is used for payment accounts which have no IBAN.
pan	Max35Text	Conditional	Primary Account Number (PAN) of a card, can be tokenised by the ASPSP due to PCI DSS requirements.
maskedPan	Max35Text	Conditional	Primary Account Number (PAN) of a card in a masked form.
msisdn	Max35Text	Conditional	An alias to access a payment account via a registered mobile phone number.
other	Generic Account Identification	Conditional	An alias with a proprietary coding

Attribute	Туре	Condition	Description
typeCode	Cash Account Type	{Or - Optional	Remark: Shall not be used in the consent model, since account category provides enough information for the ASPSP.
typeProprietary	Max35Text	Or – Optional}	Remark: Shall not be used in the consent model, since account category provides enough information for the ASPSP.
currency	Currency Code	Optional	ISO 4217 Alpha 3 currency code
proxy	Proxy Account Identification	Conditional	

2.8 Account Reference1

Attribute	Туре	Condition	Description
iban	IBAN	Conditional	
bban	BBAN	Conditional	This data element is used for payment accounts which have no IBAN.
pan	Max35Text	Conditional	Primary Account Number (PAN) of a card, can be tokenised by the ASPSP due to PCI DSS requirements.
maskedPan	Max35Text	Conditional	Primary Account Number (PAN) of a card in a masked form.
currency	Currency Code	Optional	ISO 4217 Alpha 3 currency code

2.9 Account Reference2

Attribute	Туре	Condition	Description
iban	IBAN	Mandatory	
currency	Currency Code	Optional	ISO 4217 Alpha 3 currency code

2.10 Account Reference3

Attribute	Туре	Condition	Description
iban	IBAN	Conditional	
bban	BBAN	Conditional	This data element is used for payment accounts which have no IBAN.
other	Generic Account Identification	Conditional	An alias with a proprietary coding
currency	Currency Code	optional	ISO 4217 Alpha 3 currency code

2.11 Account Reference4

Attribute	Туре	Condition	Description
iban	IBAN	Optional	
other	Generic Account Identification	Optional	

2.12 Account Report

Attribute	Туре	Condition	Description
booked	Array of transactions	Conditional	Shall be contained if bookingStatus parameter is set to "booked", "both" or "all".
pending	Array of transactions	Optional	Not contained if the bookingStatus parameter is set to "booked" or "information".
information	Array of transactions	Optional	Only contained if the bookingStatus is set to "information" or "all" and if supported by ASPSP.
_links	Links	Mandatory	The following links might be used within this context:

2.13 Additional Party Information

Attribute	Туре	Condition	Description
tradeName	Max70Text	Optional	Trade name of the related party. For display to the PSU only.
merchantCategoryCode	Merchant Category Code	Optional	Merchant Category Code as assigned by ISO:
logoUrl	Max2048 Test	Optional	A hyperlink to the logo of the party.
geoLocation	GEO Location	Optional	
merchant Logo	String	n.a.	Base 64 coded graphic. Reserved for future extensions.

2.14 Additional Request Information

Attribute	Туре	Condition	Description
paymentConditions	Payment Conditions	optional	Conditions for the execution of the payment.
creationDateTime	ISODateTime	optional	creationDateTime of the originator
requestedExpiry DateTime	ISODateTime	mandatory	Date and Time at which this request expires.
originatorPspld	Financial Institution Identification	Optional	Originator payment service provider in case of indirect participation regarding a related API Access Scheme or bilateral contract
receiverPspld	Financial Institution Identification	Conditional	Receiving payment service provider as defined by an API Access Scheme or bilateral contracts in case of not addressing the receiving institution directly. It is mandatory in case where the technical API Provider is not the receiver as such.

2.15 Additional Request Information1

Attribute	Туре	Condition	Description
originatorPspld	Financial Institution Identification	Optional	Originator payment service provider in case of indirect participation regarding a related API Access Scheme or bilateral contract

2.16 Address

Attribute	Туре	Condition	Description
streetName	Max70Text	Optional	

buildingNumber	String	Optional	
townName	String	Optional	
postCode	String	Optional	
country	Country Code	Mandatory	

2.17 Amendment Information Details

Attribute	Туре	Condition	Description	
original Mandateld	Max35Text	Optional	Mandatory of change occur in "Mandate Identification" otherwise not to be used.	
originalCreditorSchemeId	Party Description4	Optional	Mandatory of change occur in "Creditor Scheme Identification" otherwise not to be used.	
originalDebtorAccount	Account Reference4	Optional	Mandatory of change occur in "Debtor Account" otherwise not to be used.	
originalDebtorAgent	Agent Description2	Optional	If changes occur in debtor agent and SMNDA is not used in "originalDebtorAccount"	

2.18 Amount

Attribute	Туре	Condition	Description
currency	Currency Code	Mandatory	ISO 4217 Alpha 3 currency code

Attribute	Туре	Condition	Description
amount	String	Mandatory	The amount given with fractional digits, where fractions must be compliant to the currency definition. Up to 14 significant figures. Negative amounts are signed by minus. The decimal separator is a dot. Example: Valid representations for EUR with up to two decimals are: • 1056 • 5768.2 • -1.50 • 5877.78

2.19 Amount Details

Attribute	Туре	Condition	Description
instructedAmount	Amount and Exchange Details	Optional	
transactionAmount	Amount and Exchange Details	Optional	

Example:

```
"currency": "EUR",
  "amount": "16.53",
  "sourceCurrency": "DKK",
  "targetCurrency": "EUR",
  "exchangeRate": "7.60",
  }
}
```

2.20 Amount and Exchange Details

Attribute	Туре	Condition	Description	
currency	Currency Code	Mandatory	ISO 4217 Alpha 3 currency code	
amount	String	Mandatory	The amount given with fractional digits, where fractions must be compliant to the currency definition. Up to 14 significant figures. Negative amounts are signed by minus. The decimal separator is a dot. Example: Valid representations for EUR with up to two decimals are: • 1056 • 5768.2 • -1.50 • 5877.78	
sourceCurrency	Currency Code	Optional	Currency from which an amount is to be converted in a currency conversion.	
exchangeRate	String	Optional	Factor used to convert an amount from one currency into another. This reflects the price at which one currency was bought with another currency. Note: If this field is present, then also the field sourceCurrency must be provided.	
unitCurrency	Currency Code	Optional	Currency in which the rate of exchange is expressed in a currency exchange. In the example 1EUR = xxxCUR, the unit currency is EUR.	

Attribute	Туре	Condition	Description
targetCurrency	Currency Code	Optional	Currency into which an amount is to be converted in a currency conversion.
quotationDate	ISODate	Optional	Date at which an exchange rate is quoted.
contractId	String	Optional	Unique identification to unambiguously identify the foreign exchange contract.

2.21 Agent Description

Attribute	Туре	Condition	Description
financialInstitutionId	Financial Institution Identification	mandatory	
branchIdentificationId	Max35Text	Optional	Unique and unambiguous identification of a branch of a financial institution.
branchIdentificationName	Max140Text	Optional	Name by which an agent is known and which is usually used to identify that agent.

2.22 Agent Description1

Attribute	Туре	Condition	Description
financialInstitutionId	Financial Institution Identification	mandatory	

2.23 Agent Description2

Attribute	Туре	Condition	Description
financialInstitution Id	Financial Institution Identification1	mandatory	

2.24 Authentication Object

Attribute	Туре	Condition	Description
authenticationType	Authentication Type	Mandatory	Type of the authentication method.
authenticationVersion	String	Conditional	Depending on the "authenticationType". This version can be used by differentiating authentication tools used within performing OTP generation in the same authentication type. This version can be referred to in the ASPSP's documentation.
authenticationMethodId	Max35Text	Mandatory	An identification provided by the ASPSP for the later identification of the authentication method selection.
name	String	Mandatory	This is the name of the authentication method defined by the PSU in the Online Banking frontend of the ASPSP. Alternatively this could be a description provided by the ASPSP like "SMS OTP on phone +49160 xxxxx 28".

Attribute	Туре	Condition	Description
			This name shall be used by the TPP when presenting a list of authentication methods to the PSU, if available.
explanation	String	Optional	detailed information about the SCA method for the PSU

2.25 Authentication Type

More authentication types might be added during implementation projects and documented in the ASPSP documentation.

Name	Description
SMS_OTP	An SCA method, where an OTP linked to the transaction to be authorised is sent to the PSU through a SMS channel.
CHIP_OTP	An SCA method, where an OTP is generated by a chip card, e.g. an TOP derived from an EMV cryptogram. To contact the card, the PSU normally needs a (handheld) device. With this device, the PSU either reads the challenging data through a visual interface like flickering or the PSU types in the challenge through the device key pad. The device then derives an OTP from the challenge data and displays the OTP to the PSU.
PHOTO_OTP	An SCA method, where the challenge is a QR code or similar encoded visual data which can be read in by a consumer device or specific mobile app. The device resp. the specific app than derives an OTP from the visual challenge data and displays the OTP to the PSU.
PUSH_OTP	An OTP is pushed to a dedicated authentication APP and displayed to the PSU.
SMTP_OTP	An OTP is sent via email to the PSU.

2.26 Balance

Attribute	Туре	Condition	Description
balanceAmount	Amount	Mandatory	
balanceType	Balance Type	Mandatory	
creditLimitIncluded	Boolean	Optional	A flag indicating if the credit limit of the corresponding account is included in the calculation of the balance, where applicable.
lastChangeDateTime	ISODateTime	Optional	This data element might be used to indicate e.g. with the expected or booked balance that no action is known on the account, which is not yet booked.
referenceDate	ISODate	Optional	indicates the date of the balance
lastCommitted Transaction	Max35Text	Optional	entryReference of the last committed transaction to support the TPP in identifying whether all PSU transactions are already known.

2.27 Binary Document

Base64 encoding of the binary file representing the enclosed document or template, such as a PDF file, image file,XML file, MT message. The maximum size of the binary document is 10MB.

2.28 Card Account Details

Attribute	Туре	Condition	Description
resourceld	String	Mandatory	This is the data element to be used in the path when retrieving data from a dedicated account.
maskedPan	Max35Text	Mandatory	Primary Account Number (PAN) of the main card in masked form

Attribute	Туре	Condition	Description
currency	Currency Code	Mandatory	Account currency
ownerName	Max140Text	Optional	Name of the legal account owner. If there is more than one owner, then e.g. two names might be noted here. For a corporate account, the corporate name is used for this attribute. Even if supported by the ASPSP, the provision of this field might depend on the fact whether an explicit consent to this specific additional account information has been given by the PSU.
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
debitAccounting	Boolean	Optional	If true, the amounts of debits on the reports are quoted positive with the related consequence for balances. If false, the amount of debits on the reports are quoted negative.
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.

Attribute	Туре	Condition	Description
usage	Max140 Text	Optional	Specifies the usage of the account - PRIV: private personal account - ORGA: professional account
details	Max1000 Text	Optional	Specifications that might be provided by the ASPSP - characteristics of the account - characteristics of the relevant card
creditLimit	Amount	Optional	Defines the credit limit of the PSU aggregated for all cards related to this card account in total.
balances	Array of Balances	Optional	The specific card account balances associated to this card accounts.
_links	Links	Optional	Links to the cardAccount, which can be directly used for retrieving account information from this dedicated account. Links to "balances" and/or "cardTransactions" These links are only supported, when the corresponding consent has been already granted.

2.29 Card Account Report

Attribute	Туре	Condition	Descrip	tion		
booked	Array of Card Transactions	Conditional	Shall booking "booked		contained parameter is senth.".	if t to

Attribute	Туре	Condition	Description
pending	Array of Card Transactions	Optional	Not contained if the bookingStatus parameter is set to "booked".
_links	Links	Mandatory	The following links might be used within this context: • cardAccount (mandatory when providing transaction reports on card reconciliation accounts under /cardaccounts) • card (mandatory when providing transaction reports on single card entry level under /cards)first (optional) • next (optional) • previous (optional)

2.30 Card Transactions

Attribute	Туре	Condition	Description
cardTransactionId	Max35Text	Optional	Unique end to end identity.
terminalld	Max35Text	Optional	Identification of the Terminal, where the card has been used.
transactionDate	ISODate	Optional	date of the actual card transaction
acceptorTransaction DateTime	ISODate Time	Optional	Timestamp of the actual card transaction within the acceptance system
bookingDate	ISODate	Optional	booking date of the related booking on the card account
valueDate	ISODate	Optional	Date at which assets become available to the account owner in case of a credit entry, or cease to be

Attribute	Туре	Condition	Description
			available to the account owner in case of a debit entry.
			For card transactions this is the payment due date of related booked transactions of a card.
transactionAmount	Amount	Mandatory	The amount of the transaction as billed to the card account.
grandTotalAmount	Amount	Optional	Total amount of the instalment including charges, insurance and taxes in addition to the funded amount.
currencyExchange	Array of Report Exchange Rate	Optional	For card accounts, this often is restricted by the ASPSP to use only one exchange rate.
originalAmount	Amount	Optional	Original amount of the transaction at the Point of Interaction in orginal currency
markupFee	Amount	Optional	Any fee related to the transaction in billing currency.
markupFeePercentage	String	Optional	Percentage of the involved transaction fee in relation to the billing amount, e.g. "0.3" for 0,3%
cardAcceptorId	Max35Text	Optional	Identification of the Card Acceptor (e.g. merchant) as given in the related card transaction.
cardAcceptorName	Max70Text	Optional	Name of the Card Acceptor (e.g. merchant) as provided in the related card transaction
cardAcceptor Address	Address	Optional	Address of the Card Acceptor as given in the related card transaction.
cardAcceptorPhone	Phone Number	Optional	Merchant phone number

Attribute	Туре	Condition	Description
merchantCategory Code	Merchant Category Code	Optional	Merchant Category Code of the Card Acceptor as given in the related card transaction.
maskedPAN	Max35Text	Optional	The masked PAN of the card used in the transaction.
transactionDetails	Max1000T ext	Optional	Additional details given for the related card transactions.
invoiced	Boolean	Optional	Flag indicating whether the underlying card transaction is already invoiced.
proprietaryBank TransactionCode	Max35Text	Optional	proprietary bank transaction code as used within a community or within an ASPSP e.g. for MT94x based transaction reports

2.31 Card Transaction Details

Attribute	Туре	Condition	Description
card	Card Type	Optional	
transaction	Card Transaction Details	Optional	

2.32 Card Transaction Details

Attribute	Туре	Condition	Description
paymentContext	Payment Context Type	Optional	
sequenceNumber	Max35Text	Optional	
transactionDateTime	ISODateTime	Optional	

2.33 Card Type

Attribute	Туре	Condition	Description
cardBrand	Max35Text	Optional	
maskedPAN	Max30Text	Optional	
cardHolderName	Max45Text	Optional	

2.34 Challenge

Attribute	Туре	Condition	Description
image	String	Optional	PNG data (max. 512 kilobyte) to be displayed to the PSU, Base64 encoding, cp. [RFC4648]. This attribute is used only, when PHOTO_OTP or
			CHIP_OTP is the selected SCA method.
data	Array of Strings	Optional	A collection of challenge data
imageLink	String	Optional	A link where the ASPSP will provides the challenge image for the TPP.
otpMaxLength	Integer	Optional	The maximal length for the OTP to be typed in by the PSU.
otpFormat	String	Optional	The format type of the OTP to be typed in. The admitted values are "characters" or "integer".
additional Information	String	Optional	Additional explanation for the PSU to explain e.g. fallback mechanism for the chosen SCA method. The TPP is obliged to show this to the PSU.

2.35 Clearing System Member Identification

Attribute	Туре	Condition	Description
memberld	Max35Text	Optional	Identification of a member of a clearing system.
clearingSystemIdentficiationCode	Clearing System Identification Code	{Or - Optional	Identification of a clearing system, in a coded form as published in an external list.
clearingSystemIdentificationProprietary	Max35Text	Or – Optional}	Identification code for a clearing system, that has not yet been identified in the list of clearing systems.

2.36 Client Message Information

Attribute	Туре	Condition	Description
category	String	Mandatory	Only "ERROR" or "WARNING" permitted
code	Message Code	Mandatory	
path	String	Conditional	Path of the element of the request message which provoked the error message, if applicable
text	Max500Text	Optional	Additional explaining text.

2.37 Creditor Details and Account

Attribute	Туре	Condition	Description
creditor	Party Description	Mandatory	

creditorAccount	Account	Mandatory	
	Reference		

2.38 Creditor Reference Information

Attribute	Туре	Condition	Description
reference	Max35Text	Mandatory	The actual reference.
referenceTypeCode	Creditor Reference Type Code	{Or - Optional	Type of the reference, provided as code.
referenceTypeProprietary	Max35Text	Or – Optional}	Type of the reference, provided in proprietary encoding.
referencelssuer	Max35Text	Optional	Issuer of the reference.

2.39 Direct Debit Transaction (Mandate Information)

Attribute	Туре	Condition	Description
mandateRelatedInformation	Mandate Related Information	Mandatory	
creditorSchemeld	Party Description3	Optional	SDD: Identification = Creditor-Identifier (CI) "schemeNamePropietary": "SEPA"

2.40 Enclosed File

Attribute	Туре	Condition	Description
typeCode	Document Type Code	{Or Optional	Type of document or template.
typeProprietary	Max35Text	Optional Or}	Proprietary document type definition.

Attribute	Туре	Condition	Description
identification	Max35Text	Mandatory	Identification of the document or template.
issueDate	ISODate	{Or	Issue date of the document.
issueDateTime	ISODateTime	Or}	Issue date and time of the document.
name	Max140Text	Optional	Name of document or transaction, for example, tax invoice.
languageCode	Language Code	Optional	Unique identifier for a language used in the document.
formatCode	Document Format Code	{Or	Format of the document or template, such as PDF, XML, XSLT.
formatProprietary	Max35Text	Or}	Proprietary format encoding.
formatProprietary SchemeName	Max35Text	Optional	May be used only if also formatProprietary is used.
formatProprietary Issuer	Max35Text	Optional	May be used only if also formatProprietary is used.
fileName	Max140Text	Optional	Technical name of the file.
digitalSignature	Party And Signature	Optional	Digital signature of the enclosed binary file. Note: Not supported for now. Might be added later in case of market needs.
enclosure	Binary Document	Mandatory	Base64 encoding of the binary file representing the enclosed document or template, such as a PDF file, image file,XML file, MT message.

2.41 Entry Details

This data type describe entry details of a batch booking entry. The details are restricted to data attributes relevant in this case.

Attribute	Туре	Condition	Description
references	References	Optional	might contain the endToEndId as well as the new UETR field

Attribute	Туре	Condition	Description
creditor	Party Description	Optional	Name and potentially an identification of the creditor if a "Debited" transaction
transactionAmount	Amount	Mandatory	The amount of the transaction as billed to the account.
currencyExchange	Array of Report Exchange Rate	Optional	
creditor Account	Account Reference	Conditional	
creditorAgent	Agent Description1	Optional	Proprietary identifications might be provided under financialInstitutionId/other
ultimate Creditor	Party Description4	Optional	
debtor	Party Description	Optional	Name and potentially identification of the debtor if a "Credited" transaction
debtorAccount	Account Reference	Conditional	
debtorAgent	Agent Description1	Optional	Proprietary identifications might be provided under financialInstitutionId/other
ultimateDebtor	Party Description4	Optional	
remittance Information Unstructured	Array of Max140Text	Optional	
remittance Information Structured	Array of Re- mittance	Optional	
purposeCode	Purpose Code	Optional	

2.42 Error Information

This is a data element to support the declaration of additional errors in the context of [RFC7807].

Attribute	Туре	Condition	Description
title	Max70Text	Optional	Short human readable description of error type. Could be in local language. To be provided by ASPSPs.
detail	Max500Text	Optional	Detailed human readable text specific to this instance of the error. XPath might be used to point to the issue generating the error in addition. Remark for Future: In future, a dedicated field might be introduced for the XPath.
code	Message Code	Mandatory	Message code to explain the nature of the underlying error.

2.43 Financial Institution Identification

Attribute	Туре	Condition	Description
bicfi	BICFI	optional	Code allocated to a financial institution.
clearingSystemMemberId	Clearing System Member Identification	optional	Information used to identify a member within a clearing system.
name	Max140Text	optional	Name of the financial institution
postalAddress	Postal Address	Optional	Postal Address of the financial institution.

Attribute	Туре	Condition	Description
other	Generic Financial Insitution Identification	Optional	Unique identification of an organisation, as assigned by an institution, using an identification scheme.

2.44 Financial Institution Identification1

Attribute	Туре	Condition	Description
bicfi	BICFI	Mandatory	Code allocated to a financial institution.

2.45 Generic Account Identification

Attribute	Туре	Condition	Description
identification	Max35Text	Mandatory	Unique and unambiguous identification of an account.
schemeName Code	Account Identification Code	{Or - Optional	An entry provided by an external ISO code list
schemeName Proprietary	Max35Text	Or – Optional}	A scheme name defined in a proprietary way.
issuer	Max35Text	Optional	Issuer of the identification

2.46 Generic Financial Institution Identification

Attribute	Туре	Condition	Description
identification	Max35Text	Mandatory	Unique and unambiguous identification of a financial insitution.
schemeName Code	Financial Insitution Identification Code	{Or - Optional	An entry provided by an external ISO code list

Attribute	Туре	Condition	Description
schemeName Proprietary	Max35Text	Or – Optional}	A scheme name defined in a proprietary way.
issuer	Max35Text	Optional	Issuer of the identification

2.47 Generic Organisation Identification

Attribute	Туре	Condition	Description
identification	Max35Text	Mandatory	Unique and unambiguous identification of an organisation.
schemeName Code	Organisation Identification Code	{Or - Optional	An entry provided by an external ISO code list
schemeName Proprietary	Max35Text	Or - Optional}	A scheme name defined in a proprietary way.
issuer	Max35Text	Optional	Issuer of the identification

2.48 Geo Location

Format using [RFC2426], i.e. GEO:<latitude>;< longitude >.

2.49 href Type

Attribute	Туре	Condition	Description
href	String	Mandatory	

2.50 Initiations

Initiations provides informations about entries in an /initiations sub resource of a payment resource.

Attribute	Туре	Condition	Description
initiationId	Max35Text	Mandatory	resource identification of the addressed payment initiation.
instructedAmount	Amount	Mandatory	Instructed Amount of the addressed initiation.
transactionStatus	Transactio n Status	Mandatory	Status of the addressed initiation.
_links	Links	Mandatory	links of href type "paymentInitiation"

2.51 Links

The structure of Links is conform to [HAL].

Attribute	Туре	Conditi on	Description
scaRedirect	href Type	Optional	A link to an ASPSP site where SCA is performed within the Redirect SCA approach.
scaOAuth	href Type	Optional	The link refers to a JSON document specifying the OAuth details of the ASPSP's authorisation server. JSON document follows the definition given in [RFC 8414].
confirmation	href Type	Optional	"confirmation": Might be added by the ASPSP if either the "scaRedirect" or "scaOAuth" hyperlink is returned in the same response message. This hyperlink defines the URL to the resource which needs to be updated with • a confirmation code as retrieved after the plain redirect authentication process with the ASPSP
			 authentication server or an access token as retrieved by submitting an authorization code after the integrated Oauth based

Attribute	Туре	Conditi on	Description
			authentication process with the ASPSP authentication server.
startAuthorisation	href Type	Optional	A link to an endpoint, where the authorisation of a transaction or the authorisation of a transaction cancellation shall be started with a POST command. No specific data is needed for this process start.
startAuthorisationWith Psuldentification	href Type	Optional	The link to an endpoint where the authorisation of a transaction or of a transaction cancellation shall be started, where PSU identification shall be uploaded with the corresponding call.
updatePsuldentification	href Type	Optional	The link to the payment initiation or account information resource, which needs to be updated by the PSU identification if not delivered yet.
startAuthorisationWithPropr ietaryData	hrefType	Optional	A link to the endpoint, where the authorisation of a transaction or of a transaction cancellation shall be started, and where proprietary data needs to be updated with this call. The TPP can find the scope of missing proprietary data in the ASPSP documentation.
			The usage of this hyperlink is not further specified in the specification but is used analogously to e.g. the startAuthorisation withPsuldentification hyperlink.
updateProprietaryData	href Type	Optional	The link to the payment initiation or account information resource, which needs to be updated by the proprietary data.
startAuthorisationWith PsuAuthentication	href Type	Optional	The link to an endpoint where the authorisation of a transaction or of a transaction cancellation shall be started, where PSU authentication data shall be uploaded with the corresponding call.
updatePsuAuthentication	href Type	Optional	The link to the payment initiation or account information resource, which needs to be updated by a PSU password and eventually the PSU identification if not delivered yet.

Attribute	Туре	Conditi on	Description
startAuthorisationWithEncr yptedPsuAuthentication	href Type	Optional	The link to an endpoint where the authorisation of a transaction or of a transaction cancellation shall be started, where encrypted PSU authentication data shall be uploaded with the corresponding call.
updateEncryptedPsuAuthe ntication	href Type	Optional	The link to the payment initiation or account information resource, which needs to be updated by an encrypted PSU password and eventually the PSU identification if not delivered yet.
startAuthorisationWith AuthenticationMethodSelec tion	href Type	Optional	This is a link to and endpoint where the authorisation of a transaction or of a transaction cancellation shall be started, where the selected SCA method shall be uploaded with the corresponding call.
selectAuthenticationMethod	href Type	Optional	This is a link to a resource, where the TPP can select the applicable second factor authentication methods for the PSU, if there were several available authentication methods.
startAuthorisationWith TransactionAuthorisation	href Type	Optional	A link to an endpoint, where an authorisation of a transaction or a cancellation can be started, and where the response data for the challenge is uploaded in the same call for the transaction authorisation or transaction cancellation at the same time in the Embedded SCA Approach.
authoriseTransaction	href Type	Optional	The link to the payment initiation or consent resource, where the "Transaction Authorisation"Request" is sent to. This is the link to the resource which will authorise the payment or the consent by checking the SCA authentication data within the Embedded SCA approach.
self	href Type	Optional	The link to the payment initiation resource created by the request itself. This link can be used later to retrieve the transaction status of the payment initiation.

Attribute	Туре	Conditi on	Description
status	href Type	Optional	A link to retrieve the status of the transaction resource.
transactionfees	hrefType	Optional	The link is to the status resource. This link is only added within the authorisation process in case fee information is available via the status resource.
scaStatus	href Type	Optional	A link to retrieve the status of the authorisation or cancellation-authorisation sub-resource.
account	href Type	Optional	A link to the resource providing the details of one account
savingsAccount	href Type	Optional	A link to the resource providing the details of a savings account.
IoanAccount	href Type	Optional	A link to the resource providing the details of a loan account.
balances	href Type	Optional	A link to the resource providing the balance of a dedicated account.
transactions	href Type	Optional	A link to the resource providing the transaction history of a dedicated account.
cardAccount	href Type	Optional	A link to the resource providing the details of one card account.
cardTransactions	href Type	Optional	A link to the resource providing the transaction history of a dedicated card account.
transactionDetails	href Type	Optional	A link to the resource providing details of a dedicated transaction.
paymentInitiation	href Type	Optional	A link to an initiation related to a payment resource.
securitiesAccount	href Type	Optional	A link to the resource providing the details of one securitiesAccount.

Attribute	Туре	Conditi on	Description
positions	href Type	Optional	A link to the resource providing the list of positions of one securitiesAccount.
orders	href Type	Optional	A link to the resource providing the list of orders of one securitiesAccount.
orderDetails	href Type	Optional	A link to the resource providing details of one specific order.
entryStatusRevoked	Array of href Type	Optional	Links to entry status endpoints where the entry status is revoked.
first	href Type	Optional	Navigation link for paginated account reports.
next	href Type	Optional	Navigation link for paginated account reports.
previous	href Type	Optional	Navigation link for paginated account reports.
last	href Type	Optional	Navigation link for paginated account reports.
download	href Type	Optional	Download link for huge AIS data packages.
paymentInitiation	href Type	Optional	link to an initiation related to a payment resource.
confirmInitiation	href Type	Optional	link to a confirmation endpoint, where a payment initiation needs to be confirmed explicitly by the API Client for execution.

2.52 Mandate Related Information

Attribute	Туре	Condition	Description
mandateld	Max35Text	Mandatory	
dateOfSignature	ISO Date	Mandatory	
amendmentInformationDetails	Amendment Information Details	Optional	
electronicSignature	Max1025Text	Optional	Only used for e-mandates

2.53 Message Code

The permitted message error codes and related HTTP response codes are listed below. New services may introduce new Message Codes which are not yet reflected here.

2.53.1 Service Unspecific HTTP Error Codes

Message Code	HTTP Response Code	Description
CERTIFICATE_INVALID	401	The contents of the signature/corporate seal certificate are not matching PSD2 general PSD2 or attribute requirements.
ROLE_INVALID	401	The TPP does not have the correct PSD2 role to access this service.
CERTIFICATE_EXPIRED	401	Signature/corporate seal certificate is expired. Remark: If a resource has been created already, a related status reason code is used instead.
CERTIFICATE_BLOCKED	401	Signature/corporate seal certificate has been blocked by the ASPSP or the related NCA. Remark: If a resource has been created already, a related status reason code is used instead.
CERTIFICATE_REVOKED	401	Signature/corporate seal certificate has been revoked by QSTP. Remark: If a resource has been created already, a related status reason code is used instead.
CERTIFICATE_MISSING	401	Signature/corporate seal certificate was not available in the request but is mandated for the corresponding. Remark: If a resource has been created already, a related status reason code is used instead.

Message Code	HTTP Response Code	Description
SIGNATURE_INVALID	401	Application layer eIDAS Signature for API Client authentication is not correct.
SIGNATURE_MISSING	401	Application layer eIDAS Signature for API authentication is mandated by the ASPSP but is missing.
ROLE_INVALID	401	The TPP does not have the correct PSD2 role to access this service
FORMAT_ERROR	400	Format of certain request fields are not matching the XS2A requirements. An explicit path to the corresponding field might be added in the return message.
		This applies to headers and body entries. It also applies in cases where these entries are referring to erroneous or not existing data instances, e.g. a malformed IBAN.
PARAMETER_NOT_CONSISTENT	400	Parameters submitted by API Client are not consistent. This applies only for query parameters.
PARAMETER_NOT_SUPPORTED	400	The parameter is not supported by the API provider. This code should only be used for parameters that are described as "optional if supported by API provider."
PSU_CREDENTIALS_INVALID	401	The PSU-ID cannot be matched by the addressed ASPSP or is blocked, or a password resp. OTP was not correct. Additional information might be added.
SERVICE_INVALID	400 (if payload)	The addressed service is not valid for the addressed resources or the submitted data.
	405 (if HTTP method)	
SERVICE_BLOCKED	403	This service is not reachable for the addressed PSU due to a channel independent blocking by

Message Code	HTTP Response Code	Description
		the ASPSP. Additional information might be given by the ASPSP.
CORPORATE_ID_INVALID	401	The PSU-Corporate-ID cannot be matched by the addressed ASPSP.
CONSENT_UNKNOWN	403 (if path) 400 (if header)	The Consent-ID cannot be matched by the ASPSP relative to the API Client.
CONSENT_INVALID	401	The consent was created by this TPP but is not valid for the addressed service/resource.
CONSENT_EXPIRED	401	The consent was created by this TPP but has expired and needs to be renewed.
TOKEN_UNKNOWN	401	The OAuth2 token cannot be matched by the ASPSP relative to the TPP.
TOKEN_INVALID	401	The OAuth2 token is associated to the TPP but is not valid for the addressed service/resource.
TOKEN_EXPIRED	401	The OAuth2 token is associated to the TPP but has expired and needs to be renewed.
RESOURCE_UNKNOWN	404 (if account-id in path) 403 (if other resource in path) 400 (if payload)	The addressed resource is unknown relative to the API Client. An example for a payload reference is creating a signing basket with an unknown resource identificiation.
RESOURCE_EXPIRED	403 (if path) 400 (if payload)	The addressed resource is associated with the TPP but has expired, not addressable anymore.

Message Code	HTTP Response Code	Description
RESOURCE_BLOCKED	400	The addressed resource is not addressable by this request, since it is blocked e.g. by a grouping in a signing basket.
TIMESTAMP_INVALID	400	Timestamp not in accepted time period.
PERIOD_INVALID	400	Requested time period out of bound.
SCA_METHOD_UNKNOWN	400	Addressed SCA method in the Authentication Method Select Request is unknown or cannot be matched by the ASPSP with the PSU.
SCA_INVALID	400	Method Application on authorisation resource (e.g. Confirmation Request) blocked since SCA status of the resource equals "failed".
STATUS_INVALID	409	The addressed resource does not allow additional authorisation.

2.53.2 PIS Specific HTTP Error Codes

Message Code	HTTP Response Code	Description
PRODUCT_INVALID	403	The addressed payment product is not available for the PSU.
PRODUCT_UNKNOWN	404	The addressed payment product is not supported by the ASPSP.
PAYMENT_FAILED	400	The payment initiation POST request failed during the initial process. Additional information may be provided by the ASPSP.
KID_MISSING	401	The payment initiation has failed due to a missing KID. This is a specific message code for the Norwegian market, where ASPSP

Message Code	HTTP Response Code	Description
		can require the payer to transmit the KID.
EXECUTION_DATE_INVALID	400	The requested execution date is not a valid execution date for the ASPSP.
CANCELLATION_INVALID	405	The addressed payment is not cancellable e.g. due to cut off time passed or legal constraints.

2.53.3 AIS Specific HTTP Error Codes

Message Code	HTTP Response Code	Description
CONSENT_INVALID	401	The consent definition is not complete or invalid. In case of being not complete, the bank is not supporting a completion of the consent towards the PSU. Additional information will be provided.
CONSENT_TYPE_NOT _SUPPORTED	400	The consentType chosen in the consent object is not supported by the ASPSP.
SESSIONS_NOT_SUPPORTED	400	The combined service flag may not be used with this ASPSP.
ACCESS_EXCEEDED	429	The access on the account has been exceeding the consented multiplicity without PSU involvement per day.
REQUESTED_FORMATS _INVALID	406	The requested formats in the Accept header entry are not matching the formats offered by the ASPSP.

2.53.4 PIIS Specific Error Codes

Message Code	HTTP Response Code	Description
CARD_INVALID	400	Addressed card number is unknown to the ASPSP or not associated to the PSU.
NO_PIIS_ACTIVATION	400	The PSU has not activated the addressed account for the usage of the PIIS associated with the TPP.

2.53.5 Signing Basket Specific Error Codes

Message Code	HTTP Response Code	Description
REFERENCE_MIX_INVALID	400	The used combination of referenced objects is not supported in the ASPSPs signing basket function.
REFERENCE_STATUS_INVALID	409	At least one of the references is already fully authorised.

2.54 Organisation Identification

Attribute	Туре	Condition	Description
anyBIC	BIC	{Or - Optional	A code allocated to a business entity or to a financial institution by a Registration Authority under an international identification scheme.
lei	LEI	Or - Optional	Legal Entity Identifier.
others	Array of Generic Organisation Identification	Optional – Or}	Unique identification of an organisation, as assigned by an institution, using an identification scheme.

2.55 Party Description

Attribute	Туре	Condition	Description
name	Max140Text	Optional	Name of the party.
postal address	Postal Address	Optional	Postal Address of the party.
identification	Party Identification	Optional	Identification of the party.
additionalPartyInformation	Additional Party Information	Optional	Only supported in extended services for creditor related parties, if at all. NOTE: This information will be neither put to the related interbank payment nor to account reports/statements and might only be used to display related information to the PSU during potential authorisation processes.

2.56 Party Description1

Attribute	Туре	Condition	Description
name	Max140Text	Optional	Name of the party.

2.57 Party Description2

Attribute	Туре	Condition	Description
name	Max140Text	Optional	Name of the party.
postal address	Postal Address	Optional	Postal Address of the party.

2.58 Party Description3

Attribute	Туре	Condition	Description
identification	Party Identification1	Optional	Identification of the party.

2.59 Party Description4

Attribute	Туре	Condition	Description
name	Max140Text	Optional	Name of the party.
identification	Party Identification1	Optional	Identification of the party.

2.60 Party Identification

Attribute	Туре	Condition	Description
organisationId	Organisation Identification	{Or	An entry provided by an external ISO code list
privateld	Private Identification	Or }	A scheme name defined in a proprietary way.

Note: Only one of the entries is allowed.

2.61 Party Identification1

Attribute	Туре	Condition	Description
privateld	Private Identification	Mandatory	A scheme name defined in a proprietary way.

2.62 Payment Conditions

Attribute	Туре	Condition	Description
amountModificationAllowed	Boolean	optional	Indicates if the debtor is allowed to pay a different amount then the requested amount.
earlyPaymentAllowed	Boolean	optional	Indicates if the debtor is allowed to pay before the requested execution date.

2.63 Payment Context Type

Attribute	Туре	Condition	Description
cardPresent	Boolean	Optional	
cardDataEntryMode	Card Data Entry Mode	Optional	

2.64 Payment Exchange Rate

Attribute	Туре	Condition	Description
unitCurrency	Currency Code	Optional	Currency in which the rate of exchange is expressed in a currency exchange. In the example 1EUR = xxxCUR, the unit currency is EUR.
exchangeRate	String	Optional	Factor used to convert an amount from one currency into another. This reflects the price at which one currency was bought with another currency.
contractIdentification	Max35Text	Optional	Unique identification to unambiguously identify the foreign exchange contract.
rateType	Exchange Rate Type Code	Optional	Specifies the type used to complete the currency exchange.

Attribute	Туре	Condition	Description
			Only SPOT, SALE and AGRD is allowed.

2.65 Payment Identification

Attribute	Туре	Condition	Description
instructionId	Max35Text	Optional	Unique identification as assigned by an instructing party for an instructed party to unambiguously identify the instruction.
endToEndId	Max35Text	Optional	
uetr	UUID	Optional	Universally unique identifier to provide an end-to-end reference of a payment transaction.
			It is recommended to use time-based version (version 1) and variant 8,9,a or b of the UUID as defined in [RFC4122] for UUID fields such as uetr.

2.66 Payment Identification1

Attribute	Туре	Condition	Description
endToEndId	Max35Text	Optional	Unique identification assigned by the initiating party to unambiguously identify the transaction. This identification is passed on, unchanged, throughout the entire end-to-end chain

2.67 Person Identification

Attribute	Туре	Condition	Description
identification	Max35Text	Mandatory	Unique and unambiguous identification of a oersib.
schemeName Code	Person Identification Code	{Or - Optional	An entry provided by an external ISO code list
schemeName Proprietary	Max35Text	Or – Optional}	A scheme name defined in a proprietary way.
issuer	Max35Text	Optional	Issuer of the identification

2.68 Postal Address

Attribute	Туре	Condition	Description
addressLines	Array of Max140Text	{Or - Optional	At most seven entries are permitted. May only be used, if none of the structured address elements "streetName", "buildingNumber", "postcode" or "townName" is used. Remark: For SEPA transactions this is further restricted to a maximum of 1 entry.
department	Max70Text	Or – Optional}	Identification of a division of a large organisation or building.
subDepartment	Max70Text		Identification of a sub-division of a large organisation or building.
streetName	Max70Text		Name of a street or thoroughfare.
buildingNumber	Max16Text		Number that identifies the position of a building on a street.
buildingName	Max35Text		Name of the building or house.

Attribute	Туре	Condition	Description
floor	Max70Text		Floor or storey within a building.
postBox	Max16Text		Numbered box in a post office, assigned to a person or organisation, where letters are kept until called for.
room	Max70Text		Building room number.
postCode	Max16Text		Identifier consisting of a group of letters and/or numbers that is added to a postal address to assist the sorting of mail.
townName	Max35Text		Name of a built-up area, with defined boundaries, and a local government.
			Usage Rule: If address lines are not used, this attribute is mandatrory.
townLocationName	Max35Text		Specific location name within the town.
districtName	Max35Text		Identifies a subdivision within a country sub-division.
countrySubDivision	Max35Text		Identifies a subdivision of a country such as state, region, county.
country	Country Code	Optional	Nation with its own government.
			Usage Rule: If address lines are not used, this attribute is mandatrory.

Remark: The usage of addressLines will be phased out in November 2025 at least for SEPA payments.

Remark: The elements of the structured address information marked by "Optoinal Or}" may only be used, if the element "addressLines" is not used.

2.69 Private Identification

Attribute	Туре	Condition	Description
birthDate	ISODate	Optional	
provinceOfBirth	Max35Text	Optional	
cityOfBirth	Max35Text	Optional	
CountryOfBirth	Country Code	Optional	
others	Array of Person Identification	Conditional	Unique identification of a person, as assigned by an institution, using an identification scheme. Shall be used if none of the above attributes is used.

2.70 Proxy Account Identification

Attribute	Туре	Condition	Description
typeCode	Proxy Account Type Code	{Or - optional	Type of the proxy identification
typeProprietary	Max35Text	Or – optional}	
identification	Max2048Text	mandatory	

2.71 PSU Credentials

Attribute	Туре	Condition	Description
password	String	Conditional	Contains a password in plaintext.
encrypted Password	String	Conditional	Is used when a password is encrypted on application level.

2.72 Remittance

The remittance type will be re-defined in version 2 to be able to support more complex requirements. This is not downwards compatible.

Attribute	Туре	Condition	Description
referredDocumentInformation	Array of Referred Document Information	Optional	Set of elements used to identify the documents referred to in the remittance information.
creditorReferenceInformation	Creditor Reference Information	Optional	Reference information provided by the creditor to allow the identification of the underlying documents.
additionalRemittanceInformation	Array of Max140Text	Optional	Additional information to be displayed to the PSU e.g. within authorisation processes. This will not be used in related interbank payments.

2.73 References

Attribute	Туре	Condition	Description
accountServicer Reference	Max35Text	Optional	
instructionId	Max35Text	Optional	Unique identification as assigned by an instructing party for an instructed party

Attribute	Туре	Condition	Description
			to unambiguously identify the instruction.
endToEndId	Max35Text	Optional	
uetr	UUID	Optional	Universally unique identifier to provide an end-to-end reference of a payment transaction.
			It is recommended to use time-based version (version 1) and variant 8,9,a or b of the UUID as defined in [RFC4122] for UUID fields such as uetr.
mandateId	Optional	Optional	direct debit related mandate.
checkNumber	Max35Text	Optional	

2.74 Referred Document Information

Attribute	Туре	Condition	Description
typeCode	Referred Document Type Code	{Or - Optional	Specifies the type of referred document, provided as code.
typeProprietary	Max35Text	Or – Optional}	Specifies the type of referred document, provided in proprietary encoding.
typelssuer	Max35Text	Optional	Issuer of the document type.
number	Max35Text	Optional	Unique and unambiguous identification of the referred document.
relatedDate	ISO Date	Optional	Date associated with the referred document.

2.75 Regulatory Reporting

Attribute	Туре	Condition	Description
debitCreditReportingIndicator	Regulatory Reporting Type Code	Optional	Identifies whether the regulatory reporting information applies to the debit side, to the credit side or to both debit and credit sides of the transaction.
detailsCode	Max35Text	Optional	Specifies the nature, purpose, and reason for the transaction to be reported for regulatory and statutory requirements in a coded form.
detailsInformation	Array of Max35Text	Optional	Additional details that cater for specific domestic regulatory requirements.

2.76 Report Exchange Rate

Attribute	Туре	Condition	Description
sourceCurrency	Currency Code	Mandatory	Currency from which an amount is to be converted in a currency conversion.
exchangeRate	String	Mandatory	Factor used to convert an amount from one currency into another. This reflects the price at which one currency was bought with another currency.
unitCurrency	Currency Code	Mandatory	Currency in which the rate of exchange is expressed in a currency exchange. In the example 1EUR = xxxCUR, the unit currency is EUR.
targetCurrency	Currency Code	Mandatory	Currency into which an amount is to be converted in a currency conversion.
quotationDate	ISODate	Mandatory	Date at which an exchange rate is quoted.
contractIdentification	Max35Text	Optional	Unique identification to unambiguously identify the foreign exchange contract.

2.77 RTP Details

Attribute	Туре	Condition	Description
paymentConditions	Payment Conditions	optional	Conditions for the execution of the payment.
creationDateTime	ISODateTime	optional	creationDateTime of the originator
requestedExpiry DateTime	ISODateTime	mandatory	Date and Time at which this request expires.
originatorPspld	Financial Institution Identification	Optional	Originator payment service provider in case of indirect participation regarding a related API Access Scheme or bilateral contract

2.78 Standing Order Details

Attribute	Туре	Condition	Description
startDate	ISODate	Mandatory	The first applicable day of execution starting from this date the first payment was/will be executed.
endDate	ISODate	Optional	The last applicable day of execution If not given, it is an infinite standing order.
executionRule	String	Optional	"following" or "preceding" supported as values. This data attribute defines the behavior when a transaction date resulting from a standing order falls on a weekend or bank holiday. The payment is then executed either the "preceding" or "following" working day.
withinAMonthFlag	Boolean	Optional	This element is only used in case of frequency equals "Monthly". If this element equals false it has no effect. If this element equals true, then the execution rule is overruled if the day of

Attribute	Туре	Condition	Description
			execution would fall into a different month using the execution rule.
			Example : executionRule equals "preceding", dayOfExecution equals "02" and the second of a month is a Sunday. In this case, the transaction date would be on the last day of the month before. This would be overruled if withinAMonthFlag equals true and the payment is processed on Monday the third of the Month.
			Remark: This attribute is rarely supported in the market.
frequency	Frequency Code	Mandatory	The frequency of the recurring payment resulting from this standing order.
monthsOfExecution	Array of Max2Text	Conditional	The format is following the regular expression \d{1,2}. The array is restricted to 11 entries. The values contained In the array entries shall all be different and the maximum value of one entry is 12.
			This attribute is contained if and only if the frequency equals "MonthlyVariable".
			Example: An execution on January, April and October each year is addressed by ["1". "4", "10"].
multiplicator	Numerical	Optional	This is multiplying the given frequency resulting the exact frequency, e.g.
			Frequency=weekly and multiplicator=3 means every 3 weeks.
			Remark : This attribute is rarely supported in the market.
dayOfExecution	Max2Text	Optional	"31" is ultimo.
			The format is following the regular expression \d{1,2}.

Attribute	Туре	Condition	Description
			Example: The first day is addressed by "1".
			The date is referring to the time zone of the ASPSP.
limitAmount	Amount	Conditional	limitAmount
			Amount limit for fund skimming, e.g. skim all funds above this limit to savings account, i.e. typically a specific periodic payments with fixed remaining amount rather than fixed transaction amount. Amount may be zero as well as below zero, i.e. negative. Constraints: transactionAmount needs to be zero and bankTransactionCode needs to specify PMNT-MCOP-OTHR for fund skimming

2.79 Structured Additional Transaction Information

Attribute	Туре	Condition	Description
transactionStatus	Transaction Status	Mandatory	
transactionCreated	User Entry	Optional	
transaction Authorised	Array of User Entry	Optional	
transaction Cancelled	Array of User Entry	Optional	

2.80 Structured Additional Information

Attribute	Туре	Condition	Description
standingOrderDetails	Standing Order Details	{OR	Details of underlying standing orders.

Attribute	Туре	Condition	Description
rtpDetails	RTP Details	OR}	Details of underlying incoming RTPs

2.81 Transactions

Attribute	Туре	Condition	Description
transactionId	String	Optional	Can be used as access-ID in the API, where more details on an transaction is offered. If this data attribute is provided this shows that the AIS can get access on more details about this transaction using the GET Transaction Details Request.
			Remark: ASPSPs should ensure that transactionID, if provided, is unique relative to the account that PSU is accessing, in order to ensure the quality of the data provided to the API Client.
entryReference	Max35Text	Optional	Is the identification of the transaction as used e.g. for reference for delta function on application level. The same identification as for example used within camt.05x messages.
batchIndicator	Boolean	Optional	If this indicator equals true, then the related entry is a batch entry.
batchNumberOf Transactions	Integer	Conditional	Shall be used if and only if the batchIndicator is contained and equals true.

Attribute	Туре	Condition	Description
references	References	Optional	Might contain the payment identification attributes endToEndId as well as the new UETR field. In addition it is inIduing accountServicerReference, mandateId, checkId (all level 1 fields in V1.3.x).
localInstrumentCode	Local Instrument Code	(Or Optional	User community specific instrument as a code provided by ISO20022.
localInstrument Proprietary	Max35Text	Or Optional}	User community specific instrument as a proprietary attribute.
bookingDate	ISODate	Optional	The Date when an entry is posted to an account on the ASPSPs books.
valueDate	ISODate	Optional	Date at which assets become available to the account owner in case of a credit entry, or cease to be available to the account owner in case of a debit entry. Usage: If entry status is pending and value date is present, then the value date
			refers to an expected/requested value date.
transactionAmount	Amount	Mandatory	The amount of the transaction or batch as billed to the account.
currencyExchange	Array of Report	Optional	

Attribute	Туре	Condition	Description
	Exchange Rate		
amountDetails	Amount Details	Optional	Additional information to the transaction amount.
interbankSettlement Date	ISODate	Optional	Date on which the amount of money ceases to be available to the agent that owes it and when the amount of money becomes available to the agent to which it is due.
cardTransaction	Card Transaction Details	Optional	Card transaction details in case of an underlying card transaction.
creditor	Party Description	Optional	Name and potentially an identification of the creditor if a "Debited" transaction
creditor Account	Account Reference	Conditional	Account of the payee.
creditorAgent	Agent Description1	Optional	Proprietary identifications might be provided under financialInstitutionId/other
ultimate Creditor	Party Description4	Optional	Only name and identification is supported for now for this party.
debtor	Party Description	Optional	Name and potentially an identification of the debtor if a "Credited" transaction
debtorAccount	Account Reference	Conditional	
debtorAgent	Agent Description1	Optional	Proprietary identifications might be provided under financialInstitutionId/other

Attribute	Туре	Condition	Description
ultimateDebtor	Party Description4	Optional	
remittance Information Unstructured	Array of Max140Text	Optional	
remittance Information Structured	Array of Remittance	Optional	
entryDetails	Array of Entry Details	Optional	Might be used by the ASPSP to transport details about transactions within a batch.
additionalTransactionInformation	Max500Text	Optional	Might be used by the ASPSP to transport additional transaction related information to the PSU
additionalInformation Structured	Structured Additional Information	Conditional	Is used if and only if the bookingStatus entry equals "information". Every active standing order related to the dedicated payment account result into one entry. Each received RTP result into one entry.
additionalTransaction informationStructured	Structured Additional Transaction Information	Optional	Data about the transactional process of submission, authorisation and/or cancellation of the underlying payment.
purposeCode	Purpose Code	Optional	

Attribute	Туре	Condition	Description
bank TransactionCode	Bank Transaction Code	Optional	Bank transaction code as used by the ASPSP and using the sub elements of this structured code defined by ISO20022.
			For standing order reports the following codes are applicable:
			"PMNT-ICDT-STDO" for credit transfers,
			"PMNT-IRCT-STDO" for instant credit transfers
			"PMNT-ICDT-XBST" for cross-border credit transfers
			"PMNT-IRCT-XBST" for cross-border real time credit transfers and
			"PMNT-MCOP-OTHR" for specific standing orders which have a dynamical amount to move left funds e.g. on month end to a saving account
bank TransactionCodeProprietary	Max35Text	Optional	proprietary bank transaction code as used within a community or within an ASPSP e.g. for MT94x based transaction reports. Renaming of the attribute to adapt to statements.
balanceAfter Transaction	Balance	Optional	This is the balance after this transaction. Recommended balance type is interimBooked.

Attribute	Туре	Condition	Description
_links	Links	Optional	The following links could be used here: transactionDetails for retrieving details of a transaction.

3 Code Lists

3.1 Access Rights Codes

The current list of access right codes. This might be further extended.

Codes	Description
ais	covers details, balances and transactions
accountDetails	covers generic account product information details
balances	Allow to retrieve balances of the addressed account.
transactions	Allow to retrieve transactions of the addressed account.
orders	Allow to retrieve orders from an addressed order book related to a securities account.
ownerName	Allow to retrieve the owner name/owner names related to this account.
psuName	Allow to retrive the PSU name related to the consent authorisation.
psuLeanIdentification	Allow to retrieve the PSU Name as well as PSU identification related data from the PSU parameters, e.g. birth date, address or passport ID.
trustedBeneficiaries	Allow to retrieve the list of trusted beneficiaries related to this account.
initiatePayments	Allow to initiate payments with the related token.
fundsConfirmations	Allows to access an addressed account for a funds confirmation check.
userParameters	Allows to access the PSU's user parameters applicable to the account configuration.
ibanChecks	Allows to access a restricted version of the user parameters related to signing rights.
corporateParameters	RFU Will be supported in future.
accountCheckParameters	Allows to access restricted user parameters e.g. role definitions of the PSU related to the account.

3.2 Balance Type

The following balance types are excluding credit limits unless the creditLimitIncluded element is present and equals true in the corresponding balance element.

Remark: This definition is following ISO20022 logic for defining balance types.

Туре	Description
closingBooked	Balance of the account at the end of the pre-agreed account reporting period. It is the sum of the opening booked balance at the beginning of the period and all entries booked to the account during the pre-agreed account reporting period.
	For card-accounts, this is composed of
	invoiced, but not yet paid entries
expected	Balance composed of booked entries and pending items known at the time of calculation, which projects the end of day balance if everything is booked on the account and no other entry is posted.
	For card accounts, this is composed of
	 invoiced, but not yet paid entries, not yet invoiced but already booked entries and pending items (not yet booked)
openingBooked	Book balance of the account at the beginning of the account reporting period. It always equals the closing book balance from the previous report.
interimAvailable	Available balance calculated in the course of the account 'servicer's business day, at the time specified, and subject to further changes during the business day. The interim balance is calculated on the basis of booked credit and debit items during the calculation time/period specified.
	For card-accounts, this is composed of
	invoiced, but not yet paid entries,not yet invoiced but already booked entries
interimBooked	Balance calculated in the course of the account servicer's business day, at the time specified, and subject to further changes during the business

Туре	Description
	day. The interim balance is calculated on the basis of booked credit and debit items during the calculation time/period specified.
forwardAvailable	Forward available balance of money that is at the disposal of the account owner on the date specified.
nonInvoiced	Only for card accounts, to be defined yet.

3.3 Card Data Entry Mode

Туре	Description
CICC	EMV based
ECTL	EMV based contactless
MGST	Magnetic Stripe
PHYS	Manual Entry
BRCD	Barcode

This is following an ISO20022 Code: CardsDataReading1Code

3.4 Charge Bearer

Туре	Description
DEBT	All transaction charges are to be borne by the debtor.
CRED	All transaction charges are to be borne by the creditor.
SHAR	In a credit transfer context, means that transaction charges on the sender side are to be borne by the debtor, transaction charges on the receiver side are to be borne by the creditor. In a direct debit context, means that transaction charges on the sender side are to be borne by the creditor, transaction charges on the receiver side are to be borne by the debtor.
SLEV	Charges are to be applied following the rules agreed in the service level and/or scheme.

This is following ChargeBearerType1Code from ISO20022.

3.5 Consent Status

Code	Description
received	The consent data have been received and are technically correct. The data is not authorised yet.
rejected	The consent data have been rejected e.g. since no successful authorisation has taken place.
partiallyAuthorised	The consent is due to a multi-level authorisation, some but not all mandated authorisations have been performed yet.
valid	The consent is accepted and valid for GET account data calls and others as specified in the consent object.
revokedByPsu	The consent has been revoked by the PSU towards the ASPSP.
expired	The consent expired.
terminatedByTpp	The corresponding TPP has terminated the consent by applying the DELETE method to the consent resource.
replacedByTpp	The corresponding TPP has terminated the (recurring) consent implicitly by submitting a new (recurring) consent.

The ASPSP might add further codes. These codes then shall be contained in the ASPSP's documentation of the XS2A interface.

3.6 Consent Type Code

Code	Description
global	This consent type asks certain rights for dedicated account types without further detailing the accounts.
detailed	This consent type asks for access for dedicated accounts and dedicated rights.

Code	Description
aspspManaged	This consent type asks for access on certain account types for dedicated access rights. The accounts provisioned will be added during the authorisation process by the ASPSP.
accountList	This consent type asks for the list of accounts for each addressed account type. In difference to other account information consents, this consent might be authorised by using one authentication factor only, if supported by the ASPSP.
	In addition to the "accountDetails" access rights, also other non-transactional access rights might be asked for. This might have an impact on the decision of the ASPSP to apply SCA or only one authentication factor of the PSU.

3.7 Credit Transfer Payment Method Code

This code set corresponds to ISO 20022 PaymentMethod3Code:

Туре	Description
TRF	Credit Transfer
CHK	Cheque
TRA	Transfer Advice Remark: Currently not supported by the openFinance payment data model. The code "TRA" is only mentioned for completeness as it is defined in ISO20022.

3.8 Creditor Reference Type Code

This code set is equivalent to the ISO 20022 definition DocumentType3Code:

Туре	Description
RADM	Document is a remittance advice sent separately from the current transaction.

Туре	Description
RPIN	Document is a linked payment instruction to which the current payment instruction is related, for example, in a cover scenario.
FXDR	Document is a pre-agreed or pre-arranged foreign exchange transaction to which the payment transaction refers.
DISP	Document is a dispatch advice.
PUOR	Document is a purchase order.
SCOR	Document is a structured communication reference provided by the creditor to identify the referred transaction.

3.9 Exchange Rate Type Code

This code set is equivalent to the ISO 20022 definition ExchangeRateType1Code:

Туре	Description
SPOT	Exchange rate applied is the spot rate.
SALE	Exchange rate applied is the market rate at the time of the sale.
AGRD	Exchange rate applied is the rate agreed between the parties.

3.10 Frequency Code

The following codes from the "EventFrequency7Code" of ISO 20022 are supported:

- Daily
- Weekly
- EveryTwoWeeks
- Monthly
- EveryTwoMonths
- Quarterly
- SemiAnnual
- Annual
- MonthlyVariable

3.11 Priority Code

This code set is equivalent to the ISO 20022 definition Priority2Code:

Туре	Description
HIGH	Priority level is high.
NORM	Priority level is normal.

3.12 Referred Document Type Code

This code set is equivalent to the ISO 20022 definition DocumentType6Code:

Туре	Description
MSIN	Document is an invoice claiming payment for the supply of metered services, for example gas or electricity supplied to a fixed meter
CNFA	Document is a credit note for the final amount settled for a commercial transaction.
DNFA	Document is a debit note for the final amount settled for a commercial transaction.
CINV	Document is an invoice.
CREN	Document is a credit note.
DEBN	Document is a debit note.
HIRI	Document is an invoice for the hiring of human resources or renting goods or equipment.
SBIN	Document is an invoice issued by the debtor.
CMCN	Document is an agreement between the parties, stipulating the terms and conditions of the delivery of goods or services.
SOAC	Document is a statement of the transactions posted to the debtor's account at the supplier.

Туре	Description
DISP	Document is a dispatch advice.
BOLD	Document is a shipping notice.
VCHR	Document is an electronic payment document.
AROI	Document is a payment that applies to a specific source document.
TSUT	Document is a transaction identifier as assigned by the Trade Services Utility
PUOR	Document is a purchase order.

3.13 Regulatory Reporting Type Code

Туре	Description				
CRED	Regulatory credit side.	information	applies	to	the
DEBT	Regulatory debit side.	information	applies	to	the
ВОТН	Regulatory credit and det	information oit sides.	applies	to	both

3.14 SCA Status

The following codes are defined for this data type.

Remark for Future: A rework of the coding will follow, first Codes are given below:###

Code	Description
received	An authorisation or cancellation-authorisation resource has been created successfully.
psuldentified	The PSU related to the authorisation or cancellation-authorisation resource has been identified.

Code	Description
psuAuthenticated	The PSU related to the authorisation or cancellation-authorisation resource has been identified and authenticated e.g. by a password or by an access token.
scaMethodSelected	The PSU/TPP has selected the related SCA routine. If the SCA method is chosen implicitly since only one SCA method is available, then this is the first status to be reported instead of "received".
started	The addressed SCA routine has been started.
unconfirmed	SCA is technically successfully finalised by the PSU, but the authorisation resource needs a confirmation command by the TPP yet.
finalised	The SCA routine has been finalised successfully (including a potential confirmation command). This is a final status of the authorisation resource.
failed	The SCA routine failed. This is a final status of the authorisation resource.
exempted	SCA was exempted for the related transaction, the related authorisation is successful. This is a final status of the authorisation resource.

3.15 Securing Method Code

This code is providing information about how an authorised amount is secured within the ASPSP.

Code	Description
reservationOfFunds	The bank is reserving the funds via a disposition of the amount on the account.
creditLine	The bank is reserving the funds via the usage of a credit line of the customer.
bankGuarantee	The bank is offering a payment guarantee.
consumerLoan	The payment is secured by a consumer loan.

3.16 Status Reason Code

At a minimum, the following codes from the ISO20022 ExternalStatusReasonCode1 list need to be supported by the ASPSP. The codes should only used, if a related resource hase been generated on API level, i.e. if a transaction status can be provided. Otherwise a related Message Code to be used in Error information would be sufficient.

Code	Name	ISO 20022 Definition and openAPI Remarks
AM04	InsufficientFunds	Amount of funds available to cover specified message amount is insufficient. Remark: Indicates that the reason for rejecting the payment is that the required funds have been found to be not available for the specific (e.g due to missing funds or due to configured limits) during processing after the initial acceptance of the payment initiation.
DS0C	SignerCertificateRevoked	The signer certificate is revoked. Remark: Is used, if the signature/corporate seal certificate is revoked.
DS0D	SignerCertificateNotValid	The signer certificate is not valid (revoked or not active). Remark: Is used, if the signature/corporate seal certificate is blocked by the ASPSP or if the certificate is expired.
DS0A	DataSignRequested	Data signature is required. Remark: Is used, if a signing by a corporate seal/certificate is mandated by the ASPSP but is missing.
DS04	OrderRejected	The order was rejected by the bank side (for reasons concerning content) Remark: Indicates that the reason for rejecting the payment is that the content of the payment initiation has been found invalid during processing after the initial acceptance of the payment initiation.
SL11	CreditorNotOnWhitelistOfDebtor	Whitelisting service offered by the Debtor Agent; Debtor has not included the Creditor on its "Whitelist" (yet). In the Whitelist the Debtor may list all allowed Creditors to debit Debtor bank account.

3.17 Transaction Status

The transaction status is filled with codes of the ISO 20022 data table:

Code	Name	ISO 20022 Definition
ACCC	AcceptedSettlementCompleted	Settlement on the creditor's account has been completed.
ACCP	AcceptedCustomerProfile	Preceding check of technical validation was successful. Customer profile check was also successful.

Code	Name	ISO 20022 Definition
ACSC	AcceptedSettlementCompleted	Settlement on the debtor's account has been completed. Usage: this can be used by the first agent to report to the debtor that the transaction has been completed. Warning: this status is provided for transaction status reasons, not for financial information. It can only be used after bilateral agreement
ACSP	AcceptedSettlementInProcess	All preceding checks such as technical validation and customer profile were successful and therefore the payment initiation has been accepted for execution.
ACTC	AcceptedTechnicalValidation	Authentication and syntactical and semantical validation are successful
ACWC	AcceptedWithChange	Instruction is accepted but a change will be made, such as date or remittance not sent.
ACWP	AcceptedWithoutPosting	Payment instruction included in the credit transfer is accepted without being posted to the creditor customer's account.
RCVD	Received	Payment initiation has been received by the receiving agent.
PDNG	Pending	Payment initiation or individual transaction included in the payment initiation is pending. Further checks and status update will be performed.
RJCT	Rejected	Payment initiation or individual transaction included in the payment initiation has been rejected.
CANC	Cancelled	Payment initiation has been cancelled before execution
ACFC	AcceptedFundsChecked	Pre-ceeding check of technical validation and customer profile was successful and an automatic funds check was positive.
PATC	PartiallyAcceptedTechnical Correct	The payment initiation needs multiple authentications, where some but not yet all have been performed. Syntactical and semantical validations are successful.
PART	PartiallyAccepted	A number of transactions have been accepted, whereas another number of transactions have not yet achieved 'accepted' status. Remark: This code may be used only in case of bulk payments. It is only used in a situation where all mandated authorisations have been applied, but some payments have been rejected.

3.18 Other ISO-related basic Types

The following codes and definitions are used from ISO 20022

• Account Identification Code: ExternalAccountIdentification1Code

- Address Type Code: AddressType2Code
- Bank Transaction Code: ExternalBankTransactionDomain1Code
- BBAN: BBANIdentifier
- BICFI: BICFIIdentifier
- Category Purpose Code: ExternalCategoryPurpose1Code
- Cash Account Type: ExternalCashAccountType1Code
- Clearing System Identification Code: ExternalClearingSystemIdentification1Co de
- Document Format Code: ExternalDocumentFormat1Code
- **Document Type Code**: ExternalDocumentType1Code
- Exchange Rate Type Code: ExchangeRateType1Code
- External Local Instrument Code: ExternalLocalInstrument1Code
- Financial Institution Code: ExternalFinancialInstitution1Code
- IBAN: IBAN2007Identifier
 - Pattern: [A-Z]{2}[0-9]{2}[A-Z0-9]{1-30}
- Instruction Code: Instruction3Code
- Language Code: Code following ISO 639-3 (three letter code)
- **LEI**: LEIIdentifier as defined n ISO 17442 "Financial Services Legal Entity Identifier (LEI)".
- Merchant Category Code: Category code conform to ISO 18245
- PersonIdentificationCode: ExternPersonIdentification1Code
- Phone Number: PhoneNumber
- Purpose Code: ExternalPurpose1Code
- Proxy Account Type Code: ExternalProxyAccountType1Code
- **Sequence Type Code**: SequenceType3Code
- Service Level Code: ExternalServiceLevel1Code

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The following code is a concatenated code from ISO20022

BankTransactionCode: This code type is concatenating the three ISO20022 Codes
Domain Code, Family Code and SubFamiliy Code by hyphens, resulting in
"DomainCode"-"FamilyCode"-"SubFamilyCode".

Example: PMNT-RCDT-ESCT defining a transaction assigned to the PayMeNT Domain (PMNT), belonging to the family of ReceivedCreDitTransfer (RCDT) that facilitated the EuropeanSEPACreditTransfer (ESCT)

For all codes used in JSON structures, not the abbreviation defined for XML encoding, but the name of the code is used as value.

The following Codes are used from other ISO standards:

- Currency Code: Codes following ISO 4217 Alpha 3
- Country Code: Two characters as defined by ISO 3166

Further basic ISO data types:

- ISODateTime: A particular point in the progression of time defined by a mandatory date and a mandatory time component, expressed in either UTC time format (YYYY-MM-DDThh:mm:ss.sssZ), local time with UTC offset format (YYYY-MM-DDThh:mm:ss.sss+/-hh:mm), or local time format (YYYY-MMDDThh:mm:ss.sss). These representations are defined in "XML Schema Part 2: Datatypes Second Edition W3C Recommendation 28 October 2004" which is aligned with ISO 8601.
- **ISODate**: A particular point in the progression of time in a calendar year expressed in the YYYY-MM-DD format.

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