

T2/T2S CONSOLIDATION

USER REQUIREMENTS DOCUMENT

FOR

CENTRAL LIQUIDITY MANAGEMENT (CLM)

Version:	0.0.01
Status:	INITIAL BASELINE
Date:	13/04/2017

Contents

1	CENTRAL LIQUIDITY MANAGEMENT (CLM)	4
1.1	Overview	4
1.1.1	<i>Context Diagram</i>	4
1.1.2	<i>Business Processes</i>	5
1.2	Process inter-service Liquidity Transfer Order from MCA to DCA	6
1.2.1	<i>Business Process Model</i>	6
1.2.2	<i>Process Overview</i>	7
1.2.3	<i>User Requirements</i>	8
1.3	Process inter-service liquidity transfer order from DCA to MCA	14
1.3.1	<i>Business Process Model</i>	14
1.3.2	<i>Process Overview</i>	15
1.3.3	<i>User Requirements</i>	16
1.4	Process intra-service liquidity transfer order	19
1.4.1	<i>Business Process Model</i>	19
1.4.2	<i>Process Overview</i>	20
1.4.3	<i>User Requirements</i>	21
1.5	Process liquidity transfer order between two DCAs	25
1.5.1	<i>Business Process Model</i>	25
1.5.2	<i>Process Overview</i>	26
1.5.3	<i>User Requirements</i>	27
1.6	Process payment order linked to Central Bank Operation and Cash Withdrawals	32
1.6.1	<i>Business Process Model</i>	32
1.6.2	<i>Process Overview</i>	33
1.6.3	<i>User Requirements</i>	34
1.7	Liquidity reservation	41
1.7.1	<i>Business Process Model</i>	41
1.7.2	<i>Process Overview</i>	42
1.7.3	<i>User Requirements</i>	43
2	NON-FUNCTIONAL REQUIREMENTS FOR THE CENTRAL LIQUIDITY MANAGEMENT	47
2.1	Availability	47
2.2	Disaster Recovery	48
2.3	Performance Requirements	48

3	USER INTERACTION	50
3.1	General User Requirements for User Interaction	50
3.1.1	<i>Query.....</i>	50
3.1.2	<i>Action.....</i>	50
3.2	User Interaction for the Central Liquidity Management.....	52
3.2.1	<i>Query.....</i>	52
3.2.2	<i>Action.....</i>	55
4	BUSINESS DATA DEFINITIONS	56

1 CENTRAL LIQUIDITY MANAGEMENT (CLM)

1.1 OVERVIEW

1.1.1 Context Diagram

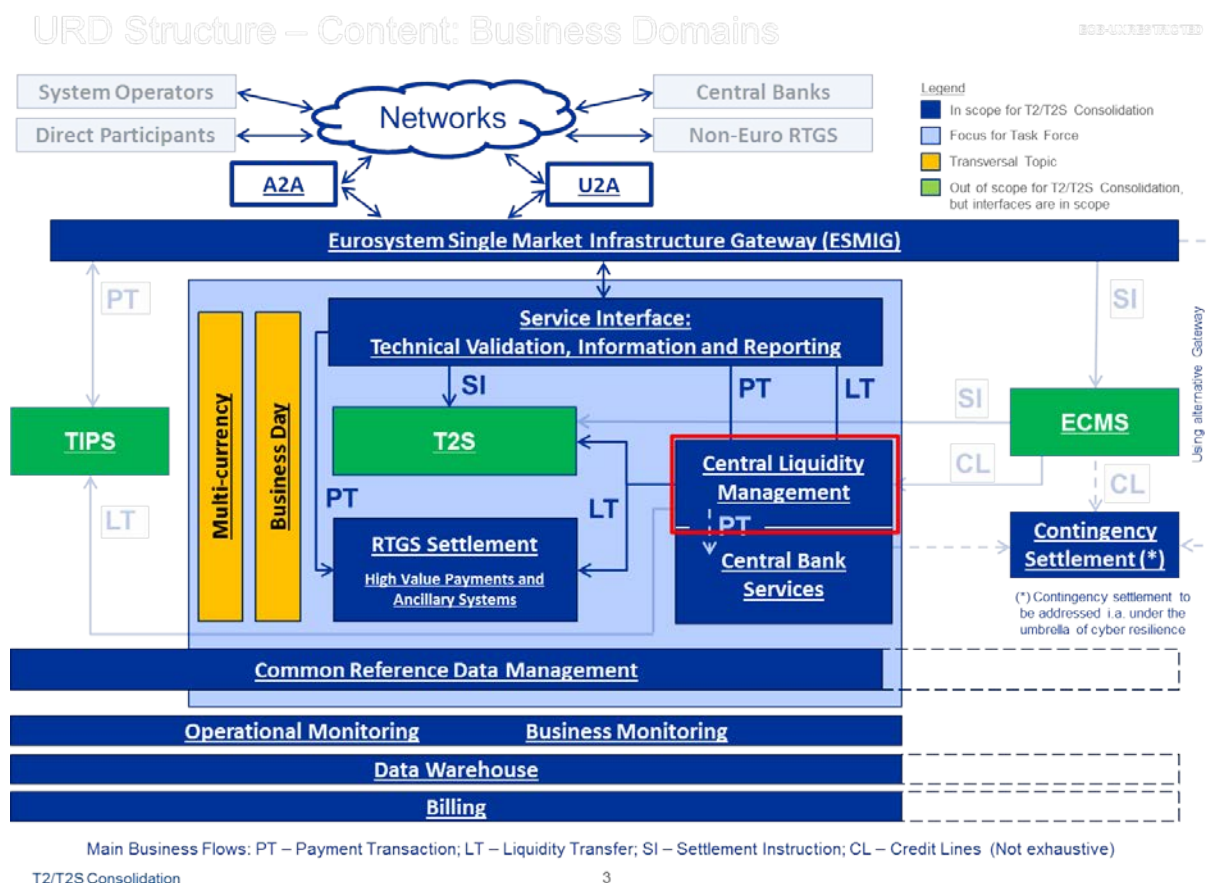


Figure 1: Context diagram for the Central Liquidity Management

CLM is the domain 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 or event-based standing orders) depending on the 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 participant's credit line linked to it. The settlement services T2S, TIPS and the Future RTGS services will use dedicated cash accounts 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;
- ▶ Monetary policy operations;
- ▶ Debit of billing amounts;
- ▶ 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.

1.1.2 Business Processes

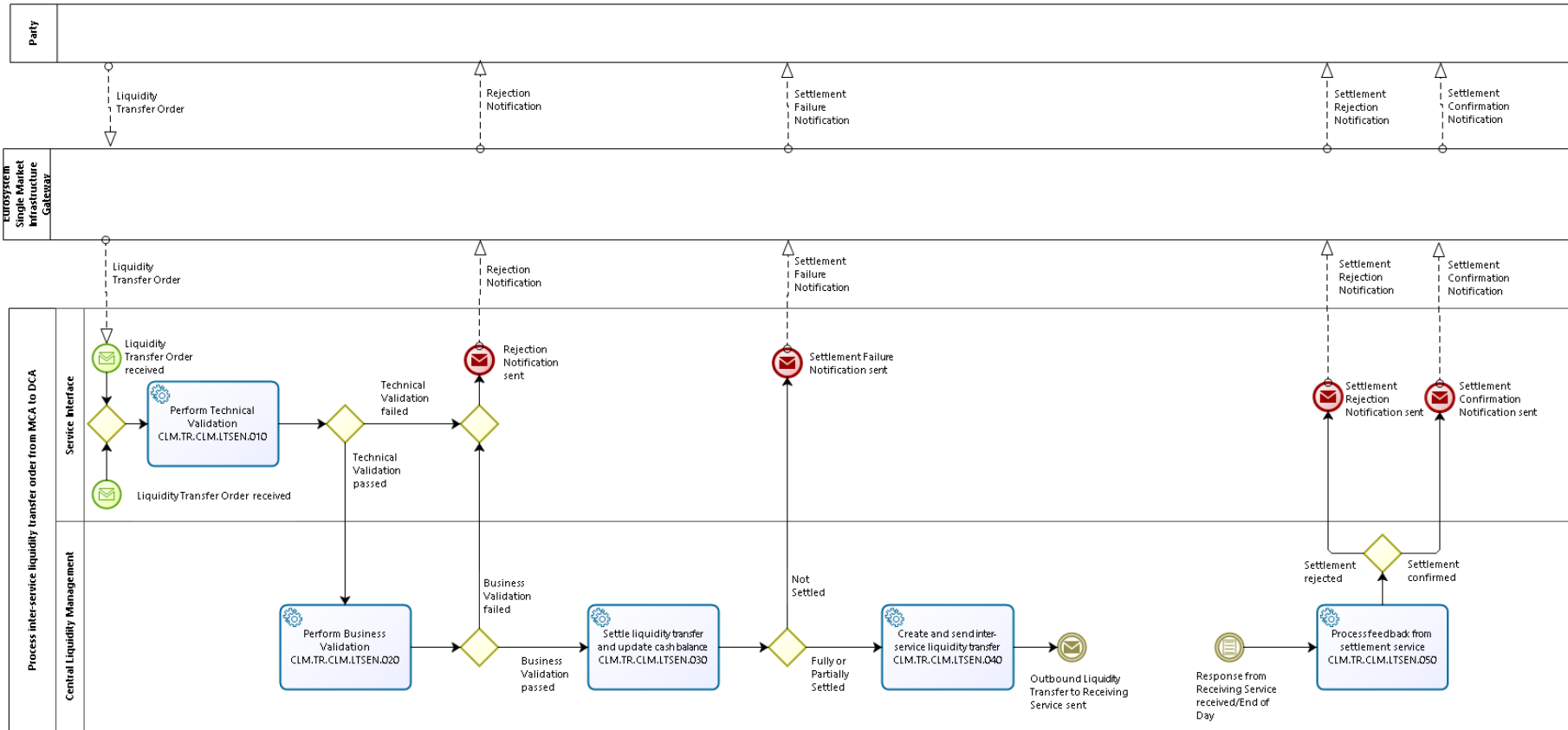
Business Process	BP Reference	Business Process Description
Process inter-service liquidity transfer from MCA to DCA	CLM.BP.CLM.LTSEN	Processing within CLM of an inter-service liquidity transfer order to move liquidity from a Main Cash Account (MCA) to a Dedicated Cash Account (DCA).
Process inter-service liquidity transfer 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	CLM.BP.CLM.ISLT	Processing within CLM of a liquidity transfer order between two MCAs.
Process liquidity transfer between two Dedicated Cash Accounts	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	RTGS.BP.CLM.PAYT	Processing within CLM of a payment order linked to Central Bank Operations.
Liquidity reservation	CLM.BP.CLM.LIQR	Processing of a liquidity reservation within CLM.

Table 1: 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 participant to transfer liquidity from one MCA within CLM to a DCA for the following settlement services (T2S, RTGS Services and TIPS). These settlement services will use this liquidity for settling their specific transactions.

Pre-conditions:

A participant willing to initiate an intra-service liquidity transfer order needs to:

- ▶ Have a direct access to the CLM; and
- ▶ Hold an MCA in the CLM.

Time constraints:

The processing schedule for payment orders linked to Central Bank Operations shall last from 19:00 until 18:45 (except during maintenance window).

Expected results:

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

Triggers:

The inter-service liquidity transfer order can be initiated in two different ways:

- ▶ Immediate liquidity transfer orders initiated by a participant (owner of the MCA that will be debited) or by another Actor operating on its behalf under a contractual agreement; or
- ▶ Standing liquidity transfer orders set by the participant and triggered repeatedly by a given event/time.

1.2.3 User Requirements

1.2.3.1 PERFORM TECHNICAL VALIDATION

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

At the reception of an inter-service liquidity transfer order, the service interface shall complete technical validation 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 has not already been received. The duplicate check shall compare the reference of each incoming order with the reference of similar orders that have not settled yet and those orders settled in the past predetermined period of 5 business days. This period shall however be configurable.

Id	CLM.UR.CLM.LTSEN.010.030
Name	Perform all possible technical validations
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 technical validation
Description	In case of 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 technical validation
Description	In case of a negative result of the technical validation, the order shall be rejected and a notification shall be sent to the instructing participant or Actor in case of immediate liquidity transfer orders.

1.2.3.2 PERFORM BUSINESS VALIDATION

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

In case of 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.LTSEN.020.010
Name	Proxy check
Description	If the instructing party 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.020.020
Name	Business validations of the mandatory attributes
Description	CLM shall check that: <ul style="list-style-type: none"> • All mandatory attributes are available and consistent; and • All provided values are valid according to pre-defined values or cross-field validations.

Id	CLM.UR.CLM.LTSEN.020.030
Name	Account check
Description	CLM shall check that the MCA and DCA mentioned in the intra-service liquidity transfer order are existing and active.

Id	CLM.UR.CLM.LTSEN.020.040
Name	Processing in case of failed business validation
Description	<p>In case of a negative result of the business validation, the order shall be rejected and a notification shall be sent to the instructing participant or Actor in case of immediate liquidity transfer orders.</p> <p>In case of a manual input via the U2A screen or standing liquidity transfer order, the rejection notification shall be displayed directly on the screen.</p>

1.2.3.3 SETTLE LIQUIDITY TRANSFER AND UPDATE CASH BALANCE

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

In case of a positive result of the business validation checks, CLM shall validate whether the booking of the inter-service liquidity transfer order 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 transfer orders
Description	<p>The following principles shall apply for inter-service liquidity transfer orders:</p> <ul style="list-style-type: none"> • There shall be an attempt to settle a single inter-service liquidity transfer order immediately after its submission; • Offsetting mechanisms to save liquidity are not required; • Inter-service liquidity transfer orders may not be revoked as they are not queued; • Inter-service liquidity transfer orders shall be processed according to the FIFO-principle; • Inter-service liquidity transfer orders shall only have access to the non-reserved pool of liquidity on the MCA; and • Limits do not apply to inter-service liquidity transfer orders.

Id	CLM.UR.CLM.LTSEN.030.020
Name	Full execution
Description	<p>If the non-reserved available liquidity on the MCA to be debited is sufficient, CLM shall execute the inter-service liquidity transfer order and update:</p> <ul style="list-style-type: none"> • The balances of the accounts involved on a gross basis: the requested MCA shall be debited and the Dedicated Transit Account shall be credited; and • The participant's credit line if it has been used.

Id	CLM.UR.CLM.LTSEN.030.030
Name	Partial execution
Description	<p>If the non-reserved available liquidity on the MCA is only partially sufficient to settle the inter-service liquidity transfer order and if the order has been initiated by a standing liquidity transfer order, the inter-service liquidity transfer order shall be executed up to the cash amount which can be settled.</p> <p>No further settlement attempt shall take place for the cash amount which cannot be settled.</p>

Id	CLM.UR.CLM.LTSEN.030.040
Name	Debit notification
Description	<p>In case of full or partial execution CLM shall (optionally) send a debit confirmation to the participant stating the cash amount that has been debited.</p>

Id	CLM.UR.CLM.LTSEN.030.050
Name	No execution
Description	<p>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.</p> <p>Moreover, a settlement failure message shall be sent to the instructing party of the inter-service liquidity transfer order.</p>

Id	CLM.UR.CLM.LTSEN.030.060
Name	Number of Dedicated Transit Accounts
Description	<p>CLM shall have one Dedicated Transit Account per settlement service and currency.</p>

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 full or partial execution of the inter-service liquidity transfer 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 (to credit the relevant DCA).

Id	CLM.UR.CLM.LTSEN.040.020
Name	Format of the inter-service liquidity transfer
Description	The format of the inter-service liquidity transfer shall comply with the rules set by the relevant 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	<p>A confirmation shall imply that the inter-service liquidity transfer has been booked successfully within the settlement service (i.e. that the relevant DCA has been credited with the amount specified in the inter-service liquidity transfer).</p> <p>CLM shall process this feedback by updating the status of the inter-service liquidity transfer order.</p> <p>Moreover, a confirmation notification shall (optionally) be sent to the instructing participant or Actor in case of immediate liquidity transfer orders. In case of a manual input via the U2A screen or standing liquidity transfer order, the notification shall be displayed directly on the screen.</p>

Id	CLM.UR.CLM.LTSEN.050.020
Name	Process negative confirmation feedback
Description	<p>A rejection shall imply that the inter-service liquidity transfer has not been successfully processed within the 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 Transit Account and credit the MCA.</p> <p>Moreover, a reversal notification shall be sent to the instructing participant or Actor in case of immediate liquidity transfer orders. In case of a manual input via the U2A screen or standing liquidity transfer order, the notification shall be displayed directly on the screen.</p>

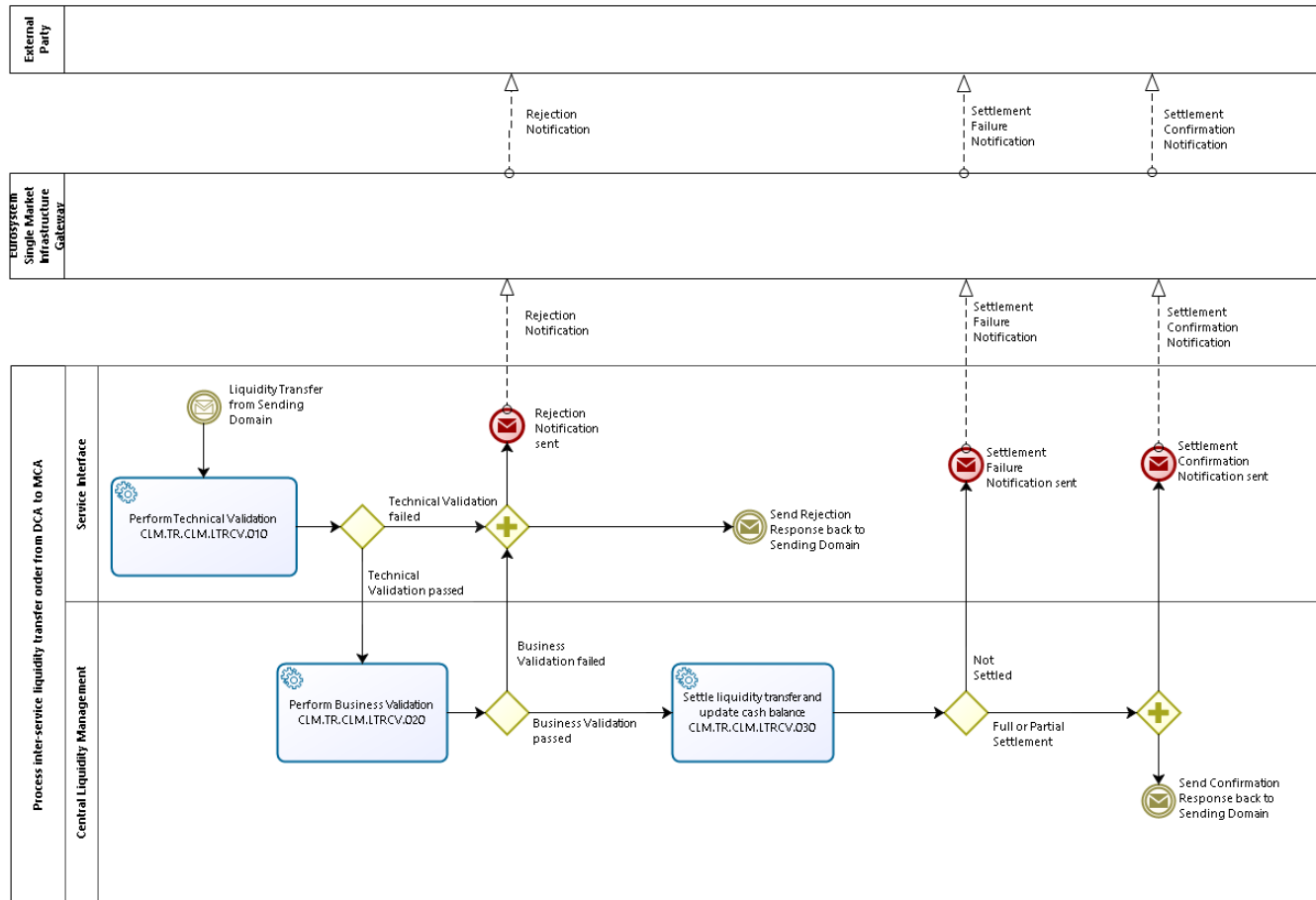
Id	CLM.UR.CLM.LTSEN.050.030
Name	Generate alert if no feedback received
Description	<p>If no feedback is received from the settlement service within a predefined timeframe, an alert message shall be generated by the CLM to the operational team for investigation purposes.</p>

Id	CLM.UR.CLM.LTSEN.050.040
Name	Automatic rejection during the end-of-day processing
Description	<p>If CLM has not received any feedback by the end of the day, the pending inter-service liquidity transfers shall be rejected during the end-of-day processing.</p> <p>A rejection notification shall be sent to the instructing participant or Actor in case of immediate liquidity transfer orders.</p>

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 settlement service that shall allow a participant to move liquidity from a Dedicated Cash Account (DCA) to a Main Cash Account (MCA).

Pre-conditions:

A participant wishing to receive liquidity on its MCA needs to:

- ▶ Have a direct access to the CLM; and
- ▶ Hold a MCA in the CLM.

Time constraints:

The processing schedule for payment orders linked to Central Bank Operations shall last from 19:00-18:45 (with the exception of 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).

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 of an inter-service liquidity transfer from the settlement service.

1.3.3 User Requirements

1.3.3.1 PERFORM TECHNICAL VALIDATION

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

At the reception of an inter-service liquidity transfer from the settlement service, the service interface shall complete technical validation 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 has not already been received. The duplicate check shall compare the reference of each incoming order with the reference of similar orders that have not settled yet and those orders settled in the past predetermined period of 5 business days. This period shall however be configurable.

Id	CLM.UR.CLM.LTRCV.010.030
Name	Perform all possible technical validations
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 technical validation
Description	In case of 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 technical validation
Description	In case of a negative result of the technical validation, the order shall be rejected and a notification shall be sent to the instructing settlement service.

1.3.3.2 PERFORM BUSINESS VALIDATION

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

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

Id	CLM.UR.CLM.LTRCV.020.010
Name	Business validations of the mandatory attributes
Description	CLM shall check that: <ul style="list-style-type: none">• All mandatory attributes are available and consistent; and• All provided values are valid according to pre-defined values or cross-field validations.

Id	CLM.UR.CLM.LTRCV.020.020
Name	Account check
Description	CLM shall check that the MCA and DCA mentioned in the intra-service liquidity transfer order are existing and active.

Id	CLM.UR.CLM.LTRCV.020.030
Name	Processing in case of failed business validation
Description	In case of a negative result of the business validation, the order shall be rejected and a notification shall be sent to the instructing settlement service.

1.3.3.3 SETTLE LIQUIDITY TRANSFER AND UPDATE CASH BALANCE

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

In case of 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	<p>The following principles shall apply for inter-service liquidity transfers sent by settlement services:</p> <ul style="list-style-type: none"> • There shall be an attempt to settle single liquidity transfer immediately after its submission; • Liquidity transfers may not be revoked as they are not queued; and • Liquidity transfers shall be processed according to the FIFO-principle.

Id	CLM.UR.CLM.LTRCV.030.020
Name	Full execution
Description	<p>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 shall be debited and the requested MCA shall be credited.</p> <p>Once the booking has taken place, CLM shall send a confirmation notification to the instructing settlement service.</p>

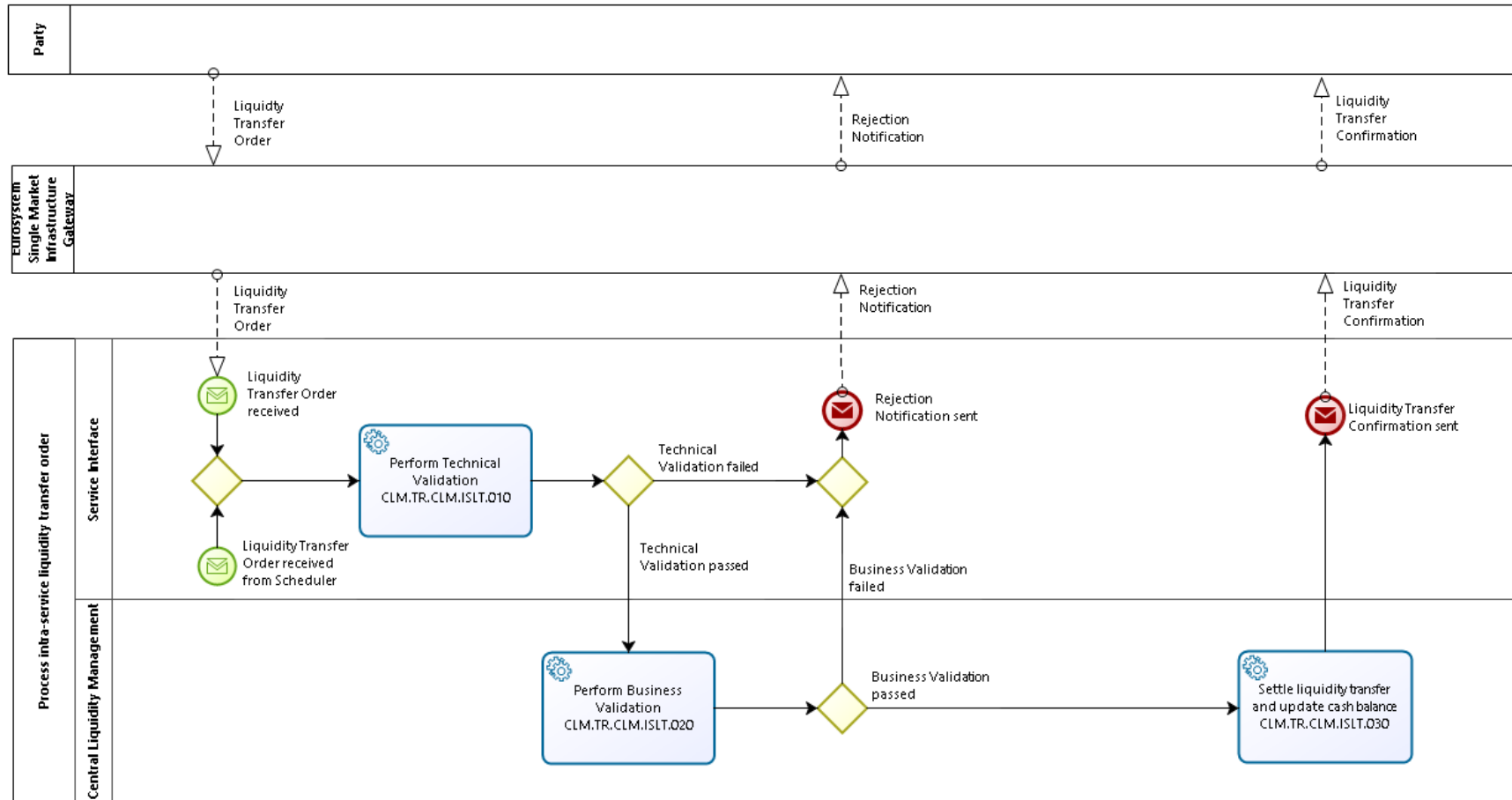
Id	CLM.UR.CLM.LTRCV.030.030
Name	No execution
Description	<p>If the booking of the inter-service liquidity transfer is not possible, CLM shall reject the intra-liquidity transfer and send a rejection notification to the instructing settlement service.</p>

Id	CLM.UR.CLM.LTRCV.030.040
Name	Credit confirmation
Description	<p>If the booking of the intra-service liquidity transfer is successful, CLM shall send (optionally) a credit confirmation to the participant owning the MCA or another Actor operating on its behalf under a contractual agreement.</p>

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 is to describe how CLM processes liquidity transfers between two MCAs within CLM. Intra-service liquidity transfer orders shall only be allowed if the two MCAs belong to the same banking group.

Pre-conditions:

A participant willing to initiate an intra-service liquidity transfer order needs to:

- ▶ Have a direct access to the CLM;
- ▶ Hold MCA(s) in the CLM; and
- ▶ Link these MCA(s) to the same banking group.

Time constraints:

The processing schedule for intra-service liquidity transfer orders shall be similar to the processing schedule of inter-service liquidity transfer orders.

Expected results:

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

As intra-service liquidity transfer orders 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 different ways:

- ▶ Immediate liquidity transfer orders initiated by a participant (owner of the MCA that will be debited) or by another Actor operating on its behalf under a contractual agreement; or
- ▶ Standing liquidity transfer orders set by the participant and triggered repeatedly by a given event/time.

1.4.3 User Requirements

1.4.3.1 PERFORM TECHNICAL VALIDATION

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

At the reception of an intra-service liquidity transfer order, the service interface shall complete technical validation 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 has not already been received. The duplicate check shall compare the reference of each incoming order with the reference of similar orders that have not settled yet and those orders settled in the past predetermined period of 5 business days. This period shall however be configurable.

Id	CLM.UR.CLM.ISLT.010.030
Name	Perform all possible technical validations
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 technical validation
Description	In case of 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 technical validation
Description	In case of a negative result of the technical validation, the order shall be rejected and a notification shall be sent to the instructing participant or Actor in case of immediate liquidity transfer orders.

1.4.3.2 PERFORM BUSINESS VALIDATION

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

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

Id	CLM.UR.CLM.ISLT.020.010
Name	Proxy check
Description	If the instructing party is not the owner of the MCA, 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.020.020
Name	Business validations of the mandatory attributes
Description	CLM shall check that: <ul style="list-style-type: none"> • all mandatory attributes are available and consistent; and • all provided values are valid according to pre-defined values or cross-field validations.

Id	CLM.UR.CLM.ISLT.020.030
Name	Account check
Description	CLM shall check that the MCA(s) mentioned in the intra-service liquidity transfer order are existing and active.

Id	CLM.UR.CLM.ISLT.020.040
Name	Banking group check
Description	CLM shall check that the MCA(s) mentioned in the intra-service liquidity transfer order belong to the same banking group.

Id	CLM.UR.CLM.ISLT.020.050
Name	Processing in case of failed business validation
Description	In case of a negative result of the business validation, the order shall be rejected and a notification shall be sent to the instructing participant or Actor in case of immediate liquidity transfer orders.

1.4.3.3 SETTLE LIQUIDITY TRANSFER AND UPDATE CASH BALANCE

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

In case of a positive result of the business validation checks, CLM shall validate whether the booking of the intra-service liquidity transfer order 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	<p>The following principles shall apply for intra-service liquidity transfer orders:</p> <ul style="list-style-type: none"> • There shall be an attempt to settle a single liquidity transfer order immediately after its submission; • Offsetting mechanisms to save liquidity are not required; • Liquidity transfer orders may not be revoked as they are not queued; • Liquidity transfer orders shall be processed according to the FIFO-principle; • Liquidity transfer orders shall only have access to the non-reserved pool of available liquidity within CLM; and • Limits do not apply to liquidity transfer orders.

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

Id	CLM.UR.CLM.ISLT.030.030
Name	Partial execution
Description	<p>If the non-reserved pool of liquidity on the MCA to be debited is only sufficient to settle the intra-service liquidity transfer order partially and if the order has been initiated by a standing liquidity transfer order, the intra-service liquidity transfer order shall be executed up to the cash amount which can be settled.</p> <p>No further settlement attempt shall take place for the cash amount which cannot be settled.</p>

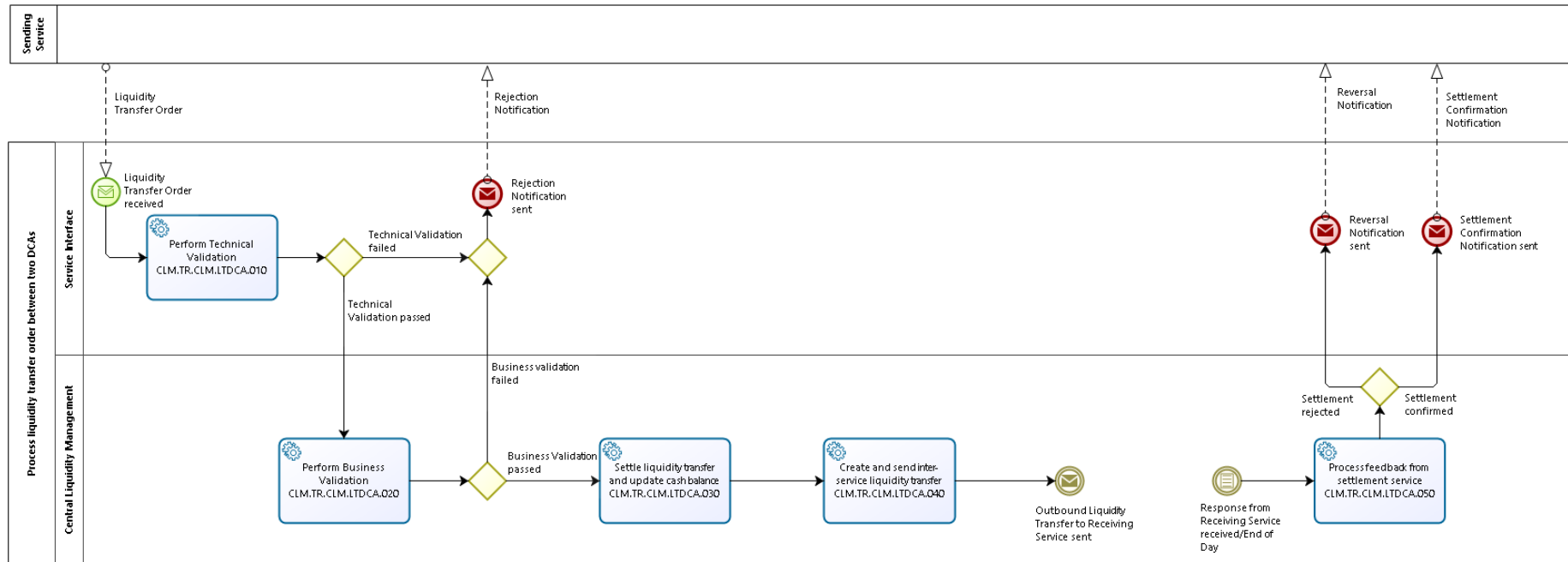
Id	CLM.UR.CLM.ISLT.030.040
Name	No execution
Description	<p>In case there is not enough liquidity available and if the order has been initiated by an immediate liquidity transfer order, the intra-service liquidity transfer order shall be rejected and no liquidity shall be transferred.</p> <p>Moreover, a failure notification shall be sent to the instructing participant or Actor in case of immediate liquidity transfer orders.</p>

Id	CLM.UR.CLM.ISLT.030.050
Name	Credit and debit confirmation
Description	In case of full or partial settlement, a credit and debit confirmation shall be (optionally) sent to the participants owning the MCAs with the indication of the amount that has settled.

1.5 PROCESS LIQUIDITY TRANSFER ORDER BETWEEN TWO DCAs

Business Process Ref: CLM.BP.CLM.LTDCA

1.5.1 Business Process Model



Business Process Model 4: Process liquidity transfer order between two DCAs

1.5.2 Process Overview

Process goal:

This process describes how a liquidity transfer order between two DCAs belonging to different settlement services shall be handled within CLM.

Pre-conditions:

A participant wishing to initiate one liquidity transfer order between two DCAs needs to:

- ▶ Have a direct access to at least the settlement service in which the DCA shall be debited; and
- ▶ Hold (or act on behalf of a participant holding) at least the DCA to be debited.

There shall be no obligation to hold an MCA.

Time constraints:

The processing schedule for liquidity transfer orders between two DCA(s) shall be similar to the processing schedule of inter-service and intra-service liquidity transfer orders.

Expected results:

A liquidity transfer between two DCAs shall consist in the combination of two inter-service liquidity transfers. The settlement service with the DCA to be debited shall generate a first inter-service liquidity transfer order to debit DCA and credit the relevant Dedicated Transit Account in the CLM. CLM shall then generate a second inter-service liquidity transfer order to debit the relevant Dedicated Transit Account and credit the DCA in the other settlement service.

Triggers:

A liquidity transfer between two DCAs shall be initiated by the participant owning the DCA to be debited or by another Actor operating on its behalf under a contractual agreement.

We do not foresee any standing liquidity transfer orders between two DCAs.

1.5.3 User Requirements

1.5.3.1 GENERAL USER REQUIREMENTS FOR THIS BUSINESS PROCESS

Id	CLM.UR.CLM.LTDCA.000.010
Name	Initiate liquidity transfer order between two DCA(s)
Description	<p>A liquidity transfer order between two DCAs shall consist in the combination of two inter-service liquidity transfers and shall be initiated by the participant whose DCA shall be debited or any Actor acting on its behalf.</p> <p>Once the liquidity transfer has been triggered, the sending settlement service that receives the request shall:</p> <ul style="list-style-type: none"> • Debit the DCA and credit the CLM Dedicated Transit Account; and • Initiate and send to CLM an intra-service liquidity transfer to debit the settlement service Dedicated Transit Account in CLM and to credit the receiving settlement service Dedicated Transit Account in the CLM. The intra-service liquidity transfer shall also mention the DCA to be credited.

1.5.3.2 PERFORM TECHNICAL VALIDATION

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

At the reception of the inter-service liquidity transfer from the sending settlement service, the service interface shall complete technical validation 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 has not already been received. The duplicate check shall compare the reference of each incoming order with the reference of similar orders that have not settled yet and those orders settled in the past predetermined period of 5 business days. This period shall however be configurable.

Id	CLM.UR.CLM.LTDCA.010.030
Name	Perform all possible technical validations
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 technical validation
Description	In case of 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 technical validation
Description	In case of 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 a positive result of the technical validation of the inter-service liquidity transfer, CLM shall validate the message received against the reference data and perform additional checks/validations.

Id	CLM.UR.CLM.LTDCA.020.010
Name	Business validations of the mandatory attributes
Description	<p>CLM shall check that:</p> <ul style="list-style-type: none"> • All mandatory attributes are available and consistent; and • All provided values are valid according to pre-defined values or cross-field validations.

Id	CLM.UR.CLM.LTDCA.020.020
Name	Account check
Description	CLM shall check that the Dedicated Transit Accounts and the DCA mentioned in the liquidity transfer order are existing and active.

Id	CLM.UR.CLM.LTDCA.020.030
Name	Processing in case of failed business validation
Description	In case of a negative result of the business validation, the order shall be rejected and a notification shall be sent to the sending settlement service.

1.5.3.4 SETTLE LIQUIDITY TRANSFER AND UPDATE CASH BALANCE

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

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

Id	CLM.UR.CLM.LTDCA.030.010
Name	Settlement principles
Description	<p>The following principles shall apply:</p> <ul style="list-style-type: none"> • There shall be an attempt to settle single liquidity transfer immediately after its submission; • Liquidity transfers may not be revoked as they are not queued; and • Liquidity transfers shall be processed according to the FIFO-principle.

Id	CLM.UR.CLM.LTDCA.030.020
Name	Full execution
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's Dedicated Transit Account for shall be credited and the receiving settlement service's Dedicated Transit Account shall be debited.

Id	CLM.UR.CLM.LTDCA.030.030
Name	No execution
Description	If the booking of the liquidity transfer is not possible, CLM shall reject the intra-liquidity transfer and send a rejection notification to the 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	<p>In case of successful settlement of the first liquidity transfer (see CLM.UR.CLM.LTDCA.030.020), CLM shall:</p> <ul style="list-style-type: none"> • Create an inter-service liquidity transfer to credit the DCA 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	<p>A 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 with the amount specified in the inter-service liquidity transfer).</p> <p>CLM shall process this feedback and send a confirmation notification to the sending settlement service.</p>

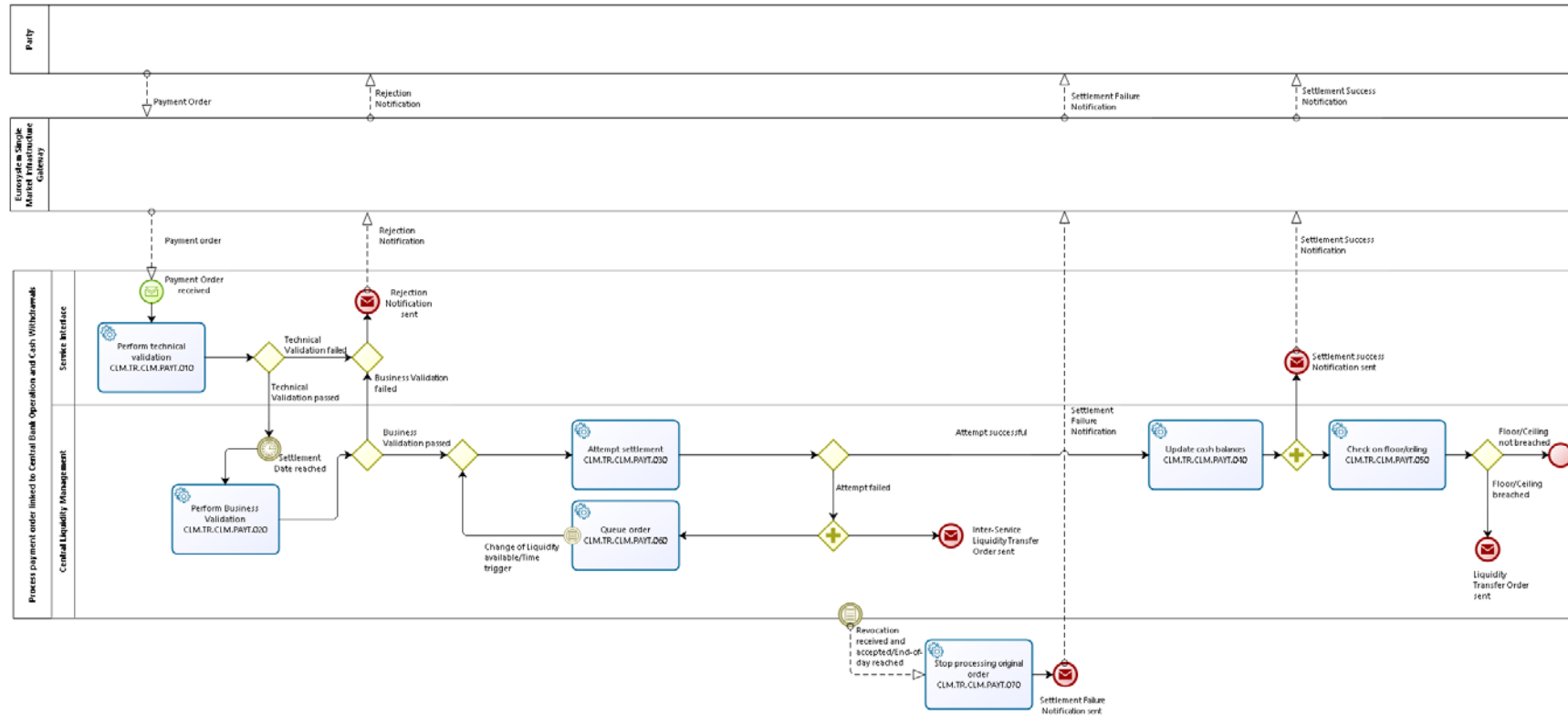
Id	CLM.UR.CLM.LTDCA.050.020
Name	Process negative confirmation feedback
Description	<p>A rejection shall imply that the inter-service liquidity transfer has not been successfully processed within the receiving settlement service (i.e. that the receiving settlement service has not been able to credit the relevant DCA for the specified amount). In such a case, CLM shall automatically create a reversal of the initial liquidity transfer within CLM.</p> <p>Moreover, CLM shall send a reversal notification to the sending settlement service.</p>

Id	CLM.UR.CLM.LTDCA.050.030
Name	Automatic rejection during the end-of-day processing
Description	<p>If CLM has not received any feedback by the end of the day, the pending inter-service liquidity transfers shall be rejected during the end-of-day processing.</p> <p>A rejection shall be sent to the sending settlement service.</p>

1.6 PROCESS PAYMENT ORDER LINKED TO CENTRAL BANK OPERATION 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 shall be handled within CLM.

Pre-conditions:

A participant wishing to initiate one payment order linked to a Central Bank Operation needs to:

- ▶ Have a direct access to the CLM; and
- ▶ Hold one MCA.

Time constraints:

The processing schedule for payment orders linked to Central Bank Operations shall last from 07:00-18:45.

Expected results:

A payment order linked to a Central Bank Operation shall lead to a debit (or credit) of the MCA with the simultaneous credit (debit) of CB account / marginal lending account / overnight deposit account.

Triggers:

A payment order linked to a Central Bank Operation or to a Cash Withdrawal can be initiated in two different ways:

- ▶ Cash Withdrawal initiated by a participant/another Actor operating on its behalf under a contractual agreement or CB; and
- ▶ Payment order generated by CBS in the context of Standing Facilities (i.e. marginal lending and overnight deposits) and minimum reserves or other Central Bank operations.

1.6.3 User Requirements

1.6.3.1 GENERAL USER REQUIREMENTS FOR THIS BUSINESS PROCESS

Id	CLM.UR.CLM.PAYT.000.010
Name	Settlement principles for payment orders linked to Central Bank Operations and cash withdrawals
Description	<p>The following principles shall apply for payment orders linked to Central Bank Operations:</p> <ul style="list-style-type: none"> • Every payment should be marked as “normal“ or “urgent“. If no priority class is selected, payments will be handled as normal payments; • 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; • Queuing of payment orders, which cannot settle immediately, according to their type in different queues (urgent queue, normal queue); • Continuous attempt to settle payments in the queues; • Payment orders shall be processed according to the FIFO-principle. Normal payments shall not settle in the case that urgent payments are queued; • CLM offers two different types of reservations: for cash withdrawals and urgent central bank operations; and • Limits do not apply to payment orders.

1.6.3.2 PERFORM TECHNICAL VALIDATION

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

At the reception of a payment order sent by the participant/CB or CBS, the service interface shall complete technical validation 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 has not already been received. The duplicate check shall compare the reference of each incoming order with the reference of similar orders that have not settled yet and those orders settled in the past predetermined period of 5 business days. This period shall however be configurable.

Id	CLM.UR.CLM.PAYT.010.030
Name	Perform all possible technical validations
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 technical validation
Description	In case of 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 technical validation
Description	<p>In case of a negative result of the technical validation, the order shall be rejected and a notification shall be sent to the instructing participant/CB or CBS.</p> <p>In case of a manual input via the U2A screen, the rejection notification shall be displayed directly on the screen.</p>

1.6.3.3 PERFORM BUSINESS VALIDATION

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

In case of 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	Proxy check
Description	If the instructing party 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.020.020
Name	Business validations of the mandatory attributes
Description	CLM shall check that: <ul style="list-style-type: none"> • All mandatory attributes are available and consistent; and • All provided values are valid according to pre-defined values or cross-field validations.

Id	CLM.UR.CLM.PAYT.020.030
Name	Account check
Description	CLM shall check that the MCA and the other accounts (CB account, marginal lending account or overnight deposit account) mentioned in the payment order are existing and active.

Id	CLM.UR.CLM.PAYT.020.040
Name	Processing in case of failed business validation
Description	In case of a negative result of the business validation, the order shall be rejected and a notification shall be sent to the instructing participant/CB or CBS. In case of a manual input via the U2A screen, the rejection notification shall be displayed directly on the screen.

1.6.3.4 ATTEMPT SETTLEMENT

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

In case of 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	<p>CLM shall apply the following sequence of settlement checks:</p> <ol style="list-style-type: none">1. CLM shall check whether there are existing operations of an equal or higher priority level in the queue.2. If existing operations of an equal or higher priority are in the queue, the payment order shall also be put in the queue.3. If existing operations of an equal or higher priority are not in the queue, the payment shall settle if reservations are not breached. If reservations are breached, the payment order shall be put in the queue.

1.6.3.5 UPDATE CASH BALANCES

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

Id	CLM.UR.CLM.PAYT.040.010
Name	Booking of payment order
Description	<p>If the settlement of the payment order is possible, CLM shall book it and update the balances of the accounts involved on a gross basis: the requested participant's MCA shall be debited and the shall be credited or the relevant central bank account shall be debited and the requested participant's MCA shall be credited</p> <p>A credit and/or debit confirmation shall (optionally) be sent to the participant and/or central bank.</p>

1.6.3.6 CHECK ON FLOOR/CEILING

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

An account owner can define a minimum (“floor”) or maximum (“ceiling”) amount for its MCA(s).

Id	CLM.UR.CLM.PAYT.050.010
Name	Floor balance order
Description	In case the cash balance of a MCA falls below the defined floor amount after a payment order, CLM shall create and release an inter-service liquidity transfer to pull an amount of liquidity from a defined RTGS account.

Id	CLM.UR.CLM.PAYT.050.020
Name	Ceiling balance order
Description	In case the cash balance of a MCA exceeds the defined floor amount after a payment order, CLM shall create and release an inter-service liquidity transfer to push an amount of liquidity to a defined RTGS account.

1.6.3.7 QUEUE ORDER

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

Id	CLM.UR.CLM.PAYT.060.010
Name	Resolve queue of urgent payments
Description	<p>The urgent queue shall be continuously resolved thanks to a liquidity increase in the MCA starting with the transaction at the top.</p> <p>The liquidity increase shall be achieved through:</p> <ul style="list-style-type: none">• Settlement of incoming (urgent and normal) payments;• Liquidity transfers from settlement services; or• Increase of credit line.

Id	CLM.UR.CLM.PAYT.060.020
Name	Resolve queue of normal payments
Description	<p>The normal queue shall be continuously resolved thanks to a liquidity increase coming from:</p> <ul style="list-style-type: none">• Settlement of incoming (urgent and normal) payments;• Settlement of pending (urgent) payments;• Liquidity transfers from settlement services; or• Increase of credit line.

Id	CLM.UR.CLM.PAYT.060.030
Name	Automatic trigger of liquidity transfer between RTGS DCA and MCA
Description	<p>In case there is insufficient liquidity on the participant's MCA to settle a payment linked to a CB operation or a cash withdrawal, CLM shall automatically trigger a liquidity transfer with the missing amount from the participant's default RTGS DCA to the same participant's MCA. The respective liquidity transfer shall be placed on top of the queue of all pending payments and liquidity transfers on the RTGS DCA.</p> <p>If only a partial settlement of the liquidity transfer is possible, then CLM shall execute the liquidity transfer and shall create a new liquidity transfer order for the remaining part that shall be queued in the RTGS settlement service until it can be entirely processed.</p>

Id	CLM.UR.CLM.PAYT.060.040
Name	Intervention on queued payments
Description	<p>Cancellation of a queued payment order shall be available on queued payment orders.</p>

1.6.3.8 STOP PROCESSING ORIGINAL ORDER

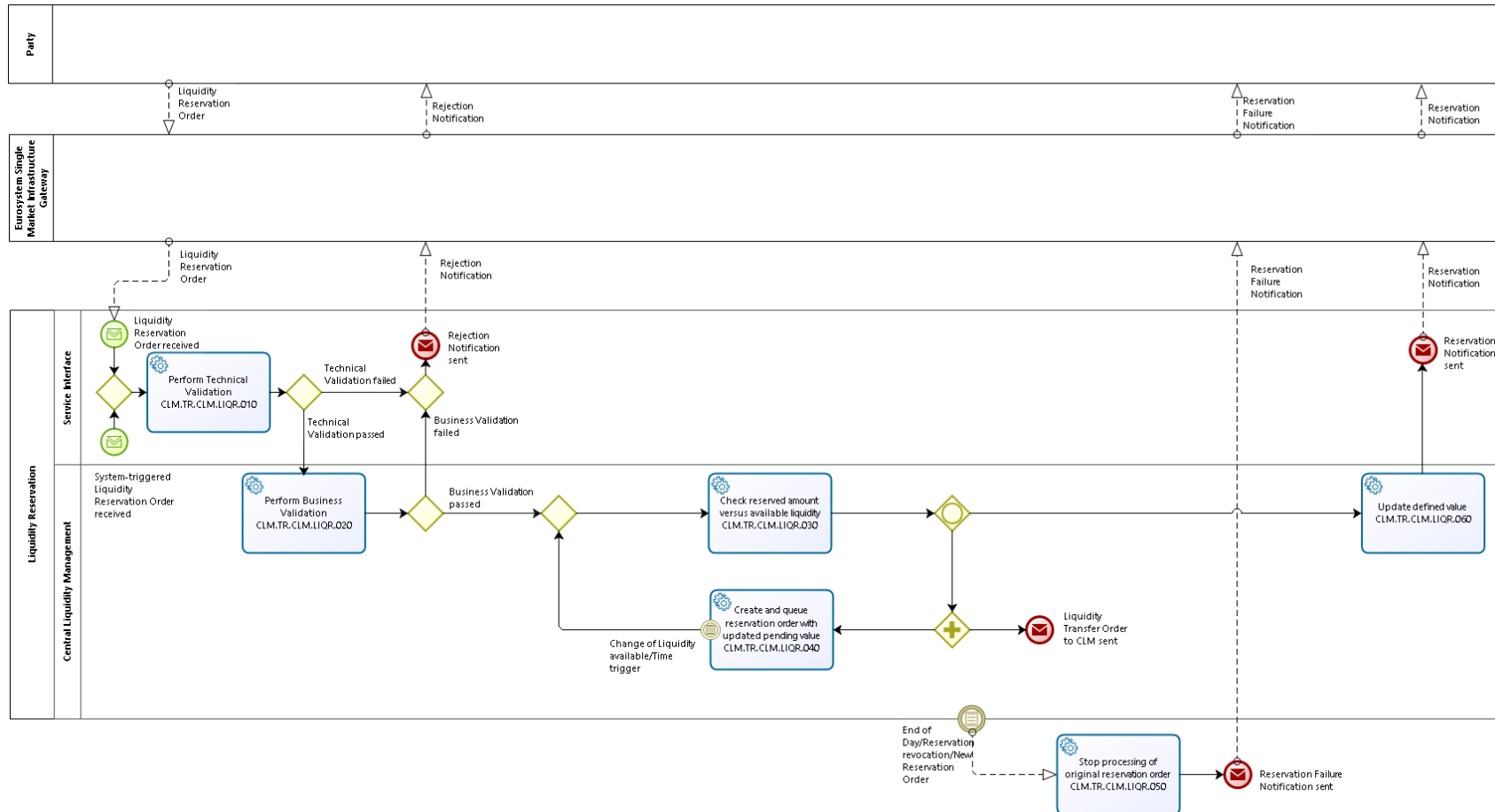
Task Ref: **CLM.TR.CLM.PAYT.070**

Id	CLM.UR.CLM.PAYT.070.010
Name	Stop processing by the end of the day
Description	<p>If payments are still queued by the end of the day due to lack of liquidity, these payments shall be rejected during the end-of-day processing.</p> <p>A rejection notification shall be sent to the participant and central bank.</p>

1.7 LIQUIDITY RESERVATION

Business Process Ref: CLM.BP.CLM.LIQR

1.7.1 Business Process Model



Business Process Model 6: Liquidity reservation

1.7.2 Process Overview

Process goal:

The aim of the process is to control the use of the supplied liquidity by means of a reservation mechanism.

Process context:

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

Pre-conditions:

A participant willing to control the use of the supplied liquidity by means of a reservation needs to:

- ▶ Have a direct access to the CLM; and
- ▶ Hold MCA(s) in the CLM.

Time constraints:

Expected results:

Reservation shall allow a participant to control part of the liquidity for a specific purpose. In case no reservation is defined, the participant's liquidity is available for each payment.

Triggers:

Participants shall be able to manage reservations using the CRDM GUI on a U2A and A2A basis.

1.7.3 User Requirements

1.7.3.1 GENERAL USER REQUIREMENTS FOR THIS BUSINESS PROCESS

Id	CLM.UR.CLM.LIQR.000.010
Name	Type of reservation requests
Description	<p>When managing reservations, participants shall be able to:</p> <ul style="list-style-type: none"> • “Reset“ to zero the liquidity 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).

1.7.3.2 PERFORM TECHNICAL VALIDATION

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

At the reception of a reservation request from CRDM, the service interface shall complete technical validation 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 technical validation
Description	In case of a positive result of the technical validation, the request shall be sent to the CLM for further processing.

Id	CLM.UR.CLM.LIQR.010.030
Name	Processing in case of failed technical validation
Description	In case of a negative result of the technical validation, the request shall be rejected and a notification shall be sent to CRDM.

1.7.3.3 PERFORM BUSINESS VALIDATION

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

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

Id	CLM.UR.CLM.LIQR.020.010
Name	Business validations of the mandatory attributes
Description	CLM shall check that: <ul style="list-style-type: none">• all mandatory attributes are available and consistent; and• all provided values are valid according to pre-defined values or cross-field validations.

Id	CLM.UR.CLM.LIQR.020.020
Name	Account check
Description	CLM shall check that the MCA mentioned in the reservation request is existing and active.

Id	CLM.UR.CLM.LIQR.020.030
Name	Processing in case of failed business validation
Description	In case of a negative result of the business validation, the request shall be rejected and a notification shall be sent to CRDM.

1.7.3.4 CHECK RESERVED AMOUNT VERSUS AVAILABLE LIQUIDITY

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

Id	CLM.UR.CLM.LIQR.030.010
Name	Check whether amount of liquidity is sufficient
Description	In case of a positive result of the business validation of the reservation request, CLM shall check whether the amount of liquidity on the participant's MCA is sufficient for the reservation.

1.7.3.5 CREATE AND QUEUE RESERVATION ORDER WITH UPDATED PENDING VALUE

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

Id	CLM.UR.CLM.LIQR.040.010
Name	Processing if not enough liquidity is available
Description	<p>In case not enough liquidity is available, CLM shall:</p> <ul style="list-style-type: none">• Reserve the liquidity available on the account;• Notify CRDM that the total amount could not be reserved; and• Queue the remaining reservation request.

Id	CLM.UR.CLM.LIQR.040.020
Name	Process pending reservation request
Description	<p>In case of an increase of the available liquidity, an asynchronous resolving process shall attempt to process the pending reservation request.</p> <p>Even if the increase of the available liquidity is not sufficient for the complete processing, the pending reservation shall be processed partly (the pending reservation shall be decreased and the existing reservation shall be increased).</p> <p>New reservation requests related to the participant's MCA shall replace pending reservation requests.</p>

Id	CLM.UR.CLM.LIQR.040.030
Name	Create and release inter-service liquidity transfers
Description	<p>In case of a pending reservation request, CLM shall automatically trigger a liquidity transfer with the missing amount from the participant's default RTGS DCA to the same participant's MCA. The respective liquidity transfer shall be placed on top of the queue of all pending payments and liquidity transfers on the RTGS DCA.</p> <p>If only a partial settlement of the liquidity transfer is possible, then CLM shall execute the liquidity transfer and shall create a new liquidity transfer order for the remaining part that shall be queued in the RTGS settlement service until it can be entirely processed.</p>

1.7.3.6 STOP PROCESSING OF ORIGINAL RESERVATION ORDER

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

Id	CLM.UR.CLM.LIQR.050.010
Name	Automatic stopping of the pending reservation request during the end-of-day processing
Description	<p>If the reservation request is pending by the end of the day, CLM shall stop the processing of the reservation request during the end-of-day processing.</p> <p>A notification shall be sent to CRDM to inform on the halt of the reservation request processing.</p>

1.7.3.7 UPDATE DEFINED VALUE

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

Id	CLM.UR.CLM.LIQR.060.010
Name	Update defined value
Description	<p>In case enough liquidity is available, CLM shall reserve the requested liquidity for the requested reservation type.</p> <p>CLM shall send a notification to CRDM to inform that the total amount could be reserved.</p>

2 NON-FUNCTIONAL REQUIREMENTS FOR THE CENTRAL LIQUIDITY MANAGEMENT

2.1 AVAILABILITY

Id	CLM.UR.NFR.ALL.010
Name	System Opening Hours
Description	The CLM shall be opened 2:30-0:30 on business days. On weekends and TARGET2-closing days the CLM will be opened 15:00-17:00.

This requirement specifies a general availability of 22/5 for CLM. Additionally; an opening window is foreseen on TARGET closing days to enable liquidity transfers for modules which are available 24/7/365. These transactions have to be possible at least between 15:00 and 17:00 on TARGET2 closing days.

Id	CLM.UR.NFR.ALL.020
Name	Unplanned Downtime
Description	Unplanned downtime, calculated on a quarterly basis, shall not exceed xxxx hours, equivalent to an availability of xxxx%.

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 amount of service unavailability time calculated on a quarterly basis shall not exceed xxxx hours.

Id	CLM.UR.NFR.ALL.030
Name	Planned Downtime
Description	The CLM will provide a maintenance window between 00:30 and 02:30.

On TARGET2 opening days a maintenance window of at max two hours is foreseen for any kind of technical or functional maintenance.

2.2 DISASTER RECOVERY

Id	CLM.UR.NFR.ALL.040
Name	Recovery Point Objective
Description	The CLM shall ensure a recovery point objective value of zero in case of site failures. In case of a loss of a complete region the RPO shall not exceed two minutes.

The recovery 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 case of failures, unless the service can't 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 value of one hour in case of site failures. In case of a loss of a complete region the RTO shall not exceed two hours.

The 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 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 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.030.010
Name	Response Time Goals
Description	CLM shall process xxxx% of the transactions in under xxxx minutes and xxxx% of the transactions in under xxxx minutes.

Id	CLM.UR.NFR.ALL.030.020
Name	Peak Workload per second
Description	CLM shall be able to process xxxx transactions per second, enduring the peak load for at least xxxx minutes.

Id	CLM.UR.NFR.ALL.030.030
Name	Upward Scalability
Description	CLM shall be scalable to handle: <ul style="list-style-type: none">• a xxxx% higher workload within xxxx minutes; and• a xxxx of the workload within xxxx.

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 must be scalable to handle higher throughputs in order to cope with e.g. short-term market shocks and foreseeable increases.

Id	CLM.UR.NFR.ALL.030.040
Name	No Degradation of Service Level
Description	CLM shall scale linear.

CLM shall scale linear. This means that there shall be no degradation of the response time due to higher workload.

3 USER INTERACTION

3.1 GENERAL USER REQUIREMENTS FOR USER INTERACTION

3.1.1 Query

Id	CLM.UR.ALL.UI.010
Name	Query Audit Trail
Description	All User Interaction relevant services shall provide the functionality to query the modified data the attribute level, the user performing the change and the timestamp of the change through U2A and A2A interface.

Id	CLM.UR.ALL.UI.020
Name	Query Broadcast
Description	All User Interaction relevant services shall provide the functionality to query detailed information on broadcasts through U2A and A2A interface. It should be distinguished between normal information provided in pull mode and alert broadcasts information provided in push mode.

Id	CLM.UR.ALL.UI.030
Name	Query System time
Description	All User Interaction relevant services shall provide the functionality to query information on system time to align the time of a connected application through an application-to-application interface (A2A).

3.1.2 Action

Id	CLM.UR.ALL.UI.040
Name	Confirm/Reject Task(s)
Description	All User Interaction relevant services shall provide the functionality to confirm/reject task(s) through the U2A and A2A interfaces.

Id	CLM.UR.ALL.UI.050
Name	Act on behalf
Description	All User Interaction relevant services shall provide the functionality to act on behalf through U2A and A2A interfaces: <ul style="list-style-type: none">• Central banks to act on behalf of any party belonging to their banking community• The System operator to act on behalf of any party

Id	CLM.UR.ALL.UI.060
Name	Access rights
Description	All User Interaction relevant services shall ensure that a user can only access functionality that is in line with the access rights to the user and the corresponding scope.

Id	CLM.UR.ALL.UI.070
Name	Four-eyes (confirm, revoke amend)
Description	All User Interaction relevant services shall provide the functionality to use four-eyes approval covering the actions confirm, revoke and amend.

3.2 USER INTERACTION FOR THE CENTRAL LIQUIDITY MANAGEMENT

3.2.1 Query

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

Id	CLM.UR.CLM.UI.010
Name	Query Transactions
Description	<p>The CLM service shall provide the functionality to query the status and details of all transactions on the Main Cash Account (MCA) for the current business day. The user shall specify at least one of the following mandatory selection criteria. In addition the query shall allow the user to specify any combination of mandatory or optional selection criteria.</p> <p>The following transaction types can be queried:</p> <ul style="list-style-type: none"> • Payments • Overnight Deposit • Marginal Lending • Liquidity Transfer • Credit Line <p><u>Mandatory selection criteria:</u></p> <ul style="list-style-type: none"> • MCA account number • Party BIC • Entry date or range of date (current business day as default) <p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none"> • Message type • Transaction Reference • Value Date (from-to) • Debit/Credit • Specific amount or amount range (from - to) • Priority • Payment Type • Execution Date • Error Code (U2A) • Business Relation (U2A) • Status • Counterparty Country <p>The query shall return all business attributes of the payment, including its processing status.</p>

Id	CLM.UR.CLM.UI.020
Name	Query Reservations
Description	<p>The CLM service shall provide the functionality to query all reservations on the MCA. The user shall specify at least one of the following mandatory selection criteria. In addition the query shall allow the user to specify any combination of mandatory or optional selection criteria.</p> <p><u>Mandatory selection criteria:</u></p> <ul style="list-style-type: none">• Party BIC• MCA number <p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none">• Priority Type• Reservation Type• Reservation Amount• Reservation Currency• Range of date (current business day as default) <p>The query shall return all business attributes of the payment, including its processing status.</p>

Id	CLM.UR.CLM.UI.030
Name	Query Available Liquidity
Description	<p>The CLM service shall provide the functionality to query the available liquidity current on a Main Cash Account (MCA). The user shall specify at least one of the following mandatory selection criteria. In addition the query shall allow the user to specify any combination of mandatory or optional selection criteria.</p> <p><u>Mandatory selection criteria:</u></p> <ul style="list-style-type: none">• Party BIC• MCA account number <p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none">• Currency• Credit line• Liquidity Transfer• Range of date (current business day as default) <p>The query shall return all business attributes of the payment, including its processing status.</p>

Id	CLM.UR.CLM.UI.040
Name	Query Minimum Reserve
Description	<p>The CLM service shall provide the functionality to query the minimum reserve information on MCA and DCA(s). The information should be aggregated by service. The user shall specify at least one of the following mandatory selection criteria. In addition the query shall allow the user to specify any combination of mandatory or optional selection criteria.</p> <p><u>Mandatory selection criteria:</u></p> <ul style="list-style-type: none">• Party BIC• Account number• Range of date (current business day as default) <p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none">• Maintenance Period• Fulfilment of Minimum Reserve• Running Average• Adjustment Balance <p>The query shall return all business attributes of the min reserve, including its processing status.</p>

Id	CLM.UR.CLM.UI.050
Name	Query to request a copy of a Report on Account Statement
Description	<p>The CLM service shall provide the functionality to request a copy of a Report on Account Statement through U2A and A2A interface. The user shall specify at least one of the following mandatory selection criteria.</p> <p><u>Mandatory selection criteria:</u></p> <ul style="list-style-type: none">• Party BIC• MCA Account Number <p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none">• Entry date or range of date (current business day as default) <p>The query shall return all business attributes of the account statement.</p> <p>This query shall only be provided in U2A mode because the available corresponding A2A report should be used as default. Therefore, it should be checked that one participant is using either the A2A report or the U2A query.</p>

3.2.2 Action

Id	CLM.UR.CLM.UI.060
Name	Modification of Immediate Reservation
Description	The CLM service shall provide the functionality to modify an Immediate Reservation through U2A and A2A interface for the Main Cash Account (MCA).

Id	CLM.UR.CLM.UI.070
Name	Creation of Immediate Liquidity Transfer
Description	The CLM service shall provide the functionality to create an Immediate Liquidity Transfer through U2A and A2A interface for the Main Cash Account (MCA).

Id	CLM.UR.CLM.UI.080
Name	Revoke transaction
Description	The CLM service shall provide the functionality to revoke a transaction through U2A and A2A interface for the Main Cash Account (MCA).

Id	CLM.UR.CLM.UI.090
Name	Creation of Overnight Deposit request
Description	The CLM service shall provide the functionality to create an Overnight Deposit request through U2A and A2A interface for the Main Cash Account (MCA).

Id	CLM.UR.CLM.UI.100
Name	Creation of Marginal Lending request
Description	The CLM service shall provide the functionality to create a Marginal Lending request through U2A and A2A interface for the Main Cash Account (MCA).

4 BUSINESS DATA DEFINITIONS

Id	CLM.UR.BDD.010
Name	Party
Description	<p>This entity shall denote any legal or organisational entity required in the Market Infrastructure Services (i.e. RTGS, CLM, CRDM, T2S, TIPS, and ECMS).</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> • Party Identifier (KEY): The unique technical identifier of a party • LEI • Party type: Type of institution e.g.: <ul style="list-style-type: none"> - Service Operator - Central Bank (CB) - Payment Bank - Ancillary System (AS) - Central Securities Depository (CSD) - CSD Participant - External CSD • Party Status: The business status of a Party for processing in the system (This attribute shall not specify a blocking status) • Party business role (multiple occurrences allowed) • Intraday Credit indicator (i.e. allowed/not allowed) • Intraday Credit limitation: Maximum intraday credit authorised to a Party • Standing facility indicator (i.e. allowed/not allowed) • Minimum reserve entitlement (i.e. the party is subject to / exempted from minimum reserve requirement) • Marginal Lending entitlement (i.e. the party is authorised / not authorised for marginal lending facilities) • Overnight deposit entitlement (i.e. the party is authorised / not authorised for overnight deposit facilities) • Opening Date: The date on which the contractual relationship with the party was legally established <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> • Banking Group Identifier (e.g. blank if it does not belong to a Banking Group) • Account for minimum reserve: Account used for minimum reserve • Bilateral Limits (multiple occurrences allowed): Party with whom a Bilateral Limit exists • Multilateral Limits (multiple occurrences allowed): Parties which whom a Multilateral Limit exist • Closing Date: The date that the contractual relationship with the party has legally ended • List of Participants: A list of BICs of parties which are allowed to use the

	Ancillary System for their Ancillary System Transaction <ul style="list-style-type: none">• Guarantee Funds Account (multiple occurrences allowed): Accounts used for the Guarantee funds mechanism
Id	CLM.UR.BDD.020
Name	Party Name
Description	<p>This entity shall denote a Party Name.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• Party Identifier (KEY): The unique technical identifier of a party. It shall link the name back to the Party• Valid From: The date from which the party name is valid. Since the Party Name may change over time, it is necessary to define period in which a name is valid• Party Long Name: The full name of the party• Party Short Name: The short name of the party• Distinguished Name <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• n/a

Id	CLM.UR.BDD.030
Name	Party Address
Description	<p>This entity shall denote the address of a Party.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• Address Identifier (KEY): The unique technical identifier of a Party Address• Party Identifier: The unique technical identifier of a party in T2S. It shall link the address to the party• Valid From Date: The date from which the party address is valid• Jurisdiction: The country of jurisdiction for the party. This attribute shall be mandatory for a legal address. It shall be the same country as in the legal address, except for supranational institutions• Street: The name of the street for the address• House Number: The house number for the address• City: The name of the city for the address• Postal Code: The postal code for the address• State or Province: The state or province for the address. Its use shall depend on the country code of the address• Country Code: The country code of the address. The two-character ISO country code (ISO3166-1) shall identify the country <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• n/a

Id	CLM.UR.BDD.040
Name	Party Code
Description	<p>This entity shall denote a Party Code.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> • Party Identifier (KEY): The unique technical identifier of a party. It shall link the party code to the party • System Entity Identifier: The system entity code of another party (e.g. CSD) with which the party has a contractual relationship. This attribute shall qualify the code type in order to ensure uniqueness for cases where a financial institution has a relationship with more than one CSD • Valid From Date: The date from which the party code is valid • Code Type: The code type assigned to the unique internal party identifier. In particular this will include, amongst other possible values: 'BIC' or 'Parent BIC' • Party Mnemonic: The unique market code of a party based on the code type. In particular, where the Code Type is 'BIC' this will be the BIC Code of the Party associated with this Party Code <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> • n/a

Id	CLM.UR.BDD.050
Name	Limit
Description	<p>This entity shall denote a limit on party level which will restrict the settlement of normal payments by the party, either towards a specified party (bilateral) or in general (multilateral).</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> • Limit Identifier (KEY): The unique technical identifier of a limit • Limit type: Type of the limit e.g.: <ul style="list-style-type: none"> - Bilateral - Multilateral • Limit Amount • Limit Currency • From Party: Party whose normal payments are restricted by the Limit <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> • To Party: Party with whom the Bilateral Limit exists (mandatory for Bilateral Limits). Cannot be a EURO-Central Bank, i.e. normal payments towards a EURO Central Bank cannot be restricted.

Id	CLM.UR.BDD.060
Name	Cash Account
Description	<p>This entity shall denote any cash account required by the Market Infrastructure Services (i.e. RTGS, CLM, CRDM, T2S, TIPS, ECMS).</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> • Service. Possible values are: <ul style="list-style-type: none"> - RTGS - CLM - TIPS - T2S • Cash Account Number (KEY) • Cash Account type <ul style="list-style-type: none"> - For RTGS services: <ul style="list-style-type: none"> RTGS DCA, guarantee account, sub account for AS settlement, CB account, transit account, technical account - For CLM service: <ul style="list-style-type: none"> MCA, ML account, OD account, CB account, NCB ECB account, ECB mirror account, transit account - For TIPS service: <ul style="list-style-type: none"> TIPS DCA, transit account - For T2S service: <ul style="list-style-type: none"> T2S DCA, CB account, transit account • Currency: The account's currency, which is an eligible settlement currency • Owner: The Party who owns the account • Status: Current blocking status of the account; unblocked, blocked for debiting, blocked for crediting or blocked for both • Opening date: The date as of which an account is legally opened

Optional attributes:

- Cash Balance: Current cash balance (CLM MCA)
- Credit Line: Current maximum collateralised overdraft position of the Cash Balance (CLM MCA)
- Floor: A lower threshold per service which triggers the sending of a notification message if it is breached from above (absolute numbers). Used for receiving warnings if the accounts is running low
- Ceiling: An upper threshold per service which triggers the sending of a notification message if it is breached from below (absolute numbers). Used for receiving warnings if the account traps too much liquidity
- Minimum Reserve Party: Party for which this account is included for minimum reserve calculation (applicable for RTGS DCA and sub account for AS settlement)
- Linked Account Number: The identifier of an account linked to the account (e.g. the RTGS account linked to the T2S dedicated cash account or MCA and any DCA)
- List of Users: A list of BICs of parties which are allowed to use the account for instant payments (on the originator and beneficiary side)
- Default Flag: Indicating whether the account for instant payments is the default choice of a given user BIC
- Closing date: The date as of which an account is legally closed

Note: A negative balance is only allowed for the EURO-CB accounts ; for all other accounts the liquidity is restricted to the balance plus credit line if available

Id	CLM.UR.BDD.080
Name	Payment
Description	<p>Within RTGS services, High-Value payments and Ancillary System Transactions are possible.</p> <p>For CLM, only payments linked to Central Bank Operations are possible.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> • Service. Possible values are: <ul style="list-style-type: none"> - RTGS - CLM • Payment category. Mandatory for RTGS, not used for CLM. Possible values are: <ul style="list-style-type: none"> - High-Value Payment - Ancillary System Transaction • Payment Type. Possible values are: <ul style="list-style-type: none"> - Mandated Payment - Credit - Direct Debit • Priority. Possible values are: <ul style="list-style-type: none"> - Highly Urgent - Urgent - Normal • Reference of Instruction: Reference given by the original instructor of the Payment • Internal Reference: Reference assigned by RTGS or CLM for the Payment • Transfer Amount: Amount to be credited or debited with the Payment • Currency • Source Account • Target Account • Entry Timestamp • Settlement Timestamp: Timestamp specifying the date and the time the settlement was attempted • Actual Amount: Amount actually settled with the Payment • Settlement Status: Possible values are: <ul style="list-style-type: none"> - Not executed - Unsettled - Settled <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> • n/a

Id	CLM.UR.BDD.090
Name	Liquidity transfer
Description	<p>For RTGS, an instruction to transfer central bank money from:</p> <ul style="list-style-type: none"> • an RTGS Dedicated Cash Account to another settlement service's Main/Dedicated Cash Account and vice versa; and • an RTGS DCA to another RTGS DCA. <p>For CLM, an instruction to transfer central bank money from:</p> <ul style="list-style-type: none"> • a Main Cash Account to a settlement service Dedicated Cash Account and vice versa; and • a Main Cash Account and another Main Cash Account. <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> • Service. Possible values are: <ul style="list-style-type: none"> - RTGS - CLM • Transfer Type. Possible values are: <ul style="list-style-type: none"> - Inbound Liquidity Transfer - Outbound Liquidity Transfer - Internal Liquidity Transfer • Underlying Transfer Type: identifies the underlying transfer type of the Inbound/Outbound or Internal Liquidity Transfer. Possible values are: <ul style="list-style-type: none"> - Immediate Liquidity Transfer - Pre-defined Liquidity Transfer (RTGS only) - Standing Order Liquidity Transfer • Reference of Instruction: Reference given by the original instructor of the Liquidity Transfer • Transfer Amount: Amount to be credited or debited with the Liquidity Transfer • Currency • Source Account • Target Account • Entry Timestamp • Settlement Timestamp: Timestamp specifying the date and the time the settlement was attempted • Actual Amount: Amount actually settled with the Liquidity Transfer • Settlement Status: Possible values are: <ul style="list-style-type: none"> - Not executed - Partially settled - Settled • Settlement Service Status: Possible value are: <ul style="list-style-type: none"> - Not applicable - Not executed

- Rejected
- Confirmed

Optional attributes:

- CLM Reference: Reference assigned by CLM for the Outbound Liquidity Transfer
- Settlement Service Reference: Reference assigned by the settlement service for the Inbound Liquidity Transfer
- RTGS Reference: Reference assigned by the RTGS service for the Inbound and internal Liquidity Transfer
- Partial Execution: Flag if partial execution is possible or not

Id	CLM.UR.BDD.100
Name	Standing Order
Description	<p>For RTGS, an instruction template to transfer central bank money from:</p> <ul style="list-style-type: none">• an RTGS Dedicated Cash Account to another settlement service's Main/Dedicated Cash Account and vice versa; and• an RTGS DCA to another RTGS DCA. <p>For CLM, an instruction template to transfer central bank money from:</p> <ul style="list-style-type: none">• a Main Cash Account to a settlement service Dedicated Cash Account and vice versa; and• a Main Cash Account and another Main Cash Account. <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• Transfer Type. Possible values are:<ul style="list-style-type: none">- Inbound Liquidity Transfer- Outbound Liquidity Transfer- Internal Liquidity Transfer• Reference of Instruction: Reference given by the original instructor of the Liquidity Transfer• Transfer Amount: Amount to be credited or debited with the Liquidity Transfer• Currency• Source Account• Target Account• Trigger: either a time-based or event-based trigger that will initiate the Standing Order• Entry Timestamp <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• Partial Execution: Flag if partial execution is possible or not

Id	CLM.UR.BDD.110
Name	Direct Debit Instruction
Description	<p>A list of parties which can instruct a direct debit from an account</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• From Account: Account debited <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• From Party (multiple occurrences allowed): Party instructing the direct debit• Maximum Amount (multiple occurrences allowed): Maximum Amount allowed to be debited for a given instructing Party

Id	CLM.UR.BDD.120
Name	Reservation
Description	<p>Within the RTGS reservation facility, liquidity can be reserved by RTGS Dedicated Cash Account holders for the execution of special transactions with a certain priority class.</p> <p>Within the CLM reservation facility, liquidity can be reserved by CLM Main Cash Account holders for the execution of special transactions with a certain priority class.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> • Service. Possible values are: <ul style="list-style-type: none"> - RTGS - CLM • Priority Type: Type of the Priority e.g.: <ul style="list-style-type: none"> - Highly Urgent (HU) - Urgent (U) • Reservation Type: Type of the Reservation e.g.: <ul style="list-style-type: none"> - Regular Reservation from Standing Order - One-Time Reservation • Reservation Amount • Reservation Currency • Pending Value • Defined Value • Source Account • Internal Reference: Reference assigned by RTGS or CLM for the Reservation • Entry Timestamp • Settlement Timestamp: Timestamp specifying the date and the time the settlement was attempted • Settlement Status: Possible values are: <ul style="list-style-type: none"> - Not executed - Partially settled - Settled • Settlement Service Status: Possible value are: <ul style="list-style-type: none"> - Not applicable - Not executed - Rejected - Confirmed <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> • Partial Execution: Flag if partial execution is possible or not

Id	CLM.UR.BDD.130
Name	Standing Order for Reservation
Description	<p>A template for Reservations initiated automatically based on a time or event based trigger.</p> <p>Within the RTGS reservation facility, liquidity can be reserved by RTGS Dedicated Cash Account holders for the execution of special transactions with a certain priority class.</p> <p>Within the CLM reservation facility, liquidity can be reserved by CLM Main Cash Account holders for the execution of special transactions with a certain priority class.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• Service. Possible values are:<ul style="list-style-type: none">- RTGS- CLM• Priority Type: Type of the Priority e.g.:<ul style="list-style-type: none">- Highly Urgent (HU)- Urgent (U)• Reservation Amount• Reservation Currency• Source Account• Trigger: either a time-based or event-based trigger that will initiate the Standing Order• Entry Timestamp <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• Partial Execution: Flag if partial execution is possible or not

Id	CLM.UR.BDD.140
Name	Whitelist
Description	<p>A list of accounts from which a certain payment category, i.e. High-Value Payments, Ancillary System Transactions or Liquidity Transfers, are accepted. By default, the whitelist includes all accounts in all Services, i.e. all payment categories are accepted from all accounts.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• To Account: Account credited• Payment category: Possible values are:<ul style="list-style-type: none">- Liquidity Transfer- High-Value Payment- Ancillary System Transaction <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• From Account (multiple occurrences allowed): Account debited

Id	CLM.UR.BDD.150
Name	Report Subscription
Description	<p>This entity shall denote which party has subscribed to receive which reports.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• Report Subscription Identifier (KEY): The unique technical identifier of a report subscription• Report: The report subscribed to by the participant• Recipient: The party identifier of the receiver subscribing to the report• Mode: Specifies whether the participant receives the relevant report in full mode and/or in delta mode, and whether in push or pull mode• Scheduled Time: The scheduled time when the report is provided• Scheduled Event: The event that shall trigger the report to be produced• Subscription Valid From: The date from which the subscription is valid• Subscription Valid To: The date until which the subscription is valid <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• n/a

Id	CLM.UR.BDD.160
Name	Message Subscription
Description	<p>This entity shall denote which party has subscribed to receive which messages.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> • Message Subscription Identifier (KEY): The unique technical identifier of a message subscription • Message Id: The identifier of the message subscribed to by the participant • Recipient: The party identifier of the receiver subscribing to the message • Mode: Specifies whether the participant receives the relevant report in full mode and/or in delta mode, and whether in push or pull mode • Subscription Valid From: The date from which the subscription is valid • Subscription Valid To: The date until which the subscription is valid <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> • n/a

Id	CLM.UR.BDD.180
Name	Currency
Description	<p>This entity shall denote any valid currency and information whether the currency is settled in the Market Infrastructure Services.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> • Currency code (KEY): The three-character ISO currency shall identify the currency • Currency Name • Number of decimals • RTGS Settlement currency: Specification of the currency is a T2S settlement currency (y/n) • T2S Settlement currency: Specification of the currency is a T2S settlement currency (y/n) <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> • n/a

Id	CLM.UR.BDD.190
Name	SWIFT BIC Directory
Description	<p>SWIFT, as the global authority for registering BIC codes, provides the BIC directory. The directory, as provided by SWIFT, shall be part of the CRDM. The directory shall be updated as soon as updates of the directory are available.</p> <p>The attributes shall be derived from the structure of the BIC directory</p>

Id	CLM.UR.BDD.200
Name	Service
Description	<p>This entity shall denote any Market Infrastructure Service which is accessible via the ESMIG.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• Service Identifier (KEY)• Service Short Name: i.e. RTGS, HVP, AS, CLM, CRDM, T2S, TIPS, ECMS• Service Long Name• Service Availability: Timeframe when service is available<ul style="list-style-type: none">- Start Time: Start time of service- End Time: End time of service <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• Cut-off (multiple occurrences allowed): Definition of cut-off of the service

Id	CLM.UR.BDD.210
Name	User
Description	<p>This entity shall denote any information required by ESMIG to direct inbound and outbound communications.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• Distinguished Name (KEY)• ID of Sender: The ID shall result out of authentication process• External Party Address: Information required that the correct network provider, target address, communication mode and protocol (i.e. right external user address) are used• Accessible service (multiple occurrences allowed): Enumeration of Market Infrastructure Services the user is allowed to access <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• n/a

Id	CLM.UR.BDD.220
Name	Role
Description	<p>A role is a set of defined privileges that allows or denies the user access to specific functionality within the service or to view specific data. A role consists of one or more privileges.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• Role Identifier (KEY)• Role Name <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• n/a

Id	CLM.UR.BDD.230
Name	Privilege
Description	<p>A privilege defines a specific functional capability within a process or application in any of the Market Infrastructure Services. For example, within common reference data, possible privileges are: create new Cash Account, delete Party Address, or amend Limit. The definition of privileges is the means of granting and restricting access to functionality and data for specific roles.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none">• Privilege Identifier (KEY)• Role Identifier: the Role with which the Privilege is associated• Privilege Description• Privilege Class<ul style="list-style-type: none">- System Privilege: privilege is system-wide- Object Privilege: privilege applies only to a specific reference data object or group of reference data objects (e.g. a specific Party)• Object Identifier: Identifier of the reference data object or group of reference data objects to which the privilege applies (e.g. Account Number)• Function Identifier: Identifier of the functionality to which the privilege applies (e.g. Amend Party Address)• Allowed/Denied Indicator <p><u>Optional attributes:</u></p> <ul style="list-style-type: none">• n/a

List of Business Process Models

Business Process Model 1: Process inter-service liquidity transfer order from MCA to DCA	6
Business Process Model 2: Process inter-service liquidity transfer order from DCA to MCA	14
Business Process Model 3: Process intra-service liquidity transfer order	19
Business Process Model 4: Process liquidity transfer order between two DCAs	25
Business Process Model 5: Process payment order linked to Central Bank Operation and Cash Withdrawals	32
Business Process Model 6: Liquidity reservation	41

List of Figure

Figure 1: Context diagram for CLM	4
---	---

List of Table

Table 1: Business Processes for the Central Liquidity Management	5
--	---