Joint Initiative on a PSD2 Compliant XS2A Interface

NextGenPSD2 XS2A Framework

Domestic PIS and AIS Definitions

30 July 2020

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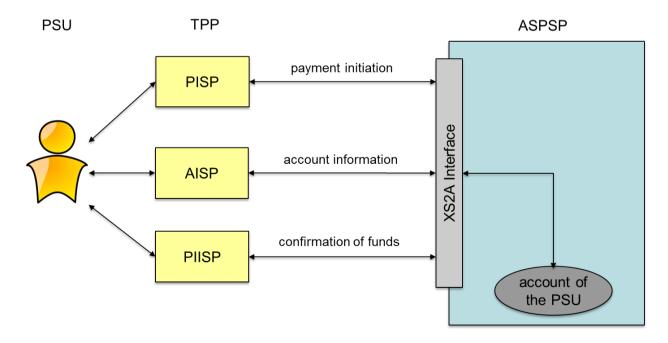
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1 Introduction

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.s

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]:

Further requirements on the implementation and usage of this interface are defined by a Regulatory Technical Standard (short RTS) from the European Banking Authority (short EBA), published in the Official Journal of the European Commission.

1.2 Domestic Payment and Account Information Definitions

The Implementation Guidelines of the NextGenPSD2 Interface define Core JSON structures for payment initiations. These core definitions on SEPA Credit Transfers, SEPA Instant Credit Transfers, Target-2 Payments and Cross-border Payments define formats which would work for all ASPSPs which offer the related payment products in JSON encoding in the XS2A interface. Communities of ASPSPs might liberalize the mandated field usage of attributes of the core definitions or extend them by the optional usage of more data attributes. In addition, endpoint formats for domestic payment products in JSON format might be defined on domestic level. These very specific requirements on domestic payment formats in some markets also lead to specific requirements on the AIS definitions, specifically transaction reporting in JSON, which are not (yet) covered by the overall data model. In addition, this document will cover definitions of domestic identification schemes for domestic payment formats.

In both cases, some communities have defined these extensions or domestic JSON payment formats. In additions, communities might use common specific XML formats for payments.

In addition, some communities have extended the JSON structures for transaction information within AIS. The reason is that in the related online banking systems more information is provided than supported by the core NextGenPSD2 API definitions or even by ISO20022.

This document contains all such information for several markets in Europe in an overview.

This information is independent of the Implementation Guideline Version. More detailed information might be found by community documentation. Community documentation where available is always assumed to be the normative reference.

Please note that some of the technical extensions defined in this document might be integrated by the core NextGenPSD2 API at a later stage.

1.3 Structure of the Document

Chapter 2 contains extensions of community defined extension of Core JSON payment formats or JSON formats for domestic payment products.

Chapter 3 contains references to XML schema definitions of several communities for payment initiations which can be used for XML based payment endpoints.

Chapter 4 describes extensions of the JSON based AIS functionality by communities for offering domestic payments' specifics or more information than supported today by the central NextGenPSD2 data model for AIS.

Chapter 5 contains structured data types common to the extended PIS and AIS functionality. Please note that these new data types are most likely be integrated into the core NextGenPSD2 data model in a future version of this specification.

1.4 Document History

Version	Change	Approved by
2019-03-29	Initial Version	NextGenPSD2 Taskforce
2019-07-05	Updated Version: Change on Format of creditorAgentName. Added a new payment type for the Norwegian Market	NextGenPSD2 Taskforce
2020-03-27	Updated Version Add specific Hungarian Payment Products for JSON and XML Add specific Danish AIS requirements Add a Section on commonly used structured data types	NextGenPSD2 Taskforce
2020-07-30	Updated Version Extended the introduction by explaining the need for AIS extensions and new structured data types Add specific Hungarian AIS definitions for JSON as a new section 4.3 Add a new section 2.4 on domestic payment formats for the Czeck market. Add a new section 4.1 on domestic AIS additions for the Czeck market.	NextGenPSD2 Taskforce 2020-07-30

2 JSON based Domestic Payment Products and Extensions of SCT

The ASPSPs of the communities named hereafter supporting the XS2A interface extend the permitted data elements for the SCT, SCT INST, Target2 Payments and Cross Border Credit Transfer core formats, as defined in [XS2A-IG] to the following extended format. The extended data elements are coloured.

2.1 Austria

Data Element	Type	SCT Core	SCT INST Core	Target2 Paym Core	Cross Border CT Core
endToEnd Identification	Max35Text	optional	optional	optional	optional
debtorAccount (incl. type)	Account Reference	mandatory	mandatory	mandatory	mandatory
debtorId	Max35Text	n.a.	n.a.	n.a.	n.a.
ultimateDebtor	Max70Text	optional	optional	n.a.	n.a.
instructedAmount (inc. Curr.)	Amount	mandatory	mandatory	mandatory	mandatory
currencyOfTransfer[2]	Currency Code	n.a.	n.a.	n.a.	optional
exchangeRateInformation	Payment Exchange Rate	n.a.	n.a.	n.a.	n.a.
creditorAccount	Account Reference	mandatory	mandatory	mandatory	optional
creditorAgent	BICFI	optional	optional	optional	conditional
creditorAgentName	Max140Text	n.a.	n.a.	n.a.	optional
creditorName	Max70Text	mandatory	mandatory	mandatory	mandatory
creditorId	Max35Text	optional	optional	n.a.	n.a.
creditorAddress	Address	optional	optional	optional	conditional
creditorNameAnd Address	Max140Text	n.a.	n.a.	n.a.	n.a.
ultimateCreditor	Max70Text	optional	optional	n.a.	n.a.
purposeCode	Purpose Code	optional	optional	n.a.	optional
chargeBearer	Charge Bearer	n.a.	n.a.	optional	conditional
serviceLevel	Service Level Code	n.a.	n.a.	n.a.	n.a.
remittanceInformation Unstructured	Max140Text	optional	optional	optional	optional
remittanceInformation UnstructuredArray	Array of Max140Text	n.a.	n.a.	n.a.	n.a.

[2] This is a data element to indicate a diverging interbank currency.

Data Element	Type	SCT Core	SCT INST Core	Target2 Paym Core	Cross Border CT Core
remittanceInformation Structured	Remittance	optional	optional	n.a.	n.a.
requestedExecution Date	ISODate	optional	optional	n.a.	optional
requestedExecution Time	ISODateTime	n.a.	optional	n.a.	n.a.

2.2 Bulgaria

Data Element	Type	domestic-budget-transfers-BGN	domestic-credit-transfers-BGN	sepa-credit-Transfers	Cross-border CT (non SEPA)
endToEndIdentification	Max35Text	optional	optional	optional	optional
debtorAccount (incl. type)	Account Reference	mandatory	mandatory	mandatory	mandatory
debtorId	Max35Text	n.a.	n.a.	n.a.	n.a.
ultimateDebtor	Max70Text	mandatory	n.a.	n.a.	n.a.
instructedAmount (inc. Curr.)	Amount	mandatory	mandatory	mandatory	mandatory
currencyOfTransfer	Currency Code	n.a.	n.a.	n.a.	n.a.
creditorAccount	Account Reference	mandatory	mandatory	mandatory	mandatory
creditorAgent	BICFI	optional	optional	optional	optional
creditorAgentName[3]	Max 140Text	n.a.	n.a.	n.a.	optional
creditorName	Max70Text	mandatory	mandatory	mandatory	mandatory
creditorId	Max35Text	n.a.	n.a.	n.a.	n.a.
creditorAddress	Address	optional	optional	optional	mandatory
ultimateCreditor	Max70Text	n.a.	n.a.	n.a.	n.a.
purposeCode	Purpose Code	mandatory	n.a.	n.a.	n.a.
chargeBearer	Charge Bearer Code	n.a.	n.a.	optional	conditional
serviceLevel	Service Level Code	optional	optional	optional	optional
remittanceInformationUnstructured	Max140Text	mandatory	mandatory	optional	optional
remittanceInformation UnstructuredArray	Array of Max140Text	n.a.	n.a.	n.a.	n.a.
remittanceInformationStructured	Remittance	n.a.	n.a.	n.a.	n.a.
requestedExecutionDate	ISODate	n.a.	n.a.	n.a.	n.a.
requestedExecutionTime	ISODateTime	n.a.	n.a.	n.a.	n.a.
budgetPaymentDetails	Budget Payment Details	mandatory	n.a.	n.a.	n.a.

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[3] There is the need also to transport address information for creditor agents in rare cases. The next version of this document will support a mechanism for this need.

The Budget Payment Details will not be considered further in this document. This attribute is specified by the Bulgarian community.

2.3 Croatia

Data Element	Type	sepa-credit-transfers	target-2-payments	cross-border-credit-transfers	domestic-credit-transfers-hr	instant-domestic-credit-transfers-hr	hr-rtgs-payments
endToEndIdentification	Max35Text	optional[1]	optional	optional	optional[1]	optional[1]	optional
debtorAccount (incl. type)	Account Reference	mandatory	mandatory	mandatory	mandatory	mandatory	mandatory
debtorId	Max 35Text	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ultimateDebtor	Max70Text	optional	n.a.	n.a.	optional	optional	n.a.
instructedAmount (inc. Curr.)	Amount	mandatory	mandatory	mandatory	mandatory	mandatory	mandatory
currencyOfTransfer	Currency Code	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
exchangeRateInformation	Payment Exchange Rate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
creditorAccount	Account Reference	mandatory	mandatory	mandatory	mandatory	mandatory	mandatory
creditorAgent[6]	BICFI	optional	optional	conditional	n.a.	n.a.	n.a.
creditorAgentName[6]	Max140Text	n.a.	n.a.	optional	n.a.	n.a.	n.a.
creditorName	Max70Text	mandatory	mandatory	mandatory	mandatory	mandatory	mandatory
creditorId	Max 35Text	n.a	n.a.	n.a.	n.a.	n.a.	n.a.
creditorAddress[6]	Address	optional	optional	conditional	optional	optional	optional
creditorNameAnd Address	Max140Text	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ultimateCreditor	Max70Text	optional	n.a.	n.a.	optional	optional	n.a.
purposeCode	Purpose Code	optional	n.a.	n.a.	optional	optional	optional
chargeBearer[6]	Charge Bearer	n.a.	optional[4]	conditional[4]	n.a.	n.a.	n.a.
serviceLevel	Service Level Code	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Data Element	Type	sepa-credit-transfers	target-2-payments	cross-border-credit-transfers	domestic-credit-transfers-hr	instant-domestic-credit-transfers-hr	hr-rtgs-payments
remittanceInformationUnstructured	Max140Text	optional	optional	optional	mandatory	mandatory	mandatory
remittanceInformationUnstructured Array	Array of Max140Text	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
remittanceInformationStructured	Remittance	optional[2]	n.a.	n.a.	optional[2]	optional[2]	optional
requestedExecutionDate	ISODate	optional	optional	optional	optional	optional	optional
requestedExecutionTime	ISODateTime	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

[1] Debtor's reference; if ommited, for domestic payments (inside Croatia) default is HR99

[2] Creditor's reference; if ommited, for domestic payments (inside Croatia) default is HR99[3]

[4] If ommited, for payments inside EEA default is SHA

[6] Creditor agent BIC or creditor agent name, charge bearer and creditor address are mandatory for cross-border payments if creditor agent is outside EEA

2.4 Czech Republic

The following payment product definitions are supported at least by UniCredit for the Czech Republic market.

Data Element	Type	SCT EU Core	SCT INST EU Core	Target2 Paym. Core	Cross Border CT Core	Domestic credit transfers CZ
endToEndIdentification	Max35Text	o	o	o	n.a.	c
instructionIdentification	Max35Text	n.a.	n.a.	n.a.	n.a.	c
debtorAccount (incl. type)	Account Reference	m	m	m	m	m
debtorId	Max35Text	n.a.	n.a.	n.a.	n.a.	n.a.
ultimateDebtor	Max70Text	n.a.	n.a.	n.a.	n.a.	n.a.
instructedAmount (incl. Currency.)	Amount	m	m	m	m	m
currencyOfTransfer	Currency Code	n.a.	n.a.	n.a.	n.a.	n.a.
exchangeRateInformation	Payment Exchange Rate	n.a.	n.a.	n.a.	n.a.	n.a.
creditorAccount	Account Reference	m	m	m	m	m
creditorAgent	BICFI	o	o	o	c	n.a.
creditorAgentName	Max105Text	n.a.	n.a.	n.a.	n.a.	n.a.
creditorName	Max70Text	m	m	m	m	n.a.
creditorId	Max35Text	n.a.	n.a.	n.a.	n.a.	n.a.
creditorAddress	Address	o	o	o	c	n.a.
creditorNameAndAddress	Max140Text	n.a.	n.a.	n.a.	n.a.	n.a.
ultimateCreditor	Max70Text	n.a.	n.a.	n.a.	n.a.	n.a.
purposeCode	Purpose Code	n.a.	n.a.	n.a.	n.a.	n.a.
chargeBearer	Charge Bearer	n.a.	n.a.	o	c	n.a.
serviceLevel	Service Level Code	n.a.	n.a.	n.a.	n.a.	n.a.
remittanceInformationUnstructured	Max140Text	o	o	o	o	o
remittanceInformationUnstructured Array	Array of Max140Text	n.a.	n.a.	n.a.	n.a.	n.a.
remittanceInformationStructured	Remittance	n.a.	n.a.	n.a.	n.a.	n.a.
remittanceInformationStructured Array	Array of Remittance	n.a.	n.a.	n.a.	n.a.	o
requestedExecutionDate	ISODate	n.a.	n.a.	n.a.	n.a.	n.a.
requestedExecutionTime	ISODateTime	n.a.	n.a.	n.a.	n.a.	n.a.
instructionPriority	Priority Code	n.a.	n.a.	n.a.	n.a.	o

2.4.1 Priority Code (analogy to Priority3Code in ISO)

Type	Description
NORM	Standard payment with normal priority (D+1)
HIGH	Standard payment with high priority (D+0)
URGT	Urgent Payment (Instant Payment)

2.4.2 Substructure for Remittance Type

Attribute	Type	Condition	Description
reference	Max35Text	Mandatory	The actual reference.
referenceType	Max35Text	Mandatory	The only permitted entries are variableCode, specificCode, constantCode
referenceIssuer	Max35Text	Optional	

2.5 Denmark

Data Element	Type	danish-domestic-credit-transfers	instant-danish-domestic-credit-transfers-	intraday-danish-domestic-credit-transfers
endToEndIdentification	Max35Text	optional	optional	optional
debtorAccount (incl. type)	Account Reference	mandatory	mandatory	mandatory
debtorId	Max 35Text	optional	optional	optional
ultimateDebtor	Max70Text	optional	optional	optional
instructedAmount (inc. Curr.)	Amount	mandatory	mandatory	mandatory
currencyOfTransfer4	Currency Code	n.a.	n.a.	n.a.
exchangeRateInformation	Payment Exchange Rate	n.a.	n.a.	n.a.
creditorAccount	Account Reference	mandatory	mandatory	mandatory
creditorId	Max 35Text	optional	optional	optional
creditorAgent	BICFI	optional	optional	optional
creditorAgentName	Max140Text	n.a.	n.a.	n.a.
creditorName	Max70Text	Optional	Optional	Optional
creditorAddress	Address	optional	optional	optional
creditorNameAnd Address	Max140Text	n.a.	n.a.	n.a.
ultimateCreditor	Max70Text	optional	optional	optional
purposeCode	Purpose Code	optional	optional	optional
remittanceInformationUnstructured	Max140Text	n.a.	n.a.	n.a.
remittanceInformationUnstructured Array	Array of Max140Text	optional	optional	optional
remittanceInformationStructured	Remittance	optional	optional	optional
requestedExecutionDate	ISODate	Mandatory	n.a.	n.a.
requestedExecutionTime	ISODateTime	n.a.	n.a.	n.a

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[4] This is a data element to indicate a diverging interbank transaction currency.

2.6 Hungary

The following payment product definitions are supported at least by RBI, Unicredit and Erste Group for the Hungarian market.

Data Element	Type	SCT Core	SCT INST Core	HCT Core	HCT Inst	Target2 Paym Core	Cross Border CT Core
endToEnd Identification	Max35Text	optional	optional	optional	optional	optional	optional
debtorAccount (incl. type)	Account Reference	mandatory	mandatory	mandatory	mandatory	mandatory	mandatory
debtorIdentification	Party Identification	n.a.	n.a.	optional	optional	n.a.	n.a.
ultimateDebtor	Max70Text	optional	optional	optional	optional	n.a.	n.a.
ultimateDebtorIdentification	Party Identification	n.a.	n.a.	optional	optional	n.a.	n.a.
instructedAmount (inc. Curr.)	Amount	mandatory	mandatory	mandatory	mandatory	mandatory	mandatory
currencyOfTransfer[2]	Currency Code	n.a.	n.a.	n.a.	n.a.	n.a.	optional
exchangeRateInformation	Payment Exchange Rate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
creditorAccount	Account Reference	mandatory	mandatory	mandatory	mandatory	mandatory	optional
creditorAgent	BICFI	optional	optional	n.a.	n.a.	optional	conditional
creditorAgentName	Max70Text	n.a.	n.a.	n.a.	n.a.	n.a.	optional
creditorName	Max70Text	mandatory	mandatory	mandatory	conditional	mandatory	mandatory
creditorId	Max35Text	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
creditorIdentification	Party Identification	Optional	Optional	Optional	Optional	n.a.	n.a.
creditorAddress	Address	optional	optional	n.a.	n.a.	optional	conditional

Data Element	Type	SCT Core	SCT INST Core	HCT Core	HCT Inst	Target2 Paym Core	Cross Border CT Core
creditorNameAnd Address	Max140Text	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ultimateCreditor	Max70Text	optional	optional	optional	optional	n.a.	n.a.
ultimateCreditorIdentificati on	Party Identification	n.a.	n.a.	optional	optional	n.a.	n.a.
purposeCode	Purpose Code	optional	optional	optional	optional	n.a.	optional
chargeBearer	Charge Bearer	n.a.	n.a.	n.a.	n.a.	optional	conditional
serviceLevel	Service Level Code	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
remittanceInformation Unstructured	Max140Text	optional	optional	optional	optional	optional	optional
remittanceInformation UnstructuredArray	Array of Max140Text	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
remittanceInformation Structured	Remittance	optional	optional	optional	optional	n.a.	n.a.
requestedExecution Date	ISODate	optional	optional	optional	n.a.	n.a.	optional
requestedExecution Time	ISODateTim e	n.a.	optional	n.a.	n.a.	n.a.	n.a.
categoryPurpose	Category Purpose Code	n.a.	n.a.	optional	optional	n.a.	n.a.
categoryPurposeProprietar y	Max35Text	n.a.	n.a.	Optional	Optional	n.a.	n.a.
regulatoryReporting	Array of Regulatory Reporting	n.a.	n.a.	n.a.	optional		

Additional notes:

- All defined data elements are expected to be available also in bulk and periodic payments. Bulk payments might be offered in XML structure instead, cp. Section 3.2.

Identification Elements:

The following extended identification elements have been added specifically for the domestic Hungarian payment methods:

creditorIdentification, ultimateCreditorIdentifcation, debtorIdentification, ultimateDebtorIdentification to support the need to transport more information about the related parties. For a detailed type specification please compare Section 5 of this document.

The short attribute creditorId for the SEPA payment is also still addressable for downward compatibility for SEPA payment instruments.

Extended Account Reference

For the domestic Hungarian payment products, the account reference type is extended by an "other" structure, cp. Section 5 of this document. ASPSP will document which proprietary aliases they will support.

Regulatory Reporting Array

The array contains at least one, but no more than ten (to avoid overloading) element of Regulatory Reporting. The array shall not contain duplicate detailsCode.

Regulatory Reporting Data Type

Countries may require the TPPs to attach additional data about the transfer order. The regulatory reporting allows this data to appear in an extensible type and value format. ASPSPs must ensure that TPPs could attach any identifier type (and the connected value), but only required to handle the ones, that their local regulation requires.

Data Element	Type	SCT Core	SCT INST Core	**HCT Core**	**HCT Inst**	Target2 Paym Core	Cross Border CT Core
detailsCode	Max35Text	n.a.	n.a.	n.a.	mandatory	n.a.	n.a.
detailsInformation	Max35Text	n.a.	n.a.	n.a.	mandatory	n.a.	n.a.

detailsCode: defines the type of information provided in the detailsInformation attribute. Predefined values are:

- merchantDeviceId
- shopId
- invoiceId
- customerId
- credTranId
- loyaltyId
- navCheckId

detailsInformation: any data in connection to the type defined in detailsCode. ASPSPs should document any formatting rules to meet. Rules may depend on the detailsCode value.

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2.7 Netherlands

Data Element	Type	SCT EU Core	SCT INST EU Core	Target2 Paym. Core	Cross Border CT Core
endToEnd Identification	Max35Text	optional	optional	optional	n.a.
debtorAccount (incl. type)	Account Reference	optional	optional	optional	optional
debtorId	Max35Text	n.a.	n.a.	n.a.	n.a.
ultimateDebtor	Max70Text	n.a.	n.a.	n.a.	n.a.
instructedAmount (inc. Curr.)	Amount	mandatory	mandatory	mandatory	mandatory
currencyOfTransfer	Currency Code	n.a.	n.a.	n.a.	n.a.
exchangeRateInformation	Payment Exchange Rate	n.a.	n.a.	n.a.	n.a.
creditorAccount	Account Reference	mandatory	mandatory	mandatory	mandatory
creditorAgent	BICFI	optional	optional	optional	conditional
creditorAgentName	Max140Text	n.a.	n.a.	n.a.	n.a.
creditorName	Max70Text	mandatory	mandatory	mandatory	mandatory
creditorId	Max35Text	n.a.	n.a.	n.a.	n.a.
creditorAddress	Address	optional	optional	optional	conditional
creditorNameAnd Address	Max140Text	n.a.	n.a.	n.a.	n.a.
ultimateCreditor	Max70Text	n.a.	n.a.	n.a.	n.a.
purposeCode	Purpose Code	n.a.	n.a.	n.a.	n.a.
chargeBearer	Charge Bearer	n.a.	n.a.	optional	conditional
serviceLevel	Service Level Code	n.a.	n.a.	n.a.	n.a.
remittance Information Unstructured	Max140Text	optional	optional	optional	optional
remittance Information Unstructured Array	Array of Max140Text	n.a.	n.a.	n.a.	n.a.
remittance Information Structured	Remittance	n.a.	n.a.	n.a.	n.a.
requestedExecution Date	ISODate	n.a.	n.a.	n.a.	n.a.
requestedExecution Time	ISODateTime	n.a.	n.a.	n.a.	n.a.

2.8 Norway

Data Element	Type	norwegian-domestic-credit-transfers	instant-norwegian-domestic-credit-transfers-straks	instant-norwegian-domestic-credit-transfers (FUTURE)	Norwegian-domestic-payment-to-self
endToEndIdentification	Max35Text	n.a.	n.a.	n.a.	optional
debtorAccount	Account Reference	mandatory	mandatory	mandatory	mandatory
ultimateDebtor	Max70Text	optional	optional	optional	n.a.
instructedAmount	Amount	mandatory	mandatory	mandatory	n.a.
creditorAccount	Account Reference	mandatory	mandatory	mandatory	mandatory
creditorAgent	BICFI	optional	optional	optional	n.a.
creditorName	Max70Text	mandatory	mandatory	mandatory	mandatory
creditorAddress	Address	optional	optional	optional	n.a
ultimateCreditor	Max70Text	optional	optional	optional	n.a.
purposeCode	Purpose Code	optional	optional	optional	optional
remittanceInformation Unstructured	Max140Text	optional	optional	optional	n.a.
Remittance Information Structured	Remittance	optional	optional	optional	n.a
requestedExecution Date	ISODate	Optional	n.a.	n.a.	n.a.
requestedExecution Time	ISODate Time	n.a.	n.a.	optional	n.a.

3 XML based Community Wide Definitions

3.1 Croatia

For bulk-payments Croatia will only support pain.001 XML format according to Croatian national schema, which is already defined and in use, as described on national SEPA portal (http://www.sepa.hr/upute-za-korisnike/shema-za-sepa-kreditni-transfer/), with XSD schema published here:

http://www.sepa.hr/wp-content/uploads/2015/06/sepa.hr_.pain_.001.001.03_07052015_xsd.rar.

Since Croatian schema assumes that one bulk can consist of different payment products (both SEPA and domestic and cross-border), there is no need for different payment products on bulk payments service, and Croatian banks will expose only one endpoint:

/bulk-payments/pain001-credit-transfers-hr.

3.2 Hungary

For bulk payments, some Hungarian banks will only accept XML formats. The XML formats for the Hungarian community are published on:

https://www.giro.hu/letoltes/hct-xml-atutalasi-megbizas-szabvanyalkalmazasi-utmutatoja-v1-2

The XSDs can be found under:

https://www.giro.hu/letoltes/hct-xml-atutalasi-megbizas-sema-definicio-fajl-v1-3

4 Domestic AIS Functionality

4.1 Czech Republic

The following transaction definitions are supported at least by UniCredit for the Czech Republic market:

The element

remittanceInformationStructuredArray

is substructured as array of type Remittance as described for payment initiation in Section 2.4.2.

4.2 Denmark

The following additional elements will be supported by transaction reports by Danish banks (cp. Yellow marks)

Attribute	Type	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 as defined in Section **Fehler! Verweisquelle konnte nicht gefunden werden.**
entryReference	Max35Text	Optional	Is the identification of the transaction as used e.g. for reference for deltafunction on application level. The same identification as for example used within camt.05x messages.
endToEndId	Max35Text	Optional	Unique end to end identity.
accountServicer Reference	Max35Text	Optional	Identification provided by the ASPSP.
localInstrumentCode	Local Instrument Code	Optional	ExternalLocalInstrument1Code

Attribute	Type	Condition	Description
localInstrument Proprietary	Max35Text	Optional	
mandateId	Max35Text	Optional	Identification of Mandates, e.g. a SEPA Mandate ID
checkId	Max35Text	Optional	Identification of a Cheque
creditorId	Max35Text	Optional	Identification of Creditors, e.g. a SEPA Creditor ID
creditorIdentification	Party Identification	Optional	Structured identification of creditors
bookingDate	ISODate	Optional	The Date when an entry is posted to an account on the ASPSPs books.
valueDate	ISODate	Optional	The Date at which assets become available to the account owner in case of a credit
transactionAmount	Amount	Mandatory	The amount of the transaction as billed to the account.
currencyExchange	Array of Report Exchange Rate	Optional	
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	Optional	Card transaction details in case of an underlying card transaction.
creditorName	Max70Text	Optional	Name of the creditor if a "Debited" transaction

Attribute	Type	Condition	Description
creditorAddress	Address	Optional	
creditor Account	Account Reference	Conditional	Please note, that the extended reference as indicated in Section 5 is supported for the Danish Market. This type is also supporting a creditorAccount name sub-attribute.
creditorAgent	BICFI	Optional	
crediorAgent Proprietary	Max35Text	Optional	Will be used to transport the domestic bank code in Denmark. Remark For Future: Will be reviewed for the next version.
ultimate Creditor	Max70Text	Optional	
ultimateCreditor Address	Address	Optional	
debtorName	Max70Text	Optional	Name of the debtor if a "Credited" transaction
debtorIdentification	Party Identification	Optional	Structured identification of a debtor
debtorAccount	Account Reference	Conditional	Please note, that the extended reference as indicated in Section 5 is supported for the Danish Market. This type is also supporting a creditorAccount name sub-attribute.
debtorAgent	BICFI	Optional	
ultimateDebtor	Max70Text	Optional	
remittance Information Unstructured	Max140Text	Optional	
remittance Information	Array of Max140Text	Optional	**Remark for Future:**

Attribute	Type	Condition	Description
Unstructured Array			In version 2.0 these two unstructured remittance fields might be merged.
remittance Information Structured	Max140Text	Optional	Reference as contained in the structured remittance reference structure (without the surrounding XML structure). **Remark For Future**: This field will be re-typed in a future version of the interface to the structured data type Remittance or might be omitted. For migration reasons, this is not supported in version 1.3.x.
remittance Information Structured Array	Array of Remittance	Optional	**NOTE**: More details about the Remittance Data Type will be published in an Errata in due course. For usage of the fields e.g. for domestic elements, Berlin Group should be contacted. This would enable to publish usage of structured remittance information in the domestic payment documentation, cp. **Fehler! Verweisquelle konnte nicht gefunden werden.**.
additionalInformation	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.
additionalTransaction informationStructured	Structured Additional Transaction Information	Optional	Data about the transactional process of submission, authorisation and/or cancellation of the underlying payment.

Attribute	Type	Condition	Description
purposeCode	Purpose Code	Optional	
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
proprietaryBank TransactionCode	Max35Text	Optional	proprietary bank transaction code as used within a community or within an ASPSP e.g. for MT94x based transaction reports
balanceAfter Transaction	Balance	Optional	This is the balance after this transaction. Recommended balance type is interimBooked.
_links	Links	Optional	The following links could be used here: transactionDetails for retrieving details of a transaction.

Note: The following "schemeNameProprietary" entries are supported for the Danish market:

-   Account Reference Type "other" : "Danish Slip"

-   Organisation Identification Type "other": "Danish BS Debtor Group"

-   Private Identification Type "other": "Danish Easy Account"

Example 1:

```
"creditorAccount":
   {
   "other":
      {
      "schemeNameProprietary" : "Danish Slip",
      "identification" : "71123456789012345612345678"
       }
   }
```

Example 2

```
"creditorIdentification":
   {
   "privateId" :
      {
      "others" :
        [{
          "schemeNameProprietary": "Danish Easy Account",
          "identification": "cvr12345678"
        }]
      }
   }
```

Type Amount Details

Attribute	Type	Condition	Description
instructedAmount	Amount and Exchange Details		
transactionAmount	Amount and Exchange Details		

Example:

```
"amountDetails":
   {
   "instructedAmount" :
      {
      "currency": "EUR",
      "amount": "123.50"
      "sourceCurrency": "DKK",
      "targetCurrency": "EUR",
      "exchangeRate": "7.47",
      },
   "transactionAmount" :
      {
      "currency": "EUR",
      "amount": "16.53"
      "sourceCurrency": "DKK",
      "targetCurrency": "EUR",
      "exchangeRate": "7.60",
      }
    }
```

Amount and Exchange Details Type

Attribute	Type	Condition	Description
amount	Amount	Mandatory	
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.

Attribute	Type	Condition	Description
quotationDate	ISODate	Mandatory	Date at which an exchange rate is quoted.
contractIdentification	String	Optional	Unique identification to unambiguously identify the foreign exchange contract.

Creditor Reference TypeAttribute	Type	Condition	Description
reference	Max35Text	Mandatory	
referenceType	Max35Text	Optional	
referenceIssuer	Max35Text	Optional	

Card Transaction Type

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

Card Type

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

Card Transaction Details Type

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

Payment Context Type

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

Additional Transaction Information

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

User Entry

Attribute	Type	Condition	Description
user	Max70Text	Mandatory	
dateTime	ISODateTime	Mandatory	

Example:

```
{ "additionalTransactionInformation" :
  {
  "transactionStatus" : "CANC" ,
  "transactionCreated" :
      {
      "user" : "Michael Firstguy",
      "dateTime" : "2017-10-25T15:30:35.035Z "
      },
  "transactionAuthorized":
      [{
      "user" : "Allan Danishperson",
      "dateTime" : "2017-10-25T16:30:00.000Z "
      },
      {
      "user" : "Michael Danishguy",
      "dateTime" : "2017-10-25T16:50:00.000Z "
      }],
   "transactionCancelled"
      [{
      "user" : "Michael Danishguy",
      "dateTime" : "2017-10-25T19:00:00.000Z "
      }]
   }
}
```

Card Data Entry Mode

ISO20022 Code: CardsDataReading1Code

A list of the existing codes is

- CICC: EMV based
- ECTL: EMV based contactless

- MGST: Magnetic Stripe
- PHYS: Manual Entry
- BRCD: Barcode

4.3 Hungary

The following AIS definitions are supported at least by RBI, Unicredit and Erste Group for the Hungarian market.

Extended Account Reference

For the domestic Hungarian payment products, the account reference type is extended by an "other" structure, cp. Section 5 of this document. ASPSP will document which proprietary aliases they will support.

5 Common Structured Data Types

The following data types are used by several communities for payment initiation and/or account information.

Remark for Future: Some of these types are planned to be recognized in the next major release of the Implementation Guideline. This is still under review.

Party Identification Type

Attribute	Type	Condition	Description
organisationId	Organisation Identification Type	Optional	An entry provided by an external ISO code list
privateId	Private Identification Type	Optional	A scheme name defined in a proprietary way.

Note: Only one of the entries is allowed.

Organisation Identification Type

Attribute	Type	Condition	Description
others	Array of Other Type	Optional	

Note: Further attributes like anyBIC might be opened up in a later version.

Private Identification Type

Attribute	Type	Condition	Description
others	Array of Other Type	Mandatory	

Other Type

Attribute	Type	Condition	Description
identification	Max35Text	Mandatory	

Attribute	Type	Condition	Description
schemeName Code	Code	Optional	An entry provided by an external ISO code list
schemeName Proprietary	Max35Text	Optional	A scheme name defined in a proprietary way.
issuer	Max35Text	Optional	Issuer of the identification

Example:

„creditorIdentification" :

      {„organisationId":

            {„others": [

                  {„identification": „example1"}

            ]}

      }

Extended Account Reference

The account reference type is extended by the field marked in yellow.

Attribute	Type	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.

Attribute	Type	Condition	Description
msisdn	Max35Text	Conditional	An alias to access a payment account via a registered mobile phone number.
other	Other Type	Conditional	An alias with a proprietary coding
currency	Currency Code	Optional	ISO 4217 Alpha 3 currency code
name	Max70Text	Optional	Name of the account

6 References

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

[XS2A-IG]   NextGenPSD2 XS2A Framework, Implementation Guidelines, The Berlin Group Joint Initiative on a PSD2 Compliant XS2A Interface, version 1.3.6, published 3rd February 2020

[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