



EUROPEAN CENTRAL BANK

EUROSYSTEM

T2S CHANGE REQUEST FORM		
<b>General Information (Origin of Request)</b>		
<input type="checkbox"/> User Requirements (URD) or GUI Business Functionality Document (BFD) <input checked="" type="checkbox"/> Other User Functional or Technical Documentation (SYS)		
<b>Request raised by:</b> Danmarks Nationalbank	<b>Institute:</b> Central Bank	<b>Date raised:</b> 04/11/2022
<b>Request title:</b> T2S settlement day processes for DKK		<b>Request No.:</b> T2S 0794 SYS
<b>Request type:</b> Common	<b>Classification:</b> Scope enhancement	<b>Urgency:</b> Normal
<b>1. Legal/business importance parameter<sup>1</sup>:</b> High	<b>2. Market implementation efforts parameter<sup>2</sup>:</b> Low	
<b>3. Operational/Technical risk parameter<sup>3</sup>:</b> High	<b>4. Financial impact parameter<sup>4</sup>:</b> Medium	
<b>Requestor Category:</b> Central Bank	<b>Status:</b> Proposed for a release	

**Reason for change and expected benefits/business motivation:**

In a press release issued on 8 December 2020, Danmarks Nationalbank (DKCB) informed of its decision to discontinue its current RTGS system, Kronos2, and migrate the settlement of Danish kroner (DKK) to the European payment and securities settlement platform TARGET Services in April 2025.

With the change request T2S-0782-SYS, the DKCB accepted to keep the mandatory cash sweep event (GOLT) for T2S DKK for an interim period after the Go-Live of DKK migration to T2 and TIPS, as the timeline for development and testing of a direct balance snapshot on T2S DKK was deemed too short of a timeline with the current project plan.

In this interim period the DKK payment bank cut-off (and balance snapshot) were implemented indirectly through the LTRC and GOLT events, thus utilising already available functionality in T2S. By using the LTRC and GOLT events, DKCB ensured that no participants can hold or move liquidity to and from their T2S DCA accounts after execution of these two events.

However, it was agreed that DKCB would raise a T2S change request for implementation after the April 2025 Go-Live that further harmonizes the setup across RTGS, CLM, TIPS and T2S, and improves the functionality as started with change request T2S-0782-SYS.

A “Full scope payment bank cut-off” on T2S DKK would make it possible for DKK participants to have liquidity standing on T2S accounts overnight and leverage the full cash management functionalities across TARGET Services, as available for participants settling EUR from the Go-live of the T2-T2S Consolidation Project.

The change request ‘T2S settlement day processes for DKK’ T2S-0794-SYS requires that

<sup>1</sup> Legal/business importance parameter was set to ‘High’ because the change request enables the DKK community to leverage the full-scope consolidated TARGET Services functionalities, while at the same time enabling DKCB to exercise its monetary policy. This would offer significant enhancement and benefits to the DKK T2S Actors.

<sup>2</sup> Market implementation effort parameter was set to ‘Low’ because the functionality will leverage on what is already implemented in T2 for DKK (see CSLD-0087-URD). Thus, the DKCB will have set procedures for how to operate within this framework. The market participants are also deemed to implement the changes rather frictionless into their operations.

<sup>3</sup> Operational/technical risk parameter was set to ‘High’ because the changes implement new currency dependent functionalities to the T2S settlement day process which have a significant operational impact.

<sup>4</sup> Low < 100k EUR < Low-Medium < 200 k EUR < Medium < 400k EUR < High < 700k EUR < Very high

- A) the Automated mandatory cash sweep is switched to a second optional cash sweep like the future OSC2 event for T2S EUR;
- B) the implementation of a balance snapshot generation directly on T2S DKK; and
- C) the implementation of a DKK Central Bank period where only DKCB DKK can make intra- and inter liquidity transfers.

This change request T2S-0794-SYS builds upon the changes in T2S-0782-SYS, as well as its counterparts, namely the T2 change request CSLD-0087-URD and TIPS change request TIPS-0049-URD, which were necessary for Danmarks Nationalbank to exercise the Danish Monetary Policy of keeping Danish kroner pegged to the Euro.

Having T2S-0794-SYS implemented, is both a request from the DKCB as well as the Danish banking industry who calls for harmonization between RTGS, CLM, TIPS and T2S, and between TARGET Services in DKK and in EUR.

#### Description of requested change:

##### A. Switch from Automated Mandatory Cash Sweep to Second Optional Cash Sweep

T2S DKK participants should be allowed to have overnight liquidity on their T2S DCA accounts. Thus, the Automated cash sweep at 4:45 p.m. should be switched with a Second optional cash sweep like the future OSC2 event for T2S EUR. The timing and sequence of events are not expected to change from the already approved changes in T2S-0782-SYS, see Table 1 (changes in yellow).

Sequential processes during the closure of RTS period				
T2S settlement day events / processes	EUR TIME (Current)	DKK TIME (Current)	DKK TIME (Future Interim period)	DKK TIME (After Interim Period)
DVP cut-off	4:00 p.m.	4:00 p.m.	4:00 p.m.	4:00 p.m.
Cash restriction cut-off	4:00 p.m.	4:00 p.m.	4:00 p.m.	4:00 p.m.
Release of unused cash restriction	4:00 p.m.	4:00 p.m.	4:00 p.m.	4:00 p.m.
End of DVP cut-off (EDVP)	At the end of DVP cut-off	At the end of DVP cut-off	At the end of DVP cut-off	At the end of DVP cut-off
Automatic reimbursement of collateralisation	4:30 p.m.	4:10 p.m.	4:30 p.m.	4:30 p.m.
Optional cash sweep (standing liquidity transfers)	4:30 p.m.	4:15 p.m.	4:30 p.m.	4:30 p.m.
Bilaterally Agreed Treasury Management (BATM) cut-off	5:40 p.m.	4:15 p.m.	4:40 p.m.	4:40 p.m.
Central Bank Operations (CBO) cut-off	5:40 p.m.	4:15 p.m.	4:40 p.m.	4:40 p.m.
Inbound liquidity transfer cut-off	5:45 p.m.	4:20 p.m.	4:45 p.m.	4:45 p.m.
Automated cash sweep / Second optional cash sweep	5:45 p.m.	4:20 p.m.	4:45 p.m.	4:45 p.m.*
Balance snapshot processing DKK	n/a	n/a	n/a	5:00 p.m.
Securities restriction cut-off	6:00 p.m.			
FOP cut-off	6:00 p.m.			

*\*Automated mandatory cash sweep should be switched to a Second optional cash sweep following the implementation of T2S-CR-0794.*

**B. Balance snapshot**

DKCB DKK needs a consistent balance snapshot of all DKK account balances in all TARGET settlement services at 5 p.m. Each of the TARGET settlement services, i.e. CLM, RTGS, T2S and TIPS, processes such balance snapshot as soon as any remaining non-final cash transfers have been rejected after a payment bank cut-off. The balance snapshots must be consistent across TARGET settlement services in the sense that all liquidity must be recorded once and only once at 5 p.m. After a balance snapshot is generated, each settlement service will forward it to T2 CLM. After T2 CLM has processed its own balance snapshot and received the balance snapshots from T2 RTGS, TIPS and T2S, it sends the collective balance snapshot A2A to DKCB DKK. The collective balance snapshot consists of several messages, i.e. one message per settlement service.

The balance snapshot should have the report name "Balance snapshot (DKK-CB only)" and use the ISO message BankToCustomerStatement (camt.053). For each account, the balance snapshot should state the balance at SoD (with Balance Type Code "OPBD") and the interim booked balance (with Balance Type Code "ITBD"). T2S DKK will also generate a general ledger (GL) file during the EoD phase<sup>5</sup>. The GL file has the report name "General ledger (CB only)" and also uses the ISO message BankToCustomerStatement (camt.053). The GL file will also be sent to T2 CLM (like it does for EUR)<sup>6</sup>. The GL file will state the balance at SoD (with Balance Type Code "OPBD") and the balance at EoD (with Balance Type Code "CLBD") for each account - just like in EUR. To reduce the impact on the schema, the element «Additional Information» in the camt.053 should for both the "Balance snapshot (DKK-CB only)" and the "General Ledger (CB only)" always contain the fixed value «General Ledger». The balance snapshot can be identified by existence of the Balance Type Code «ITBD».

A Payment bank cut-off prior to the balance snapshot preventing any cash transfer debiting or crediting T2S accounts needs to be in place. Such cut-off can be implemented using the already existing Inbound liquidity transfer cut-off, LTRC. The change requests CSLD-0087-URD and TIPS-0049-URD, implement a DKK payment bank cut-off and snapshot of account balances at 5:00 p.m. on T2 (RTGS and CLM) and TIPS, respectively. The LTRC event for DKK currency will take place at 4:45 p.m., allowing time for the second optional cash sweep to complete prior to 5:00 p.m.<sup>7</sup> In the timespan between the payment bank cut-off / LTRC and the balance snapshot processing, all cash transfers to and from T2S (except the Second optional cash sweep), as well as between accounts in T2S, must be rejected.

The Balance Snapshot processing on T2S will be triggered by a new dedicated Event at 5:00 p.m. after the Payment bank cut-off (4:45 p.m. / LTRC event) and the rejection of incoming balance transfers received between the Payment bank cut-off and 5:00 p.m., see Table 1. The Balance Snapshot processing DKK event must be implemented in a flexible way to support the possibility that it can be postponed by the operator from 5:00 p.m. to a later point in time<sup>8</sup>. The possibility to change execution time should be possible during the business day in case of a need for postponement, or in case DKCB in the future decides a different execution time more permanently. Event execution should keep in line with the fixed sequence and timing of other currency-specific and non-currency specific events.

Note that to allow for a certain flexibility on the T2S side and to reduce the dependencies between the implementation on T2 and T2S side, the snapshot functionality is implemented in T2 in a way to provide the whole functionality, but to define a date as of when T2S will provide the snapshot.

**C. DKK Central Bank Period**

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<sup>5</sup> With T2S CR-0782 the General Ledger process in the INTF should become currency dependent.

<sup>6</sup> See MIB-WP-2022-211

<sup>7</sup> The Second optional cash sweep follows the LTRC event in sequence i.e. once the LTRC has completed the Second optional cash sweep will start.

<sup>8</sup> As is the case with the Inbound liquidity transfer cut-off (LTRC) event.

Once the balance snapshot has been processed and sent to CLM and until latest T2S Settlement Day closing at 6:00 p.m., DKCB DKK must be able to move liquidity within T2S and between T2S and the other TARGET settlement services (CLM, RTGS and TIPS). That is, DKCB DKK gets a timeslot every day after the completion and sending of the snapshot, when:

- Payment banks and ancillary systems under the DKCB DKK system entity cannot instruct cash transfers debiting or crediting T2S, RTGS, CLM account, nor inter-service liquidity transfers debiting or crediting TIPS accounts.
- The scope of allowed DKK instruction after the generation and sending of the snapshot is:
  - DKCB DKK can perform
    - In T2S: any (A2A and U2A) inter- or intra-service liquidity transfer orders (to the extent the debited/credited account combinations are already supported).
  - The following functionality is unchanged to current behaviour after LTRC:
    - Last event for execution of Standing and Predefined Liquidity Transfer Orders is "Inbound Liquidity Transfer Cut-off" (LTRC).

#### D. Impacts

There should be no impacts to EUR functionality/business day.

#### Submitted annexes / related documents:

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None

#### Outcome/Decisions:

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\*CRG on 13 January 2023: the CRG agreed to launch the preliminary assessment of CR-794.

\*CRG on 31 May 2023: the CRG agreed to recommend CR-794 for authorisation by the T2S Steering Level.

\*AMI-SeCo on 16 June 2023: the AMI-SeCo agreed with the CRG recommendation of CR-794 for T2S Steering Level Authorisation.

\*CSG on 14 June 2023: the CSG agreed to authorise CR-794.

\*NECSG on 14 June 2023: the NECSG agreed to authorise CR-794.

\*MIB on 22 June 2023: the MIB agreed to authorise CR-794.

\*PMG on 30 June 2023: the PMG agreed to launch the detailed assessment of CR-794 with a view of scoping in Release 2025.NOV.

#### Documentation to be updated:

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#### Preliminary assessment:

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**Financial Impact:** Medium

**Impacted Modules:** LQMG, INTF, SETT

**Impact on other Eurosystem Services or Projects:** No impact on ECMS, TIPS, T2

**Risk analysis:** No risk has been identified during the preliminary assessment

#### Findings:

- The creation of the snapshot file represents a new functionality to be introduced to T2S Report Management. The existing T2S Report Management functionalities can be re-used in the same way as for GL file.
- Inclusion of special Central bank period within Liquidity Management. This phase should be started when the respective camt.019 from CLM arrives.
- Create a new Message usage Balance snapshot (DKK-CB only) for camt.053 including new codewords
- Test of new functionality (mainly 17:00 GL snapshot, NCB period and cut-off, new optional cash sweep) necessary

#### Open issues:

- It should be clarified if the same communication based on camt.019 between CLM and T2S is required as it is done for GL. Are there special requirement of CLM for the sending of the snapshot?

- New events have to be created for DKK balance snapshot, can we reuse set-up for 18:00 GL creation (events GLCR, CLCA, GLSE)?
- 4CB to manage which transfers (i.e. only NCB transfers) are allowed during the “DKK NCB period”?
- Propose to manage the NCB LT transfers without cut-off by sending a “LATE” reply after ERTS event.

Detailed assessment:

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