T2/T2S Consolidation

User Requirements Document

for

Central Liquidity Management (CLM)

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Contents

1 CENTRAL LIQUIDITY MANAGEMENT (CLM)

1.1 OVERVIEW

1.1.1 Context Diagram

Figure 1: Context diagram for the Central Liquidity Management

CLM is the service that shall ensure:

▶ The efficient liquidity provisioning by liquidity transfers to the different settlement services: T2S, RTGS services (i.e. High Value Payments (HVP) and Ancillary Systems (AS) Settlement) and TIPS; and

▶ The management of liquidity across these settlement services in a harmonised and generic way. The CLM shall optimise the efficient usage of liquidity for the different services and the transfers between them. Such re-allocations could either be done manually (based on individual liquidity transfers) or automatically (based on ~~time-based~~regular standing orders or event-based standing orders) depending on the CLM participant's needs.

The Main Cash Account (MCA) within the CLM shall be the central source of liquidity for the different settlement services with the CLM participant's credit line linked to it. The settlement services T2S,

TIPS and the ~~Future~~ RTGS services will use dedicated cash accounts (DCA) for settling their specific transactions.

Moreover, the following Central Bank Operations (CBOs) will in principle be processed by the CLM and booked on the Main Cash Account:

▶ Update of the credit line (cash side);

▶ Standing Facilities (i.e. marginal lending and overnight deposits);

▶ Cash ~~withdrawals~~Withdrawals;

▶ Monetary policy operations;

▶ Debit of the invoiced amount;

▶ Interest payment orders linked to marginal lending, overnight deposits, minimum reserves and excess of reserve; and

▶ Any other activity carried out by Central Banks in their capacity as Central Bank of issue.

The liquidity provisioning for the settlement of all payment types in the Main Cash Account shall be processed in a predefined order following the FIFO principle. All Main Cash Account operations have a higher priority than RTGS DCA operations and reservations.

The following table indicates the different sources of liquidity and the order in which the different sources will be tapped (1=first liquidity source, 2=second liquidity source, etc.). The table should be read from left to right, e.g. for a credit line decrease (business purpose), first, the non-reserved part of the Main Cash Account will be debited; second, the reservation for MCA operations; and third, the non-reserved part of the RTGS DCA etc.

Business Purpose	Main Cash Account (MCA)		RTGS Dedicated Cash Account (DCA)		
	MCA Operations	Non-reserved	Highly Urgent	Urgent (U)	Non-reserved
Main Cash Account					
Credit line decrease	2	1	5	4	3
Central Bank Operation	1	2	5	4	3
Cash Withdrawal	1	2	5	4	3
Inter-Service and Intra-Service Liquidity Transfer		1	n/a	n/a	n/a
RTGS Dedicated Cash Account					
Inter-Service and Intra-Service Liquidity			*)	*)	*)

Transfer				
Ancillary System transaction		**4****	**1**	**3**	**2**
U Payment		**3****		**1**	**2**
N Payment					**1**

* subject to the priority of the payment, ** subject to prior configuration by the Party

Table 1: Pre-defined order of liquidity tapping

For Main Cash Account operations, CLM shall trigger an automatic liquidity transfer with the missing amount from the RTGS DCA used for payments (to the Main Cash Account when there is insufficient liquidity on the Main Cash Account). The respective liquidity transfer shall be placed on top of the queue of all pending payments and liquidity transfers on the RTGS DCA used for payments.

In all other cases, liquidity transfers are subject to and based on liquidity transfer orders that the CLM participant sets up based on triggers defined on the Main Cash Account or on the Dedicated Cash Account. The automatic transfers of liquidity triggered from the RTGS DCA used for payments to the Main Cash Account due to queued operations on the Main Cash Account shall be initiated automatically and do not require any action or prior configuration from the users.
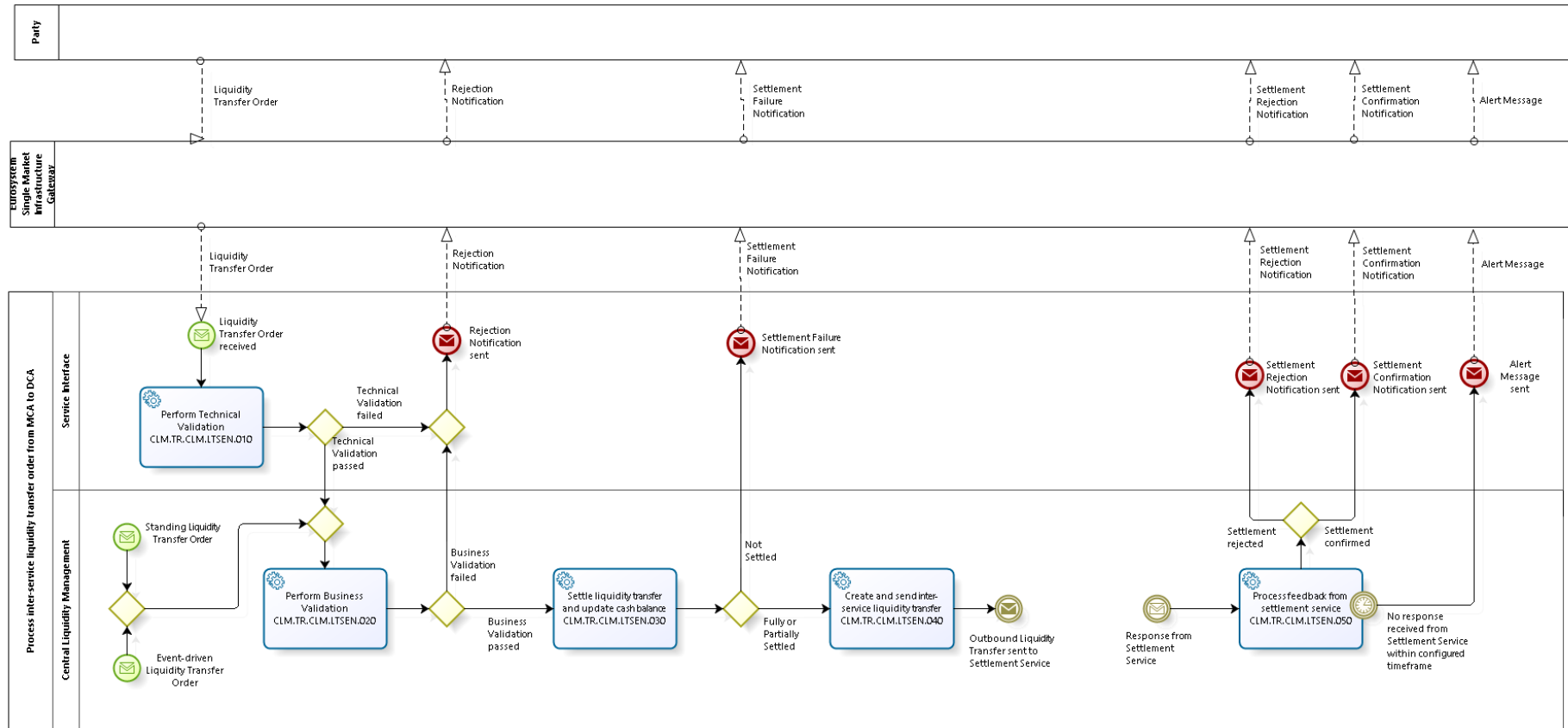
1.1.2 Business Processes

Business Process	BP Reference	Business Process Description
Process inter-service liquidity transfer order from MCA to DCA	CLM.BP.CLM.LTSEN	Processing within CLM of an inter-service liquidity transfer order to move liquidity from a Main Cash Account (MCA) to a Dedicated Cash Account (DCA).
Process inter-service liquidity transfer order from DCA to MCA	CLM.BP.CLM.LTRCV	Processing within CLM of an inter-service liquidity transfer order to move liquidity from a Dedicated Cash Account (DCA) to a Main Cash Account (MCA).
Process intra-service liquidity transfer order	CLM.BP.CLM.ISLT	Processing within CLM of a liquidity transfer order between two MCAs.
Process liquidity transfer order between two ~~Dedicated Cash Accounts~~DCAs in different settlement services	CLM.BP.CLM.LTDCA	Processing within CLM of a liquidity transfer order to move liquidity from a Dedicated Cash Account in one service to a Dedicated Cash Account in another service.
Process payment order linked to Central Bank Operations and Cash Withdrawals	CLM.BP.CLM.PAYT	Processing within CLM of a payment order linked to Central Bank Operations or Cash Withdrawals.
Amendment of a payment order	CLM.BP.CLM.PAYA	Processing within CLM of the amendment of a payment order linked to a Central Bank Operation or a Cash Withdrawal.
Revocation of a payment order	CLM.BP.CLM.PAYR	Processing within CLM of the revocation of a payment order linked to a Central Bank Operation or a Cash Withdrawal.
Liquidity reservation	CLM.BP.CLM.LIQR	Processing of a liquidity reservation within CLM.

Table 2: Business Processes for the Central Liquidity Management

1.2 PROCESS INTER-SERVICE LIQUIDITY TRANSFER ORDER FROM MCA TO DCA

Business Process Ref: CLM.BP.CLM.LTSEN

1.2.1 Business Process Model

Business Process Model 1: Process inter-service liquidity transfer order from MCA to DCA

1.2.2   Process Overview

Process goal:

The aim of the process is to allow one CLM participant to transfer liquidity from ~~one~~an MCA within CLM to a DCA ~~for the following settlement services (~~within T2S, RTGS ~~services and~~or TIPS~~).~~. These settlement services will use this liquidity for settling their specific transactions.

Pre-conditions:

A Party wishing to transfer liquidity from ~~one~~an MCA to a DCA needs to be a CLM participant and needs to be authorised to debit ~~an~~the MCA.

Moreover, Whitelists shall allow CLM participants to define for ~~one~~an MCA a list of DCAs with which they are authorised to work.

Time constraints:

Inter-service liquidity transfers shall be possible throughout the whole business day with the exception of the End ~~-~~of ~~-~~Day processing and the maintenance window.

Expected results:

As inter-service liquidity transfers shall not be queued, three different scenarios are possible in terms of execution: full, partial and no execution.

Triggers:

Inter-service liquidity transfers can be initiated in three different ways:

▶   Immediate ~~liquidity transfer orders~~Liquidity Transfer Orders initiated via A2A or U2A by a CLM participant (owner of the MCA that will be debited) or by another Actor operating on ~~its~~ behalf of the MCA owner under a contractual agreement;

▶   Standing ~~or event-driven liquidity transfer orders set~~Liquidity Transfer Orders set up by a CLM participant (owner of the MCA that will be debited) or by another Actor operating on ~~its~~ behalf of the MCA owner under a contractual agreement~~; or~~

▶   ~~Event-driven liquidity transfers~~ and that are automatically triggered~~.~~ on a regular basis; or

▶   Event-based Liquidity Transfer Orders that are automatically triggered whenever a predefined event occurs.

1.2.3 User Requirements

1.2.3.1 PERFORM TECHNICAL VALIDATION

Task Ref: **CLM.TR.CLM.LTSEN.010**

Technical validation only applies to ~~immediate liquidity transfer orders~~Immediate Liquidity Transfer Orders initiated by a CLM participant (owner of the MCA that will be debited) or by another Actor operating on ~~its~~ behalf of the MCA owner under a contractual agreement.

~~At the reception~~On receipt of an ~~immediate liquidity transfer order~~Immediate Liquidity Transfer Order, the service interface shall complete technical validation by performing checks such as field level validation (fields shall have correct data type and size) and for duplicate messages.

Id	CLM.UR.CLM.LTSEN.010.010
Name	Check mandatory fields
Description	The service interface shall ensure that all mandatory fields in the message received are populated.

Id	CLM.UR.CLM.LTSEN.010.020
Name	Check for duplicate message
Description	The service interface shall ensure that the same message (i.e. message with the same reference from the same sender) has not already been received on the same business day.

Id	CLM.UR.CLM.LTSEN.010.030
Name	Negative results via appropriate error codes together in a single message
Description	After encountering the first negative validation result, the service interface shall continue to validate as far as possible and report all negative results together in a single message. The service interface shall reject the order only after performing all possible technical validations.

Id	CLM.UR.CLM.LTSEN.010.040
Name	Processing ~~in case of passed~~where technical validation is successful
Description	~~In case of~~Where there is a positive result of the technical validation, the order shall be sent to the CLM for further processing.

Id	CLM.UR.CLM.LTSEN.010.050
Name	Processing ~~in case of failed~~where technical validation fails
Description	~~In case of~~Where there is a negative result of the technical validation, the order shall be rejected and a notification shall be sent to the sender of the message. ~~In case of a manual~~If the message was input manually via the U2A screen, the rejection notification shall be displayed directly on the screen.

1.2.3.2 PERFORM BUSINESS VALIDATION

Task Ref: **CLM.TR.CLM.LTSEN.020**

~~In case of~~Where there is a positive result of the technical validation of the ~~immediate liquidity transfer order~~Immediate Liquidity Transfer Order, CLM shall validate the message received against the reference data and perform additional checks/validations.

Moreover, ~~standing~~Standing and ~~event-driven liquidity transfer orders as well as event-driven liquidity transfers~~Event-based Liquidity Transfer Orders shall also pass the business validation within CLM.

Id	CLM.UR.CLM.LTSEN.020.010
Name	Check for duplicate liquidity transfer order
Description	CLM shall carry out a duplicate submission control for incoming liquidity ~~transfers~~transfer orders. This control shall include the following fields: • Sender of the message; • Message Type; • Receiver; • Transaction Reference Number; • Related Reference; • Value Date; and • Amount.

Id	CLM.UR.CLM.LTSEN.020.020
Name	Access rights check
Description	CLM shall check that the sender of the message is authorised to send inter-service liquidity ~~transfers~~transfer orders for the MCA to be debited. If the sender of the message is not the owner of the MCA, CLM shall check that it is authorised to send inter-service liquidity transfer orders on behalf of the account owner.

Id	CLM.UR.CLM.LTSEN.020.030
Name	Business validation of the values
Description	CLM shall check that all provided values are valid according to ~~pre-defined~~the predefined values or cross-field validations.

Id	CLM.UR.CLM.LTSEN.020.040
Name	Whitelist check
Description	CLM shall check if there is a Whitelist for the MCA to be debited. If there is no Whitelist, ~~a MCA~~CLM can ~~send~~process an inter-service liquidity transfer from this MCA to ~~every~~any DCA. If a Whitelist is defined, CLM shall check that the DCA to be credited is identified within this list. If the DCA is in the list, the liquidity transfer shall be processed. If it is not in the list, the liquidity transfer shall be rejected. This check is not performed where either: • both accounts involved in the liquidity transfer order belong to the same Party; or • either or both of the accounts are Central Bank Accounts.

Id	CLM.UR.CLM.LTSEN.020.050
Name	Account and Party check
Description	CLM shall check that the MCA mentioned in the inter-service liquidity transfer exists and is active for settlement in the relevant currency.
	Moreover, CLM shall also check that the account owner is not blocked at Party level.

Id	CLM.UR.CLM.LTSEN.020.060
Name	Processing ~~in case of failed~~where business validation fails
Description	~~In case of~~Where there is a negative result of the business validation, the inter-service liquidity transfer shall be rejected and a notification shall be sent to the sender of the message. ~~In case of a~~Where the input was manual ~~input~~ via the U2A screen, the rejection notification shall be displayed directly on the screen.

1.2.3.3   SETTLE LIQUIDITY TRANSFER AND UPDATE CASH BALANCE

Task Ref: CLM.TR.CLM.LTSEN.030

~~In case of~~Where there is a positive result of the business validation checks, CLM shall validate whether the booking of the inter-service liquidity transfer is feasible. Three different scenarios are possible: full, partial and no execution.

Id	CLM.UR.CLM.LTSEN.030.010
Name	Settlement principles for inter-service liquidity transfers
Description	The following principles shall apply for inter-service liquidity transfers:
	• There shall be an attempt to settle a single inter-service liquidity transfer immediately after its submission;
	• Offsetting mechanisms to save liquidity are not required;
	• Inter-service liquidity transfers may not be revoked as they are not queued; and
	• Inter-service liquidity transfers shall only have access to the non-reserved part of the available liquidity on the MCA.

Id	CLM.UR.CLM.LTSEN.030.020
Name	Full execution

Description	If the non-reserved part of the available liquidity on the MCA to be debited is sufficient, CLM shall execute the inter-service liquidity transfer and update:
	
	• The balances of the accounts involved on a gross basis:
	   - the requested MCA shall be debited and
	   - the Dedicated Transit Account (one for each respective receiving settlement service and currency) shall be credited; and
	• The CLM participant's available liquidity on the MCA.

Id	CLM.UR.CLM.LTSEN.030.030
Name	Partial execution
Description	If the non-reserved part of the available liquidity on the MCA is only partially sufficient to settle the inter-service liquidity transfer and if the liquidity transfer has been initiated by a ~~standing or event-driven liquidity transfer order~~Standing or Event-based Liquidity Transfer Order, the inter-service liquidity transfer shall be executed up to the cash amount which can be settled. ~~This also applies to event-driven liquidity transfers automatically triggered.~~ No further settlement attempt shall take place for the cash amount which cannot be settled.

Id	CLM.UR.CLM.LTSEN.030.040
Name	No execution
Description	Where there is not enough liquidity available on the MCA and if the order has been initiated by an Immediate Liquidity Transfer Order, the inter-service liquidity transfer order shall be rejected and no liquidity shall be transferred. Moreover, a settlement failure message shall be sent to the sender of the message.

Id	CLM.UR.CLM.LTSEN.030.050
~~Name~~	~~No execution~~
~~Description~~	~~In case there is not enough liquidity available on the MCA and if the order has been initiated by an immediate liquidity transfer order, the inter-service liquidity transfer order shall be rejected and no liquidity shall be transferred.~~ ~~Moreover, a settlement failure message shall be sent to the sender of the message.~~

~~Id~~	~~CLM.UR.CLM.LTSEN.030.060~~
Name	Number of Dedicated Transit Accounts
Description	CLM shall have one Dedicated Transit Account per receiving settlement service and currency.

1.2.3.4 CREATE AND SEND INTER-SERVICE LIQUIDITY TRANSFER

Task Ref: **CLM.TR.CLM.LTSEN.040**

Id	CLM.UR.CLM.LTSEN.040.010
Name	Create and send inter-service liquidity transfer
Description	~~In case of~~Where there is full or partial execution of the order, CLM shall create and send an inter-service liquidity transfer with the full or partial amount to the relevant settlement service for further processing (i.e. to credit the relevant DCA and debit the CLM Dedicated Transit Account in the receiving settlement service).

1.2.3.5 PROCESS FEEDBACK FROM SETTLEMENT SERVICE

Task Ref: **CLM.TR.CLM.LTSEN.050**

CLM shall process the feedback received from the settlement service to which the inter-service liquidity transfer has been sent. Two different scenarios are possible: confirmation or rejection.

Id	CLM.UR.CLM.LTSEN.050.010
Name	Process positive confirmation feedback
Description	A positive confirmation shall imply that the inter-service liquidity transfer has been booked successfully within the receiving settlement service (i.e. that the relevant DCA has been credited and the CLM Dedicated Transit Account has been debited with the amount specified in the inter-service liquidity transfer). In such a case, a confirmation notification shall be sent (according to message subscription) to the owner of the MCA (or co-manager).

Id	CLM.UR.CLM.LTSEN.050.020
Name	Process negative confirmation feedback
Description	A negative confirmation (i.e. rejection) shall imply that the inter-service liquidity transfer has not been successfully processed within the receiving settlement service (i.e. that the settlement service has not been able to credit the relevant DCA for the specified amount). In such a case, CLM shall automatically create a reversal of the initial inter-service liquidity transfer in order to debit the relevant Dedicated Transit Account and credit the MCA. Moreover, a reversalrejection notification shall be sent to the sender of the message.

| Id	CLM.UR.CLM.LTSEN.050.030
Name	Generate alert if no feedback received
Description	If no feedback is received from the receiving settlement service within a predefined timeframe (that canshall be configurable), an alert message shall be generated by the CLM to the TARGET service deskService Desk, account owner of the Dedicated Transit Account and the CB responsible of the MCA for investigation purposes.

Id	CLM.UR.CLM.LTSEN.050.040
Name	End of Day processing ~~in case of~~where there are pending inter-service liquidity transfers
Description	The End ~~-~~of ~~-~~Day processing shall not start if there are still pending inter-service liquidity transfers.

1.3 PROCESS INTER-SERVICE LIQUIDITY TRANSFER ORDER FROM DCA TO MCA

Business Process Ref: **CLM.BP.CLM.LTRCV**

1.3.1 Business Process Model
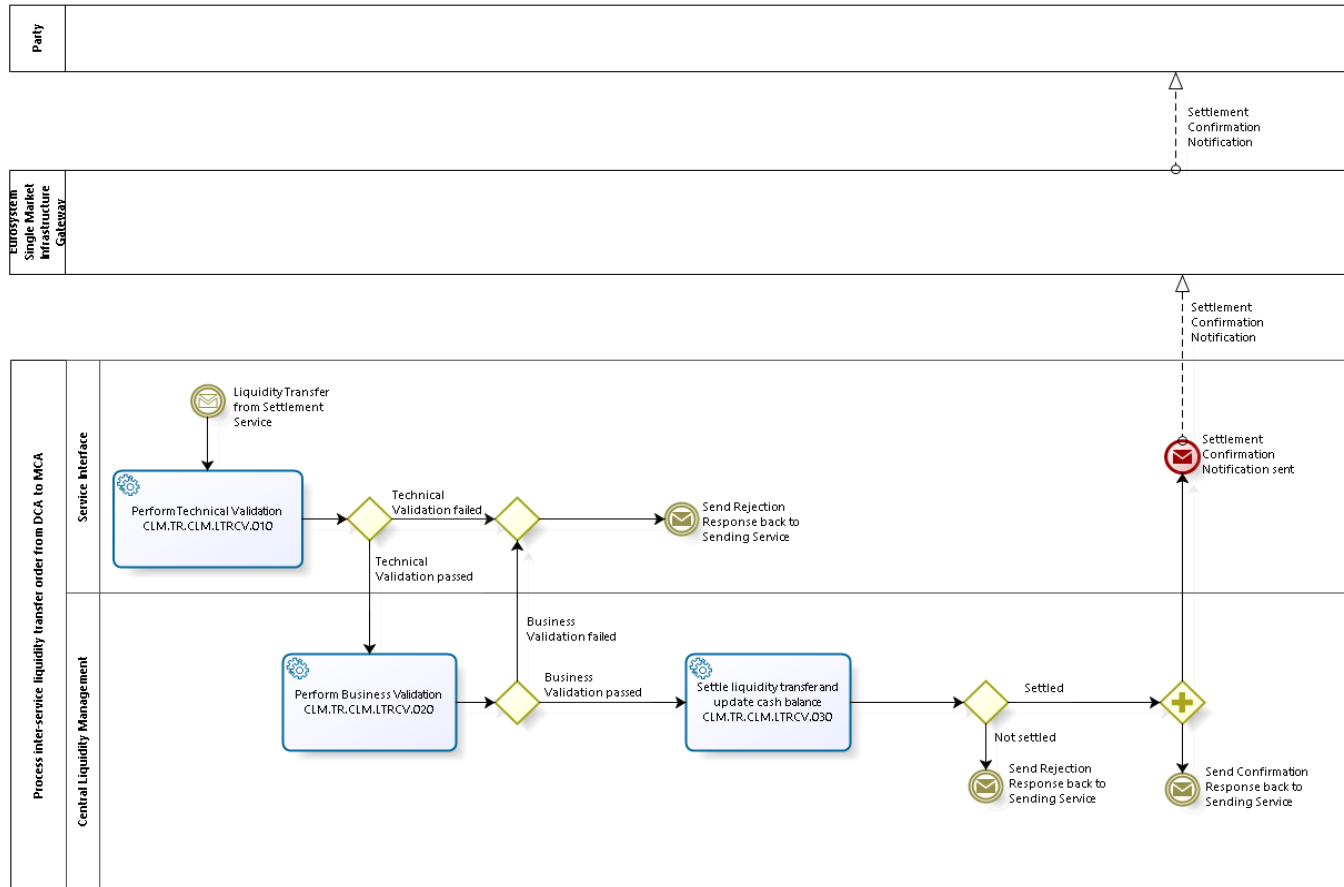
Business Process Model 2: Process inter-service liquidity transfer order from DCA to MCA

1.3.2   Process Overview

Process goal:

The goal is to process within CLM an inter-service liquidity transfer received from a sending settlement service that shall allow a transfer of liquidity from a Dedicated Cash Account (DCA) within this settlement service to a Main Cash Account (MCA) in CLM.

Pre-conditions:

The following pre-conditions apply:

▸ The inter-service liquidity transfer has successfully settled (fully or partially) in the settlement service that is sending the inter-service liquidity transfer; and

▸ The CLM MCA is existing and active for settlement in the relevant currency.

Moreover, Whitelists shall allow CLM participants to define for ~~one~~an MCA a list of DCAs with which they are authorised to work.

Time constraints:

Inter-service liquidity ~~transfersshall~~transfers shall be possible throughout the whole business day with the exception of the End -of -Day processing and the maintenance window.

Expected results:

CLM shall provide a feedback to the settlement service which has sent the inter-service liquidity transfer. Two different scenarios are possible: confirmation or rejection.

A confirmation shall imply that the inter-service liquidity transfer sent by the settlement service has been processed successfully within CLM (i.e. that the relevant MCA has been credited and the CLM Dedicated Transit Account for the sending settlement service and currency has been debited).

A rejection shall imply that the inter-service liquidity transfer sent by the settlement service has not been processed successfully within CLM (i.e. that the relevant MCA has not been credited).

Triggers:

The process starts with the ~~reception~~receipt of an inter-service liquidity transfer from the sending settlement service.

1.3.3 User Requirements

1.3.3.1 PERFORM TECHNICAL VALIDATION

Task Ref: **CLM.TR.CLM.LTRCV.010**

~~At the reception~~On receipt of an inter-service liquidity transfer order from the sending settlement service, the service interface shall complete technical validation by performing checks such as field level validation (fields shall have correct data type and size) and for duplicate messages.

Id	CLM.UR.CLM.LTRCV.010.010
Name	Check mandatory fields
Description	The service interface shall ensure that all mandatory fields in the message received are populated.

Id	CLM.UR.CLM.LTRCV.010.020
Name	Check for duplicate message
Description	The service interface shall ensure that the same message (i.e. message with the same reference from the same sender) has not already been received.

Id	CLM.UR.CLM.LTRCV.010.030
Name	Negative results via appropriate error codes together in a single message
Description	After encountering the first negative validation result, the service interface shall continue to validate as far as possible and report all negative results together in a single message. The service interface shall reject the order only after performing all possible technical validations.

Id	CLM.UR.CLM.LTRCV.010.040
Name	Processing ~~in case of passed~~where technical validation is successful
Description	~~In case of~~Where there is a positive result of the technical validation, the order shall be sent to the CLM for further processing.

Id	CLM.UR.CLM.LTRCV.010.050
Name	Processing ~~in case of failed~~where technical validation fails
Description	~~In case of~~Where there is a negative result of the technical validation, the order shall be rejected and a notification shall be sent to the ~~instructing~~sending settlement service.

1.3.3.2   PERFORM BUSINESS VALIDATION

Task Ref: **CLM.TR.CLM.LTRCV.020**

~~In case of~~Where there is a positive result of the technical validation of the inter-service liquidity transfer order, CLM shall validate the message received against the reference data and perform additional checks/validations.

Id	CLM.UR.CLM.LTRCV.020.010
Name	Check for duplicate liquidity transfer order
Description	CLM shall carry out a duplicate submission control for incoming liquidity ~~transfers~~transfer orders. This control shall include the following fields: • Sender of the message; • Message Type; • Receiver; • Transaction Reference Number; • Related Reference; • Value Date; and • Amount.

Id	CLM.UR.CLM.LTRCV.020.020
Name	Business validation of the values
Description	CLM shall check that all provided values are valid according to ~~pre-defined~~the predefined values or cross-field validations.

Id	CLM.UR.CLM.LTRCV.020.030
Name	Whitelist check
Description	Moreover, CLM shall check if there is a Whitelist for the MCA to be credited. If there is no Whitelist, a MCA can receive liquidity based on an inter-service liquidity transfer from ~~every~~any DCA.

If a Whitelist is defined, CLM shall check that the DCA to be debited is identified within this list. If the DCA is in the list, the liquidity transfer shall be processed. If it is not in the list, the liquidity transfer shall be rejected.

This check is not performed where either:

- both accounts involved in the liquidity transfer order belong to the same Party; or
- either or both of the accounts are Central Bank Accounts.

Id	CLM.UR.CLM.LTRCV.020.~~030~~040
Name	Account check
Description	CLM shall check that the MCA mentioned in the inter-service liquidity transfer is existing and active for settlement in the relevant currency.
	Moreover, CLM shall also check that the account owner is not blocked at Party level.

Id	CLM.UR.CLM.LTRCV.020.~~040~~050
Name	Processing ~~in case of failed~~where business validation fails
Description	~~In case of~~Where there is a negative result of the business validation, the order shall be rejected and a notification shall be sent to the ~~instructing~~sending settlement service with the inclusion of the relevant error codes.

1.3.3.3 SETTLE LIQUIDITY TRANSFER AND UPDATE CASH BALANCE

Task Ref: **CLM.TR.CLM.LTRCV.030**

~~In case of~~Where there is a positive result of the business validations, CLM shall check whether the execution of the inter-service liquidity transfer is feasible. Two different scenarios are possible: full and no execution.

Id	CLM.UR.CLM.LTRCV.030.010
Name	Settlement principles for inter-service liquidity transfers
Description	The following principles shall apply for inter-service liquidity transfers sent by settlement services: • There shall be an attempt to settle a single liquidity transfer immediately after its submission; and • Inter-service liquidity transfers may not be revoked as they are not queued.

Id	CLM.UR.CLM.LTRCV.030.020
Name	Full execution
Description	If the booking of the inter-service liquidity transfer is possible, CLM shall book it and update the balances of the accounts involved on a gross basis: ~~the Dedicated Transit Account (one per sending settlement service and currency) shall be debited and the requested MCA shall be credited.~~ • the Dedicated Transit Account for the sending settlement service and currency shall be debited and • the requested MCA shall be credited. Once the ~~booking has~~bookings have taken place, CLM shall send a confirmation notification to the ~~instructing~~sending settlement service.

| Id	CLM.UR.CLM.LTRCV.030.030
Name	No execution
Description	If the booking of the inter-service liquidity transfer is not possible, CLM shall reject the inter-liquidity transfer and send a rejection notification to the ~~instructing~~sending settlement service.

Id	CLM.UR.CLM.LTRCV.030.040
Name	Number of Dedicated Transit Accounts

Description	CLM shall have one Dedicated Transit Account per sending settlement service and currency.

Id	CLM.UR.CLM.LTRCV.030.050
Name	Notification
Description	If the booking of the inter-service liquidity transfer is successful, CLM shall send (according to message subscription) a notification to the owner of the MCA (or co-manager).

1.4 PROCESS INTRA-SERVICE LIQUIDITY TRANSFER ORDER

Business Process Ref: **CLM.BP.CLM.ISLT**

1.4.1 Business Process Model
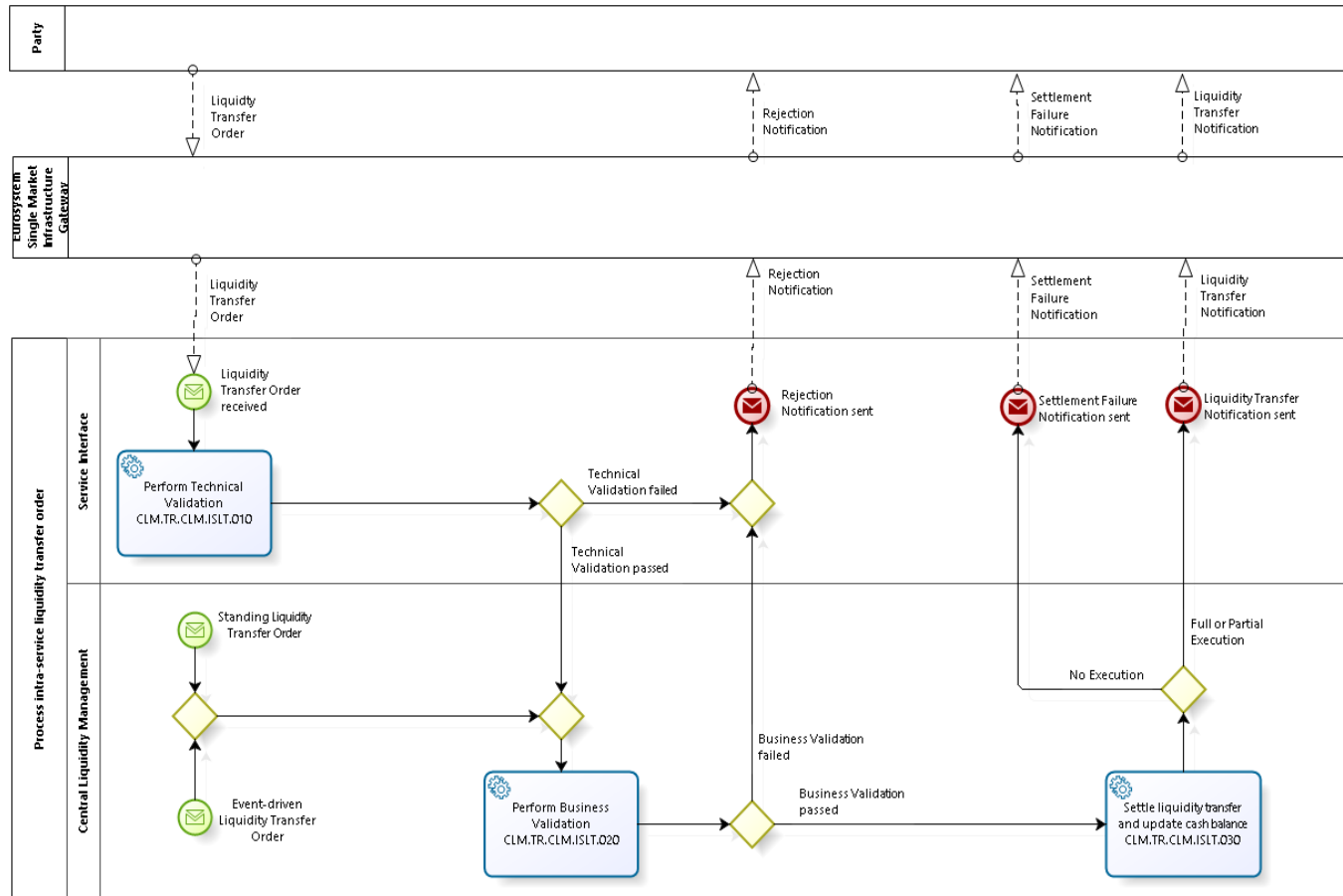
Business Process Model 3: Process intra-service liquidity transfer order

1.4.2 Process Overview

Process goal:

The aim of this process is to allow one CLM participant to transfer liquidity from one MCA to another MCA within CLM. Intra-service liquidity transfers shall only be allowed if the two MCAs belong to the same Liquidity Transfer Group.

Pre-conditions:

A market participant wishing to transfer liquidity from one MCA to another MCA needs to be a CLM participant and hold ~~an~~the sending MCA in the CLM.

Both MCAs need to belong to the same Liquidity Transfer Group. This needs to be ~~pre-defined~~predefined in the CRDM.

Moreover, Whitelists shall allow CLM participants to define for one MCA a list of MCAs with which they are authorised to work.

Time constraints:

Intra-service liquidity transfers shall be possible throughout the whole business day with the exception of the End -of -Day processing and the maintenance window.

Expected results:

This process shall allow one CLM participant to transfer liquidity between two MCAs within CLM.

As intra-service liquidity transfers shall not be queued, three different scenarios are possible in terms of booking: full, partial and no execution.

Triggers:

Intra-service liquidity transfer orders can be initiated in ~~two~~three different ways:

▶ Immediate ~~liquidity transfer orders~~Liquidity Transfer Orders initiated by a CLM participant (owner of the MCA that will be debited) or by another Actor operating on ~~its~~ behalf of the MCA owner under a contractual agreement; or

▶ Standing ~~or event-driven liquidity transfer orders set~~Liquidity Transfer Orders set up by a CLM participant (owner of the MCA that will be debited) or by another Actor operating on ~~its~~ behalf of the MCA owner under a contractual agreement and that are automatically triggered on a regular basis.

▶ Event-based Liquidity Transfer Orders that are automatically triggered whenever a predefined event occurs.

1.4.3 User Requirements

1.4.3.1 PERFORM TECHNICAL VALIDATION

Task Ref: **CLM.TR.CLM.ISLT.010**

Technical validation only applies to ~~immediate liquidity transfer orders~~Immediate Liquidity Transfer Orders initiated by a CLM participant (owner of the MCA that will be debited) or by another Actor operating on ~~its~~ behalf of the MCA owner under a contractual agreement.

~~At the reception~~On receipt of an ~~immediate liquidity transfer order~~Immediate Liquidity Transfer Order, the service interface shall complete technical validation by performing checks such as field level validation (fields shall have correct data type and size) and for duplicate messages.

Id	CLM.UR.CLM.ISLT.010.010
Name	Check mandatory fields
Description	The service interface shall ensure that all mandatory fields in the message received are populated.

Id	CLM.UR.CLM.ISLT.010.020
Name	Check for duplicate message
Description	The service interface shall ensure that the same message (i.e. message with the same reference from the same sender) has not already been received.

Id	CLM.UR.CLM.ISLT.010.030
Name	Negative results via appropriate error codes together in a single message
Description	After encountering the first negative validation result, the service interface shall continue to validate as far as possible and report all negative results together in a single message. The service interface shall reject the order only after performing all possible technical validations.

Id	CLM.UR.CLM.ISLT.010.040
Name	Processing ~~in case of passed~~where technical validation is successful
Description	~~In case of~~Where there is a positive result of the technical validation, the order shall be sent to the CLM for further processing.

Id	CLM.UR.CLM.ISLT.010.050
Name	Processing ~~in case of failed~~where technical validation fails
Description	~~In case of~~Where there is a negative result of the technical validation, the order shall be rejected and a notification shall be sent to the sender of the message.
	~~In case of a~~Where the input was manual ~~input~~ via the U2A screen, the rejection notification shall be displayed directly on the screen

1.4.3.2   PERFORM BUSINESS VALIDATION

Task Ref: CLM.TR.CLM.ISLT.020

~~In case of~~Where there is a positive result of the technical validation of the ~~immediate liquidity transfer order~~Immediate Liquidity Transfer Order, CLM shall validate the message received against the reference data and perform additional checks/validations.

Moreover, ~~standing liquidity~~Standing and ~~event-driven liquidity transfer orders~~Event-based Liquidity Transfer Orders shall also pass the business validation within CLM.

Id	CLM.UR.CLM.ISLT.020.010
Name	Check for duplicate liquidity transfer order
Description	CLM shall carry out a duplicate submission control for incoming liquidity ~~transfers~~transfer orders. This control shall include the following fields:
	• Sender of the message;
	• Message Type;
	• Receiver;
	• Transaction Reference Number;
	• Related Reference;
	• Value Date; and
	• Amount.

Id	CLM.UR.CLM.ISLT.020.020
Name	Access rights check
Description	CLM shall check that the sender of the message is authorised to send intra-service liquidity ~~transfers~~transfer orders for the MCA to be debited. If the sender of the message is not the owner of the MCA to be debited, CLM shall check that it is authorised to send intra-service liquidity transfer orders on behalf of the account owner.

Id	CLM.UR.CLM.ISLT.020.030
Name	Business validation of the values
Description	CLM shall check that all provided values are valid according to ~~pre-defined~~predefined values or cross-field validations.

Id	CLM.UR.CLM.ISLT.020.040
Name	Account check
Description	CLM shall check that the MCAs and the account ~~owner~~owners mentioned in the intra-service liquidity transfer exist and are active for settlement in the relevant currency. Moreover, CLM shall also check that the account ~~owner is~~owners are not blocked at Party level.

Id	CLM.UR.CLM.ISLT.020.050
Name	Liquidity Transfer Group check
Description	CLM shall check that the MCAs mentioned in the intra-service liquidity transfer order belong to the same Liquidity Transfer Group.

Id	CLM.UR.CLM.ISLT.020.055
Name	Whitelist check
Description	CLM shall perform a Whitelist check for each of the accounts involved in the

intra-service liquidity transfer.

CLM shall check that the MCA to be credited is in the Whitelist for the MCA to be debited, and also that the MCA to be debited is in the Whitelist for the MCA to be credited.

This check is not performed where either:

- both accounts involved in the liquidity transfer order belong to the same Party; or
- either or both of the accounts are Central Bank Accounts.

Id	CLM.UR.CLM.ISLT.020.060
Name	Processing ~~in case of failed~~where business validation fails
Description	~~In case of~~Where there is a negative result of the business validation, the order shall be rejected and a notification shall be sent to the sender of the message. ~~In case of a~~Where the input was manual ~~input~~ via the U2A screen, the rejection notification shall be displayed directly on the screen.

1.4.3.3   SETTLE LIQUIDITY TRANSFER AND UPDATE CASH BALANCE

Task Ref: CLM.TR.CLM.ISLT.030

~~In case of~~Where there is a positive result of the business validation checks, CLM shall validate whether the booking of the intra-service liquidity transfer is feasible. Three different scenarios are possible: full, partial and no execution.

Id	CLM.UR.CLM.ISLT.030.010
Name	Settlement principles for intra-service liquidity transfer orders
Description	The following principles shall apply for intra-service liquidity transfers: • There shall be an attempt to settle a single liquidity transfer immediately after its submission; • Offsetting mechanisms to save liquidity are not required; • Intra-service liquidity transfers may not be revoked as they are not queued; and • Intra-service liquidity transfers shall only have access to the non-reserved part of the available liquidity on the MCA.

Id	CLM.UR.CLM.ISLT.030.020
Name	Full execution
Description	If the non-reserved part of the available liquidity on the MCA to be debited is sufficient, CLM shall execute the intra-service liquidity transfer and update the balances of the accounts involved on a gross basis:

- the ~~requested~~sending MCA shall be debited and
- the ~~requested~~receiving MCA shall be credited.

Id	CLM.UR.CLM.ISLT.030.030
Name	Partial execution
Description	If the non-reserved part of the available liquidity on the MCA to be debited is only sufficient to settle the intra-service liquidity transfer partially and if the order has been initiated by a ~~standing or event-driven liquidity transfer order~~Standing or Event-based Liquidity Transfer Order, the intra-service liquidity transfer shall be executed up to the cash amount which can be settled.

No further settlement attempt shall take place for the cash amount which cannot be settled.

Id	CLM.UR.CLM.ISLT.030.040
Name	No execution
Description	~~In case~~Where there is not enough liquidity available on the MCA to be debited and if the order has been initiated by an ~~immediate liquidity transfer order~~Immediate Liquidity Transfer Order, the intra-service liquidity transfer shall be rejected and no liquidity shall be transferred.

Moreover, a settlement failure message shall be sent to the sender of the message.

Id	CLM.UR.CLM.ISLT.030.050
Name	~~Notifications~~Send notifications
Description	~~In case of~~Where there is full or partial settlement, a notification shall be sent (according to message subscription) to the owner of the MCA that has been debited (or co-manager) with the indication of the amount that has settled.
	Moreover, a notification shall be sent (according to message subscription) to the owner of the MCA that has been credited (or co-manager) with the indication of the amount that has settled.

1.5 PROCESS LIQUIDITY TRANSFER ORDER BETWEEN TWO DCAS IN DIFFERENT SETTLEMENT SERVICES

Business Process Ref: **CLM.BP.CLM.LTDCA**

1.5.1 Business Process Model
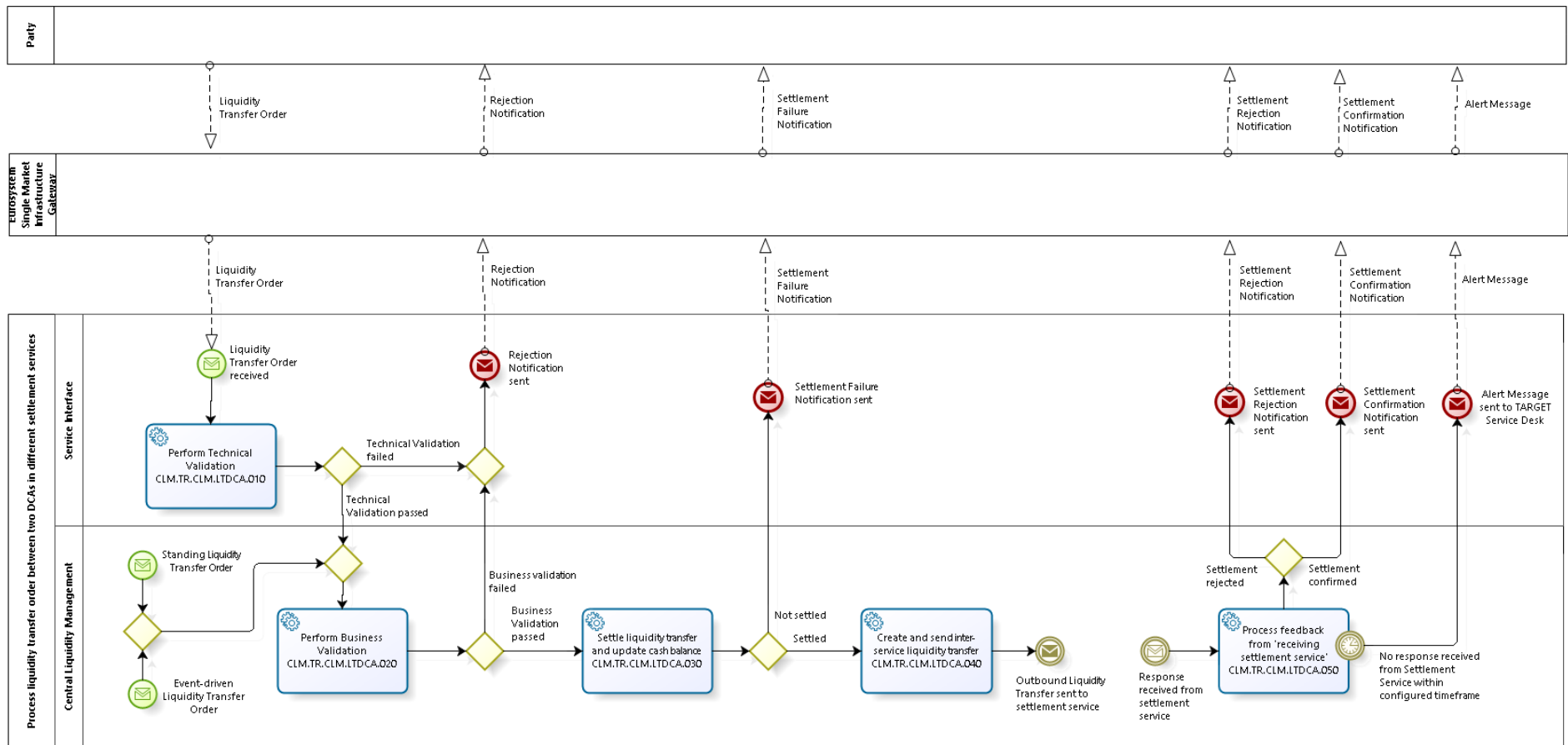
Business Process Model 4: Process liquidity transfer order between two DCAs in different settlement services

1.5.2 Process Overview

Process goal:

The aim of this process is to describe how a liquidity transfer between two DCAs belonging to different settlement services shall be handled within CLM.

The settlement service where the liquidity transfer will be initiated shall be called within this chapter the 'sending settlement service' whereas the settlement service in which the DCA will be credited shall be called 'receiving settlement service'.

Pre-conditions:

N/A.

Time constraints:

Liquidity transfers between two DCA(s) shall be possible throughout the whole business day with the exception of the End -of -Day processing and the maintenance window.

Expected results:

A liquidity transfer between two DCAs in different settlement services shall result:

► Within the 'sending settlement service', there shall be a debit (partial or full) of the DCA identified in the order and the simultaneous credit of the CLM Dedicated Transit Account for the relevant currency;

► Within the CLM, there shall be a debit of the 'sending settlement service' Dedicated Transit Account for the relevant currency and the simultaneous credit of the 'receiving settlement service' Dedicated Transit Account for the relevant currency; and

► Within the 'receiving settlement service', there shall be a credit of the DCA identified in the order and the simultaneous debit of the CLM Dedicated Transit Account for the relevant currency.

Triggers:

A liquidity transfer between two DCAs can be initiated in the 'sending settlement service' in twothree different ways:

► Immediate liquidity transfer ordersLiquidity Transfer Orders initiated by a participant in the 'sending settlement service' (owner of the DCA that will be debited) or by another Actor operating on its behalf of the DCA owner under a contractual agreement; or

► Standing or event-driven liquidity transfer ordersLiquidity Transfer Orders set up by a participant in the 'sending settlement service' (owner of the DCA that will be debited) or by another Actor operating on its behalf of the DCA owner under a contractual agreement and that are automatically triggered on a regular basis.

► Event-based Liquidity Transfer Orders that are automatically triggered whenever a predefined event occurs.

1.5.3 User Requirements

1.5.3.1 GENERAL USER REQUIREMENTS FOR ~~PROCESS~~PROCESSING LIQUIDITY TRANSFER ORDER BETWEEN TWO DCAS IN DIFFERENT SETTLEMENT SERVICES

Id	CLM.UR.CLM.LTDCA.000.010
Name	Initiate liquidity transfer order between two DCA(s)
Description	Once the liquidity transfer order between two DCAs in different settlement services has been initiated, the 'sending settlement service' shall validate it. Once validated, the 'sending settlement service' shall: - Debit the DCA and credit the CLM Dedicated Transit Account for the relevant currency; and - Initiate and send to CLM a liquidity transfer order for further processing.

Id	CLM.UR.CLM.LTDCA.000.020
Name	Whitelist check
Description	Both the 'sending settlement service' and the 'receiving settlement service' shall do a Whitelist check. The 'sending settlement service' shall check that the DCA to be credited is ~~not~~ in ~~its own~~the Whitelist for the DCA to be debited; whereas the 'receiving settlement service' shall check that the debited DCA is ~~not~~ in ~~its own~~the Whitelist for the DCA to be credited. This check is not performed where either: - both accounts involved in the liquidity transfer order belong to the same Party; or - either or both of the accounts are Central Bank Accounts.

1.5.3.2   PERFORM TECHNICAL VALIDATION

Task Ref: **CLM.TR.CLM.LTDCA.010**

~~At the reception~~On receipt of the liquidity transfer order from the 'sending settlement service', the CLM service interface shall complete technical validation by performing checks such as field level validation (fields shall have correct data type and size) and for duplicate messages.

Id	CLM.UR.CLM.LTDCA.010.010
Name	Check mandatory fields
Description	The service interface shall ensure that all mandatory fields in the message received are populated.

Id	CLM.UR.CLM.LTDCA.010.020
Name	Check for duplicate message
Description	The service interface shall ensure that the same message (i.e. message with the same reference from the same sender) has not already been received.

Id	CLM.UR.CLM.LTDCA.010.030
Name	Negative results via appropriate error codes together in a single message
Description	After encountering the first negative validation result, the service interface shall continue to validate as far as possible and report all negative results together in a single message. The service interface shall reject the order only after performing all possible technical validations.

Id	CLM.UR.CLM.LTDCA.010.040
Name	Processing ~~in case of passed~~where technical validation is successful
Description	~~In case of~~Where there is a positive result of the technical validation, the order shall be sent to the CLM for further processing.

Id	CLM.UR.CLM.LTDCA.010.050
Name	Processing ~~in case of failed~~where technical validation fails
Description	~~In case of~~Where there is a negative result of the technical validation, the order shall be rejected and a notification shall be sent to the 'sending settlement service'.

1.5.3.3   PERFORM BUSINESS VALIDATION

Task Ref: CLM.TR.CLM.LTDCA.020

~~In case of~~Where there is a positive result of the technical validation of the liquidity transfer order, CLM shall validate the message received against the reference data and perform additional checks/validations.

Id	CLM.UR.CLM.LTDCA.020.010
Name	Access rights check
Description	CLM shall check that the 'sending settlement service' is authorised to send such liquidity transfer order.

Id	CLM.UR.CLM.LTDCA.020.020
Name	Business validation of the values
Description	CLM shall check that all provided values are valid according to ~~pre-defined~~predefined values or cross-field validations.

Id	CLM.UR.CLM.LTDCA.020.030
Name	Account check
Description	CLM shall check that the Dedicated Transit Accounts mentioned in the notification exist and are active for settlement in the relevant currency. Moreover, CLM shall also check that the account owner is not blocked at Party level.

Id	CLM.UR.CLM.LTDCA.020.040
Name	Processing ~~in case of failed~~where business validation fails
Description	~~In case of~~Where there is a negative result of the business validation, the request of the 'sending settlement service' shall be rejected and a rejection notification shall be sent to the 'sending settlement service' with the inclusion of the relevant error codes.

1.5.3.4   SETTLE LIQUIDITY TRANSFER AND UPDATE CASH BALANCE

Task Ref: CLM.TR.CLM.LTDCA.030

~~In case of~~Where there is a positive result of the business validations, CLM shall check whether the booking of the liquidity transfer between the two Dedicated Transit Accounts is feasible.

Id	CLM.UR.CLM.LTDCA.030.010
Name	Settlement principles
Description	There shall be an attempt to settle the liquidity transfer immediately after its submission.

Id	CLM.UR.CLM.LTDCA.030.020
Name	Booking of the liquidity transfer is possible
Description	If the booking of the liquidity transfer is possible, CLM shall book it and update the balances of the accounts involved on a gross basis:
	• the 'sending settlement service' Dedicated Transit Account shall be debited and
	• the 'receiving settlement service' Dedicated Transit Account shall be credited.

Id	CLM.UR.CLM.LTDCA.030.030
Name	Booking of the liquidity transfer is not possible
Description	If the booking of the liquidity transfer is not possible, the request of the 'sending settlement service' shall be rejected.
	Moreover, CLM shall send a rejection notification to the TARGET ~~service desk~~Service Desk and to the '~~sending settlement service~~sending settlement service'.

1.5.3.5 CREATE AND SEND INTER-SERVICE LIQUIDITY TRANSFER

Task Ref: **CLM.TR.CLM.LTDCA.040**

Id	CLM.UR.CLM.LTDCA.040.010
Name	Create and send inter-service liquidity transfer
Description	Once the liquidity transfer between the two Dedicated Transit Accounts has successfully settled, CLM shall: • Create an inter-service liquidity transfer to credit the relevant DCA and to debit the CLM Dedicated Transit Account in the 'receiving settlement service'; and • Send this liquidity transfer to the 'receiving settlement service'.

1.5.3.6 PROCESS FEEDBACK FROM 'RECEIVING SETTLEMENT SERVICE'

Task Ref: **CLM.TR.CLM.LTDCA.050**

CLM shall process the feedback received from the 'receiving settlement service' to which the inter-service liquidity transfer has been sent. Two different scenarios are possible: confirmation or rejection.

Id	CLM.UR.CLM.LTDCA.050.010
Name	Process positive confirmation feedback
Description	A confirmation shall imply that the inter-service liquidity transfer has been booked successfully within the 'receiving settlement ~~service~~service' (i.e. that the relevant DCA has been credited and the Dedicated Transit Account for the relevant settlement service has been debited with the amount specified in the inter-service liquidity transfer). CLM shall process this feedback and send a confirmation notification to the 'sending settlement service'.

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Id	CLM.UR.CLM.LTDCA.050.020
Name	Process negative confirmation feedback
Description	A rejection shall imply that the inter-service liquidity transfer has not been successfully processed within the 'receiving settlement service' (i.e. that the 'receiving settlement service' has not been able to credit the relevant DCA for the specified amount). In such a case, CLM shall automatically create within CLM a reversal of the initial movement between the two Dedicated Transit Accounts.

Moreover, CLM shall send a rejection notification to the 'sending settlement service'. |

Id	CLM.UR.CLM.LTDCA.050.030
Name	Generate alert if no feedback received
Description	If no feedback is received from the 'receiving settlement service' within a predefined timeframe (that ~~can~~shall be configurable), an alert message shall be generated by the CLM to the TARGET ~~service desk~~Service Desk and to the 'sending settlement ~~service~~service' for investigation purposes.

Id	CLM.UR.CLM.~~LTSEN~~LTDCA.050.040
Name	End of Day processing ~~in case of~~where there are pending inter-service liquidity ~~transfer~~transfers
Description	The End ~~-~~of ~~-~~Day processing shall not start if there are still pending inter-service liquidity transfers.

1.6 PROCESS PAYMENT ORDER LINKED TO CENTRAL BANK OPERATIONS AND CASH WITHDRAWALS

Business Process Ref: **CLM.BP.CLM.PAYT**

1.6.1 Business Process Model
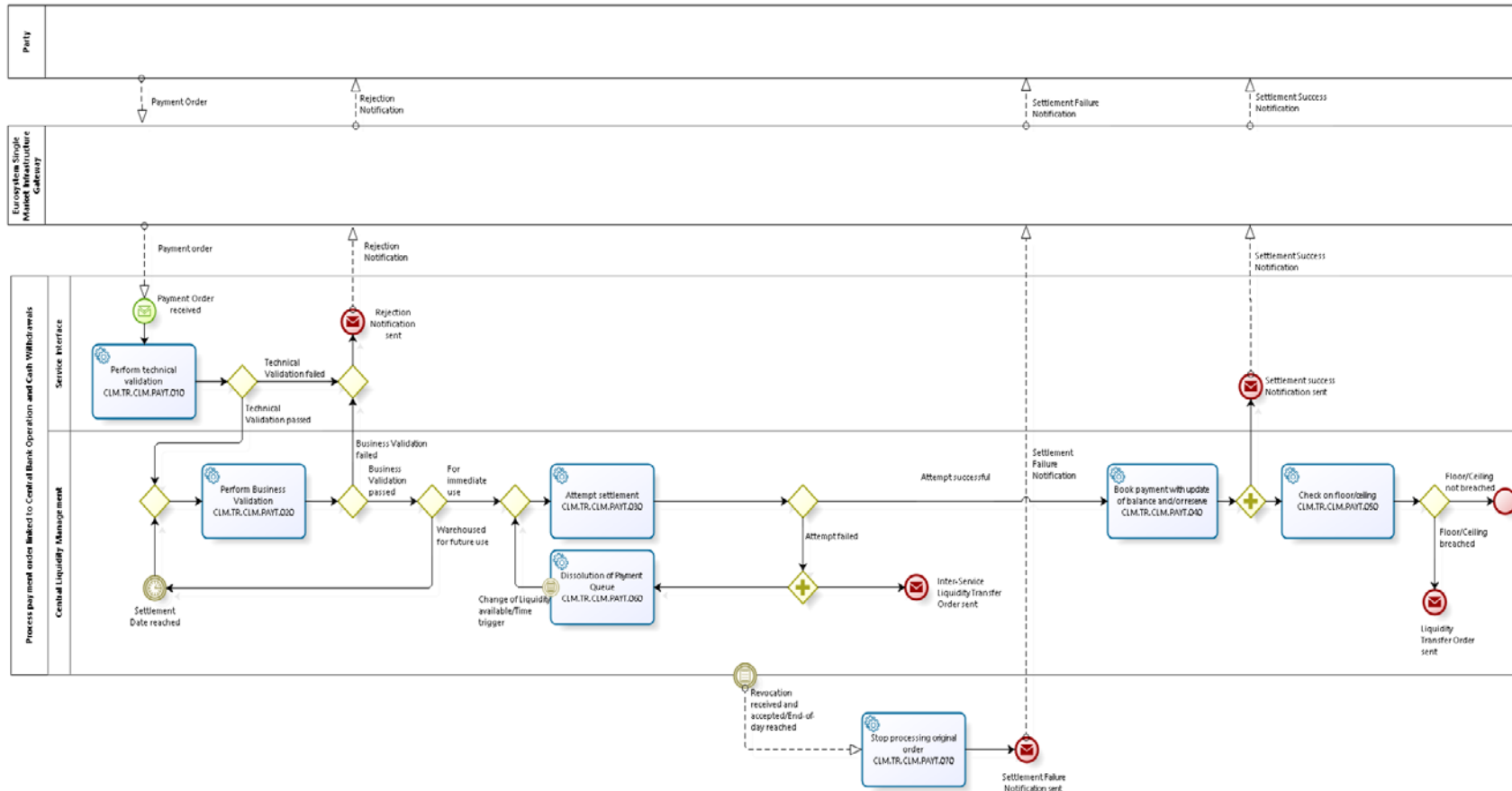
Business Process Model 5: Process payment order linked to Central Bank Operation and Cash Withdrawals

1.6.2   Process Overview

Process goal:

This process describes how a payment order linked to a Central Bank Operation or a Cash Withdrawal shall be handled within CLM.

Pre-conditions:

The following pre-conditions apply:

▶   A Party needs to be a CLM participant and hold a MCA in the CLM; and

▶   A CB system needs to send the payment order.

Time constraints:

Payment orders linked to Central Bank Operations or a Cash Withdrawal shall be possible throughout the whole business day with the exception of the End -of -Day processing (with the exception of the marginal lending facility) and the maintenance window.

Expected results:

A payment order linked to a Central Bank Operation or a Cash Withdrawal shall ~~lead to~~result in a debit (or credit) of the CLM participant's MCA with the simultaneous credit (debit) of a ~~CB~~Central Bank account.

Triggers:

A payment order linked to a Central Bank Operation or to a Cash Withdrawal shall be initiated by a CB system. A manual input of a payment through the U2A screen shall however be possible for a CB operator.

CB systems (or CB ~~Operators~~operators) can submit/issue the following payment types:

▶   credit transfers; or

▶   direct debits used for the settlement of ~~cash withdrawals~~Cash Withdrawals, repayment of monetary policy operations and collections of fees.

A CB system shall also have the possibility to determine the settlement time of the payments. The following options are available:

▶   Payments with an "Earliest Debit Time Indicator"; and

▶   Payments with a "Latest Debit Time Indicator".

Moreover, it shall be possible to submit payments up to ~~five business~~ten calendar days in advance (this should be a parameter). In this case, the payment message is warehoused until CLM opens for that date.

1.6.3 User Requirements

1.6.3.1 GENERAL USER REQUIREMENTS FOR PROCESS PAYMENT ORDER LINKED TO CENTRAL BANK OPERATIONS AND CASH WITHDRAWALS

Id	CLM.UR.CLM.PAYT.000.010
Name	Settlement principles for payment orders linked to Central Bank Operations and Cash Withdrawals
Description	The following principles shall apply for payment orders linked to Central Bank Operations and Cash Withdrawals: • Payments will all have the same priority. There is no need to distinguish between urgent and normal payments; • Payments can include a time that indicates when they should be settled (transactions with an "Earliest Debit Time Indicator"); • Payments can include a time that indicates when they should have been settled (transactions with a "Latest Debit Time Indicator"); • Warehoused payments can be initiated by default ~~five business~~ten calendar days in advance (a parameter shall ~~however allow payments to be initiated more than five business~~define how many days in advance payments shall be allowed to be sent to CLM). The payment message shall pass technical and business validation and shall be warehoused until CLM opens for that date; • Attempt to settle single payment order immediately after its submission; • Offsetting mechanisms to save liquidity are not required; • Payment orders may be revoked as long as they are not executed; • Payment orders, which cannot settle immediately, shall be queued; • Payment orders in the queue shall be processed according to the FIFO-principle; • It shall be possible to intervene on queued payments through the following operations: • changing the set execution time (if defined in the original payment order) and • revocation of a queued payment; and • CLM offers one type of reservation for all Central Bank Operations and Cash Withdrawals.

1.6.3.2   PERFORM TECHNICAL VALIDATION

Task Ref: CLM.TR.CLM.PAYT.010

~~At the reception~~On receipt of a payment order sent by the sender of the message, the service interface shall complete technical validation by performing checks such as field level validation (fields shall have correct data type and size) and for duplicate messages.

Id	CLM.UR.CLM.PAYT.010.010
Name	Check mandatory fields
Description	The service interface shall ensure that all mandatory fields in the message received are populated.

Id	CLM.UR.CLM.PAYT.010.020
Name	Check for duplicate message
Description	The service interface shall ensure that the same message (i.e. message with the same reference from the same sender) has not already been received.

Id	CLM.UR.CLM.PAYT.010.030
Name	Negative results via appropriate error codes together in a single message
Description	After encountering the first negative validation result, the service interface shall continue to validate as far as possible and report all negative results together in a single message. The service interface shall reject the order only after performing all possible technical validations.

Id	CLM.UR.CLM.PAYT.010.040
Name	Processing ~~in case of passed~~where technical validation is successful
Description	~~In case of~~Where there is a positive result of the technical validation, the order shall be sent to the CLM for further processing.

Id	CLM.UR.CLM.PAYT.010.050
Name	Processing ~~in case of failed~~where technical validation fails
Description	~~In case of~~Where there is a negative result of the technical validation, the order shall be rejected and a notification shall be sent to the sender of the message. ~~In case of a~~Where input was manual ~~input~~ via the U2A screen, the rejection notification shall be displayed directly on the screen.

1.6.3.3 PERFORM BUSINESS VALIDATION

Task Ref: **CLM.TR.CLM.PAYT.020**

~~In case of~~Where there is a positive result of the technical validation of the payment order, CLM shall validate the message received against the reference data and perform additional checks/validations.

Id	CLM.UR.CLM.PAYT.020.010
Name	Check for duplicate payment
Description	CLM shall carry out a duplicate submission control for incoming payment. This control shall include the following fields: • Sender of the message; • Message Type; • Receiver; • Transaction Reference Number; • Related Reference; • Value Date; and • Amount.

Id	CLM.UR.CLM.PAYT.020.020
Name	Access rights check
Description	CLM shall check that the sender of the message is authorised to send payments linked to ~~CB operations~~Central Bank Operations or ~~cash withdrawals~~Cash Withdrawals. If the sender of the message is not the owner of the MCA, CLM shall check that it is authorised to send a payment order on behalf of the account owner.

Id	CLM.UR.CLM.PAYT.020.030
Name	Business validation of the values
Description	CLM shall check that all provided values are valid according to ~~pre-defined~~predefined values or cross-field validations.

Id	CLM.UR.CLM.PAYT.020.040
Name	Account check
Description	CLM shall check that the MCA and the ~~CB accounts~~Central Bank account mentioned in the payment order exist and are active for settlement in the relevant currency. Moreover, CLM shall also check that the ~~account~~MCA owner is not blocked at Party level.

Id	CLM.UR.CLM.PAYT.020.050
Name	Processing ~~in case of failed~~where business validation fails
Description	~~In case of~~Where there is a negative result of the business validation, the order shall be rejected and a notification shall be sent to the sender of the message. ~~In case of a~~Where input was manual ~~input~~ via the U2A screen, the rejection notification shall be displayed directly on the screen.

Id	CLM.UR.CLM.PAYT.020.060
Name	Processing ~~in case of a~~where there is positive validation of a warehoused payment
Description	~~In case of~~Where there is a positive result of the business validation, the warehoused payment to be settled on one of the following business ~~day~~days shall be stored until CLM opens for that date. ~~The~~ On the settlement date, the warehoused payment shall ~~then~~ undergo ~~on the settlement date~~ the business validation checks for a second time.

1.6.3.4   ATTEMPT SETTLEMENT

Task Ref: CLM.TR.CLM.PAYT.030

~~In case of~~Where there is a positive result of the business validation checks, CLM shall validate whether the booking of the payment ~~order~~ is feasible. ~~Two different scenarios are possible: full and no execution.~~

Id	CLM.UR.CLM.PAYT.030.010
Name	Sequence of settlement checks
Description	CLM shall apply the following sequence of settlement checks: 1. CLM shall check whether there are existing operations in the queue. 2. If existing operations are in the queue, the payment order shall also be put in the queue. 3. If existing operations are not in the queue, ~~the payment~~CLM shall attempt to settle ~~if there is not enough available liquidity. If there is not enough available liquidity, the payment order shall be put in the queue and the system shall automatically trigger an intra-service liquidity transfer to pull cash from the CLM participant's RTGS DCA used for payments~~the payment.

1.6.3.5   BOOK PAYMENT WITH UPDATE OF BALANCE AND/OR RESERVE

Task Ref: CLM.TR.CLM.PAYT.040

Once the booking of payment is feasible with available liquidity, CLM shall book the payment by updating the balances and/or reserves of the related accounts.

Id	CLM.UR.CLM.PAYT.040.010
Name	Book outgoing payment

Description	If the settlement of an outgoing payment is possible, CLM shall book it and shall:
	
	• ~~update~~Update the balances of the accounts involved on a gross basis:
	   - the requested CLM participant's MCA shall be debited and
	   - the relevant Central Bank account shall be credited; and
	• Reduce the ~~reserve~~MCA operations reservation on the CLM participant's MCA (if available).
	
	If the ~~reserve~~MCA operations reservation is not sufficient, the ~~liquidity~~payment shall use the non-reserved part of available liquidity.

Id	CLM.UR.CLM.PAYT.040.020

Name	Book incoming payment
Description	If the settlement of an incoming payment is possible, CLM shall book it and shall update the balances of the accounts involved on a gross basis: ~~the~~ • The relevant Central Bank account shall be debited, and ~~the~~ • The requested CLM participant's MCA shall be credited.

Id	CLM.UR.CLM.PAYT.040.030
Name	Send notifications
Description	After the payment has been booked, a notification shall be sent (according to message subscription) to the owner of the ~~account~~MCA (or co-manager). A notification shall also be sent (according to message subscription) to the CB system.

1.6.3.6   CHECK ON FLOOR/CEILING

Task Ref: CLM.TR.CLM.PAYT.050

The owner of the MCA (or another Actor acting on ~~its~~ behalf of the MCA owner) can define a minimum ("floor") or maximum ("ceiling") amount for its MCA(s). The CLM participant has the option to choose the behaviour of CLM once the floor and ceiling has been reached. Two options are possible:

(i)   ~~(i)~~ CLM generates a notification to be sent to the owner of the MCA (or to another Actor on ~~its~~ behalf of the MCA owner) informing about the floor/ceiling breach (upon which the CLM participant can take action); or

(ii)   ~~(ii)~~ automatically generate an inter-service liquidity transfer to pull cash from the CLM participant's RTGS DCA used for payments (~~for~~where the floor is breached) or push cash to the CLM participant's RTGS DCA used for payments (~~for~~where the ceiling is breached).

Id	CLM.UR.CLM.PAYT.050.010
Name	Floor balance order
Description	~~In case~~Where the available liquidity on the MCA falls below the defined floor amount after the settlement of a payment order, CLM shall, based on the option chosen by the owner of the MCA (or by another Actor acting on ~~its~~ behalf)~~,:~~ of the MCA owner): • Send a notification to the owner of the MCA (or to another Actor acting on ~~its~~ behalf of the MCA owner) with the information that the floor has been breached; or • Create and release an inter-service liquidity transfer order to pull an amount of liquidity from the predefined RTGS DCA used for payments to reach a ~~pre-defined~~predefined target amount (that can be different from the floor amount).

Id	CLM.UR.CLM.PAYT.050.020
Name	Ceiling balance order
Description	~~In case~~Where the available liquidity on the MCA exceeds the defined ceiling amount after the settlement of a payment order, CLM shall, based on the option chosen by the owner of the MCA (or by another Actor acting on ~~its~~ behalf)~~,:~~ of the MCA owner): • Send a notification to the owner of the MCA (or to another Actor acting on ~~its~~ behalf of the MCA owner) with the information that the ceiling has been breached; or • Create and release an inter-service liquidity transfer to push an amount of liquidity to the predefined RTGS DCA used for payments to reach a ~~pre-defined~~predefined target amount (that can be different from the ceiling

amount).

1.6.3.7 DISSOLUTION OF PAYMENT QUEUE

Task Ref: **CLM.TR.CLM.PAYT.060**

Id	CLM.UR.CLM.PAYT.060.010
Name	Resolve queue of payments
Description	The queue shall be continuously resolved thanks to a liquidity increase in the MCA or a change in the payment queue which is relevant for the settlement as CLM attempts to settle payments in the MCA starting with the transaction at the top of the queue.

Id	CLM.UR.CLM.PAYT.060.020
Name	Automatic trigger of inter-service liquidity transfer betweenfrom RTGS DCA andto MCA
Description	In caseWhere there is insufficient liquidity on the CLM participant's MCA to settle a payment linked to a CB operationCentral Bank Operation or a cash withdrawalCash Withdrawal, CLM shall automatically trigger an inter-service liquidity transfer with the missing amount from the CLM participant's RTGS DCA used for payments (defined by the CLM participant) to the same CLM participant's MCA. The respective inter-service liquidity transfer shall be placed on top of the queue ofgiven a higher priority than all pending payments and liquidity transfers on thethat RTGS DCA used for payments.
	If only a partial settlement of the inter-service liquidity transfer is possible, then CLM shall execute the liquidity transfer and shall create a new inter-service liquidity transfer order for the remaining part that shall be queued in the RTGS settlement service with the same conditions until it can be entirely processed.

Id	CLM.UR.CLM.PAYT.060.030
Name	Intervention on queued payments
Description	The following operations shall be possible on queued payments: • Changing the set execution time (if defined in the payment order before sending it to the CLM); • Re-ordering the queued payments; and • Revocation of a queued payment.

1.6.3.8   STOP PROCESSING ORIGINAL ORDER

Task Ref: **CLM.TR.CLM.PAYT.070**

Id	CLM.UR.CLM.PAYT.070.010
Name	Stop processing by the End of Day
Description	If payments are still queued by the end of the day due to lack of available liquidity, these payments shall be rejected during the End of Day processing (with the exception of standing facilitiesStanding Facilities that shall be doneexecuted before thetheir dedicated cut-off). A rejection notification shall be sent to the sender of the message.

1.7 AMENDMENT OF A PAYMENT ORDER

Business Process Ref: **CLM.BP.CLM.PAYA**

1.7.1 Business Process Model

The amendment of a payment order linked to a Central Bank Operation ~~and~~or a Cash Withdrawal and the amendment of a payment order in the RTGS shall be similar from a business process model point of view. The business process RTGS.BP.HVP.PAYA in the RTGS URD shall therefore also apply to this section.

~~Business Process Model : Amend payment order linked to Central Bank Operation and Cash Withdrawals~~

1.7.2 Process Overview

Process goal:

This process describes how the amendment of a payment order linked to a Central Bank Operation or a Cash Withdrawal shall be handled within CLM.

The following types of amendment shall be possible in CLM:

► Change of the set execution time (if defined in the payment order before sending to ~~the~~ CLM~~) as payments~~). Payments can include

- a time that indicates starting from when they should be settled (transactions with an "Earliest Debit Time Indicator") or

- a time that indicates latest by when they should have been settled (transactions with a "Latest Debit Time Indicator~~"); and~~").

► Re-ordering of the queued payments. The selected payment or sequence of payments can be placed ~~to the~~

- on top of the ~~queued~~queue of payments with the same payment type or

- to the end of the ~~queued~~queue of payments with the same payment type.

Pre-conditions:

The following pre-conditions apply:

► A payment order linked to a Central Bank Operation or a Cash Withdrawal has been initiated in CLM; and

► This payment order is in the queue in CLM.

Time constraints:

The amendment of a payment order linked to a Central Bank Operation or a Cash Withdrawal or of any other payment that can settle on CLM shall be possible throughout the whole business day ~~with~~

~~the exception of~~ apart from during the End ~~-~~ of ~~-~~ Day processing ~~(with the exception of the marginal lending facility)~~ and the maintenance window.

Expected results:

Changing the set execution time shall have the following impact on the queue management:

▶ The deletion of the execution time shall ~~lead to~~result in an immediate settlement attempt; ~~and~~

▶ Changing the ~~execution time~~"Earliest Debit Time Indicator" shall ~~lead to~~result in the ~~inclusion of the~~first payment ~~from~~settlement attempt at the new indicated time~~.~~; and

▶ Changing the "Latest Debit Time Indicator" shall result in the payment being rejected as soon as the new indicated time is reached if it is still in the queue by then.

The re-ordering of queued payments shall have the following impact on the payment management:

▶ Moving a payment to the top of the queued payments shall ~~lead to~~result in the immediate check whether the payment can be executed; and

▶ When moving a payment which is not at the top of the queued payments to the end~~, it shall be taken into account during of~~ the ~~next~~queue, settlement ~~process~~shall be attempted once the previously queued payments have reached the final status, i.e. no immediate attempt to settle.

Triggers:

An amendment to a payment order linked to a Central Bank Operation or to a Cash Withdrawal shall only be possible ~~for~~by a CB operator on a U2A basis.

1.8   REVOCATION OF A PAYMENT ORDER

Business Process Ref: CLM.BP.CLM.PAYR

1.8.1   Business Process Model

The revocation of a payment order linked to a Central Bank Operation ~~and~~or a Cash Withdrawal and the cancellation of a payment order in the RTGS shall be similar from a business process model point of view. The business process RTGS.BP.HVP.PAYC in the RTGS URD shall therefore also apply to this section.

~~Business Process Model : Revoke payment order linked to Central Bank Operation and Cash Withdrawals~~

1.8.2   Process Overview

Process goal:

This process describes how the revocation of a payment order linked to a Central Bank Operation or a Cash Withdrawal shall be handled within CLM.

Pre-conditions:

The following pre-conditions apply:

▸   A payment order linked to a Central Bank Operation or a Cash Withdrawal has been initiated in CLM; and

▸   This payment order is in the queue in CLM.

Time constraints:

The revocation of a payment order linked to a Central Bank Operation or a Cash Withdrawal shall be possible throughout the whole business day ~~with the exception of~~ apart from during the End ~~-~~of ~~-~~Day processing ~~(with the exception of the marginal lending facility)~~ and the maintenance window. Standing Facilities transactions may additionally be revoked during the End of Day processing, up until the cut-off time for Standing Facilities.

Expected results:

The revocation of payment order shall ~~lead to~~result in the cancellation of the queued payment.
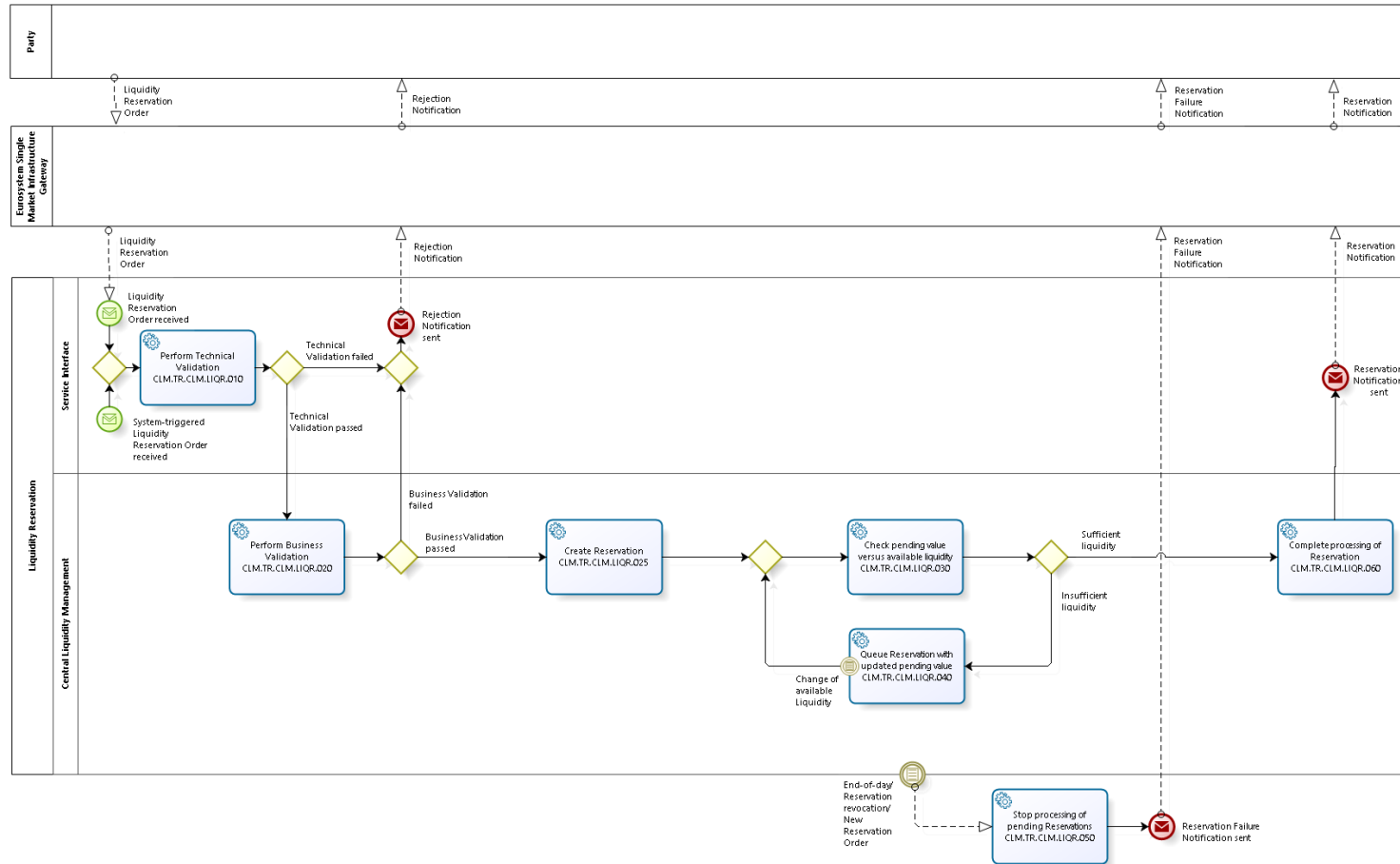
Triggers:

The revocation of a payment order linked to a Central Bank Operation or to a Cash Withdrawal shall be possible ~~for~~by a CB operator on a U2A basis. Moreover, it shall also be possible for a CB system to send a revocation request on a A2A basis.

1.9   LIQUIDITY RESERVATION

Business Process Ref: CLM.BP.CLM.LIQR

1.9.1   Business Process Model

Business Process Model 6: Liquidity Reservation

1.9.2   Process Overview

Process goal:

The aim of the process is to support the participants control over the use of the supplied liquidity in a currency on their MCAs by means of a reservation mechanism.

Process context:

This business process describes the check by CLM, after receipt of the order for reservation request, whether the amount of liquidity on the participant's MCA is sufficient for making the reservation. Moreover, it describes the building up of reservation ofto the requested amount.

Pre-conditions:

A Party wishing to control the use of the supplied liquidity by means of a reservation needs to be a CLM participant and hold an MCA in the CLM.

Time constraints:

ManageManagement of a reservation shall be possible throughout the whole business day with the exception of the End -of -Day processing and the maintenance window.

Expected results:

Reservation shall allow a CLM participant to control and dedicate a part of the liquidity on the MCA for a specific purpose. If no reservation is defined, the CLM participant's liquidity is available for each and every payment (linked to CB operationsCentral Bank Operations or cash withdrawalsCash Withdrawals) and liquidity transfer.

Triggers:

The owner of the MCA (or another Actor acting on its behalf of the MCA owner) shall be able to set up and manage reservations on a U2A (using the CRDM GUI on a U2A) and A2A basis. CLM generates a reservation upon receiving a liquidity reservation order. Reservations may also be generated automatically whenever a Standing Order for ReservationsReservation is triggered.

1.9.3   User Requirements

1.9.3.1   GENERAL USER REQUIREMENTS FOR LIQUIDITY RESERVATION

Id	CLM.UR.CLM.LIQR.000.010
Name	Type of reservation requestsorders
Description	When managing reservations in one currency, CLM participants shall be able to: • "Reset" to zero the amount of liquidity to be reserved;

- Change the amount on demand during the day with immediate effect;
- Establish a specific amount during the current day with immediate effect; and
- Input a default amount for the following day(s) (valid until next change).

1.9.3.2 PERFORM TECHNICAL VALIDATION

Task Ref: **CLM.TR.CLM.LIQR.010**

~~At the reception~~On receipt of a reservation ~~request~~order, the service interface shall complete technical validation by performing checks such as field level validation (fields shall have correct data type and size).

Id	CLM.UR.CLM.LIQR.010.010
Name	Check mandatory fields
Description	The service interface shall ensure that all mandatory fields in the message received are populated.

Id	CLM.UR.CLM.LIQR.010.020
Name	Processing ~~in case of passed~~where technical validation is successful
Description	~~In case of~~Where there is a positive result of the technical validation, the ~~request~~order shall be sent to the CLM for further processing.

Id	CLM.UR.CLM.LIQR.010.030
Name	Processing ~~in case of failed~~where technical validation fails
Description	~~In case of~~Where there is a negative result of the technical validation, the ~~request~~order shall be rejected and a notification shall be sent to the sender of the message. ~~In case of a~~Where input was manual ~~input~~ via the U2A screen, the rejection notification shall be displayed directly on the screen.

1.9.3.3 PERFORM BUSINESS VALIDATION

Task Ref: **CLM.TR.CLM.LIQR.020**

~~In case of~~Where there is a positive result of the technical validation of the reservation ~~request~~order, CLM shall validate the message received against the reference data and perform additional checks/validations.

Id	CLM.UR.CLM.~~LTSEN~~LIQR.020.010
Name	Access rights check
Description	CLM shall check that the sender of the message is authorised to send a reservation order for the MCA mentioned in the ~~request~~order.
	If the sender of the message is not the owner of the MCA, CLM shall check that it is authorised to send a reservation ~~request~~order on behalf of the account owner.

Id	CLM.UR.CLM.LIQR.020.020
Name	Business validation of the values
Description	CLM shall check that all provided values are valid according to ~~pre-defined~~predefined values or cross-field validations.

~~**Id**~~	~~CLM.UR.CLM.LIQR.020.030~~
~~**Name**~~	~~Account check~~
~~**Description**~~	~~CLM shall check that the MCA mentioned in the reservation request exists and is active for settlement in the relevant currency.~~

Id	CLM.UR.CLM.LIQR.020.030
Name	~~Processing in case of failed business validation~~Account check
Description	~~In case of a negative result of the business validation, the request shall be rejected and a notification shall be sent to the sender of the message.~~
	~~In case of a manual input via the U2A screen, the rejection notification shall be displayed directly on the screen.~~CLM shall check that the MCA mentioned in the reservation order exists and is active for settlement in the relevant currency.

Id	CLM.UR.CLM.LIQR.020.040
Name	Processing where business validation fails
Description	Where there is a negative result of the business validation, the order shall be rejected and a notification shall be sent to the sender of the message.
	Where input was manual via the U2A screen, the rejection notification shall be displayed directly on the screen.

1.9.3.4   CREATE RESERVATION

Task Ref: **CLM.TR.CLM.LIQR.025**

Where there is a positive result of the business validation checks, CLM shall process the reservation order and create a reservation.

Id	CLM.UR.CLM.LIQR.025.010
Name	Processing valid ~~Liquidity Reservation Order~~ reservation order
Description	For a ~~Reservation Order~~reservation order that has passed all business ~~validation~~validations, CLM shall create a ~~Reservation~~reservation in the ~~system~~service.
	• Reservation ~~Amount~~amount is the amount requested in the ~~Liquidity Reservation Order~~liquidity reservation order or in the Standing Order for Reservation.
	• Pending Value will initially be the same as the ~~Reservation Amount~~reservation amount.
	• Defined Value will initially be zero.

1.9.3.5   CHECK ~~PENDING VALUE~~PENDING VALUE VERSUS AVAILABLE LIQUIDITY

Task Ref: **CLM.TR.CLM.LIQR.030**

Id	CLM.UR.CLM.LIQR.030.010
Name	Check amount of available liquidity
Description	CLM shall check whether the amount of ~~available~~non-reserved liquidity on the CLM participant's MCA is sufficient for filling the reservation, by comparing the ~~available~~non-reserved amount of liquidity with the Pending Value for the ~~Reservation~~reservation.

1.9.3.6   QUEUE RESERVATION WITH UPDATED ~~PENDING VALUE~~PENDING VALUE

Task Ref: **CLM.TR.CLM.LIQR.040**

Where there was not sufficient non-reserved liquidity on MCA to fill a reservation, CLM continues attempting to fill it in until the reservation amount is reached.

Id	CLM.UR.CLM.LIQR.040.010
Name	Processing of reservation order if not enough liquidity is available

Description	Where there is not enough non-reserved liquidity available on the MCA to fulfil the remaining amount of the ~~Reservation~~reservation, CLM shall:
	
	• Reserve the liquidity available on the account;
	• Queue the remaining reservation ~~request~~order with:
	  - Defined Value increased by the amount of liquidity available
	  - Pending Value decreased by the amount of liquidity available

Id	CLM.UR.CLM.LIQR.040.020
Name	Process pending reservation ~~request~~order
Description	Whenever there is an increase of the available non-reserved liquidity on the MCA, an asynchronous resolving process shall attempt to process the pending reservation ~~request~~order. New reservation ~~requests~~orders related to the participant's MCA shall replace pending reservation ~~requests~~orders.

1.9.3.7   STOP PROCESSING OF PENDING RESERVATIONS

Task Ref: **CLM.TR.CLM.LIQR.050**

Where a reservation order remains pending until the End of Day processing starts for that business day, CLM shall stop processing the reservation order.

Id	CLM.UR.CLM.LIQR.050.010
Name	Automatic stopping of the pending reservation ~~request~~order during the End of Day processing
Description	If the reservation ~~request~~order is pending by the end of the day, CLM shall stop the processing of the reservation ~~request during the End of Day processing~~order based on the ~~rejection sent by the RTGS settlement service~~End of Day notification.

1.9.3.8   COMPLETE PROCESSING OF RESERVATION

Task Ref: CLM.TR.CLM.LIQR.060

Id	CLM.UR.CLM.LIQR.060.010
Name	Processing if enough liquidity is available

Description	If the amount of the available liquidity is sufficient to satisfy the Pending Value of the ~~Reservation~~reservation, CLM shall:
	
	• Reserve the remaining amount specified in the reservation ~~request~~order (Pending Value) for the requested reservation type;
	• Update the reservation ~~request~~ with:
	   - Defined Value increased by the amount of liquidity used (which will then equal to the ~~Reservation Amount~~reservation amount)
	   - Pending Value decreased by the amount of liquidity used (which will then be zero)

Id	CLM.UR.CLM.LIQR.060.020
Name	Send notification
Description	CLM shall send a notification to the owner of the MCA (or co-manager) to inform that the total amount could be reserved.

2 NON-FUNCTIONAL REQUIREMENTS FOR THE CENTRAL LIQUIDITY MANAGEMENT

2.1 AVAILABILITY

Id	CLM.UR.NFR.ALL.020
Name	Availability
Description	Availability, calculated on a quarterly basis, shall be at least 99.7%.

The CLM service may be subject to incidents or failures, which may cause a temporary and unforeseen interruption of the service. Regardless of the total number of such unplanned interruptions, the overall availability calculated on a quarterly basis shall be at least 99.7%.

2.2 DISASTER RECOVERY

Id	CLM.UR.NFR.ALL.040
Name	Recovery Point Objective
Description	The CLM shall ensure a recovery point objectiveRecovery Point Objective (RPO) value of zero minutes in casethe event of site failures. In case ofWhere there is a loss of a complete region the RPO shall not exceed two minutes.

The recovery point objectiveRecovery Point Objective (RPO) is a point of consistency to which a user wants to recover or restart the service. It is measured as the amount of time between the moment when the point of consistency was created and the moment when the failure occurred.

The CLM ensures synchronous point of consistency creations and, as a consequence, no data loss in casethe event of failures, unless the service can'tcannot be restarted in the same region and a failover to the backup-region has to be conducted. In this case a data loss of two minutes will be tolerated.

Id	CLM.UR.NFR.ALL.050
Name	Recovery Time Objective
Description	~~The~~ CLM shall ensure a ~~recovery time objective~~Recovery Time Objective (RTO) value of one hour in ~~case~~the event of site failures. ~~In case of~~Where there is a loss of a complete region the RTO shall not exceed two hours.

The ~~recovery time objective~~Recovery Time Objective (RTO) is the maximum amount of time required for recovery or restart of the service to a specified point of consistency. ~~In case of~~Where there is a site failure, CLM shall ensure maximum time of unavailability of one hour starting from the time when the decision to restart the service is made up to the time the service is restored. ~~In case of~~Where there is a major failure or a regional disaster, CLM shall ensure maximum time of unavailability of two hours starting from the time when the decision to restart the service is made up to the time the service is restored.

2.3 PERFORMANCE REQUIREMENTS

Id	CLM.UR.NFR.ALL.060
Name	Response Time Goals
Description	CLM shall process 95% of the transactions ~~in under five~~within 2 minutes and 100% of the transactions ~~in under 15~~within 5 minutes.

Id	CLM.UR.NFR.ALL.070
Name	Peak Workload per second
Description	CLM shall be able to process 20 transactions per second, enduring the peak load for at least ~~0,25 hours~~15 minutes.

Id	CLM.UR.NFR.ALL.080
Name	Upward Scalability
Description	CLM shall be scalable to handle: higher throughputs in order to cope with e.g. short-term market shocks and foreseeable increases: • A 20% higher workload within 15 minutes; and • A double of the workload (but up to 200 transactions per second) within 365 days.

In the course of the service's lifecycle the number of transactions to be handled might change due to market changes or adapted business behaviour. CLM mustTo be scalableable to cope with this, CLM shall be able to handle higher throughputs in order to cope with e.g. short-term market shocks and foreseeable increases.

2.4 INFORMATION SECURITY AND CYBER RESILIENCE

Id	CLM.UR.NFR.ALL.090
Name	Information Security
Description	CLM shall be compliant with the Information Security Requirements and Controls. **Note**: For details see the Market Infrastructure Security Requirements and Controls document. All requirements must be fulfilled in a central integrated way.

Id	CLM.UR.NFR.ALL.100
Name	Cyber Resilience
Description	CLM shall be compliant with Cyber Resilience Requirements. **Note**: For details see Market Infrastructure Cyber Resilience Requirements document. All requirements must be fulfilled in a central integrated way.

3 USER INTERACTION

The objective of this section is to provide the user requirements related to user interactions covering the usage of U2A or A2A mode. A Graphical User Interface (GUI) shall be provided for each ~~service~~Service, offering ~~functionalities~~facilities to access information in U2A mode. The GUI(s) shall be harmonised to the best possible ~~extend~~extent.

These requirements do not imply any particular consideration with regard to the design and ~~the~~ implementation of the actual screens.

3.1 GENERAL USER REQUIREMENTS FOR USER INTERACTION

The following general requirements shall apply to the RTGS, CLM and ~~SHRD services~~Shared Services.

3.1.1 Query

Id	CLM.UR.ALL.UI.010
Name	Query Audit Trail
Description	Each ~~service~~Service shall provide the functionality to query through U2A and A2A interfaces the modified data at the attribute level, the user performing the change and the timestamp of the change ~~through U2A and A2A interface~~. It should be visible which attributes were changed ~~to which~~, together with the new values. The query shall return relevant business attributes of the Audit Trail.

Id	CLM.UR.ALL.UI.020
Name	Query System time
Description	All ~~services~~Services shall provide the functionality to query system time to align the time of a connected application through an application-to-application interface (A2A). The query shall return the System time.

3.1.2 Action

Id	CLM.UR.ALL.UI.030
Name	Amend/Revoke Task(s)

Description	All ~~services~~Services shall provide the functionality to amend~~/~~ or revoke task(s) through the U2A interfaces.

Id	CLM.UR.ALL.UI.040
Name	Act on behalf
Description	All ~~services~~Services shall provide the functionality to act on behalf through U2A and A2A interfaces for: • Central Banks, to act on behalf of any party belonging to their banking community; and • The ~~Target~~TARGET Service Desk, to act on behalf of any party.

Id	CLM.UR.ALL.UI.050
Name	Access rights
Description	All ~~services~~Services shall ensure that a user can only access functionality and data that is allowed by the access rights granted to the user through the Roles associated with the user.

Id	CLM.UR.ALL.UI.060
Name	Four-eyes (confirm, revoke, amend)
Description	All ~~services~~Services shall provide the functionality to use the four-eyes approval process through U2A interface, allowing the authoriser to confirm, revoke or amend the order.

3.2 USER INTERACTION FOR THE CENTRAL LIQUIDITY MANAGEMENT

3.2.1 Query

~~The~~This User Interaction section covers ~~intra-day and historical~~intraday queries. For ~~intra-day~~intraday queries, the Value Date would be ~~per~~by default the current business day~~, while for historical queries the user can select the range of Value Date (from-to) as from the next business day.~~.

For U2A queries, the party BIC and the account number would be deduced from the data scope of the user. The data scope is described in ~~the~~Section 4 User Rights and Access UR / Overview of the SHRD URD.

The extended list of the selection criteria and the output of the queries would be defined in the UDFS.

All described queries in this section shall be provided in U2A and A2A mode unless otherwise stated.

There are further queries and actions provided and described in the ~~Shared Service~~User Requirements Document for Shared Services which are of relevance for the CLM service.

Id	CLM.UR.CLM.UI.010
Name	Query Transactions
Description	~~The~~ CLM ~~service~~ shall provide the functionality to query the status and details of all transactions on the ~~Main Cash Account (~~MCA~~).~~. The user ~~shall specify at least one~~can query within his data scope, which is determined by the Party BIC and the MCA number (Party BICs and MCA numbers in case of ~~the following mandatory selection criteria.~~ a Central Bank as a user)In addition the query shall allow the user to specify any combination of ~~mandatory or~~ the following optional selection criteria.

The following transaction types can be queried:
• Payments (linked to Central Banks Operations and Cash Withdrawals or any other payment that can settle on CLM)
• Overnight Deposit
• Marginal Lending
• Liquidity Transfer
• Credit Line

~~Mandatory selection criteria:~~
• ~~MCA account number~~
• ~~Party BIC~~
• ~~Value Date (from-to) (current business day as default)~~

Optional selection criteria:
• Message type
• Transaction Reference
• Time interval (from-to)
• Debit/Credit
• Specific amount or amount range (from - to)
• Payment Type
• Error Code (U2A)
• Status (U2A)
• Currency
• Party BIC
• MCA number

The query shall return all business attributes of the transaction, including its |

processing status. In U2A the message text shall display the details of each transaction.

Id	CLM.UR.CLM.UI.020
Name	Query Reservation
Description	~~The~~ CLM ~~service~~ shall provide the functionality to query all reservations on the MCA. The user can query within his data scope, which is determined by the Party BIC and the MCA number (Party BICs and MCA numbers in case of a Central Bank as a user). In addition, the query shall allow the user to specify ~~at least~~any combination of the following ~~mandatory~~optional selection criteria. ~~Mandatory selection criteria:~~ • ~~Account number~~ • ~~Party BIC~~ Optional selection criteria: • MCA number • Either Party BIC or Party Name The query shall return all information on reservation set up ~~information~~ for the current business day, including: • Party BIC • Party Name • MCA number • Defined Value of the reservation • Pending Value of ~~pending~~the reservation

Id	CLM.UR.CLM.UI.030
Name	Query Available Liquidity
Description	~~The~~ CLM ~~service~~ shall provide the functionality to query the available liquidity on one, many or all accounts that a user is authorised to see through U2A interface. ~~The user~~ The user can query within his data scope, which is determined by the Party BIC and the MCA number (Party BICs and MCA numbers in case of a Central Bank as a user). In addition, the query shall allow the user to specify ~~at least~~any combination of the following ~~mandatory~~optional selection criteria. ~~Mandatory~~Optional selection criteria:

- ~~Either~~ Party BIC
- ~~Account Number~~
- or Party Name
- MCA Number
- Account Monitoring Group

The query shall return all relevant information about available liquidity ~~for all~~in CLM and in RTGS, TIPS and T2S services, including:

- Party BIC
- Party Name
- Balance on MCA
- Credit Line on MCA
- Balance on RTGS DCA
- Balance on TIPS DCA
- Balance on T2S DCA
- Balance on ~~Sub-Account~~sub account(s)
- ~~Collateral value for~~Value of the available collateral in T2S
- ~~Outstanding~~Value of the outstanding auto-collateralisation amount in T2S
- Aggregate amount ~~Pending~~of pending transactions (Debits and Credits) for RTGS and CLM
- Aggregated View on CLM

If the user selects a specific Account Monitoring Group, the ~~function~~query shall return details of the available liquidity ~~of an~~ on all accounts belonging to the Account Monitoring Group. ~~Further~~Furthermore, if the user selects a group of ~~account~~accounts, the query shall return aggregated information about the available liquidity ~~of a group of~~on all selected accounts.

Id	CLM.UR.CLM.UI.040
Name	Query Minimum Reserve
Description	~~The~~ CLM ~~service~~ shall provide the functionality to query the minimum reserve information. The user ~~shall specify at least one of~~ can query within his data scope, which is determined by the ~~following mandatory selection criteria.~~

~~Mandatory selection criteria:~~

Party BIC and the MCA number (Party ~~Name~~BICs and MCA numbers in case of a Central Bank as a user). In case the user is the MFI leader or a Central Bank, the user shall be able to specify whether the query shall return all attributes for this Party BIC as a MFI leader or as a MFI member.

The query shall return all business attributes of the minimum reserve

requirement for the specified Party (MFI leader or MFI member) including its fulfilment for the current maintenance period:, including:

- Party BIC
- Party Name
- AccountMCA/DCA number
- Current Maintenance Period
- Value of required Minimum Reserve
- End of day Day balances of the previous business day
- Running average balance up to the previous business day
- Value of Running Average (the value of running average to fulfil the minimum reserve requirement calculated at the end of the previous day)
- Adjustment Balance the amount that is needed at the end of each day in order to fulfil the reserve requirement
- ConsolidateConsolidated position (on MCA(s) and DCA(s))

Id	CLM.UR.CLM.UI.050
Name	Query Account Statement
Description	The CLM service shall provide the functionality to query an accountMCA statement. The user shall specify at least onecan query within his data scope, which is determined by the Party BIC and the MCA number (Party BICs and MCA numbers in case of the following mandatory selection criteria.a Central Bank as a user). In addition the query shall allow the user to specify any combination of mandatory or the following optional selection criteria.

Mandatory selection criteria:
• Party BIC
• Cash Account Number

Optional selection criterioncriteria:
• Value Date (from - to)Either Party BIC or Party Name
• MCA Number
The query shall return all business attributes of the account statement.

The query is available via A2A asby default, in addition to that it is also possible to query in U2A mode.

Note: More information about producing, sending and downloading of report can be found in Information and Reporting section. |

Note: More information about producing, sending and downloading of a query or report can be found in Information and Reporting section in the User Requirements Document for Shared Services.

3.2.2 Action

Id	CLM.UR.CLM.UI.070
Name	Amend ~~Immediate Reservation~~liquidity reservation order
Description	~~The~~ CLM ~~service~~ shall provide the functionality to modify ~~an Immediate Reservation~~a liquidity reservation order through U2A and A2A interface for the ~~Main Cash Account (~~MCA~~)~~.

Id	CLM.UR.CLM.UI.080
Name	Creation of Immediate Liquidity Transfer Order
Description	~~The~~ CLM ~~service~~ shall provide the functionality to create an Immediate Liquidity Transfer Order through U2A and A2A interface for the ~~Main Cash Account (~~MCA~~)~~.

Id	CLM.UR.CLM.UI.090
Name	Revoke ~~transaction~~queued payment
Description	~~The~~ CLM ~~service~~ shall provide the functionality to revoke a ~~transaction~~queued payment through U2A and A2A interface for the ~~Main Cash Account (~~MCA~~)~~.

Id	CLM.UR.CLM.UI.100
Name	Creation of ~~Overnight Deposit~~overnight deposit
Description	~~The~~ CLM ~~service~~ shall provide the functionality to create an ~~Overnight Deposit~~overnight deposit request through U2A and A2A interface for the ~~Main Cash Account (~~MCA~~)~~.

Id	CLM.UR.CLM.UI.110
Name	Creation of ~~Payment~~payment order
Description	~~The~~ CLM ~~service~~ shall provide the functionality to create a ~~Payment~~payment order through U2A and A2A interface.
	Note: The possibility to enter ~~payments~~payment orders would be subject to necessary rights, so an organisation could control the use of this feature.

Id	CLM.UR.CLM.UI.~~110~~120
Name	Re-order queued transactions
Description	~~The~~ CLM ~~service~~ shall provide the functionality to re-order queued transactions through U2A interface.

Id	CLM.UR.CLM.UI.130
Name	Create an immediate reservation order
Description	CLM shall provide the functionality to create a reservation order through the U2A interface and the A2A interface.

Id	CLM.UR.CLM.UI.140
Name	Amend an immediate reservation order
Description	CLM shall provide the functionality to amend a reservation order through the U2A interface and the A2A interface.

Id	CLM.UR.CLM.UI.150
Name	Delete an immediate reservation order
Description	CLM shall provide the functionality to delete a reservation order through the U2A interface and the A2A interface.

4 BUSINESS DATA DEFINITIONS

4.1 ENTITIES AND ATTRIBUTES

The following Entities are referred to within the User Requirements Document for Central Liquidity Management but are defined in the User Requirements Document for Shared Services as they are also referred to elsewhere:

- ► Party

- ► Party Name

- ► ~~Party Address~~

- ► ~~Party Code~~

- ► ~~Banking Group~~

- ► ~~Limit~~

- ► Cash Account

- ► Payment

- ► Liquidity Transfer

- ► Standing Liquidity Transfer Order (Standing Order)

- ► Direct Debit ~~Instruction~~Mandate

- ► Reservation

- ► Standing Order for Reservation

- ► Whitelist

- ► ~~Report Subscription~~

- ► Message Subscription

- ► ~~Scheduled Event~~

- ► Currency

- ► ~~SWIFT BIC Directory~~

- ► Service

- ► User

- ► ~~Distinguished Name~~

- ► Role

- ► ~~Privilege~~

▶ Access Rights

List of Business Process Models

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