

Bits Norwegian specific PSD2 API appendix
Implementation of Norwegian payment products
with Berlin Group XS2A API

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1 Introduction

1.1 Background

This document is a national appendix to the Berlin Group Interface specification document. The goal of the document is to specify the usage of the Berlin Group interface specification for domestic payments in NOK in the Norwegian market.

This document does not stand alone, but relies on the Berlin Group XS2A interface specification and operational rules documentation. References to these documents are made where relevant.

1.2 Changelog

Version	Date	Change description
1.0	21.08.2018	First version of document with description of KID usage
1.1	20.05.2019	Added support for regulatory reporting and payment to self
1.11	23.05.2019	Minor error corrections in table in section 7.1
1.2	23.06.2020	Adapted to NexGenPSD2 v1.3.6 specs
1.3	01.12.2020	Updated after process regarding alignment of Nordic giro-payments in NextGenPSD2 TF, and with NO-eInvoice specific references.

2 Services

2.1 Payment Initiation Request

2.1.1 Payment Initiation with JSON encoding of the Payment Instruction

POST /v1/payments/{payment-product}

The payment product indicates the type of payment to be initiated. In addition to the SEPA and cross currency payment types supported by the generic Berlin Group interface, the following payment types will be supported by Norwegian banks.

Request path

Berlin Group generic payments	<ul style="list-style-type: none"> • sepa-credit-transfers • instant-sepa-credit-transfers • target-2-payments • cross-border-credit-transfers
Norwegian specific payment products	<ul style="list-style-type: none"> • norwegian-domestic-credit-transfers (supported by all ASPSP's by default) • norwegian-domestic-payment-to-self (support published by each ASPSP) • instant-norwegian-domestic-credit-transfers-straks (supported by participating banks – support to be published by bank) • instant-norwegian-domestic-credit-transfers (reserved for future realtime payment) • norwegian-crossborder-credit-transfers (cross border transactions with additional fields for regulatory reporting)

The requested payment type is to be included in the path of the request.

Request header

No specific requirements.

Request body

No specific requirements

Response header

No specific requirements

Response body

No specific requirements

2.2 Account Information Request

No specific requirements

2.3 Confirmation of funds service request

No specific requirements

3 KID – Customer identification for payee

3.1 Payments with KID parameter

The Norwegian KID (Customer identification) service is widely used for C2B and B2B payments. The KID parameter, included in the payment information identifies the payer and the payment, enabling the payee to update its ERP-system with the received reconciliation data.

Payments with KID are currently only valid for domestic payments (norwegian-domestic-credit-transfers), ref. table in chapter 2.1.1.

3.1.1 Generic KID rules

To use the KID service the payee is required to enter into an OCR agreement with its ASPSP.

The KID syntax is defined by the payee.

The unique KID for a specific payment is specified by the payee and shall be included in the invoice or payment information given to the payer.

The Payers ASPSP will always check if there is an OCR agreement on the payees account, if the entered KID is valid, or if KID is mandatory.

If the payee has an OCR agreement for the recipient account, a KID with error is entered, the payer's ASPSP shall rejected the payment with a reason code.

The bank is mandated to reject any payment initiation with invalid KID, according to the below table adapted from section 5 the document "Regler om kontroll av krediteringstransaksjoner og distribusjon av informasjon som grunnlag for slik kontroll".

<https://www.bits.no/document/regler-om-kontroll-av-krediteringstransaksjoner-og-distribusjon-av-informasjon-som-grunnlag-for-slik-kontroll/>

Agreement level ->	Without mandatory KID Control code 0	Mandatory KID Control code 2
Payment initiation with correct KID	Payment initiation approved. OK	Payment initiation approved. OK
Payment initiation with missing KID	Payment initiation approved, but sent with/without message. OK	Payment initiation rejected (payee requires KID). KID_MISSING

Payment initiation with invalid KID	Payment initiation rejected (invalid KID). KID_INVALID	Payment initiation rejected (invalid KID). KID_INVALID
--------------------------------------------	------------------------------------------------------------------	------------------------------------------------------------------

3.1.2 Mandatory KID

A payee may choose to require that there must be a valid KID for all electronic payments.

If the payee has an OCR agreement for the recipient account where KID is made mandatory, a payment without KID shall be rejected by the payers ASPSP with a reason code.

3.1.3 Rejection of payment due to invalid or missing KID

The payer shall via the TPP immediately be informed if a payment is rejected due to invalid or missing KID.

3.2 Usage of KID in the NextGenPSD2 interface

The KID parameter shall be included in the following data element:

remittanceInformationStructuredArray

According to ISO20022 the KID parameter must be presented as a reference of the type SCOR. In the API this must be presented like this:

```
"referencetype": "SCOR"
```

Since it is possible to include payment of several invoices/credit notes in one payment instruction KID-values must be presented as an array. For simplification this applies for 1..n payments.

Example with payment of only one invoice (e.g. one KID only):

```
POST https://api.testbank.com/v1/payments/norwegian-domestic-credit-
transfers
Content-Encoding : gzip
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: Thu, 04 Apr 2018 07:03:28 GMT
```

```
{
  "instructedAmount": {"currency": "NOK" , "amount": "499.50"},
  "debtorAccount": { "bban" : "99991012345"},
  "creditorName": "Merchant123" ,
  "creditorAccount": {"bban" : "99990554321"},
  "remittanceInformationStructuredArray": {"reference" :
"010022062838329290202022", "referencetype": "SCOR"}
}
```

Example with payment of several invoices (e.g. more than one KID):

```
POST https://api.testbank.com/v1/payments/norwegian-domestic-credit-
transfers
Content-Encoding : gzip
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: Thu, 04 Apr 2018 07:03:28 GMT

{
  "instructedAmount": {"currency": "NOK" , "amount": "28392.00"},
  "debtorAccount": { "bban" : "99991012345"},
  "creditorName": "Merchant123" ,
  "creditorAccount": {"bban" : "99990554321"},
  "remittanceInformationStructuredArray":
[
{"reference" : "010022062838329290202022", "referencetype": "SCOR"}
{"reference" : "010022062838329271828939", "referencetype": "SCOR"}
{"reference" : "010022062838329290234234", "referencetype": "SCOR"}
{"reference" : "010022062838323234234232", "referencetype": "SCOR"}
{"reference" : "010022062838329234234324", "referencetype": "SCOR"}
]
}
```


If the KID value is not valid or not entered when required, the payer's ASPSP shall reject the payment request and return an error code via the PSD2 interface in the Payment initiation response.

This error/warning element can be embedded in all JSON based response messages of the Berlin Group XS2A Interface.

Example where KID is required but missing:

This error message implicitly indicates that KID is required, hence there is no need to include that 'required' condition in the error message.

```
{
  "transactionStatus" : "Rejected",
  "tppMessages": [ {
    "category" : "ERROR",
    "code" : "KID_MISSING",
    "text" : "additional text information of the ASPSP up to 512
characters",
  } ]
}
```

Example where KID value is not valid:

This error-message may occur both when KID is required and not required.

```
{
  "transactionStatus" : "Rejected",
  "tppMessages": [ {
    "category" : "ERROR",
    "code" : "KID_INVALID",
    "text" : "additional text information of the ASPSP up to 512
characters",
  } ]
}
```

3.3 Usage of Payment Message in the NextGenPSD2interface

The message parameter is supported for all Norwegian domestic payment types.

The message parameter shall be included in the following data element:

remittanceInformationUnstructured

Example:

```
POST https://api.testbank.com/v1/payments/norwegian-domestic-credit-
transfers
Content-Encoding : gzip
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: Thu, 04 Apr 2018 07:03:28 GMT

{
  "instructedAmount": {"currency": "NOK" , "amount": "499.50"},
  "debtorAccount": { "bban" : "99991012345"},
  "creditorName": "Merchant123" ,
  "creditorAccount": {"bban" : "99990554321"},
  "remittanceInformationUnstructured": "eg. invoicenumber"
}
```

The value of this parameter is a data string, hence there is no validation of the data.

4 Transport of eInvoice-references

Any PSP approved by Bits for access to the eFaktura-system for retrieving and presenting electronic invoices to its customers, and initiating payments towards an ASPSP based on the information in the invoice may need to forward the specific electronic invoice reference to the ASPSP.

This reference, named as the eInvoiceKey refers to a specific eInvoice that will have a specific status in the central eInvoice register. Regardless of whether the PSP directly changes the status of the eInvoice in the central register or not, the eInvoiceKey must follow the payment initiation message from the PSP to the ASPSP. The reference name must be given as a specific referencetype under structured remittance information.

4.1 Usage of elInvoice reference in NextGenPSD2 interface

The elInvoice parameter shall be included in the following data element:

remittanceInformationStructuredArray

The elInvoice parameter must be presented as a reference of the type elInvoiceKey. In the API this must be presented like this:

```
"referencetype": "eInvoiceKey"
```

Example with payment of only one invoice (e.g. one KID/SCOR and einvoicekey only):

```
POST https://api.testbank.com/v1/payments/norwegian-domestic-credit-
transfers
Content-Encoding : gzip
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: Thu, 04 Apr 2018 07:03:28 GMT

{
  "instructedAmount": {"currency": "NOK" , "amount": "499.50"},
  "debtorAccount": { "bban" : "99991012345"},
  "creditorName": "Merchant123" ,
  "creditorAccount": {"bban" : "99990554321"},
  "remittanceInformationStructuredArray":
  [
    {"reference" : "010022062838329290202022", "referencetype": "SCOR"}
    {"reference" : "627283927212", "referencetype": "eInvoiceKey"}
  ]
}
```

5 Straks payment specific error codes

This section applies only to the payment product instant-norwegian-domestic-credit-transfers-straks. As the Straks 1.0 solution does not support payments with KID, and is limited to payments up to NOK 500.000 the following error codes are used in case where the PISP is trying to initiate a straks payment to an ASPSP only supporting Straks 1.0 violating these restrictions:

5.1 KID not supported

This error-message will be returned from the ASPSP when a payment is initiated and where KID is specified for a straks payment where the ASPSP is only supporting Straks 1.0.

```
{
  "transactionStatus" : "Rejected",
  "tppMessages": [ {
    "category" : "ERROR",
    "code" : "KID NOT SUPPORTED",
    "text" : "additional text information of the ASPSP up to 512
characters",
  } ]
}
```

5.2 Amount above NOK 500.000 for Straks 1.0 payment

This error-message will be returned from the ASPSP when a payment of more than NOK 500.000 is initiated for the straks product and where ASPSP is only supporting Straks 1.0.

```
{
  "transactionStatus" : "Rejected",
  "tppMessages": [ {
    "category" : "ERROR",
    "code" : "AMOUNT TOO HIGH",
    "text" : "additional text information of the ASPSP up to 512
characters",
  } ]
}
```

6 Payment to self specific error codes

This section applies only to the payment product norwegian-domestic-payment-to-self. Please note that this payment product may only be applied in the situation where the payer and the

payee are the same natural or legal person and both payment accounts are held by the same account servicing payment service provider.

6.1 Debtor and creditor accounts not held by the same ASPSP

As the usage of this product requires the payer and payee accounts to be held by the same ASPSP, any payment initiated with this payment product violating this condition will result in the following error code.

```
{
  "transactionStatus" : "Rejected",
  "tppMessages": [ {
    "category" : "ERROR",
    "code" : "NOT_SAME_ASPSP",
    "text" : "additional text information of the ASPSP up to 512
characters",
  } ]
}
```

6.2 Debtor and creditor accounts not held by same legal or physical person

As the usage of this product requires the payer and the payee are the same natural or legal person, any payment initiated with this payment product violating this condition will result in the following error code.

```
{
  "transactionStatus" : "Rejected",
  "tppMessages": [ {
    "category" : "ERROR",
    "code" : "NOT_SAME_PERSON",
    "text" : "additional text information of the ASPSP up to 512
characters",
  } ]
}
```

7 Regulatory reporting for cross border payments

According to the “cross-border payment regulation”, finance institutions with authorization from the Norwegian FSA must report all cross-border transactions to the cross-border payment register. For any cross border payment above the equivalent of 100.000 NOK, the finance institution must also report the payment type and a description of the purpose of the payment.

Since the finance institution is responsible for reporting this, their systems must be able to collect this information from the payer. The consequence of this is that the bank must offer this functionality also via its PSD2-interface.

7.1 Payment types

The Norwegian tax authority have specified the following payment types to be reported:

Code	Type
	Goods
14	Purchase/sale of goods
	Services
26	Rent
29	Other purchase/sale of services
	Interest, dividend and other capital
31	Interest
35	Dividend
38	Other capital dividend
	Capital transactions
41	Purchase/sale of property and activated rights abroad
43	Direct investment in shares
45	Direct investments in other capital
51	Portfolio-investment in shares and security shares
52	Portfolio-investments in bonds and certificates
53	Portfolio-investments in derivatives
71	Life-insurance/pension
79	Other finance investments
	Other transfers
81	Salary
82	Inheritance, gift etc

7.2 Purpose of payment

In addition to the code, the payer must describe the purpose of the payment. This description is in free-text form.

7.3 ISO 20022 format

In a pain.001, regulatory reporting (AML etc.) are found on level 2 beneath <PmtInf><CdtTrfTxInf>

<pre> <RgltryRptg> <Dtls> <Cd>26</Cd> <Amt Ccy=»SEK»>201000.50</Amt> <Inf>Rent</Inf> </Dtls> </RgltryRptg> </pre>	<p>RegulatoryReporting initiation</p> <p>Details</p> <p>Specifies the nature of the payment in a Coded form</p> <p>Amount and currency to be reported</p> <p>Additional details in a free form clarifying the payment.</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

7.4 Usage of Regulatory Reporting in the Berlin Group interface

This applies only to the cross-border payment types.

<pre> POST https://api.testbank.com/v1/payments/norwegian-crossborder-credit-transfers Content-Encoding : gzip 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: Thu, 04 Apr 2018 07:03:28 GMT { "instructedAmount": {"currency": "SEK" , "amount": "201000.50"}, </pre>

```
    "debtorAccount": { "iban" : "NO6512031072628"},
    "creditorName": "Merchant123" ,
    "creditorAccount": {"iban" : "SE0912031072628"},
    "remittanceInformationUnstructured": "eg. invoicenumber"
    "RegulatoryReportingAmount": {"currency": "SEK" , "amount":
"201000.50"},
    "RegulatoryReportingCode": "26",
    "RegulatoryReportingInformation": "Rent for skiapartment"
}
```

If required regulatory reporting information is not entered when required, the payer's ASPSP shall reject the payment request and return an error code via the PSD2 interface in the Payment initiation response.

This error/warning element can be embedded in all JSON based response messages of the Berlin Group XS2A Interface.

Example where regulatory reporting data is required but missing:

This error message implicitly indicates that regulatory reporting data is required, hence there is no need to include that 'required' condition in the error message.

```
{
  "transactionStatus" : "Rejected",
  "tppMessages": [ {
    "category" : "ERROR",
    "code" : "REGULATORY REPORTING DATA MISSING",
    "text" : "additional text information of the ASPSP up to 512
characters",
  } ]
}
```

8 Core Payment Structures

In this section, the data elements required for the different payment products in Norway are described.

8.1 Norway domestic Single Payments

Please note that the payment product *instant-norwegian-domestic-credit-transfers-straks* is used for both the soon deprecated Straks1.0 and the current Straks2.0. The version of the Straks payment supported by the ASPSP must be described in the available interface documentation.

Data Element	Type	norwegian-domestic-credit-transfers	instant-norwegian-domestic-credit-transfers-straks	instant-norwegian-domestic-credit-transfers (FUTURE)	norwegian-domestic-payment-to-self
endToEndIdentification	Max35Text	n.a.	n.a.	n.a.	n.a.
InstructionIdentification	Max35Text	n.a.	n.a.	n.a.	n.a.
debtorName	Max70Text	n.a.	n.a.	n.a.	n.a.
debtorAccount (incl. type)	Account Reference	mandatory	mandatory	mandatory	mandatory
debtorId	Max35Text	n.a.	n.a.	n.a.	n.a.
ultimateDebtor	Max70Text	optional	optional	optional	n.a.
instructedAmount (inc. Curr.)	Amount	mandatory	mandatory	mandatory	mandatory
currencyOfTransfer	Currency Code	n.a.	n.a.	n.a.	n.a.
exchangeRateInformation	Payment Exchange Rate	n.a.	n.a.	n.a.	n.a.
creditorAccount	Account Reference	mandatory	mandatory	mandatory	mandatory
creditorAgent	BICFI	optional	optional	optional	n.a.
creditorAgentName	Max140Text	n.a.	n.a.	n.a.	n.a.
creditorName	Max70Text	mandatory	mandatory	mandatory	optional
creditorId	Max35Text				
creditorAddress	Address	optional	optional	optional	optional
creditorNameAndAddress	Max140Text	n.a.	n.a.	n.a.	n.a.
ultimateCreditor	Max70Text	optional	optional	optional	n.a.
purposeCode	Purpose Code	optional	optional	optional	optional
chargeBearer	Charge Bearer	n.a.	n.a.	n.a.	n.a.
serviceLevel	Service Level Code	n.a.	n.a.	n.a.	n.a.
remittanceInformationUnstructured	Max140Text	optional	optional	optional	optional
remittanceInformationUnstructuredArray	Array of Max140Text	conditional	n.a.	n.a.	n.a.

remittanceInformationStructured	Remittance	conditional	optional	optional	optional
remittanceInformationStructuredArray	Array of Remittance	Conditional	n.a	Conditional	n.a
requestedExecutionDate	ISODate	Optional	n.a.	n.a.	optional
requestedExecutionTime	ISODateTime	n.a.	n.a.	optional	n.a.

8.2 Norway domestic Bulk Payments

See section 11.3 Bulk Payments in NextGenPSD2 Implementation Guidelines v1.3.6 for further details.

Data Element	Type	norwegian-domestic-credit-transfers	instant-norwegian-domestic-credit-transfers-straks	instant-norwegian-domestic-credit-transfers (FUTURE)	norwegian-domestic-payment-to-self
batchBookingPreferred	Boolean	optional	n.a	n.a	n.a
debtorAccount (incl. type)	Account Reference	mandatory	n.a	n.a	n.a
paymentInformationId	Max35Text	n.a	n.a	n.a	n.a
requestedExecutionDate	ISODate	optional	n.a	n.a	n.a
requestedExecutionTime	ISODateTime	optional	n.a	n.a	n.a
Payments*	Bulk Entry	mandatory	n.a	n.a	n.a

8.3 Norway cross-border Single Payments

This payment type is based on the Berlin Group Cross Border CT Core payment product.

Data Element	Type	norwegian-crossborder-credit-transfers
endToEndIdentification	Max35Text	optional
InstructionIdentification	Max35Text	n.a
debtorName	Max70Text	n.a
debtorAccount (incl. type)	Account Reference	Mandatory
debtorId	Max35Text	n.a
ultimateDebtor	Max70Text	n.a
instructedAmount (inc. Curr.)	Amount	Mandatory
currencyOfTransfer	CurrencyCode	n.a
exchangeRateInformation	Payment Exchange Rate	n.a.
creditorAccount	Account Reference	mandatory

creditorAgent	BICFI	optional
creditorAgentName	Max70Text	n.a.
creditorName	Max70Text	mandatory
creditorID	Max35Text	n.a.
creditorAddress	Address	optional
ultimateCreditor	Max70Text	n.a.
purposeCode	Purpose Code	n.a.
chargeBearer	Charge Bearer	conditional
remittanceInformationUnstructured	Max140Text	optional
remittanceInformationUnstructureArray	Array of Max140Text	n.a.
remittanceInformationStructured	Remittance	n.a.
remittanceInformationStructuredArray	Array of Max140Text	optional
requestedExecutionDate	ISODate	optional
requestedExecutionTime	ISODateTime	n.a.
regulatoryReportingAmountCurrency (amount and currency)	Amount and Currency code	Conditional [^]
regulatoryReportingCode	Code	Conditional [#]
regulatoryReportingInformation	Max140Text	Conditional [#]

The data elements marked with "n.a." are not used in the addressed core services, shared by all ASPSP offering these product, but they can be used in ASPSP or community wide extensions. Extensions of these tables are permitted by this specification.

* This is a data element to indicate a diverging interbank currency.

[^] Amount and currency is available in the mandatory data element **instructedAmount (inc. Curr.)**, but may also be included in this ISO20022 data element if supported by ASPSP. Please see the API-documentation for each bank for support of this data element.

[#] Condition: Cross-border payment with value above the equivalent of 100.000 NOK