Danske Bank

Service Description
Transfer of Material XML (C2B)

27.7.2017

Contents

Date	Version	Subject of the change
2.6.2010	1.0	2.1.2 recommendation to avoid long technical lines
19.7.2010	1.1	1.3 +Authstn Customer can choose in Group Header what kind of Status report they need. Default value is Negative BANSTA, only formation of rejected payments.
15.11.2010	1.2	2.1.1 changed and 2.2 changed
20.5.2011	1.3	Added characters about entity code
15.6.2011	1.4	Added response codes for Web Services
1.11.2012	1.5	Changed in 2.1.3 the over due dates.
15.11.2012	1.6	Name changed as Dansk Bank
10.1.2013	1.7	Payment message (pain.001) and status report (pain.002) version 3
10.3.2015	1.8	PATU channel away

| 28.12.2015 | 2.0 | Change in 2.1.3 regarding whitespace and update of 2.1.2 |
| 27.7.2017 | 2.1 | Change in 2.1.2 regarding character set usage |

1 XML file message

1.1 General

This Danske Bank XML Material Transmission service description is for Finland.

To Danske Bank is possible to send payment material in file standard ISO 20022 XML format. The XML-material format parallels the present national services in Finland.

Using Danske Bank service XML Material Transmission, a Company can make all payments to be paid as account transfers by using messages of only one international standard.

In Finland, the Service comprises of invoice payment services, recurring payments (salaries/wages and pensions), foreign payments and order messages MT101 and other file formats in Danske Bank Group are available (excluding PATU Material Transmission).

XML Material Transmission includes both versions 2 and 3 in payment message pain.001 and response message pain.002.

2 Description of messages

The messages that are used by Danske Bank follow the description of payment messages ISO 20022. Based on the ISO descriptions, Danske Bank has written a special handbook on applications in which the data contents in different types of payments that are used by Danske Bank are defined.

The Federation of Finnish Financial Services has published a handbook covering the messages used for SEPA payments and their data content.

The handbook written jointly by the banks and edited by the Federation of Finnish Financial Services can be found at the address: www.fkl.fi

The service is based on international ISO 20022 messages. Further information can be found at the address www.iso20022.org

2.1 Sending and retrieving messages

The material is sent using banking software to the Web Services. Business Online material shall be sent using function Files to the Bank.

2.1.1 Treatment of messages

The customer sends payment order material the form of structure and contents of which shall meet the requirements of ISO 20022 messages and the instructions of Danske Bank.

The Bank identifies the sender and at the same time checks the sender's authority to send messages of this type. The Bank sends a technical notice stating if the message was sent successfully or, if not, state the reason for an unsuccessful transmission.

The customer retrieves the response message of type ISO20022 XML which The Bank forms informing the sender the status of the material in the Bank, whether the material was received successfully, or possible discrepancies. If the batch or any transaction is rejected in the Bank's treatment, the customer receives a code in the response message indicating the discrepancy.

2.1.2 Character set

Sending

The following character set can be used: ISO 8859-1, ISO 8859-15 and UTF-8

Note: We advise customers to use character set ISO 8859-1 or ISO 8859-15 when the following options are both true for a pain.001.001.02 or pain.001.001.03 file:

• The file is protected with Danske Bank EDISec security (encrypted and/or signed)

• The file contains certain special characters like the Scandinavian letters (æ, ø, å, ö, ä, Æ, Ø, Ö, Ä)

Retrieval of Status Report

In Receiver's Feedback the symbols / coding are same as in the sending.

Payment Status Report coding is following:

- Group Status ACCP: same as in the sending

- Group Status PART/RJCT: ISO-8859-15

Character Set Entity

Certain special characters are replaced according to the XML standard. The entities are as follows:

Sign	Entity	
&	&	
<	<	
>	>	
"	"	
'	'	Allowed to other SEPA countries

Character encoding used in the message must match to the character set name in XML header (e.g. <?xml version="1.0" encoding="UTF-8"?>).

Special characters, including Scandinavian characters (Åå,Ää,Öö), must not be used in identification fields: MessageId, PaymentInformationId, InstructionId and EndToEndId.

2.1.3 Structure of material to be sent

The message used for payment orders is "Customer Credit Transfer Initiation". The technical name of the message is "pain.001.001.02" or "pain.001.001.03"..
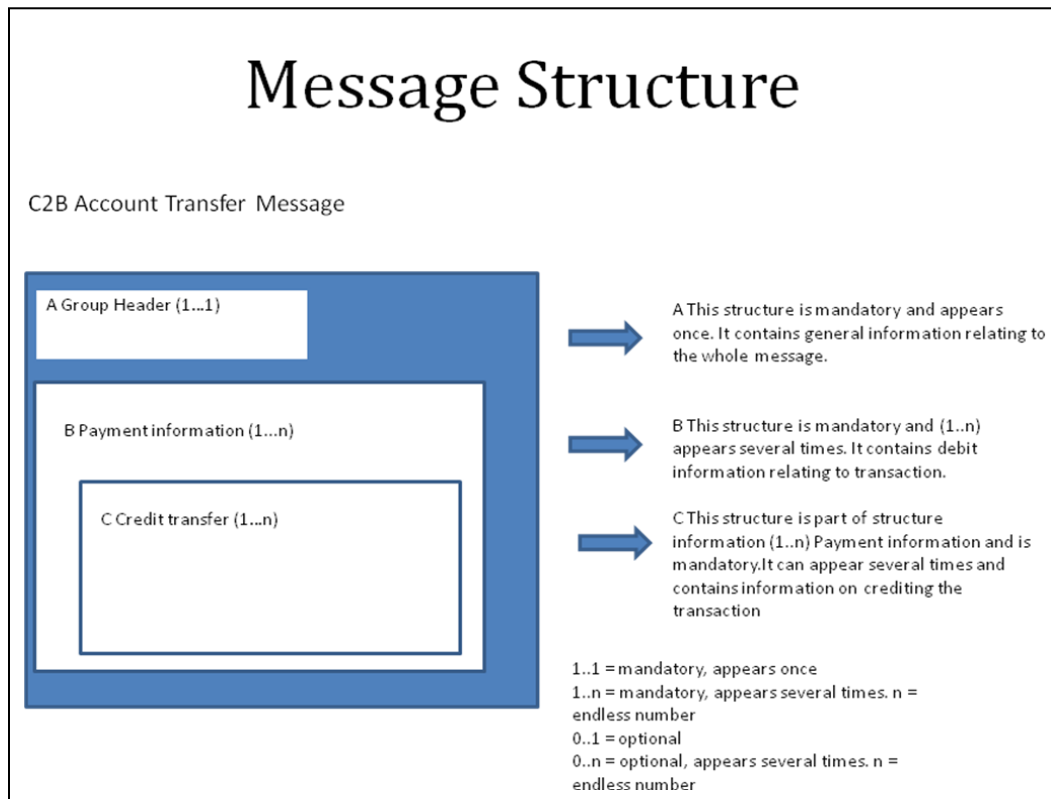
Danske Bank recommend that all whitespace is removed from XML files. Whitespace is blanks, new lines, tabs in the XML, which is not part of data.

C2B material transmission can contain one or more payments.

If the material contains several payments, the sender can, when forming the material, use group functions for payments. All C2B material transmission shall have the service code agreed on in the Agreement.

- Payment orders are given within level Group Header, joined to a Payment Information order according to debit account and due date. The message shall contain all Credit Transfer Transaction Information transactions to be paid on the same day. Wage/salary transactions shall be picked individually to a separate Payment Information batch so that debiting of the wages/salaries is reported on the customer's account statement according to the customer's batch.

  o The information for debiting several payments as a compilation, however, crediting as separate transactions

  o Or, through separate debit and credit information for each payment as separate transactions

We recommend grouping of payment to be made in form 'Mixed'.

Message Structure

C2B Account Transfer Message

A Group Header (1...1)

→ A This structure is mandatory and appears once. It contains general information relating to the whole message.

B Payment information (1...n)

→ B This structure is mandatory and (1..n) appears several times. It contains debit information relating to transaction.

C Credit transfer (1...n)

→ C This structure is part of structure information (1..n) Payment information and is mandatory. It can appear several times and contains information on crediting the transaction

1..1 = mandatory, appears once
1..n = mandatory, appears several times. n = endless number
0..1 = optional
0..n = optional, appears several times. n = endless number

Grouping type is mixed.

In the same Payment information part several Credit transfer transaction information parts can be joined, under the condition that they have the same:

- Type of payment
  - o Domestic and foreign account transfers, SEPA-account transfers, Urgent Payment and Money Order
  - o Salaries/wages and pensions (SALA)
  - o MT101 (order from foreign account)
- Debit account
  - o The IBAN format is mandatory when the debit account is in Danske Bank
- Due date
  - o In C2B payment material the due date can be stated 365 days ahead, as a maximum
  - o Overdue dates can be accepted and debited as soon as the payment can be treated

- Web Services-and Business Online file transmissions maximum of 60 calender days
  - o If the payment consists of wages/salaries or pensions, i.e. if there is a tag CtgyPurp>SALA, the payment date must be a banking day

The total material can be rejected if it contains unacceptable groupings.

Even if foreign payments can be described as grouped in the material, our Bank still, when making the bookings of the payments, uses separate debit transactions for them instead of collected debits, i.e. debits each payment separately.

Account transfers requiring foreign exchange

- Account transfers requiring foreign exchange can be joined to the same Payment Information part if the currency of the debit account has been notified in the payment message.

- If the currency for the debit account has not been notified, payments requiring foreign exchange shall always have an individual Single Structure Information part

2.2 Response from the Bank to the customer

After receiving the payment data, the Bank creates the response message "Payment Status Report", the technical name of which is "pain.002.001.02"or "pain.002.001.03".

The response message will be created in two different stages:

Stage 1: response on receipt

Stage 2: response on payment processing

By default, the response message is created as follows:

2.2.1 Response on receipt

The structure of the payment material is validated on the basis of an XML scheme. However, the information content of the material is not yet validated at this stage. After receiving the payment material, the Bank creates a response message for the entire payment message at the Group level.

ACTC = The payment material was received and accepted.
Specifying information of the original message: OriginalMessageIdentification, OriginalCreationDateTime, OriginalNumberOfTransactions and OriginalControlSum (if OriginalControlSum was included in the pain.001 message).

RJCT = The payment material was rejected in full and it will not be processed further.
Specifying information of the original message: OriginalMessageIdentification, OriginalCreationDateTime and OriginalNumberOfTransactions.

In Web Services-other file types than XML –payment file you receive a response message only when the bank has received the payment file but not from later processing the payment file

Response message could be:

- **ACTC** = The payment material was received and accepted, or

- **RJCT** = The payment material was rejected in full and it will not be processed further.

2.2.2 Response on payment processing

After receipt, the payments are sent for further processing, which involves additional checks, and the Bank will create responses at more detailed levels concerning the validity of the payments.

Responses on Group level

- **ACCP** = All payment orders have been accepted and can be entered on the due date.
  Specifying information of the original message: OriginalMessageIdentification, OriginalCreationDateTime, OriginalNumberOfTransactions and OriginalControlSum (if OriginalControlSum was included in the pain.001 message).

- **PART** = Some of the payment orders have been accepted and some have either been rejected or returned to the debit account ("U-turn").
  Specifying information of the original message: OriginalMessageIdentification and OriginalControlSum (if OriginalControlSum was included in the pain.001 message).

- **PART** = All payment orders have been rejected or returned to the debit account ("U-turn").
  Specifying information of the original message: OriginalMessageIdentification and OriginalControlSum (if OriginalControlSum was included in the pain.001 message).

2.2.3 Responses on Transaction level

Responses on the Transaction level are used to report the success of the processing of individual payment transactions in the Bank's system. The Bank creates responses on the Transaction level for either the payment batch (PmtInf level) and/or an individual credit transaction (CdtTrfTxInf level).

By default, a response will only be returned on the Transaction level if the Group-level response is **PART** or **RJCT.**

- **RJCT =** the payment order was rejected.
  In addition to the Group-level response, the Bank returns the specifying information of the original payment batch or individual credit transaction as follows:

  - If the rejection was due to the payment batch (PmtInf level): OriginalPaymentInformationIdentification.

- If the rejection was due to the credit transaction (CdtTrfTxInf level): OriginalPaymentInformationIdentification, OriginalEndToEndIdentification, Amount and Creditor Name.

If the payment batch includes payment types which are entered as individual payments and not as combined debits (such as international payments) in the Bank's systems and the debit account is incorrect, the Bank reports both the incorrect payment batch and all of the credit transactions included in it in the response message.

If the funds on the debit account are insufficient, the bank will check the balance over five (5) banking days. A separate response message will be returned on a daily level by reporting the status of the payment batch = **PDNG**.

If sufficient funds are not available after five (5) banking days, the bank cancels the entire payment batch or individual payment transaction and the response message returns the following values: Group-level= **RJCT** and Transaction level= **RJCT**. Specifying information of the original message: OriginalPaymentInformationIdentification.

2.2.4 In addition to the default, the Bank also returns other types of response messages as follows:

The customer can use the <Authstn> tag in the Group Header to determine the kind of response required from the Bank. If this information is not provided, the default response message will be returned.

The content of the response message on payments may be chosen using Feedback=xxx, where the value of xxx is any one of the values listed below.

XBU = rejected payments and payments returned to the debit account ("U turn") only

XAU = successful payments only

XDU = rejected and successful payments

XDY = rejected, successful and pending payments

Example: <Authstn>Feedback=XBU</Authstn>

Depending on the Feedback value used, the Bank will return two different response messages on payments processing.

3. Agreement

The use of the Material Transfer Services Web Services requires a valid Agreement on electronic services. After this sending and retrieving XML material can start. When the customer has agreed on the Material Transfer XML Service he can send and receive all payments in XML format and responses to them, which are offered by the Bank, without a separate Agreement.

The use of Business Online requires a valid Business Online Agreement containing the module material transfer (part of the Business Online Basic or Global package). The customer can start sending and retrieving XML material as soon as he has the readiness for it.

The customer can make an amendment to an Agreement or conclude a new Agreement in any of Danske Bank's corporate branches.

Prior to sending messages to Danske Bank, the structural authority must be checked against Scheme and be tested.

3.1. Testing

The customer or the supplier of the software can test his own XML-files with Danske Bank. The files can be tested in the system test environment or in the production. The service code of the material and the account are the customer's own used in production.

3.1.1 System-test environment

The test material is sent via email as an attachment. Danske Bank processes the material in the system-test and sends a feedback to the customer.

Recommendation is to send the material for checking to email: xml-testaus@danskebank.fi before starting the production.

This way we can check the format before processing of the payments. This is necessary if the supplier of the software has not tested with Danske Bank.

3.1.2 Production test

1. Do the XML- Material Transmission agreement with Danske Bank, if you use Banking software and Material Transmission Service or Business Online material transmission, you do not need to do separate agreement.

2. The test material the customer has sent is received through the normal service channel, a receipt check is performed in order to prove that the material sent is formally correct. Also, a response on the test material is made in the Bank.

   - The sender can define a single payment material as test material by writing 'TEST' in the field 'Authstn' in version 2 or the filed <Authstn ><Prtry> in version 3.
     - o Danske Bank performs a control on material defined in this way, based on XML scheme, but the payments are not booked

   - The sender receives a response concerning the test material in a Payment Status report or through Business Online in the Internet bank by checking the status of the material

3. Danske Bank's Customer Support gives the feedback of the testing via email or telephone as agreed with the customer

3.2 Timetables (Cut off times)

Treatment times for electronic material

Treatment times for incoming and outgoing foreign payments

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4 Advice and support

The contact information of Danske Bank's Corporate Service is available here

5 Appendices

Additional advice from the appendix to the Service Description and examples you can find from here