

General Information (Origin of Request)		
<input checked="" type="checkbox"/> User Requirements Document (URD) <input checked="" type="checkbox"/> User Detailed Functional Specification (UDFS) <input checked="" type="checkbox"/> User Handbook (UHB) <input type="checkbox"/> Other User Functional or Technical Documentation (SYS)		
Request raised by: DKCB	Institute: DKCB	Date raised: November 2021
Request title: Dedicated End-of-Day processing for DKK		Request ref. no: CSLD-0087-URD
Request type: common		
1. Legal/business importance parameter:	2. Market implementation efforts parameter – Stakeholder impact:	
3. Operational impact:	4. Financial impact parameter:	
5. Functional/ Technical impact:	6. Interoperability impact:	
Requestor Category: Central Bank	Status: Approved	

Reason for change and expected benefits/business motivation:

This change request is raised in the context of the onboarding of DKK onto T2.

Danmarks Nationalbank would like that participants in DKK only are able to make customer and interbank payment orders between 07:00 and 17:00 in RTGS, i.e. the settlement window for customer and interbank payment orders needs to start later than for Euro (07:00 instead of 02:30; i.e. DKK payment order settlement in RTGS starts after the (optional) maintenance window only).

The change request is important for Danmarks Nationalbank in order to exercise the Danish Monetary Policy of keeping Danish Kroner (DKK) pegged towards the Euro. One of the policy tools is to control the money supply by ensuring adequate liquidity for the participants in the DKK domain. Closing procedures of the business day ensure that all outstanding intraday credit has been reimbursed (lower bound) and that any outstanding liquidity in excess of a certain limit is absorbed (upper bound), and converted from free liquidity into securities known as certificates of deposits.

DKCB needs a period of time when

- payment banks and ancillary systems under the DKCB DKK system entity (not the DKCB EUR entity) can no longer instruct any cash transfers debiting or crediting CLM, RTGS and T2S accounts, as well as *inter-service* liquidity transfers debiting or crediting TIPS accounts.
- DKCB can move liquidity within and between services and perform central bank operations in CLM.

This will serve two main purposes:

- Funding participants which have an overall negative cash balance.
- Converting excess liquidity into certificate of deposits for participants with an overall cash balance above a given limit.

Both purposes are achieved through liquidity transfers, connected payment and credit line updates, all in DKK, instructed by DKCB.

Description of requested change:

A. Cut-off

RTGS: No event « cut-off for customer payments » (RCOC) is employed by DKK community. The event is removed from the DKK schedule as it is not possible to have two different events at the very same point in time. Consequently, unsettled customer payment orders in DKK are rejected at the event « cut off for RTGS RTS II » (RCII).

CLM:

The cut-off for CLM RTS (CCII) and cut off for RTGS RTS II (RCII) for DKK currency takes place at 17:00.

After the cut-off for DKK applicable to all TARGET settlement services (CLM, RTGS, TIPS, T2S) a snapshot (cf. part B below) of all DKK balances is provided to DKCB DKK (the snapshot consists of several messages, i.e. one per settlement service). In order to allow for a certain flexibility on 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.

Note: The interface between T2S and T2 which is already used for EUR (eg. balance query and General Ledger) is not changed by this CR.

In the timespan between the cut-off and the snapshot generation, all instructions, i.e. also instructions submitted by the DKCB DKK (incl. its local CMS), are rejected. This includes all instructions (incl. tasks) submitted prior to cut-off, but with non-final status at cut-off at 17:00 as well as new instructions submitted after the cut-off and before snapshot generation.

DKCB DKK gets a timeslot every day after the completion and the 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 accounts, nor inter-service liquidity transfers debiting or crediting TIPS accounts.
- The scope of allowed DKK instructions after the generation and sending of the snapshot is:
 - DKCB DKK can perform
 - in CLM: any (A2A and U2A) instruction that it can do during the day
 - in RTGS: any (A2A and U2A) inter- or intra-service liquidity transfer orders (to the extent the debited/credited account combinations are already supported, cf. CR58)
 - The following functionality is unchanged to current behaviour after CCII and RCII:
 - Last event for execution of standing order liquidity transfer is "Cut-off for CLM RTS" (CCII) in CLM and "Execution of standing orders after last settlement attempt in RTGS" (RLSO) in RTGS
 - No new automated or rule-based liquidity transfers are triggered after the cut off for CLM RTS (CCII) and cut off for RTGS RTS II (RCII)

Notes

- Marginal lending, overnight deposit and minimum reserves will not be activated for the DKCB DKK system entity and will therefore not take place as for EUR/Eurosystem entities.
- Calculation of interest for accounts subject to interest calculation is available for EUR entities only
- No cross-CB turnover is foreseen for the DKCB DKK as this is only possible in currency « EUR ».

B. Snapshot:

A consistent snapshot of all DKK account balances in all TARGET settlement services i.e. CLM, RTGS, T2S and TIPS will be sent in A2A from CLM to DKCB DKK as soon as any remaining non-final cash transfers have been rejected. The snapshot must be consistent in the sense that all liquidity must be recorded once and only once. The snapshot should be broken down by account. It should be possible to distinguish this snapshot from a regular GL-file. The snapshot consists of several messages, i.e. one message per settlement service.

C. Delivery:

This change request must be implemented as part of DKCB go-live on T2 and must be assessed with change requests T2S-0782-URD and TIPS-0049-URD, and implemented in the June 2024 release as part of the DKCB T2 implementation plan. The T2S-0782-URD change request will stay dormant in the T2S production environment until DKK go-live in T2. A complementary T2S CR will be raised in a subsequent step to implement the functionality needed in order to provide the snapshot in DKK to T2 as well as any further changes necessary in order to fully align to the functionality provided by T2 for DKK.

D. Impacts

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

Submitted annexes / related documents:

None

Proposed wording for the Change request:

This change may have different impacts (throughout the existing T2 and T2S URDs) depending on how it is implemented.

ECB suggests drafting the URD impacts once the implementation design is confirmed.

URD

UDFS

RTGS

4 Business day

More details (including some additional clarification which events are EUR specific and which are DKK specific) will be provided after implementation.

4.5 List of events

Period	Event	Code	Time-based	Standing order	Push ReturnBusinessDayInformation (camt.019) [▶ Error! Bookmark not defined.]	Multi-currency Currency context
SoD	“Change of business day“	RSOD	Yes	No	Yes	Not currency-specific
RTGS RTS I	“Start of RTGS RTS I”	RRTI	Yes	No	Yes	Currency-specific
	“Execution of standing orders in RTGS”	RESO	No	Yes	No	Currency-specific
Maintenance window	“Start of non-optional maintenance window”	RSMW	Yes	No	Yes	Not currency-specific
	“End of non-optional maintenance window”	REMW	Yes	No	Yes	Not currency-specific
	“Start of optional maintenance window”	RSOM	Yes	No	Yes	Not currency-specific
	“End of optional maintenance window”	REOM	Yes	No	Yes	Not currency-specific
RTGS RTS II	“Start of RTGS RTS II”	RRII	Yes	Yes	Yes	Currency-specific
	“Start of settlement window for interbank and customer payments”	RSIC	Yes	Yes	Yes	Currency-specific
	“Cut-off for customer payments”	RCOC	Yes	No	Yes	Currency-specific EUR-specific
	“Cut-off for RTGS RTS II”	RCII	Yes	No	Yes	Currency-specific
	“Execution of standing orders after last settlement attempt in RTGS”	RLSO	No	Yes	No	Currency-specific
	“Balance Snapshot Processing DKK”	RBDK	Yes	No	No	DKK- specific
	“Start of DKK Central Bank Period”	RSDK	No	No	Yes	DKK-specific
	“DKK-CB cut-off”	RCDK	Yes	No	Yes	DKK-specific
EoD	“Start of EoD processing”	REOD	No	No	Yes	Currency-specific
	“EoD – close of service”	RCOS	No	No	No	Not currency-specific

Period	Event	Code	Time-based	Standing order	Push ReturnBusinessDayInformation (camt.019) [▶ Error! Bookmark not defined.]	Multi-currency Currency context
Currency specific closing	“Start of currency specific closing”	RSCC	Yes	No	Yes	Currency-specific
	“End of currency specific closing”	RECC	Yes	No	Yes	Currency-specific

Table 1 - List of events

5 RTGS business functionality

The new events have to be taken into account within the whole UDFS section.

8 Additional information for CBs

Details will be provided after implementation

9 Processes with RTGS

The new events have to be taken into account within the whole UDFS section.

13.1 Index of validation rules and error codes

Details will be provided after implementation

CLM

2.5 Communication between CLM and CLM Actors

The section will be updated in order to provide information on conditional routing for balance snapshot. I.e. no specific conditional routing is foreseen. The conditional routing information for camt.053 general ledger is also used for routing of balance snapshot.

4 Business day

More details (including some additional clarification which events are EUR specific and which are DKK specific) will be provided after implementation

4.5 List of events

Period	Event	Code	Time-based	Standing order	Push ReturnBusinessDayInformation (camt.019) [▶ Error! Bookmark not defined.]	Multi-currency Currency context
SoD	“Change of business day”	CSOD	Yes	No	Yes	Not currency-specific
CLM RTS	“Start of CLM RTS”	CRTI	Yes	No	Yes	Currency-specific EUR-specific
	“Start of CLM RTS DKK”	CRDK	Yes	No	Yes	DKK-specific
	“Execution of standing orders in CLM”	CESO	Yes	Yes	Yes	Currency-specific
	“Cut-off for CLM RTS”	CCII	Yes	Yes	Yes	Currency-specific ¹
	“Balance Snapshot Processing DKK”	CBDK	Yes	No	No	DKK-specific
	“Start of DKK Central Bank Period”	CSDK	No	No	Yes	DKK-specific
	“Data propagation for T2”	T2DP	Yes	No	No	Not currency-specific
Maintenance window	“Start of non-optional maintenance window”	CSMW	Yes	No	Yes	Not currency-specific
	“End of non-optional maintenance window”	CEMW	Yes	No	Yes	Not currency-specific
	“Start of optional maintenance window”	CSOM	Yes	No	Yes	Not currency-specific
	“End of optional maintenance window”	CEOM	Yes	No	Yes	Not currency-specific

¹ This currency-specific event can be defined earlier for other currencies than for Euro currency but not later, i.e before 18:00 CET.

Period	Event	Code	Time-based	Standing order	Push ReturnBusinessDayInformation (camt.019) [▶ Error! Bookmark not defined.]	Multi-currency <u>Currency context</u>
	“DKK-CB cut-off for non-credit line related instructions”	CCDK	Yes	No	Yes	DKK- specific
	“Start of EoD processing DKK”	CEDK	No	No	No	DKK- specific
EoD	“Start of EoD processing”	CEOD	No	No	No	Currency-specific EUR-specific
	“General cut-off for standing facilities”	CCSF	Yes	No	No	Currency-specific EUR-specific
	“DKK-CB cut-off for credit line related instructions”	CMDK	Yes	No	Yes	DKK-specific
	“CB cut-off for marginal lending on request”	CCML	Yes	No	No	Currency-specific EUR-specific
	“EoD – close of service”	CCOS	No	No	No	Not currency-specific
Currency specific closing	“Start of currency specific closing”	CSCC	Yes	No	Yes	Currency-specific
	“End of currency specific closing”	CECC	Yes	No	Yes	Currency-specific

Table 2 - List of events

5 Business and features description

The new events have to be taken into account within this UDFS section.

8 Additional information for CBs

Details will be provided after implementation on balance snapshot and new sections are added for:

8.13 Currency specific features for EUR (-> new chapter)

8.13.1 Specific features for EUR (-> new chapter)

The following list summarizes the features, which CLM provides for EUR, only. Thus they are out of scope for DKK.:

- | marginal lending and overnight deposits (summarised as standing facilities);
- | minimum reserves and excess reserves;
- | infringement penalties regarding monetary policy instruments (e.g. minimum reserves)
- | calculation of interest for accounts subject to interest calculation
- | calculation of cross-CB turnover.

8.13.2 Specific features for DKK (-> new chapter)

The following list summarizes the features, which CLM provides for DKK, only. Thus they are out of scope for EUR.:

- | Balance snapshot.

9 Processes with CLM

The new events have to be taken into account within the whole UDFS section.

New dedicated section directly before 9.20 Coordinate general ledger creation with other settlement services with Name “9.20 Coordinate balance snapshot creation with other settlement services”

New section added for balance snapshot exchanges with other settlement services

9.20 Coordinate general ledger creation with other settlement services

The section will be updated in order to include a note that the General Ledger is provided for all CBs independent from their currency.

9.25.1.2 Messages (Send CLM query)

“Table 88 - A2A messages for query processing” has to be updated in order to describe that balance snapshot can be queried (DKK-CB only) like the general ledger provided during EoD.

9.25.2.2 Messages (Receive CLM report)

Report name	ISO message	ISO code
Statement of account	BankToCustomerStatement	camt.053
General ledger (CB only)	BankToCustomerStatement	camt.053
Balance snapshot (DKK-CB only)	BankToCustomerStatement	camt.053

Table 3 - Outbound report messages

11.3 Usage of Messages

Amendment Table 94 - Usage of Messages with new message use for camt.053 General Ledger.

ISO Message	UDFS Chapter	Message Usage	Inbound/Outbound
admi.005	Send CLM query	Query request message – balance snapshot query (DKK-CB only)	Inbound
[...]			
camt.053 General Ledger	Receive CLM report	Balance snapshot (DKK-CB only) General ledger (CB only)	Outbound

11.5 Business scenarios

Amendment Table 96 - Scenario for Balance Snapshot (DKK CB only)

Business scenario	Overview	Message examples
General ledger example – CB TIPS	In this usage case, CLM delivers a camt.053 general ledger file to the CBs for TIPS accounting and reserve management purposes. The CBs are being informed of all movements occurring on general ledger accounts in their data scope. This report message is automatically generated by CLM in accordance	camt.053_TIPS_BankToCustomerStatement_CB_GeneralLedger_Example.xml

	with the reporting configuration settings applied by the CBs.	
Balance snapshot example – DKK CB CLM	In this usage case, CLM delivers cash accounts balances held in DKK currency in CLM to the Danish Central bank. The Danish Central bank is informed about all cash account balances in its scope. This report message is automatically generated by CLM in accordance with the reporting configuration settings applied by the Danish Central bank.	camt.053 CLM BankTo CustomerStatement DKKCB Balance Snapshot Example.xml

12.1.2 ReportQueryRequest (admi.005)) and UG on MyS

12.1.2.1 Overview and scope of the message

[...]

The ReportQueryRequest message is sent by a business sender to CLM to query the latest available report BankToCustomerStatement (camt.053) (statement of account) for the specified cash account(s), [the balance snapshot \(DKK-CB only\)](#) or to query a copy of the general ledger (CB only).

[...]

12.1.2.3 The message in business context

Amendment "Table 101 - ReportQueryRequest (admi.005)" with a new report name for the query on Balance Snapshot (DKK-CB only).

Message item	Utilisation
[...]	
Report Name RptQryCrit/SchCrit/RptNm/	<p>SACC code for "Statement of Accounts" report type is allowed. GLFQ code for "General Ledger" report type is allowed only for CBs.</p> <ul style="list-style-type: none"> • SACC code for "Statement of Accounts" report type is allowed. • BSDK code for "Balance Snapshot (DKK-CB only)" report type • GLFQ code for "General Ledger" report type is allowed only for CBs.

13.1.2 Balance snapshot and general ledger (camt.053) and UG on MyS

13.1.2.1 Overview and scope of the message

This chapter illustrates the General Ledger message.

The general ledger *BankToCustomerStatement* message is created during the EoD process and sent by CLM to CBs and the ECB to inform of the entries posted to an account and the account balance information at EoD. It is generated for each single CB and for the ECB containing the data pertaining exclusively for the CB or the ECB for which it is produced.

Before start of the DKK Central Bank Period a balance snapshot *BankToCustomerStatement* of all DKK balances is created. It provides the starting balances and the current balance snapshot of the cash accounts. The turnover on accounts will also be provided.

The snapshot of all DKK balances and general ledger *BankToCustomerStatement* message provides information for cash management and/or the reconciliation of information for posted/settled entries only.

CLM will collect balance snapshots and general ledger information from the settlement services (RTGS, CLM, TIPS, T2S) and distribute one balance snapshot and one general ledger *BankToCustomerStatement* message per settlement service and currency.

The message will be sent to the business receiver either:
I immediately after creation;
I in response to a ReportQueryRequest (admi.005) message.

Note: The General ledger and balance snapshot (DKK-CB only) is are not subject to pagination. But as CB receives one General ledger and one balance snapshot (DKK-CB only) per service, a ReceiptAcknowledgement (admi.007) message is sent by CLM in response to the ReportQueryRequest (admi.005) message to the business sender of the General Ledger query (CB only) and Balance Snapshot query (DKK-CB only) to indicate the change of response network service to store-n-forward.

The usage of this message is to be found in chapter Usage of Messages.

13.1.2.3 The message in business context

Specific message contents

Amendment Table 205 - BankToCustomerStatement (camt.053) – general ledger to indicate character of balance snapshot for DKK Central Bank only.

Message item	Utilisation
[...]	
Balance Type <u>Code</u> /Document/BkToCstmrStmt/Stmt/Bal/Tp/CdOrPrtry/Cd	Balance type code of the reported account balance: <ul style="list-style-type: none">• OPBD = Balance at SoD,• CLBD = Balance at EoD.• <u>ITBD = Interim Booked - Used to indicate Balance at Snapshot.</u>

14.2 Index of validation rules and error codes

Details will be provided after implementation

UHB

CLM:

5 Screen Reference Guide – Description of Screens

5.1.12 Messages – Query Screen

Field Descriptions

Message Type

This field offers the possibility to restrict the result list to messages with one or more values for the message type.

Select one or more of the following values:

- | System Event Notification (admi.004)
- | Receipt Acknowledgement (admi.007)
- | Return Account (camt.004)
- | Return Transaction (camt.006)
- | Return Business Day Information (camt.019)
- | Receipt (camt.025)
- | Resolution Of Investigation (camt.029)
- | Return Reservation (camt.047)
- | Modify Reservation (camt.048)
- | Delete Reservation (camt.049)
- | Liquidity Transfer (camt.050)
- | Bank To Customer Statement (camt.053)
- | General Ledger (camt.053)
- | **Balance Snapshot DKK (camt.053)**
- | Bank To Customer Debit/Credit Notification (camt.054)
- | FI to FI Payment Cancellation Request (camt.056)
- | Modify credit line (camt.998)
- | Authorize Penalty Minimum Reserve (camt.998)
- | Insert Value Of Minimum Reserve (camt.998)
- | Insert Balance Minimum Reserve (camt.998)
- | Return Periodic Information Minimum Reserve (camt.998)
- | Payment Status Report (pacs.002)
- | Financial Institution Credit Transfer (pacs.009)
- | Financial Institution Direct Debit (pacs.010)

Note: U2A Liquidity Transfers will only be available as U2A inbound messages and will not be transferred into a camt.050.

Query messages and their responses are not shown in the GUI as these messages are not stored in the database.

For details on the message types see CLM UDFS, chapters '*List of Messages*' and '*List of messages specific for CBs*'.

Default value: 'No filter selected'

(no screenshot update needed)

5.7.11 General System Parameters – Display Screen

Field Descriptions

System Parameter	<p>This column shows the general system parameters valid for CLM and/or RTGS by labelling the rows with the following values:</p> <ul style="list-style-type: none"> Algo 2 Successor Mark Cutoff Difference for Algos Broadcast Expiration Days Time Span for Broadcast prior Latest Debit Time Winter/Summer Time Switch Timestamp Time Shift Before Switch Time Shift After Switch Max Number of Transactions AS Batch Max Number of Transactions AS E Singled Timeout Time Span Interservice Query Monitoring Time Span Interservice Query Response Exclusion ML on Request from Interest Calculation Flag T2S Simulator Active Flag TIPS Simulator Active Flag U2A Business Message Signature Check Active Flag ECMS Date of Golive DKK Date of Golive DKK – T2S Snapshot Activation Date CLM User in T2S Number of business days for duplicate check on RGBI Timeout Time Span General Ledger Timeout Time Span Stop Accepting Interservice LT Timeout Time Span Interservice LT Response
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(screenshot update needed)

7.1 References for Error Messages for GUI Screens

Possible inclusion of new error codes. (Details provided after implementation)

RTGS:

7.1 References for Error Messages for GUI Screens

Possible inclusion of new error codes. (Details provided after implementation)

CRDM:

2.3.1.6 Party Service Link –Search/List Screen

Buttons

Restore	<p>This function enables the user to create or edit a Party Service Link. This function enables the user to restore a previously deleted Party Service Link. If the status of the selected Party Service Link is already set to 'Active' this function is not available.</p> <p>Reference for error message:</p> <p>[...]</p> <p>DPD4017</p> <p>DPD4018</p> <p>DPD4019</p>

2.3.1.7 Party Service Link –Details Screen

Buttons

Restore	<p>This function enables the user to create or edit a Party Service Link. This function enables the user to restore a previously deleted Party Service Link. If the status of the selected Party Service Link is already set to 'Active' this function is not available.</p> <p>Reference for error message:</p> <p>[...]</p> <p>DPD4017</p> <p>DPD4018</p> <p>DPD4019</p>

2.3.1.8 Party Service Link –New/Edit Screen

**Fields
Description**

CLM Configuration Data	
[...]	
Overnight Deposit Indicator	Select whether the party uses Standing Facilities or not. Reference for error message: DPC4021 DPU4022
Marginal Lending Indicator	Select whether the party uses Marginal Lending facility or not. Reference for error message: DPC4021 DPU4022
[...]	
Eurosystem Flag	Select whether the CB is a euro area CB or not. It is enabled only when the Party is a CB whose currency is EUR . This field is mandatory if "Party Type for Service" is equal to "CLM CB Account Holder", "CLM CB Technical Account Holder", "CLM Transit Account Holder", and "Minimum Reserve Obligation" is different from "No".
Maximum Amount for Overnight Deposit	Enter the maximum amount for overnight deposit defined for a non Eurosystem CB. It is enabled only when the Party is a CB whose currency is EUR . This field is mandatory if Eurosystem Flag is set to "No". It is not allowed otherwise. Required format is: Amount.

Buttons

Submit	<p>This function enables the user to create or edit a Party Service Link.</p> <p>Reference for error message:</p> <p>[...]</p> <p>DPC4011</p> <p>[...]</p> <p>DPC4021</p> <p>[...]</p> <p>DPU4022</p>
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4.3.2.54 Party Service Link –Search/List Screen

Reference for error message	Field or Button	Error Text	Description
DPD4014	Minimum Reserve Obligation field Submit button	Invalid Minimum Reserve Obligation	In a restore request Minimum Reserve Obligation must be set to "No" for non-Eurosystem institutions whose currency is not Euro and for non-Eurosystem institutions whose currency is euro.
DPD4017	Restore button	Service Party Type is not consistent with linked Currency	In a restore request, a Party whose currency is not Euro cannot be linked as 'Institution managing minimum reserve without account in CLM' or 'CLM CB Technical Account Holder'.
DPD4018	Restore button	Party is not a Euro Central Bank	In a restore request, Eurosystem Flag and Maximum Amount for

			<u>Overnight Deposit can only be defined for Central Bank Parties whose currency is Euro.</u>
<u>DPD4019</u>	<u>Restore button</u>	<u>Invalid use of Overnight Deposit Indicator and Marginal Lending Indicator</u>	<u>In a restore request, Overnight Deposit Indicator and Marginal Lending Indicator must be set to 'False' for linked Parties whose currency is not Euro.</u>

4.3.2.55 Party Service Link –Details Screen

Reference for error message	Field or Button	Error Text	Description
DPD4014	Minimum Reserve Obligation field Submit button	Invalid Minimum Reserve Obligation	In a restore request Minimum Reserve Obligation must be set to "No" for non-Eurosystem institutions <u>whose currency is not Euro and for non-Eurosystem institutions whose currency is euro.</u>
<u>DPD4017</u>	<u>Restore button</u>	<u>Service Party Type is not consistent with linked Currency</u>	<u>In a restore request, a Party whose currency is not euro cannot be linked as 'Institution managing minimum reserve without account in CLM' or 'CLM CB Technical Account Holder'.</u>
<u>DPD4018</u>	<u>Restore button</u>	<u>Party is not a Euro Central Bank</u>	<u>In a restore request, Eurosystem Flag and Maximum Amount for Overnight Deposit can</u>

			<u>only be defined for Central Bank Parties whose currency is Euro.</u>
<u>DPD4019</u>	<u>Restore button</u>	<u>Invalid use of Overnight Deposit Indicator and Marginal Lending Indicator</u>	<u>In a restore request, Overnight Deposit Indicator and Marginal Lending Indicator must be set to 'False' for linked Parties whose currency is not Euro.</u>

4.3.2.56 Party Service Link –New/EditScreen

Reference for error message	Field or Button	Error Text	Description
<u>DPC4011</u>	<u>Submit button</u>	<u>Service Party Type is not consistent with linked Currency</u>	<u>The Service Party Type 'Institution managing minimum reserve without account in CLM' or 'CLM CB Technical Account Holder' cannot be used for Parties whose linked currency is not Euro.</u>
DPC4014	Minimum Reserve Obligation field Submit button	Invalid Minimum Reserve Obligation	Minimum Reserve Obligation must be set to "Indirect" or "Pool" for Institutions managing minimum reserve without account in CLM. Minimum Reserve Obligation must be set to "No" <u>for linked Parties whose currency is not Euro and for non-Eurosystem institutions whose currency is euro.</u>
DPC4015	Eurosystem Flag field	Party is not a Central Bank	Eurosystem Flag and Maximum Amount for

	Maximum Amount for Overnight Deposit field Submit button		Overnight Deposit can only be defined for Central Bank Parties whose currency is Euro.
DPC4021	Overnight Deposit Indicator Marginal Lending Indicator Submit button	Invalid use of Overnight Deposit Indicator and Marginal Lending Indicator	Overnight Deposit Indicator and Marginal Lending Indicator must be set to 'False' for linked Parties whose currency is not Euro.
DPU4014	Minimum Reserve Obligation field Submit button	Invalid Minimum Reserve Obligation	Minimum Reserve Obligation must be set to "Indirect" or "Pool" for Institutions managing minimum reserve without account in CLM. Minimum Reserve Obligation must be set to "No" for non-Eurosystem institutions and for linked Parties whose currency is not Euro.
DPU4015	Eurosystem Flag field Maximum Amount for Overnight Deposit field Submit button	Party is not a Central Bank	The Eurosystem Flag and Maximum Amount for Overnight Deposit can only be used for Central Bank Parties whose currency is Euro and must be modified consistently. If Eurosystem Flag is set to FALSE, a value for Maximum Amount for Overnight Deposit must be provided. If Eurosystem Flag is set to TRUE, no value for Maximum Amount for Overnight Deposit can be provided. If a value for Maximum Amount for Overnight Deposit is provided, Eurosystem Flag must be set to FALSE.

DPU4022	Overnight Deposit Indicator Marginal Lending Indicator Submit button	Invalid use of Overnight Deposit Indicator and Marginal Lending Indicator	Overnight Deposit Indicator and Marginal Lending Indicator must be set to 'False' for linked Parties whose currency is not Euro.
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High level description of Impact:

Impacts on other projects and products:

A T2S and TIPS CR will be raised and will be assessed with this CR.
Potential impact on CLM adapter (CR 50) is to be assessed in the corresponding TIPS CR.
CR047 will also have impact on camt.053_General Ledger (UG incl. schema changes).

Outcome/Decisions:

EUROSYSTEM ANALYSIS – GENERAL INFORMATION

			Process	User Interaction	Business Data Definition	Non-functional Requirements
CENTRAL LIQUIDITY MANAGEMENT (CLM)	GENERAL	CLM Payment Order	X			
		CLM Liquidity Transfer Order	X			
		CLM Liquidity Reservation				
	CENTRAL BANK SERVICES	Modify Credit Line				
		Connected Payments				
		Overnight Deposit				
		Marginal Lending				
		Minimum Reserve Management				
		EoD General Ledger Files	X			
	REAL-TIME GROSS SETTLEMENT (RTGS)	GENERAL	RTGS Payment Order	X		
Queue Management						
RTGS Liquidity Transfer Order			X			
RTGS Liquidity Reservation						
RTGS Services for Ancillary Systems (AS)			X			
CB SERVICES			X			
COMMON	GENERAL	ESMIG				
		CRDM	X			
		Business Day	X			

		User Roles and Access				
		Information and Reporting	X			
		Data Warehouse Services				
	CENTRAL BANK OPERATIONS	Billing	X			
		Legal Archiving				
		Contingency Settlement				
4CB internal categories		Operational Tools				
		Automation				

Impact on major documentation		
Document	Chapter	Change
Impacted UDFS chapter	<p>RTGS: 4 Business day 4.5 List of events 5 RTGS business functionality 8 Additional information for CBs 9 Processes with RTGS 13.1 Index of validation rules and error codes</p> <p>CLM: 2.5 Communication between CLM and CLM Actors 4 Business day 4.5 List of events 5 Business and features description 8 Additional information for CBs including:</p> <ul style="list-style-type: none"> 8.13 Currency specific features for EUR (-> new chapter) 8.13.1 Specific features for EUR (-> new chapter) 8.13.2 Specific features for DKK (-> new chapter) <p>9 Processes with RTGS including New dedicated section "9.20 Coordinate balance snapshot creation with other settlement services" 9.20 Coordinate general ledger creation with other settlement services 9.25.1.2 Messages (Send CLM query) 9.25.2.2 Messages (Receive CLM report) 11.3 Usage of Messages</p> <p>11.5 Business scenarios</p>	<p>Amendment usage of camt.053_GL and adm.005 New business scenario balance snapshot CLM</p>

	<p>12.1.2.1 Overview and scope of the message</p> <p>12.1.2.3 (admi.005) ReportQueryRequest The message in business context</p> <p>13.1.2 General ledger (camt.053)</p> <p>14.2 Index of validation rules and error codes</p>	<p>Add details on balance snapshot for DKK CB only</p> <p>Add report query code BSDK</p> <p>Amendment schema codes with ITBD = Interim Booked New example for balance snapshot CLM for DKK CB</p>
Additional deliveries for Message Specification/ MyStandards	<p>CLM:</p> <ul style="list-style-type: none"> • ReportQueryRequest (admi.005) UG on MyS • General ledger (camt.053) UG on MyS • 	<p>Add report query code BSDK and update scope with balance snapshot DKK CB only</p> <p>Amendment schema with balance type code ITBD</p>
UHB	<p>CLM:</p> <p>5 Screen Reference Guide – Description of Screens</p> <p>5.1.12 Messages-Query Screen</p> <p>5.7.12 General System Parameters – Display Screen</p> <p>7.1 References for Error Messages for GUI Screens plus directly within the referenced UHB chapters ('References for error messages:')</p> <p>RTGS:</p> <p>7.1 References for Error Messages for GUI Screens plus directly within the referenced UHB chapters ('References for error messages:')</p> <p>CRDM:</p> <p>2.3.1.6 Party Service Link –Search/List Screen</p> <p>2.3.1.7 Party Service Link –Details Screen</p> <p>2.3.1.8 Party Service Link – New/Edit Screen</p> <p>4.3.2.54 Party Service Link –Search/List Screen</p>	<p>After implementation</p> <p>Inclusion of new Messag Sub Type via wording of field 'Message Type'; wording 'Balance Snapshot DKK (camt.053)'</p> <p>Add 2 new system parameter 'DKK-T2S Snapshot Activation Date' and 'DKK Date of golive'</p> <p>Possibly new error codes; Details will be provided after implementation (see above)</p> <p>Possibly new error codes; Details will be provided after implementation (see above)</p> <p>Introduction of new GUI checks and amendment of business rules</p>

	4.3.2.55 Party Service Link –Details Screen 4.3.2.56 Party Service Link – New/EditScreen	
External training materials	General review of T2 training materials to include information on DKK scheduling	
Other documentations	MyS sub group Internal Messaging: Return Business Day Information (camt.019) Internal TARGET_Services_GeneralLedger (camt.053) FIT Configuration guide	New code ‘SNAP’ as trigger of “balance snapshot processing” to other services (i.e. to TIPS and T2S) to provide internal balance snapshot report to CLM (DKK only). New code “STCB” - ‘Start accepting outbound inter-service liquidity transfers’ from CBs (DKK only) Enrichment of schema with balance type code “ITBD” Amendment of attribute domain values for minimum amount for DKK limit
Links with other requests		
Links	Reference	Title
OVERVIEW OF THE IMPACT OF THE REQUEST ON THE T2SYSTEM AND ON THE PROJECT		
Summary of functional, technical, operational, stakeholder, financial and interoperability impacts		
<p>The CR requires a DKK specific behaviour. Thus DKK specific implementation is envisaged and it is not possible to extent the provided solution to any other currency. I.e. for every further currency a dedicated non-editorial CR is required. The DKK-specific functionality and the necessary adaptations of the software need to be deployed prior to the go-live of DKK in CLM/RTGS.</p> <p><u>General considerations:</u> ECONS II can send ECONS II balances to be settled in CLM until the end of the DKK Central Bank Period. In case of a ECONS II closure, in a phase where the DKK customer payments are not allowed (e.g. from 2:30 until 7:00 am), the ECONS II balances will always be settled in CLM.</p> <p>The already existing simulator functionality for TIPS and T2S will be enhanced to allow for a currency specific interaction. The simulator is switched on or off for one settlement service (TIPS and/or T2S) as whole (i.e. the single activation per settlement service flag remains and the flag is applicable for all settlement currencies). The activation of currencies is administrated by CRDM by delivering a currency in the data propagation or not. Note: Changes required to the CLM Adapter (cf CR 50) are not in the scope of this CR, but will be covered by the relevant TIPS CR.</p> <p><u>Reference data:</u> The minimum amount for a bilateral limit in DKK is due to processing efficiency reasons one million DKK. The exact value is to be defined for DKK-CB by the OT using attribute domain functionality. The exact value will be propagated to CLM/RTGS. In line with the requirements to have EUR/Eurosystem specific functionality, EUR specific data shall not be defined in DKK. Therefore, EUR specific reference data like eg the service party types „CLM CB Technical Account Holder” and “Institution managing minimum reserve without account in CLM” cannot be used for currencies different from EUR (ie not allowed for DKK). In addition e.g. certain account types can only be created in EUR.</p> <p><u>Business Day Management, Balance Snapshot and DKK Central Bank Period:</u> New DKK specific events are foreseen.</p>		

The from/reject functionality for regular payment orders sent by the DKK-CB in CLM can be used until the “Cut-off for CLM RTS”. During the “DKK Central Bank Period” payment orders in DKK shall not include a FROM/REJECT time.

After the “Cut-off for CLM RTS” and the “Cut-off for RTGS RTS II” in DKK all non-final cash transfer orders and non-final tasks in DKK are rejected (i.e. rejection after at least one settlement attempt took place) and newly submitted cash transfer orders to be settled on the current business day as well as tasks - even if submitted by the DKK-CB - are rejected as long as the event for the “DKK Central Bank Period” was not triggered.

The process for the balance snapshot generation is based to the extent possible on the already existing interaction between CLM and the other settlement services (i.e. TIPS, T2S and RTGS) on the end of day / general ledger process.

Note: The snapshot functionality will be implemented in T2 including an activation date for T2S.

The balance snapshot (camt.053) for the snapshot of DKK balances of all relevant settlement services (RTGS, CLM, T2S, TIPS) created before the start of the DKK central bank period is provided as mandatory push report for DKK in A2A. The balance snapshot consists of several messages, i.e. one per settlement services.

Note: The camt.053_GL sent to the CBs (EUR and DKK) is enhanced to be used for balance snapshot and general ledger (schema change).

CLM envisages also the possibility to query the balance snapshot via A2A query (admi.005). The balance snapshot is sent via the same routing as defined for camt.053 general ledger. No specific conditional routing for balance snapshot is provided. It is required that DKK CB is set up as A2A participant including appropriate routing configuration.

Once the “DKK Central Bank Period” is started, DKK-CB is allowed to instruct in

- CLM any instruction it can send during the standard settlement phase
- RTGS intra-service as well as inter-service liquidity transfer orders

DKK-CB is not obliged to use all functionality available, but has the possibility to use it.

Note: Although the snapshot will always be generated at the scheduled time (i.e. 17.00), it needs to be kept in mind that some of the subsequent processes which are not currency dependent on the last business day of the minimum reserve period. The delay of 15 minutes on the last business day of the minimum reserve period applies also to the DKK schedule as the event “EoD – close of service” (CCOS) is not currency specific.

Subject to message subscription, DKK-CB can receive in addition to the already available camt.019 push notifications which are not EUR specific, also a camt.019 for the following events:

- Start of DKK Central Bank Period (in RTGS)
- DKK-CB cut-off (in RTGS)
- Start of CLM RTS DKK (in CLM)
- Start of DKK Central Bank Period (in CLM)
- DKK-CB cut-off for non-credit line related instructions (in CLM)
- DKK-CB cut-off for credit line related instructions (in CLM)

The attached excel provides **a simplified** overview which activities are possible during the different phases of the DKK business day:



Processing times
overview DKK.xlsx

Similar to general ledger, the balance snapshot is displayed as outbound camt.053 in the GUI message screen. A separate screen is not provided.

It is ensured that EUR/Eurosystem functionality and processes are not applicable for DKK and are not part of the DKK schedule. No dedicated functionality is envisaged to "ignore" EUR/Eurosystem specific privileges for DKK in CLM/RTGS. It is up to the Level 2 to define the roles in a way that EUR/Eurosystem specific functionality is assigned to EUR CBs only. For example it is up to the Level 2 to ensure that privileges related to the management of minimum reserve are not part of a DKK role. In case the privileges are assigned as part of a role DKKCB would have access to the relevant GUI screens/information, but there would be no content or a dedicated error message would be displayed.

Owing to the fact that the dedicated migration functionality (CR 71) requested to migrate EUR business only, no migration functionality will be provided for DKK.

Requirements for other settlement services:

- The process for the balance snapshot generation is based on the general ledger process already available to the extent possible. However, certain specificities need to be considered.
 - Receiving services need to comply with the following message exchange architecture:
 - Camt.019/camt.025: for finalisation of LTs in DKK
 - Camt.019/camt.053: for balance snapshot in DKK only
Note: The camt.053 used within the processing between the settlement services will be enhanced to be used for balances snapshot and the General Ledger (schema change).
 - Camt.019: to start the "DKK Central Bank Period"
 - During the "DKK Central Bank Period" it lies within the sole responsibility of the sending settlement service that in case it is allowed to send inter-service liquidity transfer orders that the LTs sent to CLM are submitted by DKK-CB only. No checks are conducted by CLM when receiving inter-service liquidity transfer orders during this phase.
 - After the end of the "DKK Central Bank Period" in CLM, CLM will initiate the standard GL processing in DKK.
 - TIPS and T2S must be able to cope with a testing constellation where CLM/RTGS uses the T2S/TIPS simulator in one of the testing stages. The connection to the T2S and/or the TIPS simulator is always for all currencies and cannot be switched off or on for a dedicated currency.

CRDM:

The setting up of Party Service Link for CLM in CRDM must be consistent with the currency defined at system entity level when the latter is different from Euro. Object Party Service Link needs to be amended accordingly. In particular the following changes are required:

- Party Service Types 'Institution managing minimum reserve without account in CLM' and 'CLM CB Technical Account Holder' are not allowed in case the Currency defined at System Entity level is different from EUR;
- 'Minimum Reserve Obligation' must be set to 'No' in case the Currency defined at System Entity level is different from EUR;
- 'Overnight Deposit Indicator' and 'Marginal Lending Indicator' must be set to 'False' in case the Currency defined at System Entity level is different from EUR;
- 'Eurosystem Flag' and 'Maximum Amount for Overnight Deposit' must not be used in case the Currency defined at System Entity level is different from EUR.

BILL:

The sending of Direct Debit for every currency will be sent out to CLM at 12:00 AM, as currently foreseen.

Cost drivers

CLM/RTGS/BDM (U2A /A2A):

- Implementation of the DKK specific snapshot functionality as well as a dedicated settlement window for DKK CB; e.g. additional interaction with other settlement services and the provision of information to the DKK CB required
- Adaptations of the business day processing in CLM and RTGS allowing a distinction between i) EUR specific, ii) DKK specific, iii) currency-specific and iv) not currency-specific events; these adaptations have impact on various processes within CLM/RTGS
- Adaptation in the data propagation and loading process in CLM/RTGS

- Comprehensive tests (Comprehensive Static Data design and definition for DKK, EOD processing tests, DKCB Central bank period time testing, DKCB Specific Snapshot and general ledger files, DKCB Test after Snapshot testing, DKK business day and dedicated settlement windows/events and regression tests)
- Comprehensive Regression Test on EURO currency specific functionalities/ business day and U2A Regression enhancement

CRDM (U2A/A2A):

- Creation and update/ of several function changes (System Entity/ Party Service Link) and underlying Data Propagation Processes

Impact on other TARGET Services and projects

T2S: yes, corresponding CR T2S-0782-URD

TIPS: yes, corresponding CR TIPS-0049-URD

ECMS: no impact

TARGET2: no impact

Summary of project risk

None

Security analysis

No potentially adverse effect was identified during the security assessment.