



openFinance API Framework
Implementation Guidelines for Extended Services

Extended Payment Initiation Services

Version 1.0

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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 planned to be extended to extended services. 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:

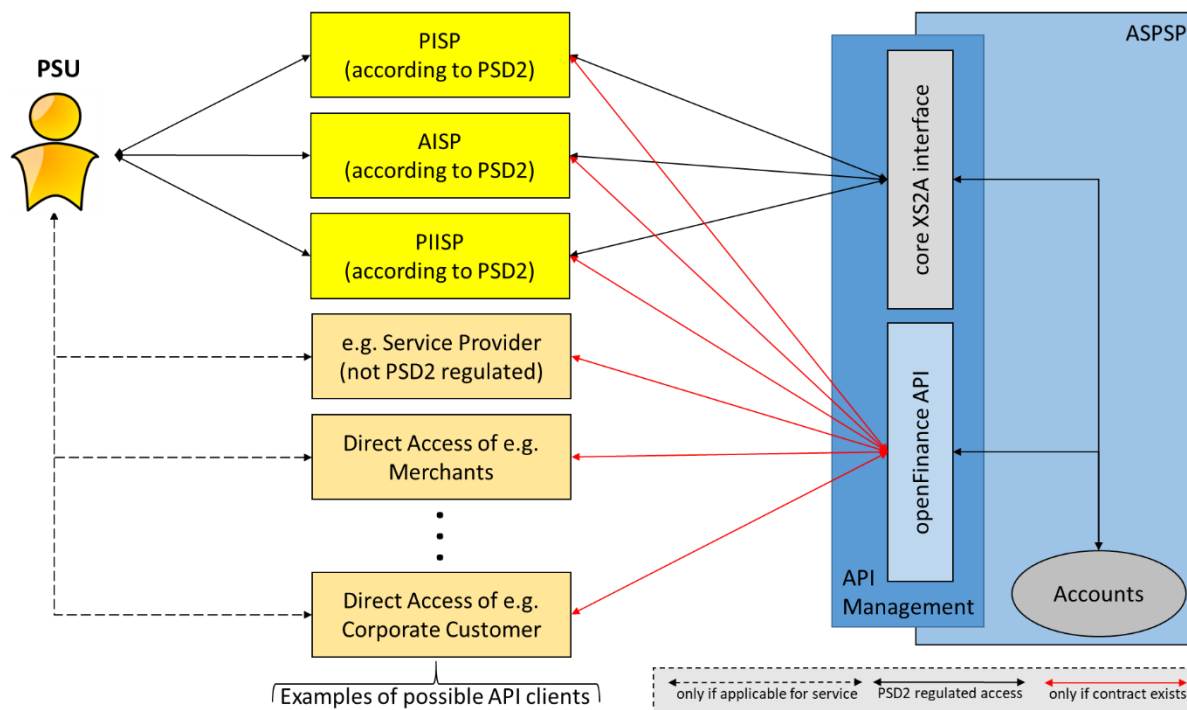


Figure 1: Core XS2A interface and openFinance API

The ASPSP may restrict the access to the services offered at its openFinance API and require dedicated onboarding. The requirements for the rights to access to services offered at the openFinance API are out of scope of this document. These requirements are described in a dedicated operational rules document [oFA-OR-ADM].

1.2 Extended Payment Initiation Services

The core XS2A Interface as introduced above is already supporting Payment Initiation Services (PIS) for several products like single payments, bulk payments as well as standing orders. These services follow the sole functionality of online channels of the related ASPSP: After authorisation of the payment by the PSU, the payment is either directly initiated (single or bulk payment) or at a dedicated execution date/date and time. For all payments, the decision of execution is taken at a pre-defined time and will depend a.o. on the limits and current balances of PSUs, respectively the balances at the time of execution. The limits are terms of the ASPSP's risk management.

For the envisaged Extended Services, the payment **initiation** function of the openFinance API will go beyond the ASPSP online channels functionality. But still, the payment as such will be a payment between the PSU and the defined creditor under the payment scheme addressed in the payment initiation, e.g. a SEPA Credit Transfer. All rules of the related payment scheme will apply once the payment is executed.

The specific function in the Extended Payment Initiation Services is to make the **initiation phase** more flexible, i.e.

- separate authorisation and actual initiation processes as well as
- unbundle risk management functionality from the actual payment initiation, but already apply e.g. limit and balance checks during the authorisation and hence
- potentially secure the future payment initiation in addition.

To enable this, the ASPSP needs to keep the result of the risk management processes during authorisation in mind – this is done e.g. via a reservation of the related funds at the related account or by taking into account credit limits of the PSU. This will ensure that the related funds are not available anymore for other payment initiations e.g. for other payments like other PIS, cards or in ASPSP online channels, if requested accordingly by the TPP. Commercial contracts between the TPP and the ASPSP (either bilaterally or multilaterally agreed via an API access scheme) could alternatively provide a bank guarantee for the authorised payments if applicable.

The flexible initiation phase will make it easy for the PISP to offer from their side products to the market like deferred payments (as needed e.g. for "e-commerce payments by delivery"), payment guarantee or partial payments. Payment functionalities where any sort of risk measures is applied supporting the future payment execution are called "secured payments" in this document. The ASPSP may communicate the actual chosen securing measure to the TPP in the response to the first call of a transaction towards the openFinance API for secured payments.

In addition, the same services with flexible authorisation and initiation processes will be offered without dedicated reservation of funds as basic services. These basic services might be important e.g. in a corporate context where payment authorisation and payment initiation might diverge more in the timeline, such that a reservation of funds would not easily be applicable. Such extended payment functions will be referred to as "not secured payments" in this document.

The same extended service will also apply to recurring payments. The Extended Payment Initiation Services will support a variant, where the PSU is only authorising a maximum amount per dedicated period. The PISP will then initiate the payment just before the recurring execution date with the actual amount which might be less. This version of the API specification is concentrating on push variants, where a credit transfer is initiated via the openFinance API. Pull variants, where the client is pulling the related amounts through pull payment decoupled from the openFinance API might be covered in later versions of the API specification.

RFU: The Extended Payment Initiation Services will offer in the first version only the extended payment initiation services as such. In a second phase, these payments could in addition support the delivery of documents related to the payment to the PSU via the ASPSP. This could be related receipts, invoices or contractual documents. Sections where this has a potential future impact in this document are marked by RFU (Remark on Future Usage) to make these plans transparent to the market.



1.3 Document Structure

This document specifies the Extended Payment Initiation Services in detail.

Section 2 and Section 3 give generic information on character sets and the transportation layer. Section 4 is providing specific, but still abstract information on the application layer of this service like service API access methods or service specific error codes.

Section 5 defines the API for Extended Payment Initiation Services in detail. Section 6 then provides the dedicated complex data types needed for this service which are not yet defined in [oFA-PDM-V2].

1.4 Document History

Version	Change/Note	Approved
0.9	Draft for Market Consultation	2022-01-19 by openFinance TF
1.0	<p>Feedback from Market Consultation;</p> <p>Editorial review and addition of process diagrams in Section 5.1.</p> <p>Added transaction status reason codes in several sections.</p> <p>Added a new access method for retrieving initiations in Section 5.11</p>	2022-04-29 openFinance TF



2 Character Sets and Notations

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

2.1 Additional Notations

As an extension of the notations in Chapter 3 in [XS2A-IG], the following conditions may be used. The additional conditions apply to both, requests from the client to the server as well as responses from the server to the client:

Attribute	Type	Condition	Description
		{Or	
		Or	
		Or}	
		{Or – Optional	
		Or – Optional	
		Or – Optional}	

- {Or: The **first** element in a sequence of elements of which **exactly one** has to be included.
- Or: An element in a sequence of elements of which **exactly one** has to be included. The element is **neither the first nor the last** within this sequence.
- Or}: The **last** element in a sequence of elements of which **exactly one** has to be included.
- {Or – Optional: The **first** element in a sequence of elements of which **at most one** may be included.
- Or – Optional: An element in a sequence of elements of which **at most one** may be included. The element is **neither the first nor the last** within this sequence.
- Or – Optional}: The **last** element in a sequence of elements of which **at most one** may be included.

3 Transport Layer

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

4 Application Layer: Guiding Principles

4.1 Signing Messages at Application Layer

The same conditions on signing messages by the TPP as defined in [XS2A-IG] apply to the extended payment initiation process, cp. Section 5.

4.2 Additional Error Information

The Extended Payment Initiation Service does not support dedicated error codes more than offered in [XS2A-IG].

NOTE: Please note that the error information will be adapted when introducing openFinance services, i.e. with the V2 family of the API: Banking related errors in payment processing (like not sufficient liquidity) is in future transported via the transaction status reason code, not necessarily via additional error information. The following codes are used for the related errors:

Status Reason Code	Description	Usage
SL11	CreditorNotOnWhitelistOfDebtor	BENEFICIARY_WHITELISTING_REQUIRED Indicates that in order to execute the payment, the PSU needs to explicitly add the beneficiary to a credit transfer whitelist via a banking channel.
AM04	InsufficientFunds	FUNDS_NOT_AVAILABLE Indicates that the reason for rejecting the payment is that the required funds have been found to be not available during processing after the initial acceptance of the payment initiation.
AM21	LimitExceeded	FUNDS_NOT_AVAILABLE Indicates that the reason for rejecting the payment is that the limits for executing the payment are identified as exceeded during processing after the initial acceptance of the payment initiation.
BEXX	There are several codes identifying specific invalid data.	CONTENT_INVALID 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.

Other errors might still be communicated via dedicated error codes or alternatively/additionally by corresponding status reason codes.

4.3 API Access Methods

The following table gives an overview on the HTTP access methods supported by the API endpoints for the Push Account Entry Service.

Conditions in the following tables

Whether the support of a method is mandated for the ASPSP by this specification or whether is an optional feature for the ASPSP, is denoted in column "Condition". Please note that this condition is given relative to the parent node of the path, i.e. the condition e.g. on a method on `/v2/{extended-payments}/{payment-product}/{paymentId}` applies only if the endpoint `/v2/{extended-payments}/{payment-product}` is supported at all.

Please note that all methods called by an API Client, which are addressing dynamically created resources in this API, may only apply to resources, which have been created by the same API Client before.

Examples

Please note also, that the Description's column contains a reference to a section where the endpoint is described in more detail. These sections provide examples for all related access methods.

The table entries which are referring to the authorisation processes already established within the core implementation guidelines (cp. [XS2A-IG]) are marked in **green colour**. The `{extended-payment-services}` is referring to the service types XFPIS, XDPIIS, XDPIIS, XMDPIIS, XMDPIIS, XMDPIIS, XRPIS and XRPIS as defined in [oFA-OR-EPIS] and the related seven² endpoint instances

- secured-payments for XFPIS,
- deferred-payments for XDPIIS,
- secured-deferred-payments for XDPIIS,
- multiple-deferred-payments for XMDPIIS,
- secured-multiple-deferred-payments for XMDPIIS,
- recurring-payments for XRPIS and
- secured-recurring-payments for XRPIS.

Please note that the "F" within the codes above indicates "funds reservation". The other methods introduced in [oFA-OR-EPIS] are to be defined within the further standardisation work for extended payment initiation services.

² Please note that the Operational Rules only defined 6 types. In between it was decided that secured payments as such are defined as a separated service.

Endpoints/Resources	Method	Condition	Description
{extended-payment-services}/{payment-product}	POST	Mandatory	<p>Create an extended payment resource addressable under {paymentId} with all data relevant for</p> <ul style="list-style-type: none"> • the corresponding requested execution information • and the underlying payment product. <p>This is the first step in the API to initiate the related extended payment initiation service.</p> <p>See Section 5.3 for secured standard payments.</p> <p>See Section 5.4 for deferred payments (secured or unsecured).</p> <p>See Section 5.6 for recurring payments (secured or unsecured)</p>
{extended-payment-services}/{payment-product}/{paymentId}	GET	Mandatory	<p>Read the details of an extended payment resource.</p> <p>See Section 5.10</p>
{extended-payment-services}/{payment-product}/{paymentId}/status	GET	Mandatory	<p>Read the transaction status of the related extended payment resource.</p> <p>See Section 5.8</p>
{extended-payment-services}/{payment-product}/{paymentId}/initiations	POST	Mandatory	<p>For deferred payments:</p> <p>Requests the deferred initiation of a payment transaction with an (partial) amount of the reserved extended payment initiation amount. This access method can only be successful after a positive authorisation, i.e. as soon as the transactionStatus of the extended payment resource equals e.g. ACTC.</p> <p>If the endpoint addressed by {extended-payment-services} implements a multiple deferred payment (secured or not) then this call can also indicate</p>



Endpoints/Resources	Method	Condition	Description
			<ul style="list-style-type: none"> that this is the last payment to be initiated based on this resource or that this call is closing the related amount authorised and no partial deferred payment can be further dedicatedly initiated based on this resource. <p>A POST command on this endpoint after an active closing of the funds authorisation will be rejected.</p> <p>See Section 5.5</p>
{extended-payment-services}/{payment-product}/{paymentId}/initiations	POST	Mandatory	<p>For recurring payments:</p> <p>Submits a payment initiation within one execution period with the related instructedAmount which needs to be equal or smaller to the maximum amount instructed when setting up this recurring payment.</p> <p>See Section 5.7</p>
{extended-payment-services}/{payment-product}/{paymentId}/initiations	GET	Mandatory	<p>Retrieves a list of already submitted initiations on an addressed payment resource.</p> <p>See Section 5.11</p>
{extended-payment-services}/{payment-product}/{paymentId}/initiations/{initiationId}	GET	Mandatory	<p>The details of the deferred/recurring initiation.</p> <p>See Section 5.12</p>
{extended-payment-services}/{payment-product}/{paymentId}/initiations/{initiationId}/status	GET	Mandatory	<p>The details of the deferred/recurring initiation status.</p> <p>See Section 5.9</p>



Endpoints/Resources	Method	Condition	Description
{extended-payment-service}/{payment-product}/{paymentId}/authorisations	POST	Mandatory	<p>Create an authorisation sub-resource and start the authorisation process, might in addition transmit authentication and authorisation related data. This method is iterated n times for a n times SCA authorisation in a corporate context, each creating an own authorisation sub-endpoint for the corresponding PSU authorising the transaction.</p> <p>The ASPSP might make the usage of this access method unnecessary in case of only one SCA process needed, since the related authorisation resource might be automatically created by the ASPSP after the submission of the payment data with the first POST {extended-payment-service}/{payment-product} call.</p> <p>Section 7.1 of [XS2A-IG]</p>
{extended-payment-service}/{payment-product}/{paymentId}/authorisations	GET	Mandatory	<p>Read a list of all authorisation sub-resources IDs which have been created.</p> <p>Section 7.4 of [XS2A-IG]</p>
{extended-payment-service}/{payment-product}/{paymentId}/authorisations/{authorisationId}	PUT	Mandatory for Embedded SCA Approach, Conditional for other approaches	<p>Update data on the authorisation resource if needed. It may authorise a payment within the Embedded SCA Approach where needed.</p> <p>Independently from the SCA Approach it supports e.g. the selection of the authentication method and a non-SCA PSU authentication.</p> <p>Section 7.2 and Section 7.3 of [XS2A-IG]</p>
{extended-payment-service}/{payment-product}/{paymentId}/authorisations/{authorisationId}	GET	Mandatory	<p>Read the SCA status of the authorisation.</p> <p>Section 7.5 of [XS2A-IG]</p>

Endpoints/Resources	Method	Condition	Description
{extended-payment-service}/{payment-product}/{paymentId}	DELETE	Optional	<p>Cancels the addressed payment with resource identification paymentId if applicable to the payment-service, payment-product and received in product related timelines (e.g. before end of business day for scheduled payments of the last business day before the scheduled execution day).</p> <p>The response to this DELETE command will tell the TPP whether the</p> <ul style="list-style-type: none"> • access method was rejected • access method was successful, or • access method is generally applicable, but further authorisation processes are needed. <p>Section 5.6 of [XS2A-IG]</p>

NOTE: Since an SCA to prove PSU consent with cancellation is not foreseen for this service, the /cancellation-authorisation sub endpoints are not addressed here.

4.4 SCA related Hyperlinks

As described in [XS2A-IG], hyperlinks are used in the interface for steering the communication process. Specifically, the process of strong customer authentication (SCA) is strongly dependent on the ASPSP's implementation and therefore, any response from the ASPSP to a request from the TPP will include one or more SCA related links if the request creates a resource at the TPP that requires further authorisation. For this context, the following links are already defined in [XS2A-IG]:

Link	Description
"scaRedirect"	In case of an SCA Redirect Approach, the ASPSP is transmitting the link to which to redirect the PSU browser.
"scaOAuth"	In case of an OAuth2 based Redirect Approach, the ASPSP is transmitting the link where the configuration of the OAuth2 Server is defined. The configuration follows the OAuth 2.0 Authorisation Server Metadata specification.
"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 <ul style="list-style-type: none"> • 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 authentication process with the ASPSP authentication server.
"startAuthorisation"	In case, where an explicit start of the authorisation is needed, but no more data needs to be updated (no authentication method to be selected, no PSU identification nor PSU authentication data to be uploaded)
"startAuthorisation WithPsuIdentification"	The link to the authorisation end-point, where the authorisation sub-resource has to be generated while uploading the PSU identification data.
"startAuthorisation WithPsuAuthentication"	The link to the authorisation end-point, where the authorisation sub-resource has to be generated while uploading the PSU authentication data.
"startAuthorisation WithEncryptedPsuAuthentication"	The link to the authorisation end-point, where the authorisation sub-resource has to be generated while uploading the encrypted PSU authentication data.

Link	Description
"startAuthorisation WithAuthenticationMethodSelection"	The link to the authorisation end-point, where the authorisation sub-resource has to be generated while selecting the authentication method. This link is contained under exactly the same conditions as the data element "scaMethods"
"startAuthorisationWith TransactionAuthorisation"	The link to the authorisation end-point, where the authorisation sub-resource has to be generated while authorising the subscription e.g. by uploading an OTP received by SMS.
"scaStatus"	The link to retrieve the scaStatus of the corresponding authorisation sub-resource. This link is only contained if an authorisation sub-resource has been already created.

4.5 Requirements on TPP URIs

The TPP can provide several URIs to the ASPSP as parameters for succeeding protocol steps. For security reasons, it should be ensured that these URIs are secured by the TPP eIDAS QWAC used for identification of the TPP. The following applies:

URIs which are provided by TPPs in TPP-Redirect-URI or TPP-Nok-Redirect-URI should comply with the domain secured by the eIDAS QWAC certificate of the TPP in the field CN or SubjectAltName of the certificate. Please note that in case of example-TPP.com as certificate entry TPP-Redirect-URI like

- www.example-TPP.com/xs2a-client/v1/ASPSPidentification/mytransaction-id or
- redirections.example-TPP.com/xs2a-client/v1/ASPSPidentification/mytransaction-id

would be compliant.

Wildcard definitions shall be taken into account for compliance checks by the ASPSP.

Remark for Future: ASPSPs in future may reject requests, if the provided URIs do not comply. This is not yet valid for the current version of the specification.

Remark for Future: For migration reasons, this specification mandates the TPP to keep the TPP-Redirect-URI used within all authorisation processes for a specific transaction during the lifecycle of this transaction constant. This might be removed in the next version of the specification.

5 Extended Payment Initiation

NOTE: The blue colour in this chapter is identifying attributes of the specification which are in use only for embedded SCA approaches.

NOTE: The orange colour in this chapter is identifying paragraphs of the specification, where the Extended Payment Initiation Service is deviating from the Core Payment Initiation Services.

5.1 Extended Payment Initiation Flows

Please note that the simple secured payment service (XFPIS) is following exactly the flows of the payment initiation as defined in [XS2A-IG] – securing the payment is a pure backend process in this case.

For all other extended payment initiation, the flow can be separated into the authorisation flow and the actual initiation flow. As for regular payment initiations the extended payment initiation flow depends heavily on the SCA approach implemented by the ASPSP. The authorisation flow then equals exactly the payment initiation flows as defined in [XS2A-IG]. The only difference is that the payment is then authorised for these extended payment initiations but is **not** automatically executed after authorisation – this shows in the diagram below, that the transactionStatus on payment resource level shows the payment authorisation status and **not** the initiation status. The API Client then always needs to initiate one or several initiations **afterwards**.

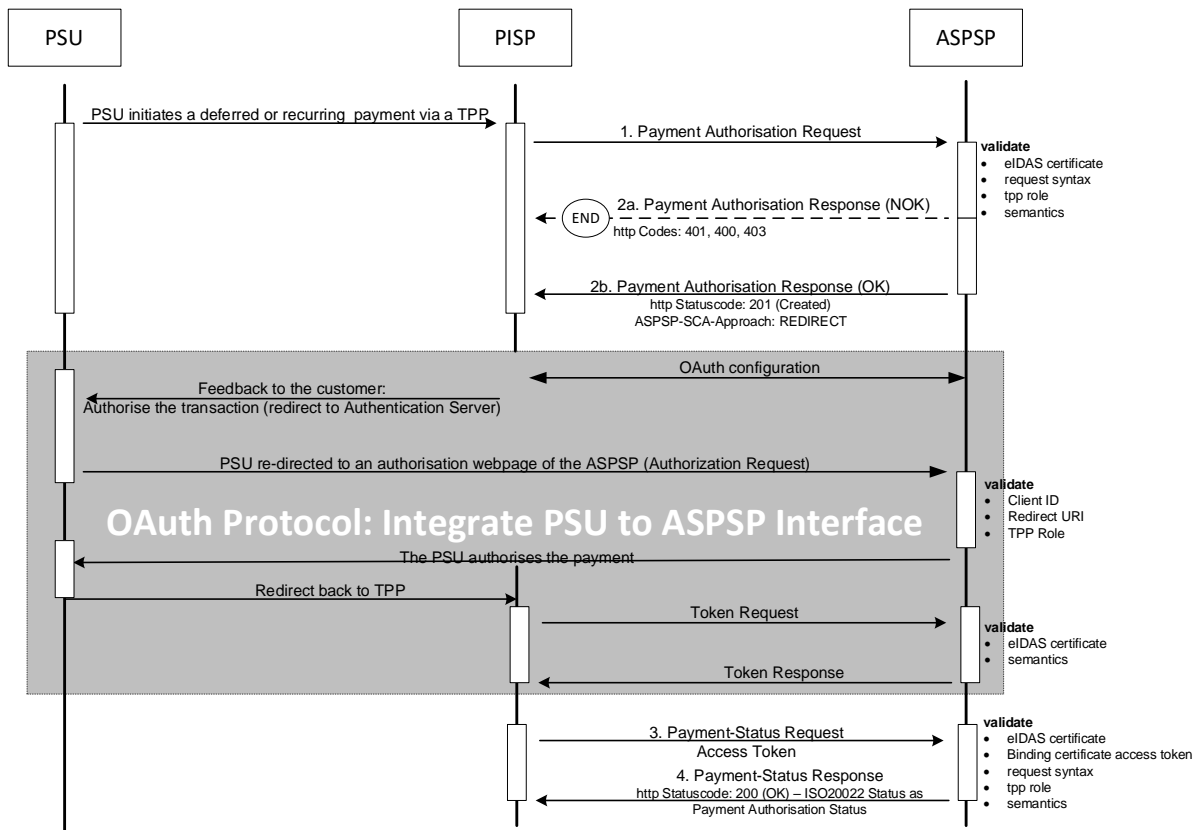
Due to this similarity, only very few exemplary API flows are provided as an overview for different scenarios in extended payment authorisation. Other flows will be inherited in analogy to the payment initiation flows in [XS2A-IG].



5.1.1 OAuth2 SCA for Authorisation: Implicit Start of the Authorisation Process

If the ASPSP supports the OAuth2 SCA Approach, the flow is very similar to the Redirect SCA Approach with implicit start of the Authorisation Process. Instead of redirecting the PSU directly to an authentication server, the OAuth2 protocol is used for the transaction authorisation process.

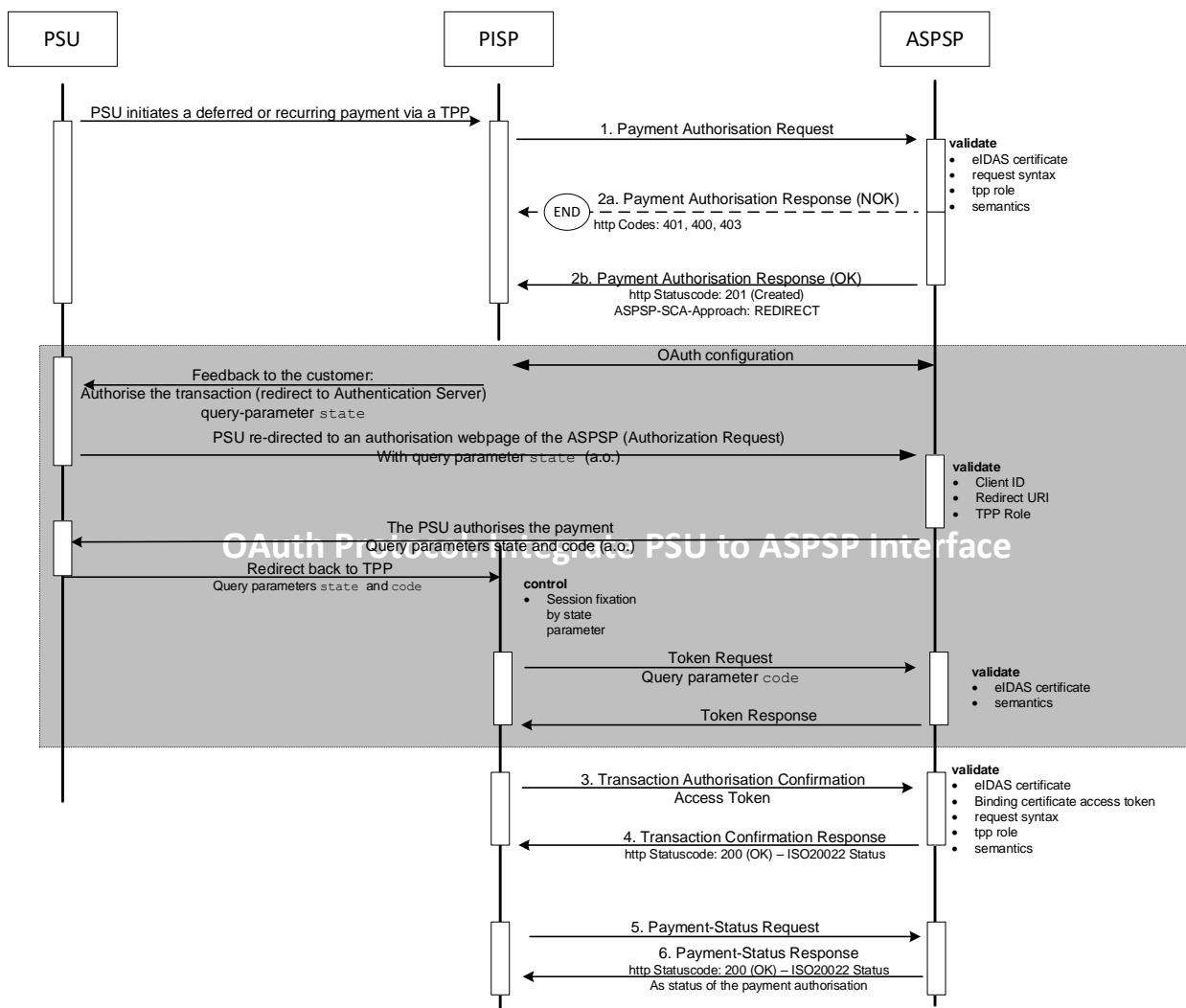
Remark: The OAuth2 SCA Approach with explicit start of the Authorisation Process is treated analogously.



5.1.2 OAuth2 SCA for Payment Authorisation: Implicit Start of the Authorisation Process with Confirmation Code

In addition to the scenario above, an authorisation confirmation request might be requested by the ASPSP from the TPP after the session is re-redirected to the TPP’s system and after the TPP's control on session fixation. In the end, a payment status request might be needed by the TPP to control the exact status of the payment authorisation.

Remark: The OAuth2 SCA Approach with explicit start of the Authorisation Process and with transaction confirmation step is treated analogously.



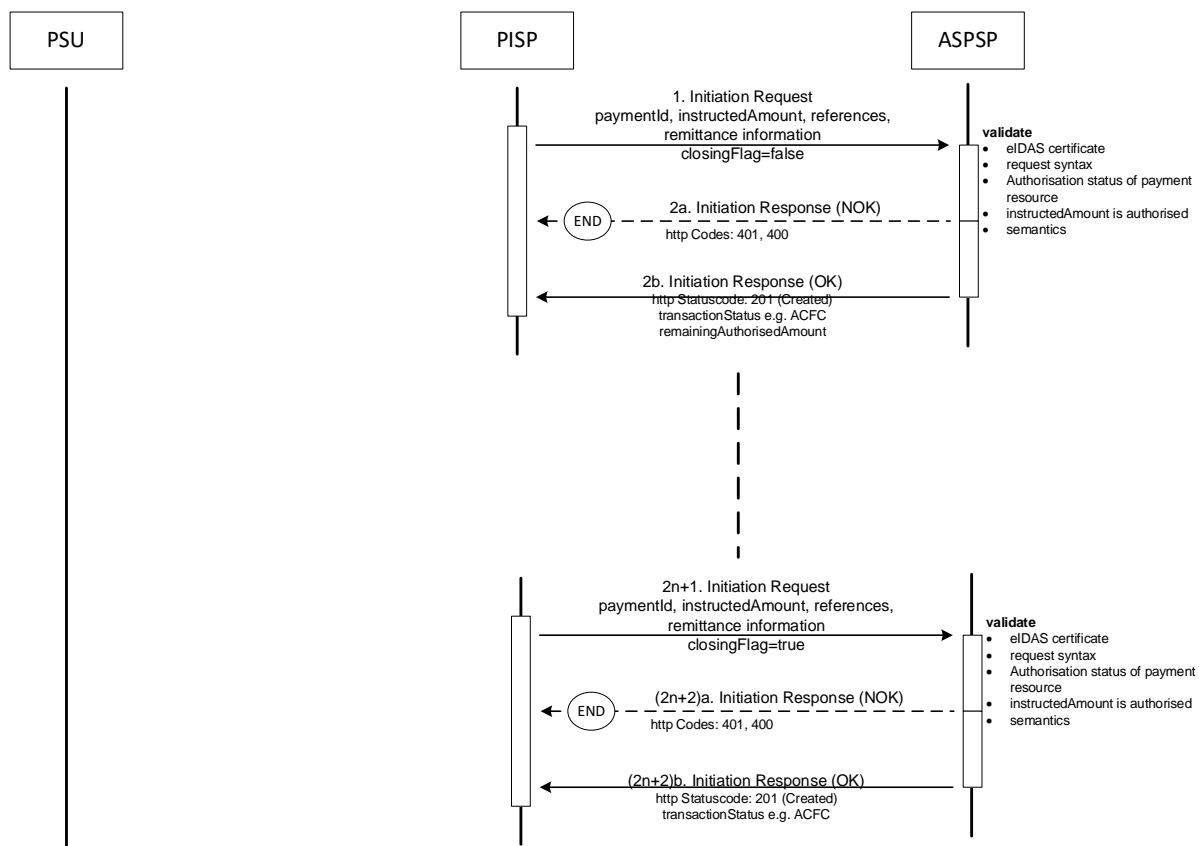
It is further recommended for ASPSPs and TPPs in this case to follow the Security Best Practice definitions as defined in [XS2A-IG].

5.1.3 Payment initiation for deferred payments

In the following, the initiation flow of a deferred payment is shown. It is assumed that the payment has been authorised already as shown e.g. for the case of the OAuth SCA channel in Section 5.1.1 or 5.1.2 with a resource addressed by the parameter paymentId. The initiation as such is without PSU interaction. Depending on the service several deferred initiations might



be supported as shown in the below picture, where the sum of the instructedAmount entries of all the initiations is less or equal to the authorised amount.

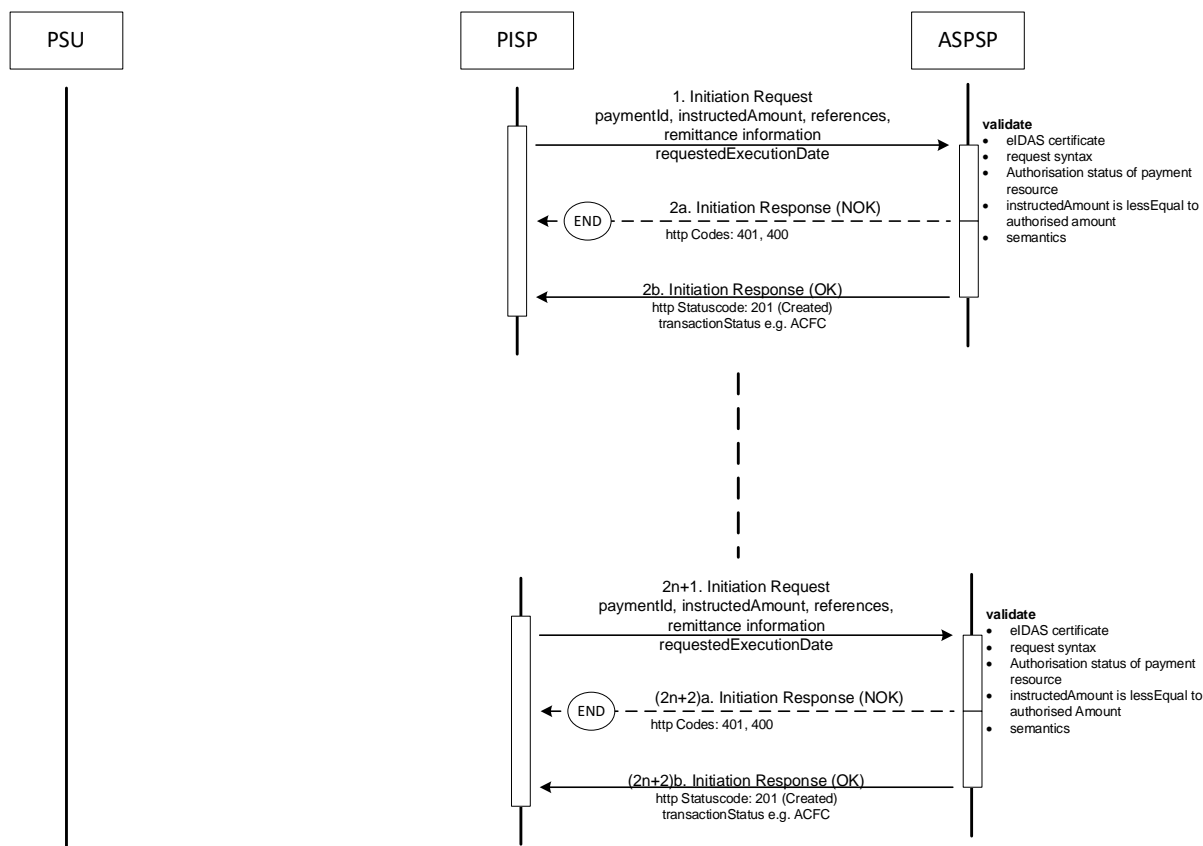


5.1.4 Payment initiation for recurring payments

In the following, the initiation flow of a recurring payment is shown. It is assumed that the payment has been authorised already as shown e.g. for the case of the OAuth SCA channel in Section 5.1.1 or 5.1.2 with a related payment resource addressed by the parameter



paymentId. The initiation as such is without PSU interaction. Depending on the execution period agreed during the authorisation, initiations will be repeated every period.



5.2 Data Overview Payment Initiation Service

In [XS2A-IG], Section 5.2, an overview is provided on data for generating payment resources. The same modelling applies here, if not defined otherwise explicitly below (marked in orange colour), due e.g. from a migration to Version 2 of the API.

All dedicated authorisation related requests are used as defined in [XS2A-IG] and not further specified here.

PSU IP Address/Port and Further PSU related Information

The section cited above introduces also several PSU related context data. They are not mentioned anymore in the following detailed API call definitions for matter of better readability, as long as the usage is not mandated.

5.3 Secured Payment Initiation Request

Call

POST /v2/secured-payments/{payment-product}



Creates an extended payment resource for secured payments at the ASPSP for the XFPIS service.

NOTE: This endpoint support only some minor technical adaptations compared to compliance related payment initiation as defined in [XS2A-IG]. Especially, no explicit initiation of the transfer execution is supported. This is done implicitly like in the Core NextGenPSD2 XS2A Interface.

NOTE: This endpoint supports generically secured payment with and without requested execution dates. The ASPSP might restrict the functionality to one of these functions.

Path Parameters

Attribute	Type	Description
payment-product	String	<p>The addressed payment product endpoint, e.g. for SEPA Credit Transfers (SCT). The default list of products supported in this standard is:</p> <ul style="list-style-type: none"> • sepa-credit-transfers • micro-sepa-credit-transfers • instant-sepa-credit-transfers • target-2-payments • cross-border-credit-transfers <p>The ASPSP will publish which of the payment products/endpoints will be supported.</p> <p>For definitions of basic non-Euro generic products see [XS2A-DP] .</p> <p>Further products might be published by the ASPSP within its XS2A documentation.</p>

NOTE: The micro-sepa-credit-transfers endpoint is a product endpoint where an ASPSP can offer (secured) SCT payments without SCA under certain rules and obeying to the micro payment exception rules of [PSD2]. A rule could e.g. be "up to 10 payments per TPP and PSU under 10 Euro in a row before SCA is required". Since such a product might require a dedicated risk management and price structure, it is supported on a dedicated endpoint.

Query Parameters

No Query Parameter

Request Header

Attribute	Type	Condition	Description
Content-Type	String	Mandatory	application/json

Attribute	Type	Condition	Description
X-Request-ID	UUID	Mandatory	<p>ID of the request, unique to the call, as determined by the initiating party.</p> <p>This is the unique ID of TPP for the payment initiation regarding PSD2 article 47 and EBA RTS article 29.</p>
PSU-ID	String	Conditional	<p>Client ID of the PSU in the ASPSP client interface. Might be mandated in the ASPSP's documentation.</p> <p>It might be contained even if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in a preceding AIS service in the same session. In this case the ASPSP might check whether PSU-ID and token match, according to ASPSP documentation.</p>
PSU-ID-Type	String	Conditional	<p>Type of the PSU-ID; needed in scenarios where PSUs have several PSU-IDs as access possibility.</p> <p>In this case, the mean and use are then defined in the ASPSP's documentation.</p>
PSU-Corporate-ID	String	Conditional	<p>Identification of a Corporate in the Online Channels</p> <p>Might be mandated in the ASPSP's documentation. Only used in a corporate context.</p>
PSU-Corporate-ID-Type	String	Conditional	<p>This is describing the type of the identification needed by the ASPSP to identify the PSU-Corporate-ID content as used in online channels. Typically, this is a proprietary definition.</p> <p>Mean and use is defined in the ASPSP's documentation. Only used in a corporate context.</p>
Authorization	String	Conditional	<p>Bearer Token. Is contained only, if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in a preceding AIS service in the same session.</p>
Consent-ID	String	Optional	<p>This data element may be contained, if the payment initiation transaction is part of a session, i.e. combined AIS/PIS service. This then contains the "consentId" of the related AIS consent, which was performed prior to this payment initiation.</p>



Attribute	Type	Condition	Description
PSU-IP-Address	String	Mandatory	<p>The forwarded IP Address header field consists of the corresponding HTTP request IP Address field between PSU and TPP.</p> <p>If not available, the TPP shall use the IP Address used by the TPP when submitting this request.</p>
TPP-Redirect-Preferred	Boolean	Optional	<p>If it equals "true", the TPP prefers a redirect over an embedded SCA approach.</p> <p>If it equals "false", the TPP prefers not to be redirected for SCA. The ASPSP will then choose between the Embedded or the Decoupled SCA approach, depending on the parameter TPP-Decoupled-Preferred and the choice of the SCA procedure by the TPP/PSU.</p> <p>If the parameter is not used, the ASPSP will choose the SCA approach to be applied depending on the SCA method chosen by the TPP/PSU.</p>
TPP-Decoupled-Preferred	Boolean	Optional	<p>If it equals "true", the TPP prefers a decoupled SCA approach.</p> <p>If it equals "false", the TPP prefers not to use the decoupled approach for SCA. The ASPSP will then choose between the embedded or the redirect SCA approach, depending on the choice of the SCA procedure by the TPP/PSU.</p> <p>If the parameter is not used, the ASPSP will choose the SCA approach to be applied depending on the parameter TPP-Redirect-Preferred and the SCA method chosen by the TPP/PSU.</p> <p>The parameter might be ignored by the ASPSP.</p> <p>If both parameters TPP-Redirect-Preferred and TPP-Decoupled-Preferred are present and true, the request is still not rejected, but it is up to the ASPSP, which approach will actually be used.</p> <p>RFU: TPP-Redirect-Preferred and TPP-Decoupled-Preferred will be revised in future versions, maybe merged. Currently kept separate for downward compatibility.</p>



Attribute	Type	Condition	Description
TPP-Redirect-URI	String	Conditional	<p>URI of the TPP, where the transaction flow shall be redirected to after a Redirect. Mandated for the Redirect SCA Approach, specifically when TPP-Redirect-Preferred equals "true". See Section 4.5 for further requirements on this header.</p> <p>It is recommended to always use this header field.</p>
TPP-Nok-Redirect-URI	String	Optional	<p>If this URI is contained, the TPP is asking to redirect the transaction flow to this address instead of the TPP-Redirect-URI in case of a negative result of the redirect SCA method. This might be ignored by the ASPSP.</p> <p>See Section 4.5 for further requirements on this header.</p>
Client-Explicit-Authorisation-Preferred	Boolean	Optional	<p>If it equals "true", the API Client prefers to start the authorisation process separately, e.g. because of the usage of a signing basket. This preference might be ignored by the ASPSP, if a signing basket is not supported as functionality.</p> <p>If it equals "false" or if the parameter is not used, there is no preference of the API Client. This especially indicates that the API Client assumes a direct authorisation of the transaction in the next step, without using a signing basket.</p>
Client-Notification-URI	String	Optional	<p>URI for the Endpoint of the Client-API to which the status of the payment initiation should be sent.</p> <p>This header field may be ignored by the ASPSP, cp. also the extended service definition in [oFA-RSNS].</p>
Client-Notification-Content-Preferred	String	Optional	<p>The string has the form</p> <p>status=X1, ..., Xn</p> <p>where Xi is one of the constants SCA, PROCESS, LAST and where constants are not repeated.</p> <p>The usage of the constants supports the following semantics:</p>

Attribute	Type	Condition	Description
			<p>SCA: A notification on every change of the scaStatus attribute for all related authorisation processes is preferred by the API Client.</p> <p>PROCESS: A notification on all changes of consentStatus or transactionStatus attributes is preferred by the Client.</p> <p>LAST: Only a notification on the last consentStatus or transactionStatus as available in the XS2A interface is preferred by the API Client.</p> <p>This header field may be ignored, if the ASPSP does not support resource notification services for the related API Client.</p>
Client-Brand-Logging-Information	String	Optional	<p>This header might be used by Clients to inform the ASPSP about the brand used by the API Client towards the PSU. This information is meant for logging entries to enhance communication between ASPSP and PSU or ASPSP and API Client.</p> <p>This header might be ignored by the ASPSP.</p>
Contract-ID	String	Mandatory	ID of the underlying service contract between API Client and API Server, resulting from API Client onboarding, following [oFA-OR-ADM]

Request Body

The payment data to be transported in the request body is dependent on the chosen payment product. Some standard definitions related to the abovementioned standard products are defined in [oFA-PDM-V2]. Further definitions might be given community or ASPSP specific.

In difference to the deferred payment initiations as defined in Section 5.4, the attribute requestedExpiryDateTime is not supported in this case.

NOTE: The header attribute TPP-Rejection-NoFunds-Preferred is not supported, since this makes sense in a compliance solution only.

NOTE: The TPP-Notification headers and the TPP-Explicit-Authorisation header have been renamed to Client-Notification headers since this header will also be used in the more generic context of API Clients.

Response Code

The HTTP response code equals 201.

Response Header

Attribute	Type	Condition	Description
Location	String	Mandatory	Location of the created resource (if created)
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.
ASPSP-SCA-Approach	String	Conditional	<p>This data element must be contained, if the SCA Approach is already fixed. Possible values are:</p> <ul style="list-style-type: none"> • EMBEDDED • DECOUPLED • REDIRECT <p>The OAuth SCA approach will be subsumed by REDIRECT.</p>
ASPSP-Notification-Support	Boolean	Conditional	<p>true if the ASPSP supports resource status notification services.</p> <p>false if the ASPSP supports resource status notification in general, but not for the current request.</p> <p>Not used, if resource status notification services are generally not supported by the ASPSP.</p> <p>Shall be supported if the ASPSP supports resource status notification services, see more details in the extended service definition [oFA-RSNS].</p>

Attribute	Type	Condition	Description
ASPSP-Notification-Content	String	Conditional	<p>The string has the form</p> <p>status=X1, ..., Xn</p> <p>where Xi is one of the constants SCA, PROCESS, LAST and where constants are not repeated.</p> <p>The usage of the constants supports the following semantics:</p> <p>SCA: Notification on every change of the scaStatus attribute for all related authorisation processes is provided by the ASPSP for the related resource.</p> <p>PROCESS: Notification on all changes of consentStatus or transactionStatus attributes is provided by the ASPSP for the related resource.</p> <p>LAST: Notification on the last consentStatus or transactionStatus as available in the XS2A interface is provided by the ASPSP for the related resource.</p> <p>This field must be provided if the ASPSP-Notification-Support =true. The ASPSP might consider the notification content as preferred by the TPP, but can also respond independently of the preferred request.</p>

Response Body

Attribute	Type	Condition	Description
transactionStatus	Transaction Status	Mandatory	The values defined in [XS2A-IG] might be used.
reasonCode	Status Reason Code	{Or - Optional	<p>Additional information on the reason for e.g. rejecting the request.</p> <p>Remark: A list of supported reason codes including explanation will be added in version 1.0.</p>

Attribute	Type	Condition	Description
reasonProprietary	Max35Text	Or – Optional}	Proprietary additional information on the reason for e.g. rejecting the request.
paymentId	String	Mandatory	resource identification of the generated payment resource.
securedBy	Securing Method Code	Optional	The way of securing the funds for the transaction amount.
transactionFees	Amount	Optional	Might be used by the ASPSP to transport the total transaction fee applicable to the PSU and relevant for the underlying payments. This field includes the entry of the currencyConversionFees if applicable.
currency Conversion Fee	Amount	Optional	Might be used by the ASPSP to transport specific currency conversion fees related to the initiated credit transfer.
estimatedTotal Amount	Amount	Optional	The amount which is estimated to be debted from the debtor account. Note: This amount includes fees.
estimated Interbank Settlement Amount	Amount	Optional	The estimated amount to be transferred to the payee.
transactionFee Indicator	Boolean	Optional	If equals true, the transaction will involve specific transaction cost as shown by the ASPSP in their public price list or as agreed between ASPSP and PSU. If equals false, the transaction will not involve additional specific transaction costs to the PSU unless the fee amount is given specifically in the data elements transactionFees and/or currencyConversionFees. If this data element is not used, there is no information about transaction fees unless the fee amount is given explicitly in the data element transactionFees and/or currencyConversionFees.
scaMethods	Array of authentication objects	Conditional	This data element might be contained, if SCA is required and if the PSU has a choice between different authentication methods. Depending on the risk management of the ASPSP this choice might be offered before or after the PSU has been



Attribute	Type	Condition	Description
			<p>identified with the first relevant factor, or if an access token is transported. If this data element is contained, then there is also a hyperlink of type "startAuthorisationWith AuthenticationMethodSelection" contained in the response body.</p> <p>These methods shall be presented towards the PSU for selection by the TPP.</p>
chosenScaMethod	Authentication object	Conditional	This data element is only contained in the response if the ASPSP has chosen the Embedded SCA Approach, if the PSU is already identified e.g. with the first relevant factor or alternatively an access token, if SCA is required and if the authentication method is implicitly selected.
challengeData	Challenge	Conditional	It is contained in addition to the data element "chosenScaMethod" if challenge data is needed for SCA.
			In rare cases this attribute is also used in the context of the "startAuthorisationWith PsuAuthentication" or "startAuthorisationWithEncryptedPsuAuthentication" link.
_links	Links	Mandatory	<p>A list of hyperlinks to be recognised by the TPP. The actual hyperlinks used in the response depend on the dynamical decisions of the ASPSP when processing the request.</p> <p>Remark: All links can be relative or full links, to be decided by the ASPSP.</p> <p>Type of links admitted in this response, (further links might be added for ASPSP defined extensions):</p> <p>"scaRedirect": In case of an SCA Redirect Approach, the ASPSP is transmitting the link to which to redirect the PSU browser.</p> <p>"scaOAuth": In case of a SCA OAuth2 Approach, the ASPSP is transmitting the URI where the configuration of the Authorisation Server can be retrieved. The configuration follows the OAuth 2.0 Authorisation Server Metadata specification.</p>

Attribute	Type	Condition	Description
			<p>"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</p> <ul style="list-style-type: none"> • 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 authentication process with the ASPSP authentication server. <p>"startAuthorisation":</p> <p>In case, where an explicit start of the transaction authorisation is needed, but no more data needs to be updated (no authentication method to be selected, no PSU identification nor PSU authentication data to be uploaded).</p> <p>"startAuthorisationWithPsuIdentification":</p> <p>The link to the authorisation end-point, where the authorisation sub-resource has to be generated while uploading the PSU identification data.</p> <p>"startAuthorisationWithPsuAuthentication":</p> <p>The link to the authorisation end-point, where the authorisation sub-resource has to be generated while uploading the PSU authentication data.</p> <p>"startAuthorisationWithEncryptedPsuAuthentication":</p> <p>Same as startAuthorisationWithPsuAuthentication, but the authentication data need to be encrypted on application level while uploading.</p> <p>"startAuthorisationWithAuthenticationMethodSelection":</p> <p>The link to the authorisation end-point, where the authorisation sub-resource has to be generated while selecting the authentication method. This link</p>



Attribute	Type	Condition	Description
			<p>is contained under exactly the same conditions as the data element "scaMethods"</p> <p>"startAuthorisationWithTransactionAuthorisation":</p> <p>The link to the authorisation end-point, where the authorisation sub-resource has to be generated while authorising the transaction e.g. by uploading an OTP received by SMS.</p> <p>"self": The link to the payment initiation resource created by this request. This link can be used to retrieve the resource data.</p> <p>"status": The link to retrieve the transaction status of the payment initiation.</p> <p>"scaStatus": The link to retrieve the scaStatus of the corresponding authorisation sub-resource. This link is only contained, if an authorisation sub-resource has been already created.</p>
psuMessage	Max500Text	Optional	Text to be displayed to the PSU
tppMessages	Array of TPP Message Information	Optional	Messages to the TPP on operational issues.

Example

Request

POST <https://api.testbank.com/openfinance/v2/secured-payments/sepa-credit-transfers>

Content-Type: application/json
 X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
 PSU-IP-Address: 192.168.8.78
 PSU-GEO-Location: GEO:52.506931;13.144558
 PSU-User-Agent: Mozilla/5.0 (Windows NT 10.0; WOW64; rv:54.0)
 Gecko/20100101 Firefox/54.0
 Date: Sun, 06 Aug 2021 15:02:37 GMT

```
{
  "paymentIdentification":
    {"endToEndId": "12345-123456-12345678",
     "instructionId": "my-instruction-1122334"},
  "instructedAmount": {"currency": "EUR", "amount": "19.50"},
}
```

```

"debtorAccount": {"iban": "DE40100100103307118608"},
"creditorAccount": {"iban": "DE02100100109307118603"},
"creditor":
  {"name": "Merchant",
   "additionalPartyInformation":
     {"tradeName": "cool internet merchant"}
  },
"remittanceInformationUnstructured": [{"Ref Number Merchant, Payment
before delivery"}]
}

```

5.4 Deferred Payment Authorisation Request

Call

POST /v2/{extended-payment-services}/{payment-product}

Creates an extended payment resource for deferred payments at the ASPSP.

Path Parameters

Attribute	Type	Description
extended-payment-service	String	<p>The addressed Extended Payment Initiation Service. The default list is</p> <ul style="list-style-type: none"> deferred-payments for XDPIS secured-deferred-payments for XDFPIS, multiple-deferred-payments for XMDPIS, secured-multiple-deferred-payments for XMDFPIS
payment-product	String	<p>The addressed payment product endpoint, e.g. for SEPA Credit Transfers (SCT). The default list of products supported in this standard is:</p> <ul style="list-style-type: none"> sepa-credit-transfers micro-sepa-credit-transfers instant-sepa-credit-transfers target-2-payments cross-border-credit-transfers <p>The ASPSP will publish which of the payment products/endpoints will be supported.</p> <p>For definitions of basic non-Euro generic products see [XS2A-DP] .</p> <p>Further products might be published by the ASPSP within its XS2A documentation.</p>

NOTE: The micro-sepa-credit-transfers endpoint is a product endpoint where an ASPSP can offer some (secured) SCT payments without SCA under certain rules and obeying to the micro payment exception rules of [PSD2]. A rule could e.g. be "up to 10 payments per TPP and PSU under 10 Euro in a row before SCA is required".

Query Parameters

No Query Parameter

Request Header

Attribute	Type	Condition	Description
Content-Type	String	Mandatory	application/json
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party. This is the unique ID of TPP for the payment initiation regarding PSD2 article 47 and EBA RTS article 29.
PSU-ID	String	Conditional	Client ID of the PSU in the ASPSP client interface. Might be mandated in the ASPSP's documentation. It might be contained even if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in a preceding AIS service in the same session. In this case the ASPSP might check whether PSU-ID and token match, according to ASPSP documentation.
PSU-ID-Type	String	Conditional	Type of the PSU-ID; needed in scenarios where PSUs have several PSU-IDs as access possibility. In this case, the mean and use are then defined in the ASPSP's documentation.
PSU-Corporate-ID	String	Conditional	Identification of a Corporate in the Online Channels Might be mandated in the ASPSP's documentation. Only used in a corporate context.
PSU-Corporate-ID-Type	String	Conditional	This is describing the type of the identification needed by the ASPSP to identify the PSU-Corporate-ID content.

Attribute	Type	Condition	Description
			Mean and use is defined in the ASPSP's documentation. Only used in a corporate context.
Authorization	String	Conditional	Bearer Token. Is contained only, if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in a preceding AIS service in the same session.
Consent-ID	String	Optional	This data element may be contained, if the payment initiation transaction is part of a session, i.e. combined AIS/PIS service. This then contains the "consentId" of the related AIS consent, which was performed prior to this payment initiation.
PSU-IP-Address	String	Mandatory	The forwarded IP Address header field consists of the corresponding HTTP request IP Address field between PSU and TPP. If not available, the TPP shall use the IP Address used by the TPP when submitting this request.
TPP-Redirect-Preferred	Boolean	Optional	If it equals "true", the TPP prefers a redirect over an embedded SCA approach. If it equals "false", the TPP prefers not to be redirected for SCA. The ASPSP will then choose between the Embedded or the Decoupled SCA approach, depending on the parameter TPP-Decoupled-Preferred and the choice of the SCA procedure by the TPP/PSU. If the parameter is not used, the ASPSP will choose the SCA approach to be applied depending on the SCA method chosen by the TPP/PSU.
TPP-Decoupled-Preferred	Boolean	Optional	If it equals "true", the TPP prefers a decoupled SCA approach. If it equals "false", the TPP prefers not to use the decoupled approach for SCA. The ASPSP will then choose between the embedded or the redirect SCA approach, depending on the choice of the SCA procedure by the TPP/PSU. If the parameter is not used, the ASPSP will choose the SCA approach to be applied depending on the parameter TPP-Redirect-



Attribute	Type	Condition	Description
			<p>Preferred and the SCA method chosen by the TPP/PSU.</p> <p>The parameter might be ignored by the ASPSP.</p> <p>If both parameters TPP-Redirect-Preferred and TPP-Decoupled-Preferred are present and true, the request is still not rejected, but it is up to the ASPSP, which approach will actually be used.</p> <p>RFU: TPP-Redirect-Preferred and TPP-Decoupled-Preferred will be revised in future versions, maybe merged. Currently kept separate for downward compatibility.</p>
TPP-Redirect-URI	String	Conditional	<p>URI of the TPP, where the transaction flow shall be redirected to after a Redirect. Mandated for the Redirect SCA Approach, specifically when TPP-Redirect-Preferred equals "true". See Section 4.5 for further requirements on this header.</p> <p>It is recommended to always use this header field.</p>
TPP-Nok-Redirect-URI	String	Optional	<p>If this URI is contained, the TPP is asking to redirect the transaction flow to this address instead of the TPP-Redirect-URI in case of a negative result of the redirect SCA method. This might be ignored by the ASPSP.</p> <p>See Section 4.5 for further requirements on this header.</p>
Client-Explicit-Authorisation-Preferred	Boolean	Optional	<p>If it equals "true", the API Client prefers to start the authorisation process separately, e.g. because of the usage of a signing basket. This preference might be ignored by the ASPSP, if a signing basket is not supported as functionality.</p> <p>If it equals "false" or if the parameter is not used, there is no preference of the API Client. This especially indicates that the API Client assumes a direct authorisation of the transaction in the next step, without using a signing basket.</p>
Client-Notification-URI	String	Optional	<p>URI for the Endpoint of the Client-API to which the status of the payment initiation should be sent.</p>



Attribute	Type	Condition	Description
			This header field may be ignored by the ASPSP, cp. also the extended service definition in [oFA-RSNS].
Client-Notification-Content-Preferred	String	Optional	<p>The string has the form</p> <p>status=X1, ..., Xn</p> <p>where Xi is one of the constants SCA, PROCESS, LAST and where constants are not repeated.</p> <p>The usage of the constants supports the following semantics:</p> <p>SCA: A notification on every change of the scaStatus attribute for all related authorisation processes is preferred by the API Client.</p> <p>PROCESS: A notification on all changes of consentStatus or transactionStatus attributes is preferred by the Client.</p> <p>LAST: Only a notification on the last consentStatus or transactionStatus as available in the XS2A interface is preferred by the API Client.</p> <p>This header field may be ignored, if the ASPSP does not support resource notification services for the related API Client.</p>
Client-Brand-Logging-Information	String	Optional	<p>This header might be used by Clients to inform the ASPSP about the brand used by the API Client towards the PSU. This information is meant for logging entries to enhance communication between ASPSP and PSU or ASPSP and API Client.</p> <p>This header might be ignored by the ASPSP.</p>
Contract-ID	String	Mandatory	ID of the underlying service contract between API Client and API Server, resulting from API Client onboarding, following [oFA-OR-ADM]

Request Body

The payment data to be transported in the request body is dependent on the chosen payment product. Some standard definitions related to the abovementioned standard products are defined in [oFA-PDM-V2]. Further definitions might be given community or ASPSP specific.

NOTE: Please note that the attribute `requestedExpiryDateTime`, which is contained in the `additionalRequestInformation` attribute supports the following semantic:

The last time stamp in explicit time zone for which a

- related reservation of funds would apply in a scenario of a secured payment,
- related authorisation would apply in a scenario of a non-secured payment

as requested by the API Client.

NOTE: The header attribute `TPP-Rejection-NoFunds-Preferred` is not supported, since this makes sense in a compliance solution only.

NOTE: The `TPP-Notification` headers and the `TPP-Explicit-Authorisation` header have been renamed to `Client-Notification` headers since this header will also be used in the more generic context of API Clients.

Response Code

The HTTP response code equals 201.

Response Header

Attribute	Type	Condition	Description
Location	String	Mandatory	Location of the created resource (if created)
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.
ASPSP-SCA-Approach	String	Conditional	This data element must be contained, if the SCA Approach is already fixed. Possible values are: <ul style="list-style-type: none"> • EMBEDDED • DECOUPLED • REDIRECT The OAuth SCA approach will be subsumed by REDIRECT.

Attribute	Type	Condition	Description
ASPSP-Notification-Support	Boolean	Conditional	<p>true if the ASPSP supports resource status notification services.</p> <p>false if the ASPSP supports resource status notification in general, but not for the current request.</p> <p>Not used, if resource status notification services are generally not supported by the ASPSP.</p> <p>Shall be supported if the ASPSP supports resource status notification services, see more details in the extended service definition [oFA-RSNS].</p>
ASPSP-Notification-Content	String	Conditional	<p>The string has the form</p> <p>status=X1, ..., Xn</p> <p>where Xi is one of the constants SCA, PROCESS, LAST and where constants are not repeated.</p> <p>The usage of the constants supports the following semantics:</p> <p>SCA: Notification on every change of the scaStatus attribute for all related authorisation processes is provided by the ASPSP for the related resource.</p> <p>PROCESS: Notification on all changes of consentStatus or transactionStatus attributes is provided by the ASPSP for the related resource.</p> <p>LAST: Notification on the last consentStatus or transactionStatus as available in the XS2A interface is provided by the ASPSP for the related resource.</p> <p>This field must be provided if the ASPSP-Notification-Support =true. The ASPSP might consider the notification content as preferred by the TPP, but can also respond independently of the preferred request.</p>

Response Body

Attribute	Type	Condition	Description
transactionStatus	Transaction Status	Mandatory	The values defined in [XS2A-IG] might be used.
reasonCode	Status Reason Code	{Or - Optional	Additional information on the reason for e.g. rejecting the request
reasonProprietary	Max35Text	Or - Optional}	Proprietary additional information on the reason for e.g. rejecting the request.
paymentId	String	Mandatory	resource identification of the generated payment initiation resource.
securedBy	Max35Text	Optional	The way of securing the funds for the transaction amount.
maximumNumber Of Initiations	Integer	Optional	The maximum number of deferred payments which might be initiated on this resource. If provided, the reservations of funds shall be closed by the ASPSP after the last permitted deferred initiation.
expiryDateTime	ISO DateTime	Conditional	<p>Shall be provided by the ASPSP in case of deferred payments.</p> <p>The last time stamp of validity of</p> <ul style="list-style-type: none"> - the related funds reservation in case of a secured payment and - the related authorisation in case of a non-secured payment <p>as determined by the ASPSP in ASPSP time zone. This date might deviate from the requestedExpiryDateTime.</p>
transactionFees	Amount	Optional	Might be used by the ASPSP to transport the total transaction fee applicable to the PSU and relevant for the underlying payments. This field includes the entry of the currencyConversionFees if applicable.
currency Conversion Fee	Amount	Optional	Might be used by the ASPSP to transport specific currency conversion fees related to the initiated credit transfer.



Attribute	Type	Condition	Description
estimatedTotalAmount	Amount	Optional	The amount which is estimated to be debted from the debtor account. Note: This amount includes fees.
estimatedInterbankSettlementAmount	Amount	Optional	The estimated amount to be transferred to the payee.
transactionFeeIndicator	Boolean	Optional	If equals true, the transaction will involve specific transaction cost as shown by the ASPSP in their public price list or as agreed between ASPSP and PSU. If equals false, the transaction will not involve additional specific transaction costs to the PSU unless the fee amount is given specifically in the data elements transactionFees and/or currencyConversionFees. If this data element is not used, there is no information about transaction fees unless the fee amount is given explicitly in the data element transactionFees and/or currencyConversionFees.
scaMethods	Array of authentication objects	Conditional	This data element might be contained, if SCA is required and if the PSU has a choice between different authentication methods. Depending on the risk management of the ASPSP this choice might be offered before or after the PSU has been identified with the first relevant factor, or if an access token is transported. If this data element is contained, then there is also a hyperlink of type "startAuthorisationWith AuthenticationMethodSelection" contained in the response body. These methods shall be presented towards the PSU for selection by the TPP.
chosenScaMethod	Authentication object	Conditional	This data element is only contained in the response if the ASPSP has chosen the Embedded SCA Approach, if the PSU is already identified e.g. with the first relevant factor or alternatively an access token, if SCA is required and if the authentication method is implicitly selected.



Attribute	Type	Condition	Description
challengeData	Challenge	Conditional	<p>It is contained in addition to the data element "chosenScaMethod" if challenge data is needed for SCA.</p> <p>In rare cases this attribute is also used in the context of the "startAuthorisationWithPsuAuthentication" or "startAuthorisationWithEncryptedPsuAuthentication" link.</p>
_links	Links	Mandatory	<p>A list of hyperlinks to be recognised by the TPP. The actual hyperlinks used in the response depend on the dynamical decisions of the ASPSP when processing the request.</p> <p>Remark: All links can be relative or full links, to be decided by the ASPSP.</p> <p>Type of links admitted in this response, (further links might be added for ASPSP defined extensions):</p> <p>"scaRedirect": In case of an SCA Redirect Approach, the ASPSP is transmitting the link to which to redirect the PSU browser.</p> <p>"scaOAuth": In case of a SCA OAuth2 Approach, the ASPSP is transmitting the URI where the configuration of the Authorisation Server can be retrieved. The configuration follows the OAuth 2.0 Authorisation Server Metadata specification.</p> <p>"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</p> <ul style="list-style-type: none"> • 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 authentication process with the ASPSP authentication server. <p>"startAuthorisation":</p>

Attribute	Type	Condition	Description
			<p>In case, where an explicit start of the transaction authorisation is needed, but no more data needs to be updated (no authentication method to be selected, no PSU identification nor PSU authentication data to be uploaded).</p> <p>"startAuthorisationWithPsuIdentification":</p> <p>The link to the authorisation end-point, where the authorisation sub-resource has to be generated while uploading the PSU identification data.</p> <p>"startAuthorisationWithPsuAuthentication":</p> <p>The link to the authorisation end-point, where the authorisation sub-resource has to be generated while uploading the PSU authentication data.</p> <p>"startAuthorisationWithEncryptedPsuAuthentication":</p> <p>Same as startAuthorisationWithPsuAuthentication, but the authentication data need to be encrypted on application level while uploading.</p> <p>"startAuthorisationWithAuthenticationMethodSelection":</p> <p>The link to the authorisation end-point, where the authorisation sub-resource has to be generated while selecting the authentication method. This link is contained under exactly the same conditions as the data element "scaMethods"</p> <p>"startAuthorisationWithTransactionAuthorisation":</p> <p>The link to the authorisation end-point, where the authorisation sub-resource has to be generated while authorising the transaction e.g. by uploading an OTP received by SMS.</p> <p>"self": The link to the payment initiation resource created by this request. This link can be used to retrieve the resource data.</p> <p>"status": The link to retrieve the transaction status of the payment initiation.</p>



Attribute	Type	Condition	Description
			"scaStatus": The link to retrieve the scaStatus of the corresponding authorisation sub-resource. This link is only contained, if an authorisation sub-resource has been already created.
psuMessage	Max500Text	Optional	Text to be displayed to the PSU
tppMessages	Array of TPP Message Information	Optional	Messages to the TPP on operational issues.

Example

Request

POST <https://api.testbank.com/openfinance/v2/secured-deferred-payments/sepa-credit-transfers>

```
Content-Type:      application/json
X-Request-ID:     99391c7e-ad88-49ec-a2ad-99ddcb1f7721
PSU-IP-Address:   192.168.8.78
PSU-GEO-Location: GEO:52.506931;13.144558
PSU-User-Agent:   Mozilla/5.0 (Windows NT 10.0; WOW64; rv:54.0)
Gecko/20100101 Firefox/54.0
Date:             Sun, 06 Aug 2021 15:02:37 GMT
```

```
{
  "paymentIdentification":
    {
      "endToEndId": "12345-123456-12345678",
      "instructionId": "my-instruction-1122334",
      "instructedAmount": {"currency": "EUR", "amount": "19.50"},
      "debtorAccount": {"iban": "DE40100100103307118608"},
      "creditorAccount": {"iban": "DE02100100109307118603"},
      "creditor":
        {
          "name": "Merchant",
          "additionalPartyInformation":
            {"tradeName": "cool internet merchant"}
        },
      "remittanceInformationUnstructured": [{"Ref Number Merchant, Payment by delivery"}]
    }
}
```

Response in case of a redirect with an implicitly created authorisation sub-resource

HTTP/1.x 201 Created



X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
ASPSP-SCA-Approach: REDIRECT
Date: Sun, 06 Aug 2017 15:02:42 GMT
Location: https://www.testbank.com/openfinance/v2/secured-deferred-payments/1234-wertiq-983
Content-Type: application/json

```
{
  "transactionStatus": "RCVD",
  "paymentId": "1234-wertiq-983",
  "_links": {
    "scaRedirect": {"href": "https://www.testbank.com/asdfasdfasdf"},
    "self": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983"},
    "status": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983/status"},
    "scaStatus": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983/authorisations/123auth456"}
  }
}
```

Same example in case where an explicit authorisation start is needed

HTTP/1.x 201 Created

X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
ASPSP-SCA-Approach: REDIRECT
Date: Sun, 06 Aug 2017 15:02:42 GMT
Location: https://www.testbank.com/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983
Content-Type: application/json

```
{
  "transactionStatus": "RCVD",
  "paymentId": "1234-wertiq-983",
  "_links": {
    "self": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983"},
    "status": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983/status"},
    "startAuthorisation": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983/authorisations"}
  }
}
```

Response in case of an OAuth2 SCA approach with implicitly creating an authorisation sub-resource

HTTP/1.x 201 Created

X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
ASPSP-SCA-Approach: REDIRECT
Date: Sun, 06 Aug 2017 15:02:42 GMT



Location: <https://www.testbank.com/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983>
Content-Type: application/json

```
{
  "transactionStatus": "RCVD",
  "paymentId": "1234-wertiq-983",
  "_links": {
    "scaOAuth": {"href": "https://www.testbank.com/oauth/.well-known/oauth-authorization-server"},
    "self": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983"},
    "status": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983/status"},
    "scaStatus": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983/authorisations/123auth456"}
  }
}
```

Response in case of the decoupled approach with explicit start of authorisation needed (will be done with the update PSU identification function)

HTTP/1.x 201 Created
X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
ASPS-SCA-Approach: DECOUPLED
Date: Sun, 06 Aug 2017 15:03:47 GMT
Location: <https://www.testbank.com/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983>
Content-Type: application/json

```
{
  "transactionStatus": "RCVD",
  "paymentId": "1234-wertiq-983",
  "_links": {
    "startAuthorisationWithPsuIdentification": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983/authorisations"},
    "self": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983"}
  }
}
```

Response in case of the embedded approach with explicit start of authorisation

HTTP/1.x 201 Created
X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
ASPS-SCA-Approach: EMBEDDED
Date: Sun, 06 Aug 2017 15:03:47 GMT



Location: <https://www.testbank.com/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983>
 Content-Type: application/json

```
{
  "transactionStatus": "RCVD",
  "paymentId": "1234-wertiq-983",
  "_links": {
    "startAuthorisationWithPsuAuthentication": {"href":
"/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983/authorisations"},
    "self": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983"}
  }
}
```

5.5 Initiation for Deferred Payments

Call

POST /v2/{extended-payment-services}/{payment-product}/{paymentId}/initiations

Creates an initiation for a (partial) deferred payment initiation for the related authorised payment resource at the ASPSP.

Path Parameters

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> deferred-payments for XDPIIS secured-deferred-payments for XDFPIS, multiple-deferred-payments for XMDPIS, secured-multiple-deferred-payments for XMDFPIS
payment-product	String	The addressed payment product endpoint, e.g. for SEPA Credit Transfers (SCT). The default list of products supported in this standard is: <ul style="list-style-type: none"> sepa-credit-transfers micro-sepa-credit-transfers instant-sepa-credit-transfers target-2-payments cross-border-credit-transfers

Attribute	Type	Description
		<p>The ASPSP will publish which of the payment products/endpoints will be supported.</p> <p>For definitions of basic non-Euro generic products see [XS2A-DP] .</p> <p>Further products might be published by the ASPSP within its XS2A documentation.</p>
paymentId	String	ID of the corresponding payment object as returned by a Payment Authorisation Request

Query Parameters

No Query Parameter

Request Body

Tag	Type	Usage	Description
paymentIdentification	Payment Identification	Optional	<p>If this attribute is provided, then it will be used by the ASPSP in the related credit transfer for payment identification.</p> <p>If this attribute is not provided, then the corresponding paymentIdentification as defined in the initial payment resource is used.</p>
instructedAmount	Amount	Conditional	<p>Amount requested from the API client to be executed by the ASPSP. Mandatory for XDPIS, XDFPIS, XRPIS and XRFPIS. If not contained in a XMDPIS service, then this is a dedicated closing transaction.</p> <p>This amount shall be smaller or equal to the amount still being reserved in the XDPIS/XDFPIS/XMPIS/XMFPIS case (current reservedAmount)</p>
remittanceInformationUnstructured	Array of Max140Text	Optional	If this attribute is provided, then it will be used by the ASPSP in the



Tag	Type	Usage	Description
			related credit transfer for remittance information. If this attribute is not provided, then the corresponding remittance as defined in the initial payment resource is used.
remittanceInformationStructured	Array of Remittance	Optional	The supported sub structure will depend on the underlying payment product. If this attribute is provided, then it will be used by the ASPSP in the related credit transfer for remittance information. If this attribute is not provided, then the corresponding remittance as defined in the initial payment resource is used.
closingFlag	Boolean	Mandatory	If true, then the TPP indicates that this is the last initiation on the related payment resource. As a consequence, the mechanism for securing the payment (e.g. reservation of funds) is closed in the ASPSP system.

Response Code

The HTTP response code equals 201.

Response Header

Attribute	Type	Condition	Description
Location	String	Mandatory	Location of the created resource (if created)
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.

Response Body

Attribute	Type	Condition	Description
initiationId	UUID	Mandatory	Unique identification of the deferred payment initiation.
remainingAuthorised Amount	Amount	Conditional	The amount still available for further following deferred payment initiations. Only used in case of multiple deferred payments.
transactionStatus	Transaction Status	Mandatory	The status of the addressed deferred payment initiation as defined in Section 5.12.
reasonCode	Status Reason Code	{Or - Optional	Additional information on the reason for e.g. rejecting the request
reasonProprietary	Max35Text	Or - Optional}	Proprietary additional information on the reason for e.g. rejecting the request.
transactionFees	Amount	Optional	Might be used by the ASPSP to transport the total transaction fee applicable to the PSU and relevant for the underlying payments. This field includes the entry of the currencyConversionFees if applicable.
currency Conversion Fee	Amount	Optional	Might be used by the ASPSP to transport specific currency conversion fees related to the initiated credit transfer.
estimatedTotal Amount	Amount	Optional	The amount which is estimated to be debted from the debtor account. Note: This amount includes fees.
estimated Interbank Settlement Amount	Amount	Optional	The estimated amount to be transferred to the payee.
transactionFee Indicator	Boolean	Optional	If equals true, the transaction will involve specific transaction cost as shown by the ASPSP in their public price list or as agreed between ASPSP and PSU. If equals false, the transaction will not involve additional specific transaction costs to the PSU unless the fee amount is given specifically in



Attribute	Type	Condition	Description
			<p>the data elements transactionFees and/or currencyConversionFees.</p> <p>If this data element is not used, there is no information about transaction fees unless the fee amount is given explicitly in the data element transactionFees and/or currencyConversionFees.</p>

Note: Rejection rules for the deferred payment initiations are as follows:

Dedicated reasonCodes shall be used by the ASPSP in case of rejecting the transaction due to the following reasons (i.e. transactionStatus="RJCT"):

Status Reason Code	Description	Usage
AM02	NotAllowedAmount	instructedAmount is greater than the original instructed amount, or the remainingAuthorisedAmount
DT05	InvalidCutOffDate	The expiryDate of the addressed reservation of funds is a date in the past
CN01	AuthorisationCancelled	The authorization is cancelled.
AM04	InsufficientFunds	The related funds are not available on the account. This code is only applicable when using the not-secured service variants.
AC05	ClosedDebtorAccountNumber	Debtor account number closed
AC06	BlockedAccount	Account specified is blocked, prohibiting posting of transactions against it.

Example

Request

Request

POST <https://api.testbank.com/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/123456scheduled789/initiations>

Content-Type application/json

```
X-Request-ID          99391c7e-ad88-49ec-a2ad-99ddcb1f7769
Date                  Sun, 18 Aug 2017 17:05:37 GMT
"paymentIdentification":
  {"endToEndId": "12345-123456-12345678-a",
   "instructionId": "my-instruction-1122335"},
  "instructedAmount": {"currency": "EUR", "amount": "9.30"},
  "remittanceInformationUnstructured": [{"Ref Number Merchant, article 5
will be delivered later"}]}
```

Response

```
HTTP/1.x 202
X-Request-ID:        99391c7e-ad88-49ec-a2ad-99ddcb1f7769
Date:                Sun, 18 Aug 2017 17:05:38 GMT
{
  "initiationId": "99391c7e-ad88-49ec-a2ad-99ddcb1ggggg",
  "transactionStatus": "ACSP"
}
```

5.6 Recurring Payments Authorisation Request

The recurring payments initiation function will be covered in this specification as a recurring payment with maximum authorised amount for a given frequency and period. The TPP can submit a recurring payment authorisation request where the starting date, frequency and conditionally an end date is provided as well as the maximum periodic amount. Once authorised by the PSU, the payment then will be executed by the ASPSP, as requested by the TPP via dedicated initiation requests per requested period, where the actual transaction amount in every period shall be less or equal to the maximum authorised amount. If the underlying endpoint is an endpoint for secured payments, then a positive response to the initiation will provide a "secured" execution of the related payment, where the securing measure can be identified via the securedBy attribute in the ASPSP response or by related commercial contracts.

Call

```
POST /v2/{extended-payment-services}/{payment-product}
```

Creates an extended payment resource for dynamic recurring payments at the ASPSP.

Path Parameters

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> recurring-payments for XRPIS and secured-recurring-payments for XRFPIIS.

Attribute	Type	Description
payment-product	String	<p>The addressed payment product endpoint, e.g. for SEPA Credit Transfers (SCT). The default list of products supported in this standard is:</p> <ul style="list-style-type: none"> • sepa-credit-transfers • instant-sepa-credit-transfers • target-2-payments • cross-border-credit-transfers <p>The ASPSP will publish which of the payment products/endpoints will be supported.</p> <p>For definitions of basic non-Euro generic products see [XS2A-DP] .</p> <p>Further products might be published by the ASPSP within its XS2A documentation.</p>

Query Parameters

The same query parameter definition as in Section 5.4 applies.

Request Header

For this initiation the same headers as in Section 5.4 are used.

Request Body

First, the payment data to be transported in the request body for some definitions related to the abovementioned standard products are defined in [oFA-PDM-V2]. Further definitions might be given community or ASPSP specific.

In addition, the following tags are used:

Tag	Type	Usage	Description
startDate	ISODate	Mandatory	The first applicable day of execution starting from this date is the first execution request date.
endDate	ISODate	Optional	The last applicable day of execution If not given, it is an infinite recurring payment.
frequency	Frequency Code	Mandatory	The frequency of the recurring payment.
dayOfExecution	Max2Text	Conditional	"31" is ultimo.

Tag	Type	Usage	Description
			<p>The format is following the regular expression <code>\d{1,2}</code>.</p> <p>Example: The first day is addressed by "1".</p> <p>The date is referring to the time zone of the ASPSP.</p>

NOTE: The execution date for a recurring payment is fixed by the first submission and the related execution requirements. For the applicable frequencies the following applies:

- Daily: No additional requirements.
- Weekly: The `startDate` will fix the regular execution day. `dayOfExecution` is ignored for this frequency.
- EveryTwoWeeks: The `startDate` will determine the regular execution day. `dayOfExecution` is ignored for the frequency.
- Monthly: The `dayOfExecution` determines the regular execution day, starting with the first regular execution day after the `startDate` (if provided).
- EveryTwoMonths: The `dayOfExecution` determines the regular execution day in every execution month. The `startDate` determines the first execution month.
- Quarterly: The `startDate` determines the first regular execution day.
- SemiAnnual: The `startDate` determines the first regular execution day.
- Annual: The `startDate` determines the first regular execution day.

NOTE: The initiation for the payment shall be submitted

- Till 23:59:59 of the day before for standard credit transfers at the latest.
- Till the day of execution for instant payments at the latest.

If the related initiation is late, it shall be rejected with a dedicated error code.

NOTE: The attribute `executionRule` is not supported, since the payment will be executed **always** the first working day **after** the execution day, if the latter is a bank holiday and if the chosen product is not processed on bank holidays.

NOTE: The attribute `monthsOfExecution` is not supported, since the TPP has the possibility to not initiate an execution of a recurring payment at a chosen month.

Response

The formats of the Extended Payment Authorisation Response resp. the subsequent transaction authorisation process for recurring payments equals the corresponding Extended Payment Authorisation Response resp. the subsequent transaction authorisation process for a single payment containing JSON based payment data.

Remark: Please note that for the starting authorisation of recurring payments, the ASPSP will always mandate an SCA with dynamic linking, exemptions are not permitted.

Example

Request

```
POST https://www.testbank.com/openFinance/v2/recurring-payments/sepa-credit-transfers
Content-Type:          application/json
X-Request-ID:         99391c7e-ad88-49ec-a2ad-99ddcb1f7721
PSU-IP-Address:      192.168.8.78
PSU-User-Agent:      Mozilla/5.0 (Windows NT 10.0; WOW64; rv:54.0)
Gecko/20100101 Firefox/54.0
Date:                 Sun, 06 Aug 2017 15:02:37 GMT
{
  "instructedAmount": {"currency": "EUR", "amount": "123"},
  "debtorAccount": {"iban": "DE40100100103307118608"},
  "creditorName": "Merchant123",
  "creditorAccount": {"iban": "DE23100120020123456789"},
  "remittanceInformationUnstructured": "Ref Number Abonnement",
  "startDate": "2018-03-01",
  "frequency": "Monthly",
  "dayOfExecution": "01"
}
```

5.7 Initiation for Recurring Payments

Call

```
POST /v2/{extended-payment-services}/{payment-product}/{paymentId}/initiations
```

Creates an initiation for a recurring payment initiation for the related authorised payment resource at the ASPSP.

Path Parameters

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> recurring-payments for XRPIS and secured-recurring-payments for XRFPIIS.
payment-product	String	The addressed payment product endpoint, e.g. for SEPA Credit Transfers (SCT). The default list of products supported in this standard is: <ul style="list-style-type: none"> sepa-credit-transfers instant-sepa-credit-transfers target-2-payments

Attribute	Type	Description
		<ul style="list-style-type: none"> cross-border-credit-transfers <p>The ASPSP will publish which of the payment products/endpoints will be supported.</p> <p>For definitions of basic non-Euro generic products see [XS2A-DP] .</p> <p>Further products might be published by the ASPSP within its XS2A documentation.</p>
paymentId	String	ID of the corresponding payment object as returned by a Payment Authorisation Request

Query Parameters

No Query Parameter

Request Body

Tag	Type	Usage	Description
paymentIdentification	Payment Identification	Optional	<p>If this attribute is provided, then it will be used by the ASPSP in the related credit transfer for payment identification.</p> <p>If this attribute is not provided, then the corresponding paymentIdentification as defined in the initial payment resource is used.</p>
instructedAmount	Amount	Mandatory	<p>Amount requested from the API client to be executed by the ASPSP.</p> <p>This amount shall be smaller or equal to the amount authorised for the periodical use</p>
remittanceInformationUnstructured	Array of Max140Text	Optional	<p>If this attribute is provided, then it will be used by the ASPSP in the related credit transfer for remittance information.</p> <p>If this attribute is not provided, then the corresponding remittance as</p>

Tag	Type	Usage	Description
			defined in the initial payment resource is used.
remittanceInformationStructured	Array of Remittance	Optional	<p>The supported sub structure will depend on the underlying payment product.</p> <p>If this attribute is provided, then it will be used by the ASPSP in the related credit transfer for remittance information.</p> <p>If this attribute is not provided, then the corresponding remittance as defined in the initial payment resource is used.</p>
requestedExecutionDate	ISO Date	Conditional	Shall be consistent with the planned regular execution day as defined in the initial payment resource..
requestedExecutionDateTime	ISODateTime	[Optional]	<p>Shall be consistent with the planned regular execution day as defined in the initial payment resource. Only to be used with instant payment products for execution at that timestamp.</p> <p>Request will be rejected if this attribute is not supported by the ASPSP.</p>
closingFlag	Boolean	Mandatory	<p>If true, then the TPP indicates that this is the last initiation on the related payment resource.</p> <p>As a consequence, the status of the related payment resource will change.</p>

Response Code

The HTTP response code equals 201.



Response Header

Attribute	Type	Condition	Description
Location	String	Mandatory	Location of the created resource (if created)
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.

Response Body

Attribute	Type	Condition	Description
initiationId	Max35Text	Mandatory	Unique identification of the recurring payment initiation.
transactionStatus	Transaction Status	Mandatory	The status of the addressed deferred payment initiation as defined in Section 5.12.
reasonCode	Status Reason Code	{Or - Optional	Additional information on the reason for e.g. rejecting the request
reasonProprietary	Max35Text	Or – Optional}	Proprietary additional information on the reason for e.g. rejecting the request.
requestedExecutionDate	ISO Date	Mandatory	Requested execution date for this initiation. Note: This element confirms the execution period.

Note: Rejection rules for the recurring payment initiations are as follows:

Dedicated transaction status reasonCodes shall be used by the ASPSP in case of rejecting the transaction due to the following reasons:

Status Reason Code	Description	Usage
AM02	NotAllowedAmount	instructedAmount is greater than the maximum periodic instructedAmount as defined by the recurring payment initiation resource
DT05	InvalidCutOffDate	the requestedExecutionDate is a date in the past

Status Reason Code	Description	Usage
DT01	InvalidDate	the requestedExecutionDate is too far in the future (e.g. more than 8 days)
CN01	AuthorisationCancelled	The authorization is cancelled.
AM04	InsufficientFunds	The related funds are not available on the account.
AC05	ClosedDebtorAccountNumber	Debtor account number closed
AC06	BlockedAccount	Account specified is blocked, prohibiting posting of transactions against it.
UPAY	UnduePayment	Payment is not justified. Remark: To be used, if a second payment initiation is submitted in one period after the first initiation has been processed successfully.

Example

Request

POST <https://www.testbank.com/openFinance/v2/recurring-payments/sepa-credit-transfers/paymentID-123456789/initiations>

Content-Type: application/json

X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7723

Date: Sun, 27 Feb 2018 18:02:37 GMT

```
{
  "instructedAmount": {"currency": "EUR", "amount": "104"},
  "remittanceInformationUnstructured": "Ref Number Abonnement, Reduced Price
for March 2018",
  "requestedExecutionDate": "2018-02-01",
  "closingFlag": false
}
```



5.8 Get Transaction Status Request

Call

GET /v2/{extended-payment-service}/[{payment-product}](#)/[{paymentId}](#)/[status](#)

Can check the status of a payment authorisation for deferred or recurring payments, resp. payment initiation in the case of secured-payments.

Path Parameter

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> • secured-payments XFPIS, • deferred-payments for XDPIS, • secured-deferred-payments for XDFPIS, • multiple-deferred-payments for XMDPIS, • secured-multiple-deferred-payments for XMDFPIS • recurring-payments for XRPIS and • secured-recurring-payments for XRFPIIS
payment-product	String	The payment product, under which the payment under paymentId has been initiated.
paymentId	String	Resource Identification of the related payment.

Request Header

Attribute	Type	Condition	Description
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.
Authorization	String	Conditional	Is contained only, if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in the current PIS transaction or in a preceding AIS service in the same session, if no such OAuth2 SCA approach was chosen in the current PIS transaction.

Query Parameters

No specific query parameters defined.

Request Body

No request body.

Response Code

The HTTP response code equals 200.

Response Header

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

Response Body

Attribute	Type	Condition	Description
transactionStatus	Transaction Status	Mandatory	<p>Status after successful authorisation is for deferred payments the following:</p> <ul style="list-style-type: none"> ACFC in case of a funds authorisation ACSP in case of a funds reservation <p>Status after successful authorisation is for recurring payments the following</p> <ul style="list-style-type: none"> ACTC <p>Remark: If the PSU does not complete a required SCA within the required timeframe the payment resource's status must be set to "RJCT". Particularly, if a multi-level-SCA is required and the number of successful SCAs during the required timeframe is insufficient, the status must also be set to "RJCT".</p>
reasonCode	Status Reason Code	{Or Optional	Additional information on the reason for e.g. rejecting the request
reasonProprietary	Max35Text	Or Optional}	<p>Proprietary additional information on the reason for e.g. rejecting the request.</p> <p>Remark: If an ISO Code is available it should be used instead of Proprietary Reasons. Further restrictions could be defined by API Access Scheme.</p>

Attribute	Type	Condition	Description
remainingAuthorisedAmount	Amount	Conditional	After successful authorisation and only in case of multiple deferred payments. This attribute is showing the maximum amount which can still be initiated on this resource by multiple deferred payments initiations.
psuMessage	Max500Text	Optional	
_links	Links	Optional	Should refer to next steps if the problem can be resolved via the interface e.g. for re-submission of credentials.
tppMessages	Array of TPP Message Information	Optional	Messages to the TPP on operational issues.

Example

Request

GET <https://api.testbank.com/openfinance/v2/secured-deferred-payments/1234-wertiq-983/status>

Accept: application/json
 X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
 Date: Sun, 06 Aug 2017 15:04:07 GMT

Response

HTTP/1.x 200 Ok
 X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
 Date: Sun, 06 Aug 2017 15:04:08 GMT
 Content-Type: application/json

```
{
  "transactionStatus": "ACCP"
}
```

5.9 Get Initiation Status Request

Call

GET [/v2/{extended-payment-service}/{payment-product}/{paymentId}/initiations/{initiationId}/status](#)

Can check the status of a payment initiation.

Path Parameter

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> • deferred-payments for XDPIS • secured-deferred-payments for XDFPIS, • multiple-deferred-payments for XMDPIS, • secured-multiple-deferred-payments for XMDFPIS • recurring-payments for XRPIS and • secured-recurring-payments for XRFPIS
payment-product	String	The payment product, under which the payment under paymentId has been initiated.
paymentId	String	Resource Identification of the related payment.
initiationId	String	Resource identification of the related initiation of the related payment.

Request Header

Attribute	Type	Condition	Description
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.
Authorization	String	Conditional	Is contained only, if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in the current PIS transaction or in a preceding AIS service in the same session, if no such OAuth2 SCA approach was chosen in the current PIS transaction.

Query Parameters

No specific query parameters defined.

Request Body

No request body.

Response Code

The HTTP response code equals 200.

Response Header

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

Response Body

Attribute	Type	Condition	Description
transactionStatus	Transaction Status	Mandatory	Status after successful authorisation is for initiation for deferred payments the following: <ul style="list-style-type: none"> • ACFC (in case of a non-secured initiation), • ACSP, • ACCC, • ACSC. Status after successful authorisation is for the initiation for recurring payments the following <ul style="list-style-type: none"> • ACFC (in case of non-secured payments) • ACSP (in case of secured payments) • RJCT (if no funds available)
reasonCode	Status Reason Code	{Or - Optional	Additional information on the reason for e.g. rejecting the request
reasonProprietary	Max35Text	Or - Optional}	Proprietary additional information on the reason for e.g. rejecting the request.
remainingAuthorisedAmount	Amount	Conditional	After successful authorisation and only in case of multiple deferred payments. This attribute is showing the maximum amount which can still be initiated on this resource by multiple deferred payments initiations.
psuMessage	Max500Text	Optional	
_links	Links	Optional	Should refer to next steps if the problem can be resolved via the interface
tppMessages	Array of TPP Message Information	Optional	Messages to the TPP on operational issues.

Example

Request

GET <https://api.testbank.com/openfinance/v2/secured-deferred-payments/1234-wertiq-983/initiations/99391c7e-ad88-49ec-a2ad-99ddcb1fgggg>

Accept: application/json
 X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
 Date: Sun, 06 Aug 2017 15:04:07 GMT

Response

HTTP/1.x 200 Ok

X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
 Date: Sun, 06 Aug 2017 15:04:08 GMT
 Content-Type: application/json

```
{
  "transactionStatus": "ACFC"
}
```

5.10 Get Payment Request

Call

GET /v2/{extended-[payment-service](#)}/{[payment-product](#)}/{[paymentId](#)}

Returns the content of a payment object.

Path Parameters

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> secured-payments for XFPIS deferred-payments for XDPIS secured-deferred-payments for XDFPIS, multiple-deferred-payments for XMDPIS, secured-multiple-deferred-payments for XMDFPIS recurring-payments for XRPIS and secured-recurring-payments for XRFPIIS
payment-product	String	The payment product, under which the payment under paymentId has been initiated.

Attribute	Type	Description
paymentId	String	ID of the corresponding payment object as returned by an Payment Authorisation Request

Query Parameters

No specific query parameter.

Request Headers

Attribute	Type	Condition	Description
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.
Authorization	String	Conditional	Is contained only, if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in the current PIS transaction or in a preceding AIS service in the same session, if no such OAuth2 SCA approach was chosen in the current PIS transaction.

Request Body

No request body.

Response Header

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

Response Code

The HTTP response code equals 200.

Response Body

The response body is dependent on the parameter {payment-service}. It contains the view of the ASPSP on the addressed payment resource.

The payment resources may contain e.g. in addition the transaction status data element.

Note: In addition, the payment resource may contain the debtorName field even if it was not provided by the TPP. This enables the ASPSP to transport the account owner name to the PISP in case where the regulatory need is provided and if not provided by other means like the List of Available Accounts Service or general AIS services for AISPs.

In all cases, the data element entries can be different from the submission entries, if the ASPSP has reformatted the content, e.g. the requested execution dates or character sets in the unstructured remittance information.

5.11 Get Initiations Request

Call

GET /v2/{extended-payment-service}/{payment-product}/{paymentId}/initiations

Returns of all available initiation objects related to a given payment resource.

Remark: In case of recurring payments, the ASPSP might delete older initiations after a dedicated period.

Path Parameters

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> • deferred-payments for XDPIS • secured-deferred-payments for XDFPIS, • multiple-deferred-payments for XMDPIS, • secured-multiple-deferred-payments for XMDFPIS • recurring-payments for XRPIS and • secured-recurring-payments for XRFPIIS
payment-product	String	The payment product, under which the payment under paymentId has been initiated.
paymentId	String	ID of the corresponding payment object as returned by a Payment Authorisation Request

Query Parameters

Attribute	Condition	Description
transactionStatus	Optional	Will provide all available initiation objects where the transactionStatus equals the requested value.
dateFrom	Optional	Will provide all available initiation objects where the requestedExecutionDate is later equal than the addressed date.

Request Headers

Attribute	Type	Condition	Description
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.
Authorization	String	Conditional	Is contained only, if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in the current PIS transaction or in a preceding AIS service in the same session, if no such OAuth2 SCA approach was chosen in the current PIS transaction.

Request Body

No request body.

Response Header

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

Response Code

The HTTP response code equals 200.

Response Body

Attribute	Type	Condition	Description
initiations	Array of Initiation	Mandatory	List of initiations related to the addressed payment.

Request

GET <https://api.testbank.com/openfinance/v2/secured-deferred-payments/1234-wertiq-983/initiations>

```
Accept: application/json
X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7722
Date: Sun, 06 Aug 2021 15:05:07 GMT
```

Response

```
HTTP/1.x 200 Ok
X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7721
Date: Sun, 06 Aug 2021 15:05:08 GMT
Content-Type: application/json
```



```

{
  "initiations":
    [{"initiationId": "99391c7e-ad88-49ec-a2ad-99ddcb1ggggg",
      "transactionAmount": {"currency": "EUR", "amount": "104"},
      "transactionStatus": "ACFC",
      "_links": {
        "paymentInitiation": {"href": "/openfinance/v2/secured-deferred-
payments/sepa-credit-transfers/123456scheduled789/initiations/99391c7e-
ad88-49ec-a2ad-99ddcb1ggggg"}
      }
    }]
}

```

5.12 Retrieve Initiation Request

Call

GET /v2/{extended-payment-service}/{payment-product}/{paymentId}/initiations/{initiationId}

Returns the content of an initiation object.

Path Parameters

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> deferred-payments for XDPIS secured-deferred-payments for XDFPIS, multiple-deferred-payments for XMDPIS, secured-multiple-deferred-payments for XMDFPIS recurring-payments for XRPIS and secured-recurring-payments for XRFPIS
payment-product	String	The payment product, under which the payment under paymentId has been initiated.
paymentId	String	ID of the corresponding payment object as returned by a Payment Initiation Request
initiationId	String	ID of the corresponding initiation object as returned by a Payment Initiation Request.

Query Parameters

No specific query parameter.

Request Headers

Attribute	Type	Condition	Description
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.
Authorization	String	Conditional	Is contained only, if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in the current PIS transaction or in a preceding AIS service in the same session, if no such OAuth2 SCA approach was chosen in the current PIS transaction.

Request Body

No request body.

Response Header

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

Response Code

The HTTP response code equals 200.

Response Body

The response body is dependent on the parameter {payment-service}. It contains the view of the ASPSP on the addressed initiation resource.

The initiation resources will contain in addition the following status data elements.

Attribute	Type	Condition	Description
transactionStatus	Transaction Status	Mandatory	<p>The following codes are used for deferred or recurring payment initiations:</p> <ul style="list-style-type: none"> • ACFC (in case of a non-secured initiation in the non-instant scenario), • ACSP, • ACCC, • ACSC <p>depending on the chosen product.</p> <ul style="list-style-type: none"> • RJCT (if no funds available)

In all cases, the data element entries can be different from the submission entries, if the ASPSP has reformatted the content, e.g. the requested execution dates or character sets in the unstructured remittance information.

5.13 Payment Cancellation Request

Call

DELETE /v2/{extended-payment-service}/{payment-product}/{[paymentId](#)}

It initiates the cancellation of a payment. Depending on the payment-service, the payment-product and the ASPSP's implementation, this TPP call might be sufficient to cancel a payment. If an authorisation of the payment cancellation is mandated by the ASPSP, a corresponding hyperlink will be contained in the response message. These two cases will be separated also in using different 2xx HTTP response codes.

Path Parameter

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> • deferred-payments for XDPIS • secured-deferred-payments for XDFPIS, • multiple-deferred-payments for XMDPIS, • secured-multiple-deferred-payments for XMDFPIS • recurring-payments for XRPIS and • secured-recurring-payments for XRFPIS
payment-product	String	The payment product, under which the payment under paymentId has been initiated. It shall be checked by the ASPSP, if the payment-product is matching the payment object addressed by paymentId.
paymentId	String	Resource Identification of the related payment.

Request Header

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

Attribute	Type	Condition	Description
Authorization	String	Conditional	Is contained only, if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in the current PIS transaction or in a preceding AIS service in the same session, if no such OAuth2 SCA approach was chosen in the current PIS transaction.
TPP-Redirect-Preferred	Boolean	Optional	<p>If it equals "true", the TPP prefers a redirect over an embedded SCA approach.</p> <p>If it equals "false", the TPP prefers not to be redirected for SCA. The ASPSP will then choose between the Embedded or the Decoupled SCA approach, depending on the parameter TPP-Decoupled-Preferred and the choice of the SCA procedure by the TPP/PSU.</p> <p>If the parameter is not used, the ASPSP will choose the SCA approach to be applied depending on the SCA method chosen by the TPP/PSU.</p>
TPP-Decoupled-Preferred	Boolean	Optional	<p>If it equals "true", the TPP prefers a decoupled SCA approach.</p> <p>If it equals "false", the TPP prefers not to use the decoupled approach for SCA. The ASPSP will then choose between the embedded or the redirect SCA approach, depending on the choice of the SCA procedure by the TPP/PSU.</p> <p>If the parameter is not used, the ASPSP will choose the SCA approach to be applied depending on the parameter TPP-Redirect-Preferred and the SCA method chosen by the TPP/PSU.</p> <p>The parameter might be ignored by the ASPSP.</p> <p>If both parameters TPP-Redirect-Preferred and TPP-Decoupled-Preferred are present and true, the request is still not rejected, but it is up to the ASPSP, which approach will actually be used.</p> <p>RFU: TPP-Redirect-Preferred and TPP-Decoupled-Preferred will be revised in future versions, maybe merged. Currently kept separate for downward compatibility.</p>

Attribute	Type	Condition	Description
TPP-Redirect-URI	String	Conditional	<p>URI of the TPP, where the transaction flow shall be redirected to after a Redirect. Mandated for the Redirect SCA Approach, specifically when TPP-Redirect-Preferred equals "true". See Section 4.5 for further requirements on this header.</p> <p>It is recommended to always use this header field.</p> <p>Remark for Future: This field might be changed to mandatory in the next version of the specification.</p>
TPP-Nok-Redirect-URI	String	Optional	<p>If this URI is contained, the TPP is asking to redirect the transaction flow to this address instead of the TPP-Redirect-URI in case of a negative result of the redirect SCA method. This might be ignored by the ASPSP.</p> <p>See Section 4.5 for further requirements on this header.</p>
TPP-Explicit-Authorisation-Preferred	Boolean	Optional	<p>If it equals "true", the TPP prefers to start the authorisation process separately, e.g. because of the usage of a signing basket. This preference might be ignored by the ASPSP, if a signing basket is not supported as functionality.</p> <p>If it equals "false" or if the parameter is not used, there is no preference of the TPP. This especially indicates that the TPP assumes a direct authorisation of the transaction in the next step, without using a signing basket.</p>

Query Parameters

No specific query parameters defined.

Request Body

No request body.

Response Code

If the DELETE is sufficient for cancelling the payment: HTTP response code 204.

If the DELETE is not sufficient for cancelling the payment since an authorisation of the cancellation by the PSU is needed: HTTP response code 202.

Response Header

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

Response Body

In case of HTTP code 204, no response body is used.

In case of HTTP code 202, the following body is used:

Attribute	Type	Condition	Description
transactionStatus	Transaction Status	Mandatory	Transaction Status of the payment resource
scaMethods	Array of authentication objects	Conditional	This data element might be contained, if SCA is required and if the PSU has a choice between different authentication methods. Depending on the risk management of the ASPSP this choice might be offered before or after the PSU has been identified with the first relevant factor, or if an access token is transported. If this data element is contained, then there is also a hyperlink of type "startAuthorisationWith AuthenticationMethodsSelection" contained in the response body. These methods shall be presented towards the PSU for selection by the TPP.
chosenScaMethod	Authentication object	Conditional	This data element is only contained in the response if the ASPSP has chosen the Embedded SCA Approach, if the PSU is already identified e.g. with the first relevant factor or alternatively an access token, if SCA is required and if the authentication method is implicitly selected.
challengeData	Challenge	Conditional	It is contained in addition to the data element "chosenScaMethod" if challenge data is needed for SCA.
			In rare cases this attribute is also used in the context of the "startAuthorisationWith PsuAuthentication" or "startAuthorisationWith EncryptedPsuAuthentication" link.

Attribute	Type	Condition	Description
_links	Links	Conditiona l	<p>A list of hyperlinks to be recognised by the TPP. The actual hyperlinks used in the response depend on the dynamical decisions of the ASPSP when processing the request.</p> <p>Remark: All links can be relative or full links, to be decided by the ASPSP.</p> <p>Type of links admitted in this response, (further links might be added for ASPSP defined extensions):</p>
			<p>"startAuthorisation":</p> <p>In case, where just the authorisation process of the cancellation needs to be started, but no additional data needs to be updated for time being (no authentication method to be selected, no PSU identification nor PSU authentication data to be uploaded).</p>
			<p>"startAuthorisationWithPsuIdentification":</p> <p>In case where a PSU Identification needs to be updated when starting the cancellation authorisation: The link to the cancellation-authorisations end-point, where the cancellation sub-resource has to be generated while uploading the PSU identification data.</p>
			<p>"startAuthorisationWithPsuAuthentication":</p> <p>In case of a yet to be created authorisation sub-resource: The link to the cancellation-authorisation end-point, where the authorisation sub-resource has to be generated while uploading the PSU authentication data.</p>
			<p>"startAuthorisationWithEncryptedPsuAuthentication":</p> <p>Same as startAuthorisactionWithPsu Authentication where the authentication data need to be encrypted on application layer in uploading.</p>
			<p>"startAuthorisationWithAuthentication MethodSelection":</p>

Attribute	Type	Condition	Description
			The link to the authorisation end-point, where the cancellation-authorisation sub-resource has to be generated while selecting the authentication method. This link is contained under exactly the same conditions as the data element "scaMethods"

Example in case the DELETE process as such is already sufficient for cancelling the payment

Request

DELETE <https://api.testbank.com/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/123456scheduled789>

Content-Type application/json
 X-Request-ID 99391c7e-ad88-49ec-a2ad-99ddcb1f7769
 Date Sun, 13 Aug 2017 17:05:37 GMT

Response

HTTP/1.x 204
 X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7769
 Date: Sun, 13 Aug 2017 17:05:38 GMT

Example in case an authorisation of the cancellation is needed by the PSU

Request

DELETE <https://api.testbank.com/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/123456scheduled789>

Content-Type application/json
 X-Request-ID 99391c7e-ad88-49ec-a2ad-99ddcb1f7769
 Date Sun, 13 Aug 2017 17:05:37 GMT

Response

HTTP/1.x 202
 X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7769
 Date: Sun, 13 Aug 2017 17:05:38 GMT
 {"transactionStatus": "ACTC",
 "_links": {
 "self": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/123456scheduled789"},
 "status": {"href": "/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/123456scheduled789/status"}},



```

    "startAuthorisation": {"href": "/openfinance/v2/secured-deferred-
payments/sepa-credit-transfers/123456scheduled789/cancellation-
authorisations"}
  }
}

```

5.14 Get Cancellation Authorisation Sub-Resources Request

Call in context of a Payment Cancellation Request

```
GET /v2/{extended-payment-service}/{payment-
product}/{paymentId}/cancellation-authorisations
```

Will deliver an array of resource identifications to all generated cancellation authorisation sub-resources.

Path Parameters

Attribute	Type	Description
extended-payment-service	String	The addressed Extended Payment Initiation Service. The default list is <ul style="list-style-type: none"> • deferred-payments for XDPIIS • secured-deferred-payments for XDFPIS, • multiple-deferred-payments for XMDPIS, • secured-multiple-deferred-payments for XMDFPIS • recurring-payments for XRPIS and • secured-recurring-payments for XRFPIIS
payment-product	String	The payment product, under which the payment under paymentId has been initiated. It shall be checked by the ASPSP, if the payment-product is matching the payment initiation addressed by paymentId.
paymentId	String	Resource identification of the related payment initiation resource.

Query Parameters

No specific query parameters defined.

Request Header

Attribute	Type	Condition	Description
X-Request-ID	UUID	Mandatory	ID of the request, unique to the call, as determined by the initiating party.
Authorization	String	Conditional	Is contained only, if an OAuth2 based authentication was performed in a pre-step or an OAuth2 based SCA was performed in the current PIS transaction or in a preceding AIS service in the same session, if no such OAuth2 SCA approach was chosen in the current PIS transaction.

Request Body

No request body.

Response Code

The HTTP response code equals 200.

Response Header

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

Response Body

Attribute	Type	Condition	Description
authorisationIds	Array of String	Mandatory	An array of all authorisationIds connected to the cancellation of this payment resource.

Example

Request

GET <https://api.testbank.com/openfinance/v2/secured-deferred-payments/sepa-credit-transfers/1234-wertiq-983/cancellation-authorisations>

```
Accept: application/json
X-Request-ID: 99391c7e-ad88-49ec-a2ad-99ddcb1f7723
Date: Sun, 06 Aug 2017 15:04:07 GMT
```

Response

```
HTTP/1.x 200 Ok
X-Request-ID:          99391c7e-ad88-49ec-a2ad-99ddcb1f7723
Date:                  Sun, 06 Aug 2017 15:04:08 GMT
Content-Type:          application/json
```

```
{
  "authorisationIds": ["123auth456"]
}
```

5.15 Multilevel SCA for Payments

The Payment Authorisation Requests defined in this section are independent from the need of one or several SCA processes, i.e. independent from the number of authorisations needed for the execution of payments. In contrast, the Authorisation Response messages defined above in this section are specific to the processing of one SCA. In the following the background is explained on diverging requirements on the Payment Authorisation Response messages.

For payment authorisations with multilevel SCA, this specification requires an explicit start of the authorisation, i.e. links directly associated with SCA processing like "scaRedirect" or "scaOAuth" cannot be contained in the response message of a Payment Initiation Request for a payment, where multiple authorisations are needed. Also if any data is needed for the next action, like selecting an SCA method is not supported in the response, since all starts of the multiple authorisations are fully equal. In these cases, first an authorisation sub-resource has to be generated following the "startAuthorisation" link.

Response Body for Payment Initiation Messages with Multilevel SCA

Attribute	Type	Condition	Description
transactionStatus	Transaction Status	Mandatory	The values defined in Section 5.3 might be used.
reasonCode	Status Reason Code	{Or - Optional	Additional information on the reason for e.g. rejecting the request
reasonProprietary	Max35Text	Or - Optional}	Proprietary additional information on the reason for e.g. rejecting the request.
paymentId	String	Mandatory	resource identification of the generated payment resource.
transactionFees	Amount	Optional	Can be used by the ASPSP to transport transaction fees applicable to the PSU and relevant for the underlying payments.

Attribute	Type	Condition	Description
transactionFeeIndicator	Boolean	Optional	<p>If equals true, the transaction will involve specific transaction cost as shown by the ASPSP in their public price list or as agreed between ASPSP and PSU.</p> <p>If equals false, the transaction will not involve additional specific transaction costs to the PSU.</p>
_links	Links	Mandatory	<p>"startAuthorisation":</p> <p>In case, where an explicit start of the transaction authorisation is needed, but no more data needs to be updated (no authentication method to be selected, no PSU identification nor PSU authentication data to be uploaded).</p> <p>"startAuthorisationWithPsuIdentification":</p> <p>The link to the authorisation end-point, where the authorisation sub-resource has to be generated while uploading the PSU identification data.</p> <p>"startAuthorisationWithPsuAuthentication":</p> <p>The link to the authorisation end-point, where an authorisation sub-resource has to be generated while uploading the PSU authentication data.</p> <p>"startAuthorisationWithEncryptedPsuAuthentication":</p> <p>The link to the authorisation end-point, where an authorisation sub-resource has to be generated while uploading the encrypted PSU authentication data.</p> <p>"self": The link to the payment initiation resource created by this request. This link can be used to retrieve the resource data.</p> <p>"status": The link to retrieve the transaction status of the payment initiation.</p>
psuMessage	Max500Text	Optional	Text to be displayed to the PSU
tppMessages	Array of TPP	Optional	Messages to the TPP on operational issues.



Attribute	Type	Condition	Description
	Message Information		

Remark: In difference to the Payment Authorisation Flow with one SCA, optimisation processes with implicitly generating authorisation sub-resources are not supported for Multiple SCA to keep the several authorisation processes of different PSUs for the same payment identical, so that the start of the authorisation process is context free. That is, the only steering hyperlinks returned to the TPP after a payment initiation are "start authorisation" hyperlinks with information in addition about mandatory data to be uploaded with the Start Authorisation Request (PSU Identification or PSU Authentication data). It is not possible to upload with the first command the selected authentication method or OTP Response data because this would require to transport the selected authentication methods or challenge data before.

5.16 Payment Authorisation Specifics for Multi-currency Accounts

The payment data contained in the request body can also address sub-accounts which are provided in specific currencies, cp. definition of multi-currency accounts in [XS2A-IG].

6 Complex Data Types

The following section defines complex data types as introduced by this specification. Complex data types defined in [oFA-PDM-V2] are re-used within this specification without further reference.

6.1 Links

The structure of Links conforms to [HAL]. There are some new entries (marked in yellow color) relative to the definition in [XS2A-IG]. Please note that now also Arrays of links are supported for certain link types.

Attribute	Type	Condition	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 [RFC8414]
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

Attribute	Type	Condition	Description
			<p>hyperlink defines the URL to the resource which needs to be updated with</p> <ul style="list-style-type: none"> • 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 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.
startAuthorisationWithPsuIdentification	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.
updatePsuIdentification	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.
startAuthorisationWithProprietaryData	hrefType	Optional	<p>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.</p> <p>The usage of this hyperlink is not further specified in the specification but is used analogously to e.g. the startAuthorisationWithPsuIdentification hyperlink.</p>
updateProprietaryData	href Type	Optional	The link to the payment initiation or account information resource, which needs to be updated by the proprietary data.
startAuthorisationWithPsuAuthentication	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.



Attribute	Type	Condition	Description
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.
updateAdditionalPsuAuthentication	href Type	Optional	The link to the payment initiation or account information resource, which needs to be updated by an additional PSU password.
startAuthorisationWithEncryptedPsuAuthentication	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.
updateEncryptedPsuAuthentication	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.
updateAdditionalEncryptedPsuAuthentication	href Type	Optional	The link to the payment initiation or account information resource, which needs to be updated by an additional encrypted PSU password.
startAuthorisationWithAuthenticationMethodSelection	href Type	Optional	This is a link to an 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.
startAuthorisationWithTransactionAuthorisation	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

Attribute	Type	Condition	Description
			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.
status	href Type	Optional	A link to retrieve the status of the transaction 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
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.
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.
entryStatusRevoked	Array of href Type	Optional	Links to entry status endpoints where the entry status is revoked.

6.2 Securing Method Code

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.

6.3 Initiations

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

6.4 Status Reason Code

This is the ExternalStatusReason1Code from ISO20022.

7 References

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