USER REQUIREMENTS DOCUMENT

FOR

T2 - CENTRAL LIQUIDITY MANAGEMENT COMPONENT

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1 CENTRAL LIQUIDITY MANAGEMENT (CLM)

1.1 OVERVIEW

1.1.1 Context Diagram

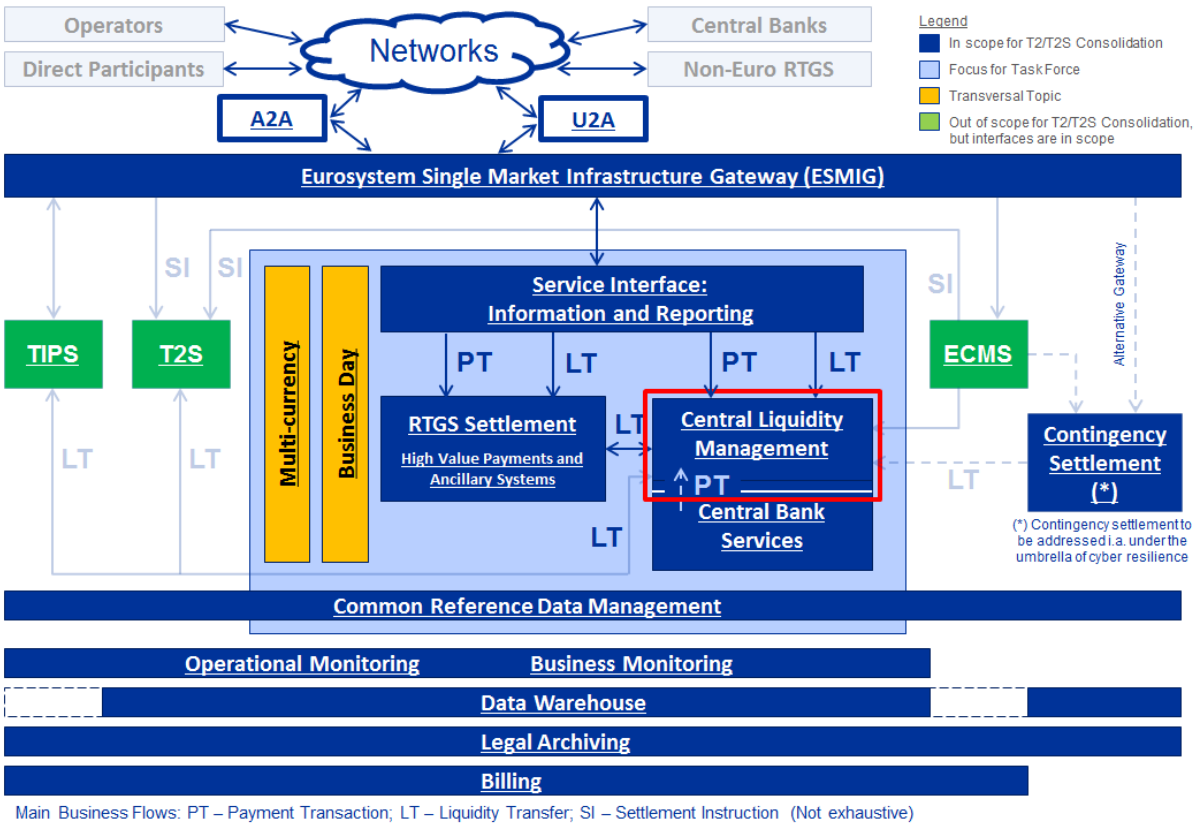


Figure 1: Context diagram for the Central Liquidity Management

CLM is the settlement service that shall ensure:

- The efficient liquidity provisioning by liquidity transfers to the different settlement services: T2S, RTGS (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. CLM shall optimise the efficient usage of liquidity for the different settlement services and the transfers between them. Such re-allocations could either be done manually (based on immediate liquidity transfer orders) or automatically (based on standing orders or rule-based liquidity transfer orders) depending on the CLM account holder's needs.

The Main Cash Account (MCA) within CLM shall be the central source of liquidity for the different settlement services with the CLM account holder's credit line linked to it. The settlement services T2S, TIPS and RTGS will use Dedicated Cash Accounts (DCA) for settling their specific transactions.

Moreover, the following Central Bank Operations (CBOs) will in principle be processed by 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 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 cash transfer 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.

	Main Cash Account (MCA)		**RTGS Dedicated Cash Account (DCA)**		
Business Purpose	**MCA Operations**	**Non-reserved**	**Urgent (U)**	**High (H)**	**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**
H Payment		**3****		**1**	**2**
N Payment					**1**

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

Table 1: Predefined order of liquidity tapping

For Main Cash Account operations, CLM shall trigger an automated liquidity transfer order 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 order shall be placed on top of the queue of all pending payment orders and liquidity transfer orders on the RTGS DCA.

In all other cases, liquidity transfers are subject to and based on liquidity transfer orders that the CLM account holder sets up based on triggers defined on the Main Cash Account or on the Dedicated Cash Account. The automated 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.

In addition to the above-defined available reservation types for CLM account holders, Central Banks can set aside account holder's liquidity on the latter's MCA for the purpose of the seizure based on court decision(s). While the CLM account holder shall be able to see the seizure reservation and its value in the GUI, only the Central Bank can release the liquidity (by changing the reservation amount) or can pay out the liquidity from the seizure reservation to another MCA. Thus, the seizure reservation is not part of the liquidity tapping as described in Table 1: Predefined order of liquidity tapping.

1.1.2 Business Processes

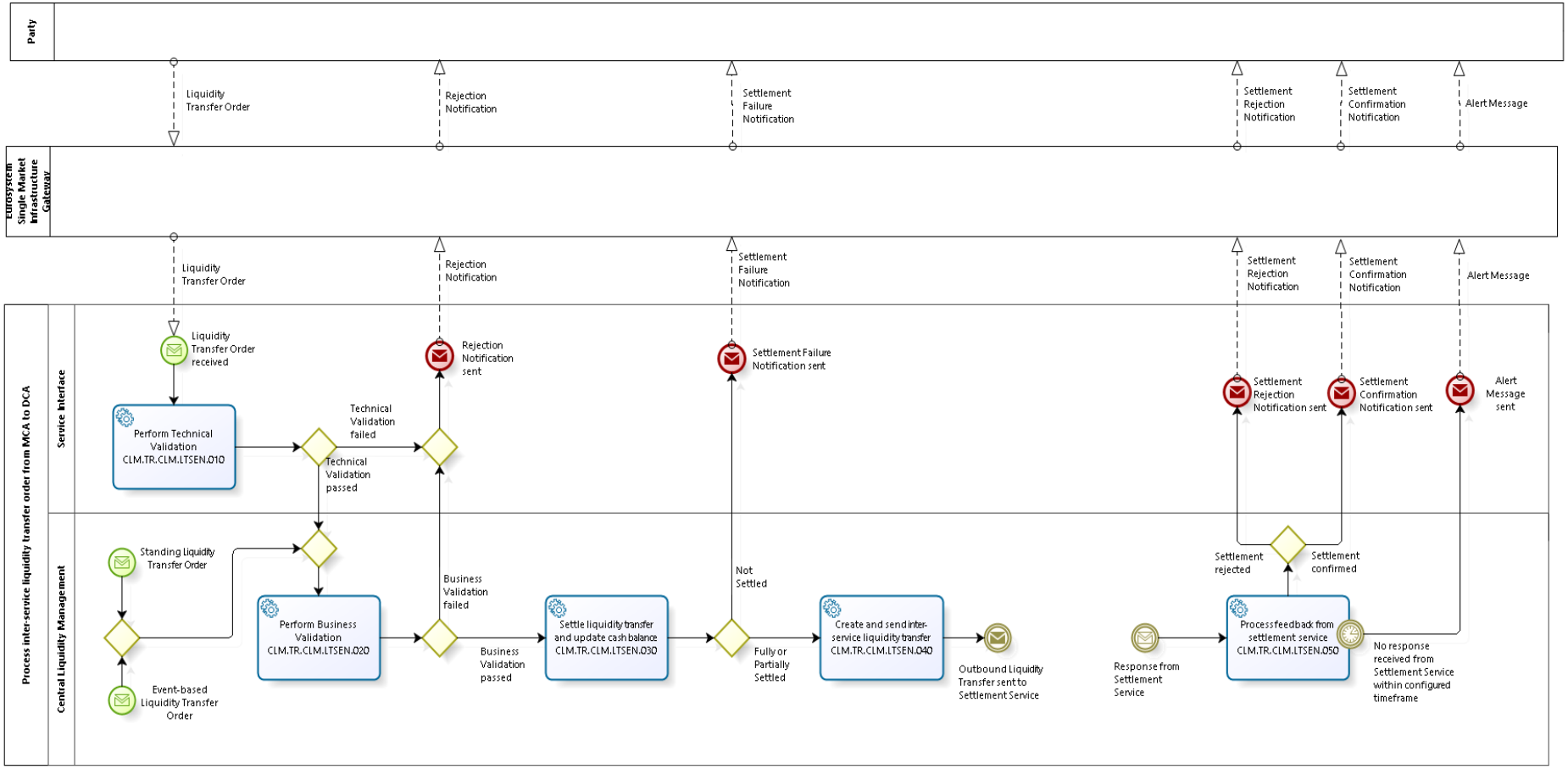
Business Process	BP Reference	Business Process Description
Process inter-service liquidity transfer order from MCA to DCA	CLM.BP.CLM.LTSEN	Processing within CLM of an inter-service liquidity transfer order to move liquidity from a Main Cash Account (MCA) to a Dedicated Cash Account (DCA).
Process inter-service 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 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 settlement service to a Dedicated Cash Account in another settlement 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 Central Liquidity Management

1.2 PROCESS INTER-SERVICE LIQUIDITY TRANSFER ORDER FROM CLM ACCOUNT TO T2S/RTGS/TIPS ACCOUNT

Business Process Ref: CLM.BP.CLM.LTSEN

1.2.1 Business Process Model



Business Process Model 1: Process inter-service liquidity transfer order from CLM Account to T2S/RTGS/TIPS Account

1.2.2 Process Overview

Process goal:

The aim of the process is to allow the CLM account holder to transfer liquidity from a CLM Account to a T2S/RTGS/TIPS Account. These settlement services will use this liquidity for settling their specific transactions.

Pre-conditions:

A Party wishing to transfer liquidity from a CLM Account to a T2S/RTGS/TIPS Account needs to be a CLM account holder and needs to be authorised to debit the CLM Account.

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 transfer orders 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 initiated via A2A or U2A by a CLM account holder (owner of the CLM Account that will be debited) or by another Actor operating on behalf of the CLM account holder under a contractual agreement;
- Standing order liquidity transfer orders set up by a CLM account holder (owner of the CLM Account that will be debited) or by another Actor operating on behalf of the CLM account holder under a contractual agreement and that are automatically triggered on a regular basis; or
- Rule-based liquidity transfer orders that are automatically triggered whenever a predefined event occurs.

Scope of section 1.2

Section 1.2 applies to the following CLM Accounts: MCA, CLM CB Account; and to the following T2S/RTGS/TIPS Accounts: DCAs, CB Accounts in the relevant settlement service, RTGS Sub accounts

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 initiated by a CLM account holder (owner of the CLM Account that will be debited) or by another Actor operating on behalf of the CLM account holder under a contractual agreement.

On receipt of an immediate liquidity transfer order, the component 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.010.005

Name	File management
Description	Where the messages are sent packaged in a file, CLM shall check the validity of the file and split it into single messages. Each message should keep track of the original file reference, notably for monitoring purposes. The file can contain different kind of instructions (e.g. payment orders, amendments of payment order, liquidity transfer orders etc.) but all contained instructions have to be directed to the CLM component only and must not be mixed with instructions to other components (e.g. CRDM or RTGS). Furthermore apart from instructions to CLM no other types of requests are allowed to be sent in a file (e.g. queries). Validation errors after file splitting only cause rejection on a single message level, i.e. not the entire file is rejected. Other successfully validated instructions included in the same file are further processed.

Id	CLM.UR.CLM.LTSEN.010.010
Name	Check mandatory fields
Description	The component 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 component 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 component interface shall continue to validate as far as possible and report all negative results together in a single message. The component interface shall reject the order only after performing all possible technical validations.

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

Id	CLM.UR.CLM.LTSEN.010.050
Name	Processing where technical validation fails
Description	Where there is a negative result of the technical validation, the order shall be rejected and a notification with the appropriate error code(s) shall be sent to the sender of the message. Where the input was manual via the U2A screen, the appropriate error message(s) shall be displayed directly on the screen.

1.2.3.2 PERFORM BUSINESS VALIDATION

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

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

Moreover, standing order and rule-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 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 transfer orders for the CLM Account to be debited. If the sender of the message is not the owner of the CLM Account, CLM shall check that it is authorised to send inter-service liquidity transfer orders on behalf of the CLM account holder.

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 the predefined values or cross-field validations.

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

Id	CLM.UR.CLM.LTSEN.020.055
Name	Standing order and accounts blocked for debits
Description	A standing order liquidity transfer order will not generate any liquidity transfer order if the account to be debited is blocked for debits.

Id	CLM.UR.CLM.LTSEN.020.060
Name	Processing where business validation fails
Description	Where there is a negative result of the business validation, the inter-service liquidity transfer order shall be rejected and a notification with the appropriate error code(s) shall be sent to the sender of the message. Where the input was manual via the U2A screen, the appropriate error message(s) 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

Where there is 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	The following principles shall apply for inter-service liquidity transfer orders: • 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; and • Inter-service liquidity transfer orders shall only have access to the non-reserved part of the available liquidity on the CLM Account.

Id	CLM.UR.CLM.LTSEN.030.020
Name	Full execution
Description	If the non-reserved part of the available liquidity on the CLM Account to be debited is sufficient, CLM shall execute the inter-service liquidity transfer order and update: • The balances of the accounts involved on a gross basis: - the requested CLM Account shall be debited and - the Dedicated Transit Account (one for each respective receiving settlement service and currency) shall be credited; and • The CLM account holder's available liquidity on the CLM Account.

Id	CLM.UR.CLM.LTSEN.030.030
Name	Partial execution
Description	If the non-reserved part of the available liquidity on the CLM Account is only partially sufficient to settle the inter-service liquidity transfer order and if the liquidity transfer has been initiated by a standing order or rule-based liquidity transfer order, the inter-service liquidity transfer order 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.LTSEN.030.040
Name	No execution
Description	Where there is not enough liquidity available on the CLM Account 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 notification shall be sent to the sender of the message with the appropriate error code(s).

Id	CLM.UR.CLM.LTSEN.030.050
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 order
Description	Where there is full or partial execution of the order, CLM shall create and send an inter-service liquidity transfer order with the full or partial amount to the relevant settlement service for further processing (i.e. to credit the relevant T2S/RTGS/TIPS Account 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 order 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 order has been booked successfully within the receiving settlement service (i.e. that the relevant T2S/RTGS/TIPS Account has been credited and the CLM Dedicated Transit Account has been debited with the amount specified in the inter-service liquidity transfer order). In such a case, a confirmation notification shall be sent (according to message subscription) to the CLM account holder (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 order has not been successfully processed within the receiving settlement service (i.e. that the settlement service has not been able to credit the relevant T2S/RTGS/TIPS Account 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 CLM Account. Moreover, a rejection notification shall be sent to the sender of the message with the appropriate error code(s).

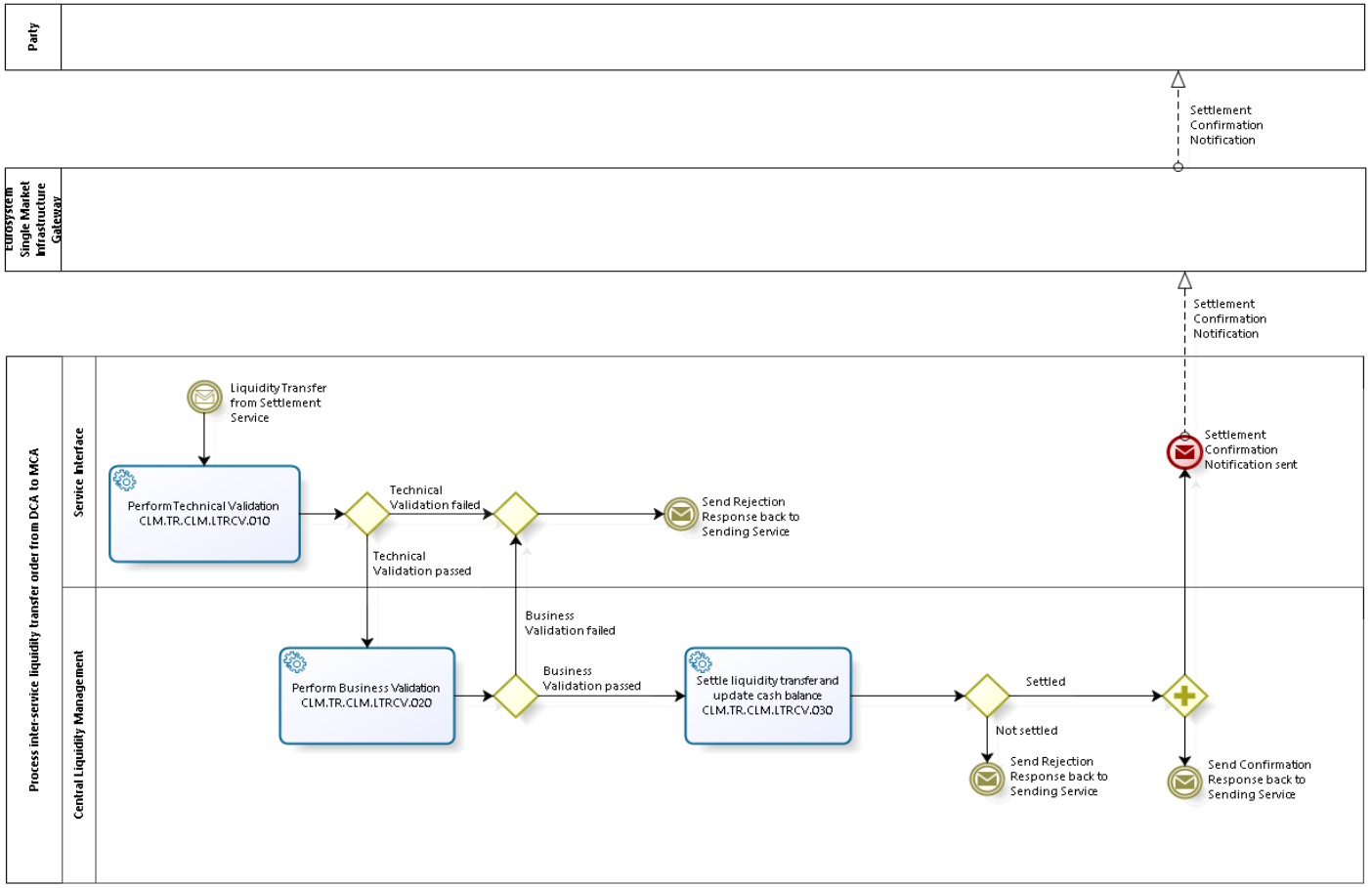
Id	CLM.UR.CLM.LTSEN.050.030
Name	Generate alert if no feedback received
Description	If no feedback is received from the receiving settlement service within a predefined timeframe (that shall be configurable), an alert message shall be generated by CLM to the TARGET Service Desk, account holder of the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

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

1.3 PROCESS INTER-SERVICE LIQUIDITY TRANSFER ORDER FROM T2S/RTGS/TIPS ACCOUNT TO CLM ACCOUNT

Business Process Ref: CLM.BP.CLM.LTRCV

1.3.1 Business Process Model



Business Process Model 2: Process inter-service liquidity transfer order from T2S/RTGS/TIPS Account to CLM Account

1.3.2 Process Overview

Process goal:

The goal is to process within CLM an inter-service liquidity transfer order received from a sending settlement service that shall allow a transfer of liquidity from a T2S/RTGS/TIPS Account to a CLM Account.

Pre-conditions:

The following pre-conditions apply:

- The inter-service liquidity transfer order has successfully settled (fully or partially) in the settlement service that is sending the inter-service liquidity transfer order; and
- The CLM Account is existing and active for settlement in the relevant currency.

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:

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

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

Triggers:

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

Scope of Section 1.3

Section 1.3 applies to the following CLM Accounts: MCA, CLM CB Account, Overnight Deposit Account (unless the debited account is a T2S Account); and to the following T2S/RTGS/TIPS Accounts: DCAs, CB Accounts in the relevant settlement service, RTGS Sub accounts

1.3.3 User Requirements

1.3.3.1 PERFORM TECHNICAL VALIDATION

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

On receipt of an inter-service liquidity transfer order from the sending settlement service, the component 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.010.005

Name	File management
Description	Where the messages are sent packaged in a file, CLM shall check the validity of the file and split it into single messages. Each message should keep track of the original file reference, notably for monitoring purposes. The file can contain different kind of instructions (e.g. payment orders, amendments of payment order, liquidity transfer orders etc.) but all contained instructions have to be directed to the CLM component only and must not be mixed with instructions to other components (e.g. CRDM or RTGS). Furthermore apart from instructions to CLM no other types of requests are allowed to be sent in a file (e.g. queries). Validation errors after file splitting only cause rejection on a single message level, i.e. not the entire file is rejected. Other successfully validated instructions included in the same file are further processed.

Id	CLM.UR.CLM.LTRCV.010.010
Name	Check mandatory fields
Description	The component 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 component 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.LTRCV.010.030
Name	Negative results via appropriate error codes together in a single message
Description	After encountering the first negative validation result, the component interface shall continue to validate as far as possible and report all negative results together in a single message. The component interface shall reject the order only after performing all possible technical validations.

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

Id	CLM.UR.CLM.LTRCV.010.050
Name	Processing where technical validation fails
Description	Where there is a negative result of the technical validation, the order shall be rejected and a notification with the appropriate error code(s) shall be sent to the sending settlement service.

1.3.3.2 PERFORM BUSINESS VALIDATION

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

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 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 the predefined values or cross-field validations.

Id	CLM.UR.CLM.LTRCV.020.040
Name	Account check
Description	CLM shall check that the CLM Account mentioned in the inter-service liquidity transfer order exists and is active for settlement in the relevant currency. Moreover, CLM shall also check that the CLM account holder is not blocked at Party level.

Id	CLM.UR.CLM.LTRCV.020.045
Name	Standing order and accounts blocked for credits
Description	A standing order liquidity transfer order will not generate any liquidity transfer order if the account to be credited is blocked for credits.

Id	CLM.UR.CLM.LTRCV.020.050
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 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

Where there is a positive result of the business validations, CLM shall check whether the execution of the inter-service liquidity transfer order 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 transfer orders
Description	The following principles shall apply for inter-service liquidity transfer orders sent by settlement services: • There shall be an attempt to settle a single liquidity transfer order immediately after its submission; and • Inter-service liquidity transfer orders 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 order is possible, CLM shall book it and update the balances of the accounts involved on a gross basis: • the Dedicated Transit Account for the sending settlement service and currency shall be debited and • the requested CLM Account shall be credited. Once the bookings have taken place, CLM shall send a confirmation notification to the sending settlement service.

Id	CLM.UR.CLM.LTRCV.030.030
Name	No execution
Description	If the booking of the inter-service liquidity transfer order is not possible, CLM shall reject the inter-service liquidity transfer order and send a settlement failure notification with the appropriate error code(s) to the sending settlement service.

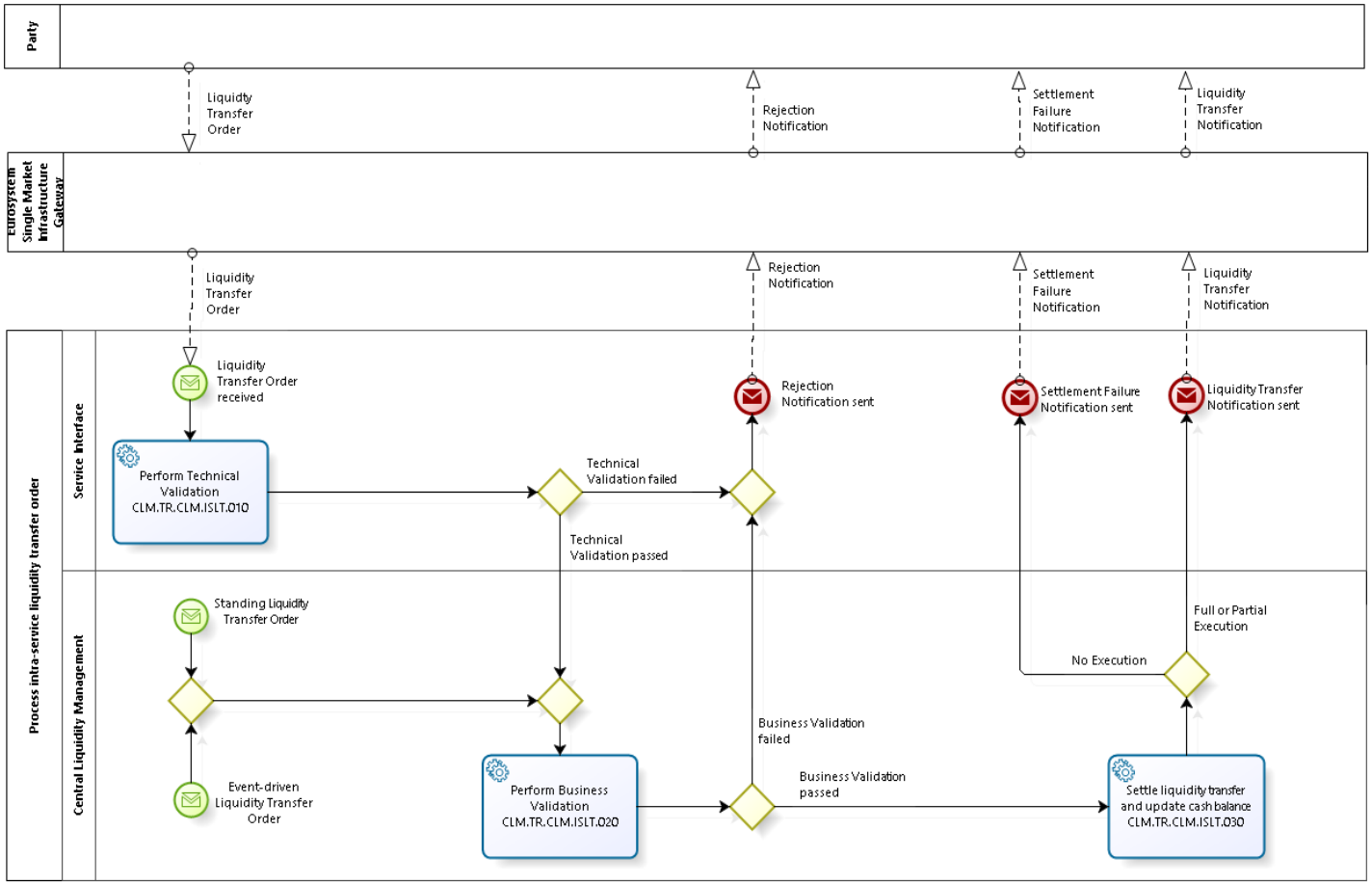
Id	CLM.UR.CLM.LTRCV.030.040
Name	Number of Dedicated Transit Accounts
Description	CLM shall have one Dedicated Transit Account per sending settlement service and currency.

Id	CLM.UR.CLM.LTRCV.030.050
Name	Notification
Description	If the booking of the inter-service liquidity transfer order is successful, CLM shall send (according to message subscription) a notification to the CLM account holder (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 the CLM account holder 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 Party wishing to transfer liquidity from one MCA to another MCA needs to be a CLM account holder and hold the sending MCA in the CLM.

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

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 the CLM account holder 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 three different ways:

- Immediate liquidity transfer orders initiated by a CLM account holder (owner of the MCA that will be debited) or by another Actor operating on behalf of the CLM account holder under a contractual agreement; or
- Standing order liquidity transfer orders set up by a CLM account holder (owner of the MCA that will be debited) or by another Actor operating on behalf of the CLM account holder under a contractual agreement and that are automatically triggered on a regular basis.
- Rule-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 initiated by a CLM account holder (owner of the MCA that will be debited) or by another Actor operating on behalf of the CLM account holder under a contractual agreement.

On receipt of an immediate liquidity transfer order, the component 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.010.005
Name	File management
Description	Where the messages are sent packaged in a file, CLM shall check the validity of the file and split it into single messages. Each message should keep track of the original file reference, notably for monitoring purposes. The file can contain different kind of instructions (e.g. payment orders, amendments of payment order, liquidity transfer orders etc.) but all contained instructions have to be directed to the CLM component only and must not be mixed with instructions to other components (e.g. CRDM or RTGS). Furthermore apart from instructions to CLM no other types of requests are allowed to be sent in a file (e.g. queries). Validation errors after file splitting only cause rejection on a single message level, i.e. not the entire file is rejected. Other successfully validated instructions included in the same file are further processed.

Id	CLM.UR.CLM.ISLT.010.010
Name	Check mandatory fields
Description	The component 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 component 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.ISLT.010.030
Name	Negative results via appropriate error codes together in a single message
Description	After encountering the first negative validation result, the component interface shall continue to validate as far as possible and report all negative results together in a single message. The component interface shall reject the order only after performing all possible technical validations.

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

Id	CLM.UR.CLM.ISLT.010.050
Name	Processing where technical validation fails
Description	Where there is a negative result of the technical validation, the order shall be rejected and a notification with the appropriate error code(s) shall be sent to the sender of the message. Where the input was manual via the U2A screen, the appropriate error message(s) shall be displayed directly on the screen

1.4.3.2 PERFORM BUSINESS VALIDATION

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

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

Moreover, standing order and rule-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 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 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 CLM account holder.

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 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 CLM account holders mentioned in the intra-service liquidity transfer order exist and are active for settlement in the relevant currency. Moreover, CLM shall also check that the CLM account holders 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. This check is not performed if the debitor or the creditor is a CB Account.

Id	CLM.UR.CLM.ISLT.020.055
Name	Standing order and blocked accounts
Description	A standing order liquidity transfer order will not generate any liquidity transfer order if the account to be debited is blocked for debits or if the account to be credited is blocked for credits.

Id	CLM.UR.CLM.ISLT.020.060
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 with the appropriate error code(s) shall be sent to the sender of the message. Where the input was manual via the U2A screen, the appropriate error message(s) 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

Where there is 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	The following principles shall apply for intra-service liquidity transfer orders: • There shall be an attempt to settle a single liquidity transfer order immediately after its submission; • Offsetting mechanisms to save liquidity are not required; • Intra-service liquidity transfer orders may not be revoked as they are not queued; and • Intra-service liquidity transfer orders 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 order and update the balances of the accounts involved on a gross basis: • the sending MCA shall be debited and • the 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 order partially and if the order has been initiated by a standing order or rule-based liquidity transfer order, the intra-service liquidity transfer order 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.

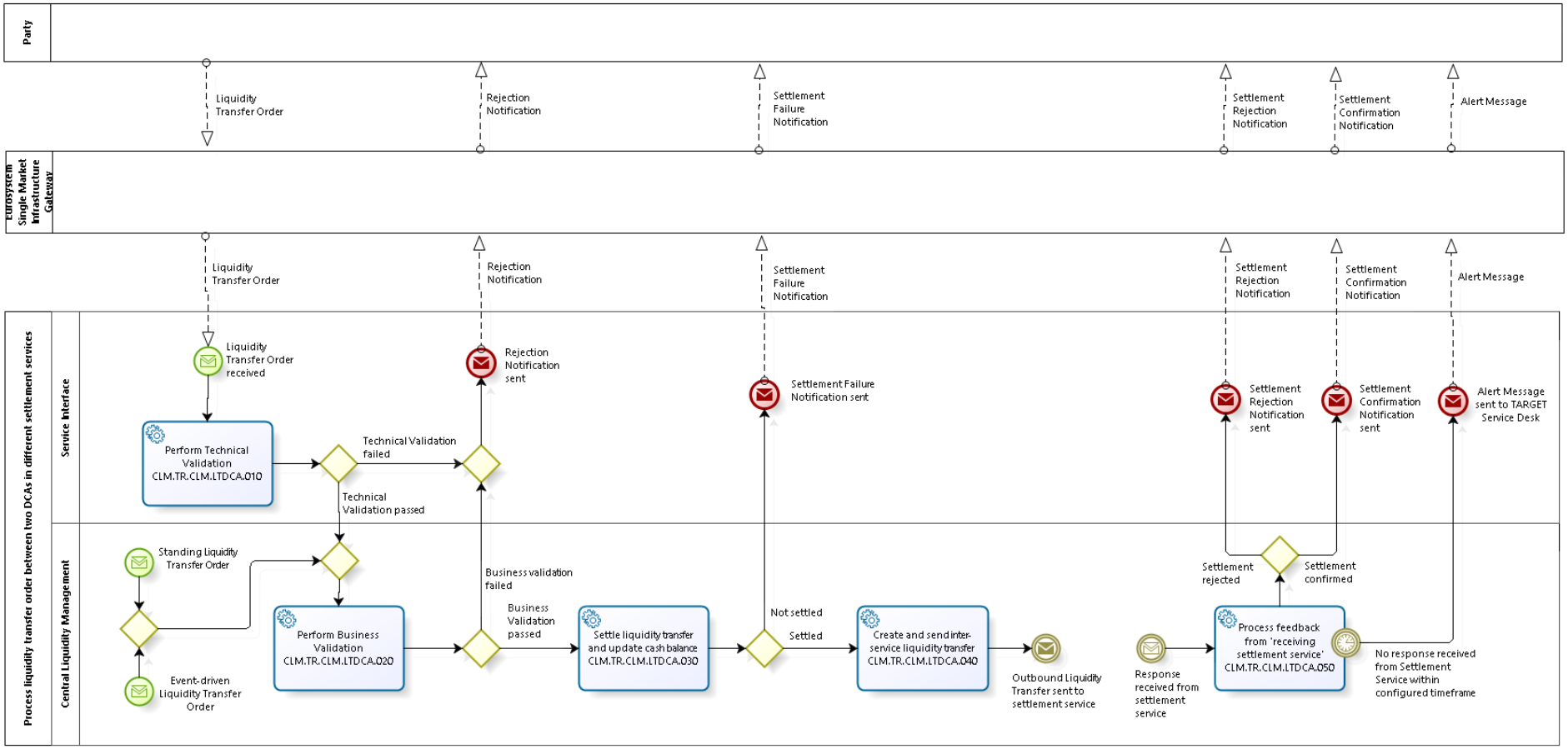
Id	CLM.UR.CLM.ISLT.030.040
Name	No execution
Description	Where there is not enough liquidity available on the MCA to be debited and if the order has been initiated by an immediate liquidity transfer order, the intra-service liquidity transfer order shall be rejected and no liquidity shall be transferred. Moreover, a settlement failure notification shall be sent to the sender of the message with the appropriate error code(s).

Id	CLM.UR.CLM.ISLT.030.050
Name	Send notifications
Description	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 T2S/RTGS/TIPS ACCOUNTS 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 T2S/RTGS/TIPS Accounts 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 T2S/RTGS/TIPS Accounts 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 T2S/RTGS/TIPS Account will be credited shall be called 'receiving settlement service'.

Pre-conditions:

N/A.

Time constraints:

Liquidity transfers between two T2S/RTGS/TIPS Accounts 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 T2S/RTGS/TIPS Accounts in different settlement services shall result:

- Within the 'sending settlement service', there shall be a debit (partial or full) of the T2S/RTGS/TIPS Account identified in the order and the simultaneous credit of the CLM Dedicated Transit Account for the relevant currency;
- Within 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 T2S/RTGS/TIPS Account identified in the order and the simultaneous debit of the CLM Dedicated Transit Account for the relevant currency.

Triggers:

A liquidity transfer order between two T2S/RTGS/TIPS Accounts can be initiated in the 'sending settlement service' in three different ways:

- Immediate liquidity transfer orders initiated by an account holder in the 'sending settlement service' (owner of the T2S/RTGS/TIPS Account that will be debited) or by another Actor operating on behalf of the T2S/RTGS/TIPS Account owner under a contractual agreement; or
- Standing order liquidity transfer orders set up by an account holder in the 'sending settlement service' (owner of the T2S/RTGS/TIPS Account that will be debited) or by another Actor operating on behalf of the T2S/RTGS/TIPS Account owner under a contractual agreement and that are automatically triggered on a regular basis.
- Rule-based liquidity transfer orders that are automatically triggered whenever a predefined event occurs.

Scope of Section 1.5

Section 1.5 applies to the following T2S/RTGS/TIPS Accounts: DCAs, CB Accounts in the relevant settlement service, RTGS Sub accounts

1.5.3 User Requirements

1.5.3.1 General User Requirements for processing liquidity transfer order between two T2S/RTGS/TIPS Accounts in different settlement services

Id	CLM.UR.CLM.LTDCA.000.010
Name	Initiate liquidity transfer order between two T2S/RTGS/TIPS Accounts
Description	Once the liquidity transfer order between two T2S/RTGS/TIPS Accounts in different settlement services has been initiated, the 'sending settlement service' shall validate it. Once validated, the 'sending settlement service' shall: • Debit the T2S/RTGS/TIPS Account and credit the CLM Dedicated Transit Account for the relevant currency; and • Initiate and send to CLM a liquidity transfer order for further processing.

1.5.3.2 Perform Technical Validation

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

On receipt of the liquidity transfer order from the 'sending settlement service', the component 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.010.005
Name	File management
Description	Where the messages are sent packaged in a file, CLM shall check the validity of the file and split it into single messages. Each message should keep track of the original file reference, notably for monitoring purposes. The file can contain different kind of instructions (e.g. payment orders, amendments of payment order, liquidity transfer orders etc.) but all contained instructions have to be directed to the CLM component only and must not be mixed with instructions to other components (e.g. CRDM or RTGS). Furthermore apart from instructions to CLM no other types of requests are allowed to be sent in a file (e.g. queries). Validation errors after file splitting only cause rejection on a single message level, i.e. not the entire file is rejected. Other successfully validated instructions included in the same file are further processed.

Id	CLM.UR.CLM.LTDCA.010.010
Name	Check mandatory fields
Description	The component 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 component 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.LTDCA.010.030
Name	Negative results via appropriate error codes together in a single message
Description	After encountering the first negative validation result, the component interface shall continue to validate as far as possible and report all negative results together in a single message. The component interface shall reject the order only after performing all possible technical validations.

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

Id	CLM.UR.CLM.LTDCA.010.050
Name	Processing where technical validation fails
Description	Where there is a negative result of the technical validation, the order shall be rejected and a notification with the appropriate error code(s) shall be sent to the 'sending settlement service'.

1.5.3.3 PERFORM BUSINESS VALIDATION

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

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 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 exist and are active for settlement in the relevant currency. Moreover, CLM shall also check that the Dedicated Transit Account holder is not blocked at Party level.

Id	CLM.UR.CLM.LTDCA.020.040
Name	Processing where business validation fails
Description	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

Where there is a positive result of the business validations, CLM shall check whether the booking of the liquidity transfer order 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 order immediately after its submission.

Id	CLM.UR.CLM.LTDCA.030.020
Name	Booking of the liquidity transfer order is possible
Description	If the booking of the liquidity transfer order 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 order is not possible
Description	If the booking of the liquidity transfer order 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 and to the ‘sending settlement service’ with the appropriate error code(s).

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 order
Description	Once the liquidity transfer order between the two Dedicated Transit Accounts has successfully settled, CLM shall: • Create an inter-service liquidity transfer order to credit the relevant T2S/RTGS/TIPS Account 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 order 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 order has been booked successfully within the ‘receiving settlement service’ (i.e. that the relevant T2S/RTGS/TIPS Account 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'.

Id	CLM.UR.CLM.LTDCA.050.020
Name	Process negative confirmation feedback
Description	A rejection shall imply that the inter-service liquidity transfer order 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 T2S/RTGS/TIPS Account 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' with the appropriate error code(s).

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 shall be configurable), an alert message shall be generated by CLM to the TARGET Service Desk and to the ‘sending

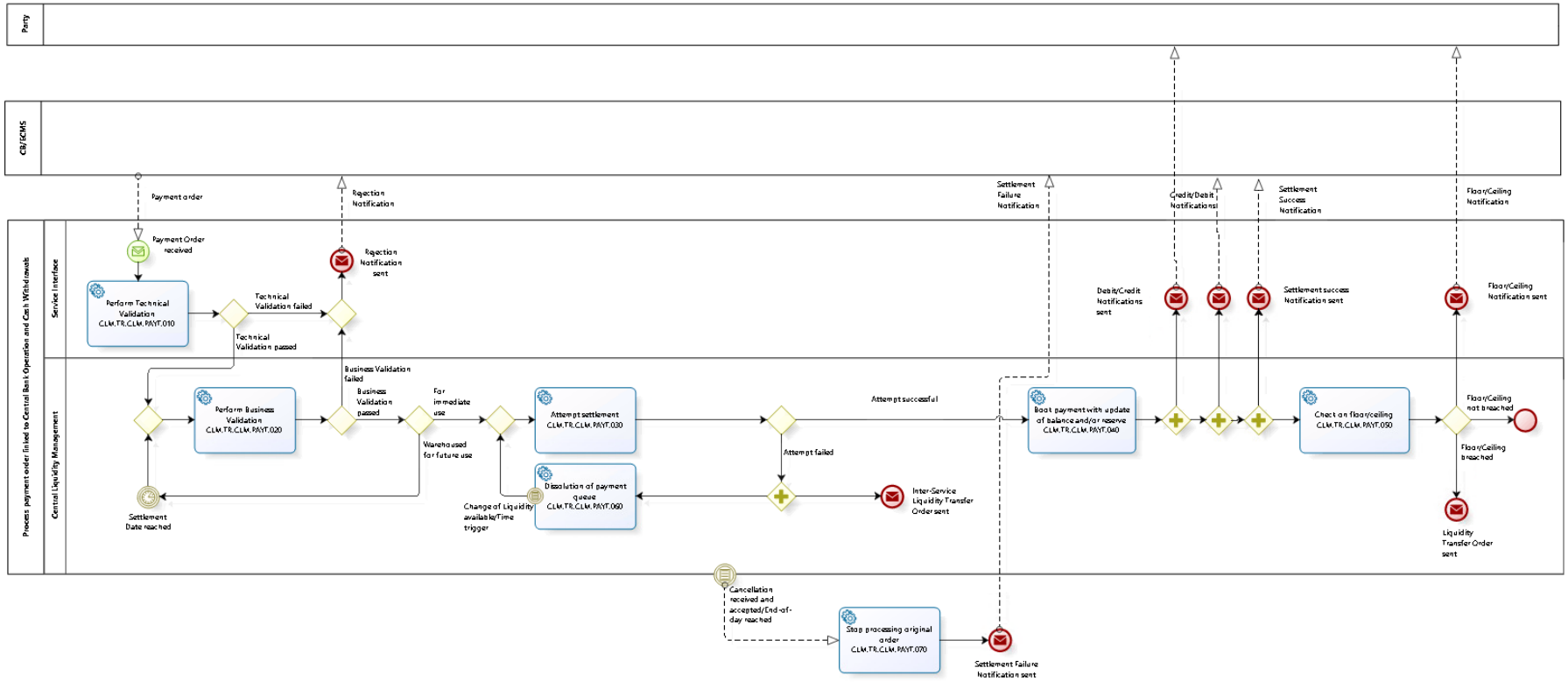
	settlement service' for investigation purposes.

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

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 (including a payment order triggered by ECMS), shall be handled within CLM. The process shall also apply to payment orders that the Central Bank initiates in order to transfer liquidity from the reservation for seizure of funds on the CLM account holder's MCA to another MCA.

Pre-conditions:

The following pre-conditions apply:

- A Party needs to be a CLM account holder and hold a MCA in 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 result in a debit (or credit) of the CLM account holder's MCA with the simultaneous credit (debit) of a Central Bank account. In case the payment order transfers liquidity from the reservation for seizure of funds, the amount shall be credited to the MCA indicated in the payment order.

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 order through the U2A screen shall however be possible for a CB operator.

CB systems including ECMS (or CB operators) can submit/issue the following payment types:

- credit transfers; or
- direct debits used for the settlement of Cash Withdrawals, repayment of monetary policy operations and collections of fees.

A Central Bank shall have a mandate to send direct debit orders on MCAs opened in the books of another Central Bank. A Central Bank can send direct debit order with no mandate, in case the MCA to be debited is opened in the books of the same Central Bank.

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

- Payment orders with an "Earliest Debit Time Indicator"; and
- Payment orders with a "Latest Debit Time Indicator".

Moreover, it shall be possible to submit payment orders up to ten calendar days in advance (this should be a parameter). In this case, the payment order 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 or for any other payment order on MCA
Description	The following principles shall apply for payment orders linked to Central Bank Operations and Cash Withdrawals or for any other payment order on MCA: • Payment orders will all have the same priority. There is no need to distinguish between Urgent, High and Normal payments; • Payment orders can include a time that indicates when they should be settled (transactions with an “Earliest Debit Time Indicator“); • Payment orders can include a time that indicates when they should have been settled (transactions with a “Latest Debit Time Indicator“); • Warehoused payment orders can be initiated by default ten calendar days in advance (a parameter shall 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; • A Central Bank that instructs a direct debit on an account that is not opened in its books requires a respective Direct Debit Mandate • 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 payment orders through the following operations: - changing the set execution time (if defined in the original payment order) and - revoking a queued payment order; • CLM offers one type of reservation for all Central Bank Operations and Cash Withdrawals that the CLM account holder can set up • CLM offers one type of reservation that a Central Bank can set up on the CLM account holder’s MCA for seizure of funds.

1.6.3.2 Perform Technical Validation

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

On receipt of a payment order sent by the sender of the message, the component 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.010.005
Name	File management
Description	Where the messages are sent packaged in a file, CLM shall check the validity

	of the file and split it into single messages. Each message should keep track of the original file reference, notably for monitoring purposes. The file can contain different kind of instructions (e.g. payment orders, amendments of payment order, liquidity transfer orders etc.) but all contained instructions have to be directed to the CLM component only and must not be mixed with instructions to other components (e.g. CRDM or RTGS). Furthermore apart from instructions to CLM no other types of requests are allowed to be sent in a file (e.g. queries). Validation errors after file splitting only cause rejection on a single message level, i.e. not the entire file is rejected. Other successfully validated instructions included in the same file are further processed.

Id	CLM.UR.CLM.PAYT.010.010
Name	Check mandatory fields
Description	The component 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 component 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.PAYT.010.030
Name	Negative results via appropriate error codes together in a single message
Description	After encountering the first negative validation result, the component interface shall continue to validate as far as possible and report all negative results together in a single message. The component interface shall reject the order only after performing all possible technical validations.

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

Id	CLM.UR.CLM.PAYT.010.050
Name	Processing where technical validation fails
Description	Where there is a negative result of the technical validation, the order shall be rejected and a notification with the appropriate error code(s) shall be sent to the sender of the message. Where input was manual via the U2A screen, the appropriate error message(s) shall be displayed directly on the screen.

1.6.3.3 PERFORM BUSINESS VALIDATION

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

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 order
Description	CLM shall carry out a duplicate submission control for incoming payment order. This control shall include the following fields: • Sender of the message; • Message Type; • Receiver; • Message Reference /UETR; • Related Reference; • Value Date; and • Amount.

Id	CLM.UR.CLM.PAYT.020.015
Name	Scope of accounts
Description	A central bank may instruct a payment debiting any CLM account in its books, or for which it has a direct debit mandate, and crediting any account in CLM.

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 payment orders linked to Central Bank Operations or Cash Withdrawals or any other payment orders on MCA. 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 CLM account holder.

Id	CLM.UR.CLM.PAYT.020.025
Name	Direct debit check
Description	CLM shall check whether the direct debit order is sent by the Central Bank, in which books the account is opened. If the sender of the message is the Central Bank, in which books the account is opened, CLM shall perform no further checks on Direct Debit Mandate, If the sender of the message is not the Central Bank, in which books the account is opened, CLM shall check that a Direct Debit Mandate exists between the account to be debited and the Central Bank.

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 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 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 CLM account holder is not blocked at Party level.

Id	CLM.UR.CLM.PAYT.020.050
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 with the appropriate error code(s) shall be sent to the sender of the message. Where input was manual via the U2A screen, the appropriate error message(s) shall be displayed directly on the screen.

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

1.6.3.4 PERFORM CHECK ON TIMING CONSTRAINTS

Task Ref: CLM.TR.CLM.PAYT.035

Central banks have the possibility to determine the execution time of their payments, through From Time and Reject Time.

Id	CLM.UR.CLM.PAYT.025.010
Name	From Time
Description	CLM shall ensure that a payment order can only be submitted to settlement if its From Time, if indicated, has been reached.

The payment order may specify an earliest time at which CLM shall submit the payment order for settlement. When CLM checks the eligibility of a payment order for settlement, then it shall verify whether the current date and time is greater than or equal to the earliest time for settlement specified in the payment order.

Id	CLM.UR.CLM.PAYT.025.020
Name	Reject Time
Description	CLM shall ensure that a payment order can only be submitted to settlement if its Reject Time, if indicated, has not yet been reached. As soon as the Reject Time is reached and if the payment order has not been settled, the payment order will be rejected and a settlement failure notification will be sent out. At 15 minutes before the indicated Reject Time and if the payment order has not been settled, CLM shall send out a warning notification to the holder of the CLM account to be debited in U2A and, if the CLM account holder or CLM CB account holder has subscribed to A2A notification messages, in A2A.

The payment order may specify a latest time by which CLM has to submit the payment order for settlement. When CLM checks the eligibility of a payment order for settlement, then it shall verify whether the current date and time is less than or equal to the latest time for settlement specified in the payment order.

1.6.3.5 ATTEMPT SETTLEMENT

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

Where there is a positive result of the business validation checks, CLM shall validate whether the booking of the payment order is feasible.

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, CLM shall attempt to settle the payment order.

1.6.3.6 BOOK PAYMENT WITH UPDATE OF BALANCE AND/OR RESERVE

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

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

Id	CLM.UR.CLM.PAYT.040.010
Name	Book outgoing payment order
Description	If the settlement of an outgoing payment order is possible, CLM shall book it and shall: • Update the balances of the accounts involved on a gross basis: - the requested CLM account holder's MCA shall be debited and - the relevant Central Bank account or the MCA indicated in the payment order shall be credited; and • Reduce the respective reservation for - the MCA operations (i.e. Central Bank Operations and Cash Withdrawals) on the CLM account holder's MCA (if available) or - the seizure of funds on the CLM account holder's MCA (in case of payments linked to seizure of funds). If the MCA operations reservation is not sufficient, the payment order shall use the non-reserved part of available liquidity.

Id	CLM.UR.CLM.PAYT.040.020
Name	Book incoming payment order
Description	If the settlement of an incoming payment order is possible, CLM shall book it and shall update the balances of the accounts involved on a gross basis: • The relevant Central Bank account shall be debited, and • The requested CLM account holder'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 CLM account holder (or co-manager). A notification shall also be sent (according to message subscription) to the CB system. In case of settled payment orders triggered by ECMS, a debit/credit notification (according to message subscription) shall also be sent to the CB and a payment order settlement notification shall be sent to ECMS.

1.6.3.7 CHECK ON FLOOR/CEILING

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

Id	CLM.UR.CLM.PAYT.050.009
Name	Floor and ceiling amounts
Description	For each of its MCAs, the CLM account holder (or another Actor acting on behalf of the CLM account holder) shall be able to define a minimum (“floor”) amount and a maximum (“ceiling”) amount (which can be different from an MCA to the next)

Id	CLM.UR.CLM.PAYT.050.010
Name	Floor balance order notification
Description	Where the available liquidity on the MCA falls below the defined floor amount after the settlement of a payment order, and, when opted for by the CLM account holder (or by another Actor acting on behalf of the CLM account holder) CLM shall send a notification to the CLM account holder (or to another Actor acting on behalf of the CLM account holder) with the information that the floor has been breached

Id	CLM.UR.CLM.PAYT.050.011
Name	Liquidity transfer order for floor breach
Description	Where the available liquidity on the MCA falls below the defined floor amount after the settlement of a payment order and when opted for by the CLM account holder (or by another Actor acting on behalf of the CLM account holder), CLM shall • Create and release an inter-service liquidity transfer order to pull an amount of liquidity from a predefined RTGS DCA to reach a predefined target amount (that can be different from the floor amount). or • Create and release a-liquidity transfer order to pull an amount of liquidity from another MCA within the same liquidity transfer group of the MCA subject to the floor to reach a predefined target amount (that can be different from the floor amount).

Id	CLM.UR.CLM.PAYT.050.020
Name	Ceiling balance order
Description	Where the available liquidity on the MCA exceeds the defined ceiling amount after the settlement of a payment order, CLM shall, if opted for by the CLM account holder (or by another Actor acting on behalf of the CLM account holder) send a notification to the CLM account holder (or to another Actor acting on behalf of the CLM account holder) with the information that the ceiling has been breached

Id	CLM.UR.CLM.PAYT.050.021
Name	Ceiling balance order
Description	Where the available liquidity on the MCA exceeds the defined ceiling amount after the settlement of a payment order, CLM shall, if opted for by the CLM account holder (or by another Actor acting on behalf of the CLM account holder) • Create and release an inter service liquidity transfer order to push an amount of liquidity to a predefined RTGS DCA to reach a predefined target amount (that can be different from the ceiling amount). or • Create and release a liquidity transfer order to push an amount of liquidity to another MCA within the same liquidity transfer group of the MCA subject to the ceiling, to reach a predefined target amount (that can be different from the ceiling amount).

1.6.3.8 DISSOLUTION OF PAYMENT QUEUE

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

Id	CLM.UR.CLM.PAYT.060.010
Name	Resolve queue of payment orders
Description	The queue shall be continuously resolved thanks to a liquidity increase in the MCA or a change in the payment order queue which is relevant for the settlement as CLM attempts to settle payment orders 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 from RTGS DCA to MCA
Description	Where there is insufficient liquidity on the CLM account holder's MCA to settle a payment order linked to a Central Bank Operation or a Cash Withdrawal, CLM shall automatically trigger an inter-service liquidity transfer order with the missing amount from the CLM account holder's RTGS DCA used for payments (defined by the CLM account holder) to the same CLM account holder's MCA. The respective automated liquidity transfer order shall be given a higher priority than all pending payments and liquidity transfers on that RTGS DCA. If only a partial settlement of the automated liquidity transfer order is possible, then CLM shall execute the automated liquidity transfer order in the amount as confirmed by RTGS. RTGS shall create a new inter-service liquidity transfer order for the remaining part that shall be queued in RTGS with the same conditions until it can be entirely processed. If the pending payment order linked to a Central Bank Operation or a Cash Withdrawal can be fully settled with the incoming liquidity stemming from other sources than the inter-service liquidity transfer order previously automatically triggered, CLM shall cancel the pending inter-service liquidity transfer order towards RTGS. Any change in the liquidity required to process a pending payment order linked to a Central Bank Operation or a Cash Withdrawal on the MCA, shall lead to a creation and sending of a new inter-service liquidity transfer order with a new total (decreased or increased) amount to RTGS which replaces the existing pending inter-service liquidity transfer order. In case the change in liquidity on the MCA stems from incoming liquidity from RTGS due to the partial or full execution of the inter-service liquidity transfer order previously automatically triggered, no new inter-service liquidity transfer order with new adapted amount is sent to RTGS.

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

1.6.3.9 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 payment orders are still queued by the end of the day due to lack of available liquidity, these payment orders shall be rejected during the End of Day processing (with the exception of Standing Facilities that shall be executed before their dedicated cut-off). A rejection notification shall be sent to the sender of the message with the appropriate error code(s).

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 or a Cash Withdrawal or for any other payment order on MCA 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 section 1.3 on Queue Management / Payment Order Amendment in the User Requirements Document for RTGS shall therefore also apply to this section.

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 or for any other payment order on MCA 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 CLM). Payment orders 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“).
- Re-ordering of the queued payments. The selected payment order or sequence of payment orders can be placed
  - on top of the queue of payment orders with the same payment type or
  - to the end of the queue of payment orders 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 or for any other payment order on MCA 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 apart from during the End of Day processing 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 result in an immediate settlement attempt;

- Changing the “Earliest Debit Time Indicator” shall result in the first payment order settlement attempt at the new indicated time; and
- Changing the “Latest Debit Time Indicator” shall result in the payment order 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 order management:

- Moving a payment order to the top of the queued payment orders shall result in the immediate check whether the payment order can be executed; and
- When moving a payment order which is not at the top of the queued payment orders to the end of the queue, settlement shall be attempted once the previously queued payment orders 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 or for any other payment order on MCA shall only be possible 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 (including a payment order sent from ECMS) or a Cash Withdrawal and the revocation or recall of a payment order in RTGS shall be similar from a business process model point of view. The only difference is that a revocation request in CLM is never forwarded to the payment receiver, i.e. only revocation requests on not yet finally processed payment orders can be successfully executed (there are no recalls of already settled payment orders). The business process RTGS.BP.HVP.PAYC in section 1.4 on Queue Management/ Payment Order Revocation or Recall in the User Requirements Document for RTGS shall therefore also apply to this section (with the exceptions described above).

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 apart from during the End of Day processing 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 a payment order shall result in the revocation of the queued payment. In case the payment order has already been settled or cannot be found, the revocation shall not be forwarded to the receiver quoted in the revocation request (different approach than in RTGS).

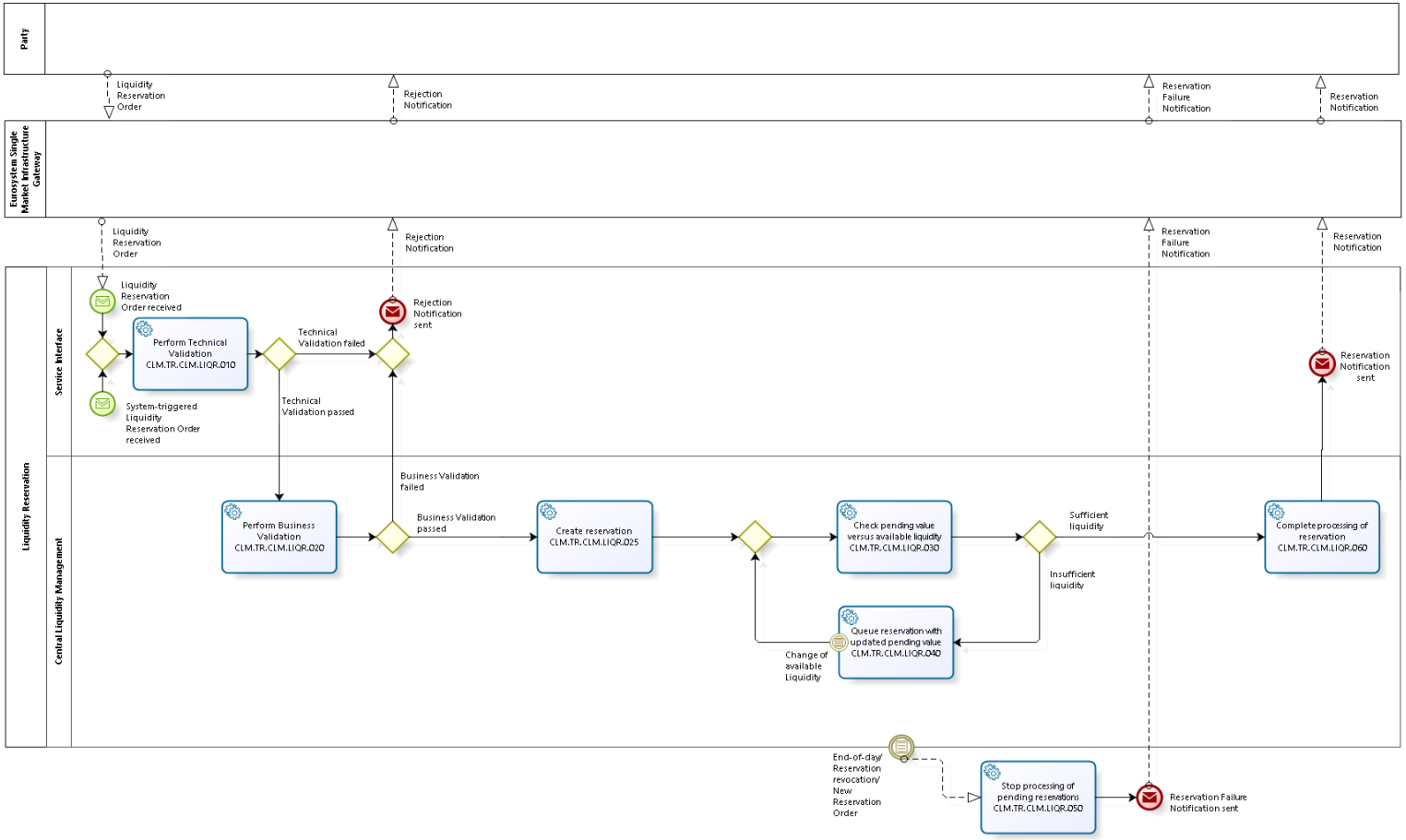
Triggers:

The revocation of a payment order linked to a Central Bank Operation or to a Cash Withdrawal shall be possible by a CB operator on a U2A basis. Moreover, it shall also be possible for a CB system, including the ECMS, to send a revocation request on an 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 CLM account holders control over the use of the supplied liquidity in a currency on their MCAs by means of a reservation mechanism. The process shall also apply to Central Banks reserving liquidity on a CLM account holder's MCA based on the court decision(s) for seizure of funds.

Process context:

This business process describes the check by CLM, after receipt of the order for reservation, whether the amount of liquidity on the CLM account holder's MCA is sufficient for making the reservation. Moreover, it describes the building up of reservation to 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 CLM. In addition and in case of the court decision(s) on seizure of funds, the Central Bank has received and validated the respective request.

Time constraints:

Management 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 account holder to control and dedicate a part of the liquidity on the MCA for a specific purpose. If no reservation is defined, the CLM account holder's liquidity is available for each and every payment order (linked to Central Bank Operations or Cash Withdrawals) and liquidity transfer order.

The reservation for seizure of funds allows the Central Bank to set aside and control the CLM account holder's liquidity required for fulfilling the request based on court decision(s).

Triggers:

The CLM account holder (or another Actor acting on behalf of the CLM account holder) and the Central Bank shall be able to set up and manage reservations on a U2A (using the CRDM GUI) and A2A basis. CLM generates a reservation upon receiving a liquidity reservation order. Reservations may also be generated automatically whenever a Standing Order for Reservation 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 orders
Description	When managing reservations in one currency, CLM account holders and Central Banks 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). The CLM account holders and Central Banks can manage reservations by

	sending a new reservation order that replaces the existing pending reservation order.

1.9.3.2 PERFORM TECHNICAL VALIDATION

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

On receipt of a reservation order, the component 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.010.005
Name	File management
Description	Where the messages are sent packaged in a file, CLM shall check the validity of the file and split it into single messages. Each message should keep track of the original file reference, notably for monitoring purposes. The file can contain different kind of instructions (e.g. payment orders, amendments of payment order, liquidity transfer orders etc.) but all contained instructions have to be directed to the CLM component only and must not be mixed with instructions to other components (e.g. CRDM or RTGS). Furthermore apart from instructions to CLM no other types of requests are allowed to be sent in a file (e.g. queries). Validation errors after file splitting only cause rejection on a single message level, i.e. not the entire file is rejected. Other successfully validated instructions included in the same file are further processed.

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

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

Id	CLM.UR.CLM.LIQR.010.030
Name	Processing where technical validation fails
Description	Where there is a negative result of the technical validation, the order shall be rejected and a notification with the appropriate error code(s) shall be sent to the sender of the message. Where input was manual via the U2A screen, the appropriate error message(s) shall be displayed directly on the screen.

1.9.3.3 PERFORM BUSINESS VALIDATION

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

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

Id	CLM.UR.CLM.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 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 order on behalf of the CLM account holder.

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 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 order exists and is active for settlement in the relevant currency. Moreover, CLM shall also check that the MCA owner is not blocked at Party level.

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 with the appropriate error code(s) shall be sent to the sender of the message. Where input was manual via the U2A screen, the appropriate error message(s) 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 reservation order
Description	For a reservation order that has passed all business validations, CLM shall create the respective type of the reservation in the component. • Reservation amount is the amount requested in the liquidity reservation

	order or in the Standing Order for Reservation. • Pending Value will initially be the same as the reservation amount. • Defined Value will initially be zero.

1.9.3.5 CHECK 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 non-reserved liquidity on the CLM account holder's MCA is sufficient for filling the reservation, by comparing the non-reserved amount of liquidity with the pending value for the reservation.

1.9.3.6 QUEUE RESERVATION WITH UPDATED PENDING VALUE

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

Where there was not sufficient non-reserved liquidity on the 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, CLM shall: • Reserve the liquidity available on the account; • Queue the remaining reservation 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 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 order. New reservation orders related to the CLM account holder's MCA shall replace pending reservation 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 order during the End of Day processing
Description	If the reservation order is pending by the end of the day, CLM shall stop the processing of the reservation order based on the 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, CLM shall: • Reserve the remaining amount specified in the reservation order (pending value) for the requested reservation type; • Update the reservation with: - Defined value increased by the amount of liquidity used (which will then equal to the 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 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%.

CLM may be subject to incidents or failures, which may cause a temporary and unforeseen interruption of the availability of the component. 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	CLM shall ensure a Recovery Point Objective (RPO) value of zero minutes in the event of site failures. Where there is 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.

CLM ensures synchronous point of consistency creations and, as a consequence, no data loss in the event of failures, unless the component cannot 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	CLM shall ensure a Recovery Time Objective (RTO) value of one hour in the event of site failures. Where there is 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. 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 component is made up to the time the component is restored. 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 component is made up to the time the component is restored.

2.3 PERFORMANCE REQUIREMENTS

Id	CLM.UR.NFR.ALL.060
Name	Response Time Goals
Description	CLM shall process 95% of the transactions within 2 minutes and 100% of the transactions 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 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 component's lifecycle the number of transactions to be handled might change due to market changes or adapted business behaviour. To be able to cope with this, CLM shall be able to handle higher throughputs.

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 components, offering facilities to access information in U2A mode. The GUI(s) shall be harmonised to the best possible extent.

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

3.1 GENERAL USER REQUIREMENTS FOR USER INTERACTION

The following general requirements shall apply to RTGS, CLM and common components.

3.1.1 Query

Id	CLM.UR.ALL.UI.010
Name	Query Audit Trail
Description	Each component shall provide the functionality to query through U2A interface the modified data at the attribute level, the user performing the change and the timestamp of the change. It should be visible which attributes were changed, 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 components 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 components 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 components 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 Service Desk, to act on behalf of any Party.

Id	CLM.UR.ALL.UI.050
Name	Access rights
Description	All components 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, withdraw, amend)
Description	All components shall provide the functionality to use the four-eyes approval process through U2A interface, allowing the authoriser to confirm, withdraw or amend the order. The authoriser shall be a different system user and shall be linked to a different distinguished name than the initiator.

3.2 USER INTERACTION FOR THE CENTRAL LIQUIDITY MANAGEMENT

3.2.1 Query

This User Interaction section covers intraday queries. For intraday queries, the Value Date would be by default the current 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 section 4.1 on User Roles and Access / Overview in the User Requirements Document for Common Components

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 User Requirements Document for Common Components which are of relevance for CLM.

Id	CLM.UR.CLM.UI.010
Name	Query Transactions
Description	CLM shall provide the functionality to query the status and details of all transactions 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 any combination of 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 (before ECMS go-live only) • Liquidity Transfer • Credit Line <u>Optional selection criteria</u>:

	• 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 • UETR 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	CLM 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 any combination of the following optional selection criteria. <u>Optional selection criteria</u>: • MCA number • Either Party BIC or Party Name (U2A only) The query shall return all information on reservation set up for the current business day, including: • Party BIC • Party Name • MCA number • Defined Value of the reservation • Pending Value of the reservation

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

	criteria. Optional selection criteria: • Either Party BIC or Party Name • MCA Number • Account Monitoring Group The query shall return all relevant information about available liquidity in CLM, RTGS, TIPS and T2S, including: • Party BIC • Party Name • Balance on MCA • Credit Line on MCA • Balance on RTGS DCA • Balance on TIPS DCA (and TIPS AS Technical Account) • Balance on T2S DCA • Balance on sub account(s) • Balance of CB Accounts • Balance of CB ECB Accounts • Balance of ECB Mirror Accounts • Balance of AS Technical Accounts • Balance of AS Guarantee Funds Accounts • Balance of Transit Accounts • Marginal Lending Accounts • Overnight Deposit Accounts • Value of the available collateral in T2S • Value of the outstanding auto-collateralisation amount in T2S • Aggregate amount of pending transactions (Debits and Credits) for RTGS and CLM • Aggregated View on CLM If the user selects a specific Account Monitoring Group, the query shall return details of the available liquidity on all accounts belonging to the Account Monitoring Group. Furthermore, if the user selects a group of accounts, the query shall return aggregated information about the available liquidity on all selected accounts.

Id	CLM.UR.CLM.UI.035
Name	Query Available Liquidity in A2A mode
Description	CLM shall provide the functionality to query in A2A mode the available liquidity on one, many or all MCAs that a user is authorised to see. 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 any combination of the following optional selection criteria. Optional selection criteria:

	• Either Party BIC or Party Name • MCA Number The query shall return all relevant information about available liquidity in CLM, including: • Party BIC • Party Name • Balance on MCA • Credit Line on MCA • Aggregate amount of pending transactions (Debits and Credits) for CLM • Aggregated View on CLM

Id	CLM.UR.CLM.UI.040
Name	Query Minimum Reserve
Description	CLM shall provide the functionality to query the minimum reserve information. 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 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 • MCA/DCA number • Current Maintenance Period • Value of required Minimum Reserve • Value of threshold between the exempt and non-exempt tiers of excess reserve (i.e. value of required minimum reserve times the relevant multiplier) • End of Day balances of the previous business day • Running average balance up to the day before the next [CR-120] 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 • Consolidated position (on MCA(s) and DCA(s)) (current position)

Id	CLM.UR.CLM.UI.050
Name	Query Account Statement
Description	CLM shall provide the functionality to query an MCA statement. The user can query within his data scope. In addition the query shall allow the user to specify any combination of the following selection criteria.

	Mandatory selection criteria: Party BIC Optional selection criteria: • Party Name (U2A only) • MCA Number The query shall return all business attributes of the account statement. The query is available via A2A by default, in addition to that it is also possible to query in U2A mode.

Note: More information about producing, sending and downloading of a query or report can be found in section 5 on Information and Reporting in the User Requirements Document for Common Components.

3.2.2 Action

Id	CLM.UR.CLM.UI.080
Name	Create immediate liquidity transfer order (push)
Description	CLM shall provide the functionality to create an immediate liquidity transfer order through U2A and A2A interface to push liquidity from the MCA to the DCA.

Id	CLM.UR.CLM.UI.085
Name	Create immediate liquidity transfer order (pull)
Description	CLM shall provide the functionality to create an immediate liquidity transfer order through U2A interface to pull liquidity from the DCA to the MCA.

Id	CLM.UR.CLM.UI.090
Name	Cancel queued payment order
Description	CLM shall provide the functionality to cancel a queued payment order through U2A and A2A interface for the MCA.

Id	CLM.UR.CLM.UI.100
Name	Create overnight deposit
Description	CLM shall provide the functionality to create an overnight deposit request through U2A and A2A interface for the MCA.

Id	CLM.UR.CLM.UI.110
Name	Create payment order
Description	CLM shall provide the functionality to create a payment order through U2A (credit transfers only) and A2A interface (credit transfers and direct debits). If the U2A interface is used, CLM will generate a UETR based on UUID Version 4 standard for the payment.

	Note: The possibility to enter payment orders would be subject to necessary rights, so an organisation could control the use of this feature.

Id	CLM.UR.CLM.UI.120
Name	Re-order queued transactions
Description	CLM 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.

Query / Action	U2A	A2A
Query Transactions	x	x
Query Reservations	x	x
Query Available Liquidity	x	x
Query Minimum Reserve	x	x
Query Account Statement	x	x
Create immediate liquidity transfer order (push)	x	x
Create immediate liquidity transfer order (pull)	x	
Cancel queued payment order	x	x
Create overnight deposit	x	x
Create payment order (credit transfer)	x	x
Create payment order (direct debit)	-	x
Re-order queued transactions	x	-
Create an immediate reservation order	x	x

Table 3: Summary of queries and actions in U2A and A2A mode for Central Liquidity Management

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 Common Components as they are also referred to elsewhere:

- Party
- Party Name
- Cash Account
- Payment
- Liquidity Transfer
- Standing Order Liquidity Transfer
- Direct Debit Mandate
- Reservation
- Standing Order for Reservation
- Message Subscription
- Currency
- Service
- User
- Role
- Access Rights

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