

# **T2-T2S CONSOLIDATION**

## **USER REQUIREMENTS DOCUMENT**

**FOR**

### **T2 - CENTRAL LIQUIDITY MANAGEMENT (CLM) COMPONENT**

**-ANNEX FOR CENTRAL BANKS ONLY-**

<b>Version:</b>	3.0
<b>Status:</b>	Final
<b>Date:</b>	18/10/2022

## Contents

<b>1</b>	<b>CENTRAL LIQUIDITY MANAGEMENT (CLM)</b>	<b>5</b>
<b>1.1</b>	<b>Overview</b>	<b>5</b>
1.1.1	Context Diagram	5
1.1.2	Business Processes	5
<b>1.2</b>	<b>Modify Credit Line</b>	<b>6</b>
1.2.1	Business Process Model	6
1.2.2	Process Overview	8
1.2.3	User Requirements	8
<b>1.3</b>	<b>Connected Payment Processing</b>	<b>15</b>
1.3.1	Business Process Model	15
1.3.2	Process Overview	17
1.3.3	User Requirements	17
<b>1.4</b>	<b>Production of CLM End of Day general ledger files</b>	<b>22</b>
1.4.1	Business Process Model	22
1.4.2	Process Overview	23
1.4.3	User Requirements	23
<b>2</b>	<b>CENTRAL BANK SERVICES (CBS)</b>	<b>25</b>
<b>2.1</b>	<b>Overview</b>	<b>25</b>
2.1.1	Context Diagram	25
2.1.2	Business Processes	26
<b>2.2</b>	<b>Set up Overnight Deposit</b>	<b>27</b>
2.2.1	Business Process Model	27
2.2.2	Process Overview	28
2.2.3	User Requirements	29
<b>2.3</b>	<b>Overnight Deposit Reverse Transaction</b>	<b>32</b>
2.3.1	Business Process Model	32
2.3.2	Process Overview	34
2.3.3	User Requirements	35
<b>2.4</b>	<b>Overnight Deposit Reimbursement and Interest Calculation</b>	<b>38</b>
2.4.1	Business Process Model	38
2.4.2	Process Overview	39
2.4.3	User Requirements	40
<b>2.5</b>	<b>Set up Marginal Lending on Request</b>	<b>43</b>
2.5.1	Business Process Model	44

2.5.2	<i>Process Overview</i> .....	45
2.5.3	<i>User Requirements</i> .....	45
<b>2.6</b>	<b>Process Automatic Marginal Lending during transition period</b> .....	<b>49</b>
2.6.1	<i>Business Process Model</i> .....	49
2.6.2	<i>Process Overview</i> .....	50
2.6.3	<i>User Requirements</i> .....	50
<b>2.7</b>	<b>Process Automatic Marginal Lending after transition period</b> .....	<b>53</b>
2.7.1	<i>User Requirements</i> .....	54
<b>2.8</b>	<b>Marginal Lending Reimbursement and Interest Calculation during the Transition period</b> .....	<b>57</b>
2.8.1	<i>Business Process Model</i> .....	57
2.8.2	<i>Process Overview</i> .....	59
2.8.3	<i>User Requirements</i> .....	60
<b>2.9</b>	<b>Marginal Lending Reimbursement and Interest Calculation after Transition period</b> .....	<b>62</b>
2.9.1	<i>Business Process Model</i> .....	62
2.9.2	<i>Process Overview</i> .....	62
2.9.3	<i>User Requirements</i> .....	63
<b>2.10</b>	<b>Collect End of Day general ledger files from settlement services</b> .....	<b>65</b>
2.10.1	<i>Business Process Model</i> .....	65
2.10.2	<i>Process Overview</i> .....	67
2.10.3	<i>User Requirements</i> .....	67
<b>2.11</b>	<b>Input Minimum Reserve Requirement</b> .....	<b>70</b>
2.11.1	<i>Business Process Model</i> .....	70
2.11.2	<i>Process Overview</i> .....	72
2.11.3	<i>User Requirements</i> .....	72
<b>2.12</b>	<b>Minimum Reserve and Excess Reserve Management</b> .....	<b>75</b>
2.12.1	<i>Business Process Model</i> .....	75
2.12.2	<i>Process Overview</i> .....	77
2.12.3	<i>User Requirements</i> .....	78
<b>2.13</b>	<b>Contingency Upload of A2A Files and messages in U2A</b> .....	<b>80</b>
2.13.1	<i>Process Overview</i> .....	80
2.13.2	<i>User Requirements</i> .....	81
<b>3</b>	<b>USER INTERACTION</b> .....	<b>82</b>
<b>3.1</b>	<b>General User Requirements for User Interaction</b> .....	<b>82</b>
3.1.1	<i>Query</i> .....	82

3.1.2	Action.....	82
<b>3.2</b>	<b>User Interaction for Central Bank Services .....</b>	<b>83</b>
3.2.1	Query.....	83
3.2.2	Action.....	86
<b>3.3</b>	<b>User Interaction for Central Liquidity Management .....</b>	<b>88</b>
3.3.1	Query.....	88
3.3.2	Action.....	91
<b>4</b>	<b>BUSINESS DATA DEFINITIONS .....</b>	<b>93</b>
4.1	Attributes and Entities .....	93

# 1 CENTRAL LIQUIDITY MANAGEMENT (CLM)

## 1.1 OVERVIEW

### 1.1.1 Context Diagram

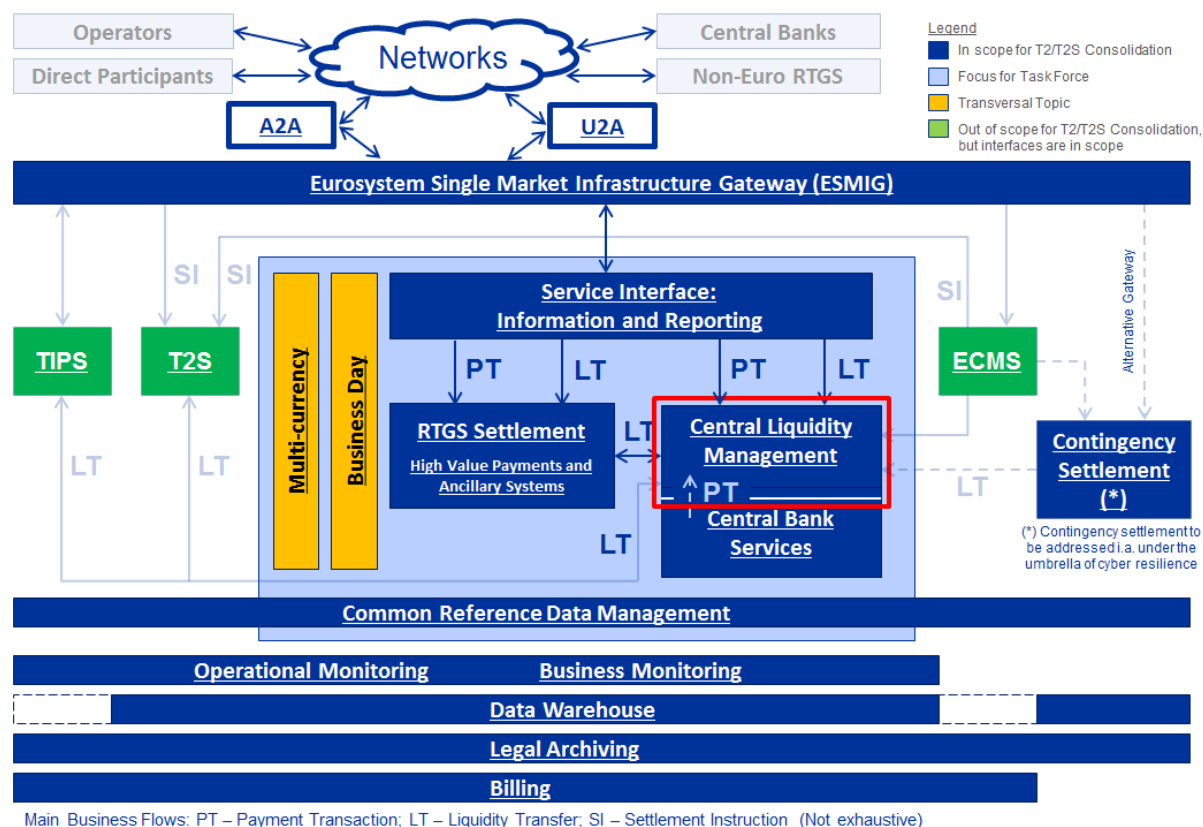


Figure 1: Context diagram for Central Liquidity Management

### 1.1.2 Business Processes

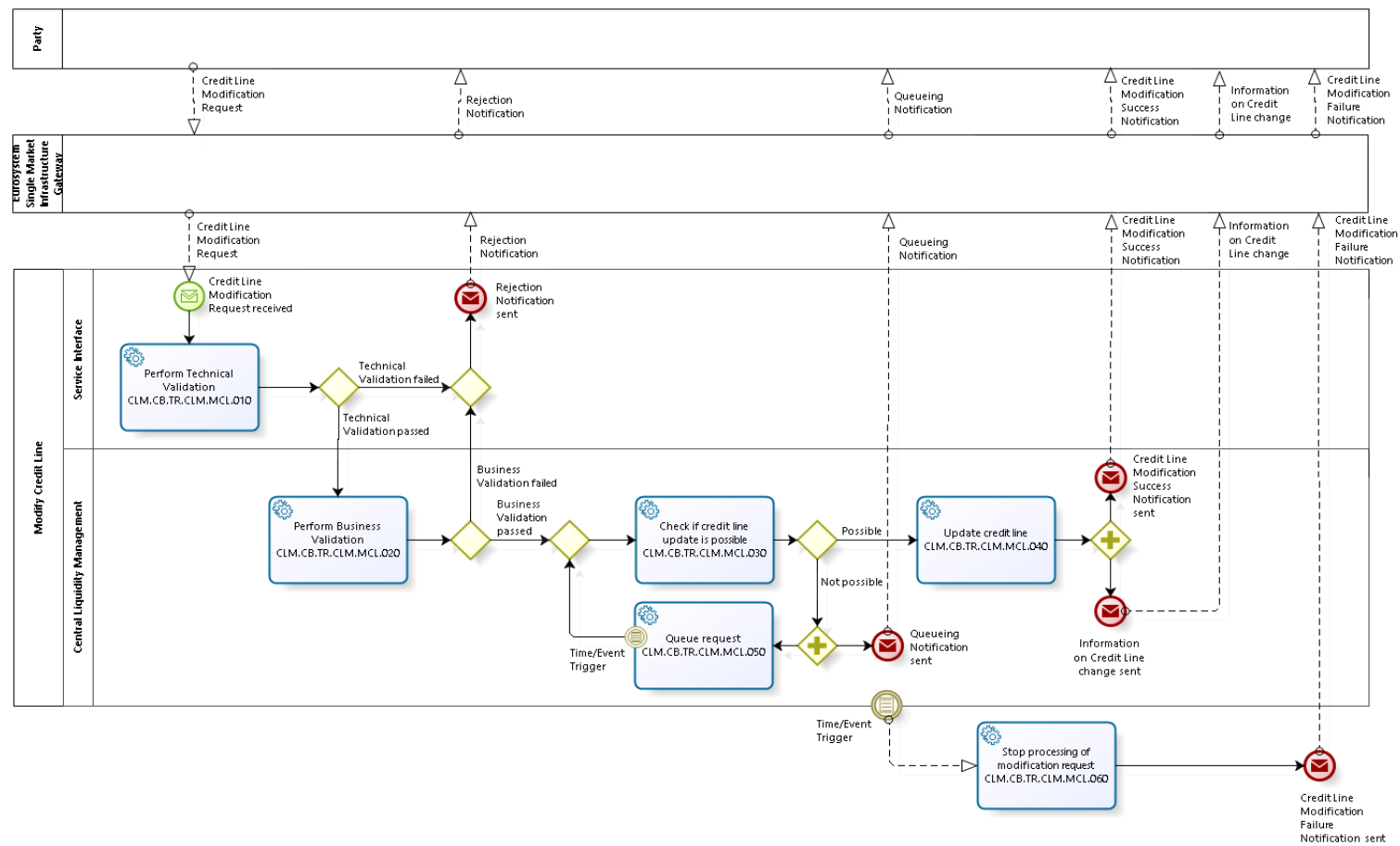
Business Process	BP Reference	Business Process Description
Modify Credit Line	CLM.CB.BP.CLM.MCL	This business process describes how the update of the credit line shall be handled in CLM.
Connected Payment Processing	CLM.CB.BP.CLM.CP	This business process describes how a connected payment order shall be processed within CLM.
Production of CLM End of Day general ledger files	CLM.CB.BP.CLM.GL	This business process describes how the CLM End of Day files for general ledger shall be built and generated.

Table 1: Business Processes for Central Liquidity Management

## 1.2 MODIFY CREDIT LINE

Business Process Ref: CLM.CB.BP.CLM.MCL

### 1.2.1 Business Process Model



## Business Process Model 1: Modify Credit Line

## 1.2.2 Process Overview

### Process goal:

This process describes how the update of the credit line will be handled in CLM. The credit line is the maximum collateralised overdraft position of the balance on the Main Cash Account (MCA) on CLM.

### Process context:

Changes to the credit line shall not be possible between the CB general cut-off for the use of Standing Facilities (i.e. 18:40) and the start of the provisioning of liquidity for the new business day (i.e. 19:00), as well as during the maintenance window.

### Pre-conditions:

The credit line update can only take place if the MCA is active.

### Time constraints:

The CLM opening hours and the CLM Cut-offs shall dictate the opening hours for credit line modification.

### Expected results:

If the credit line modification order is valid, the credit line update shall be executed immediately.

In case of a reduction of a credit line, this change shall have a “pending” status if the reduction would lead to an uncovered overdraft position. The change will be executed when the overdraft position is covered by the reduced credit line.

### Triggers:

Credit line changes can be initiated through:

- ▶ A modification order sent by the instructing collateral management system; or
- ▶ Manual update via U2A screen by the CB in charge.

## 1.2.3 User Requirements

### 1.2.3.1 GENERAL USER REQUIREMENTS FOR MODIFY CREDIT LINE

<b>Id</b>	CLM.CB.UR.CLM.MCL.000.010
<b>Name</b>	Type of credit line updates
<b>Description</b>	CLM shall allow both: <ul style="list-style-type: none"><li>• Fixed amount credit line updates (update contains the new value of the credit line in absolute figure); and</li><li>• Delta amount credit line updates (update contains the delta between the new and the old credit line value).</li></ul>



<b>Id</b>	CLM.CB.UR.CLM.MCL.000.020
<b>Name</b>	Settlement principles for credit line updates
<b>Description</b>	<p>The following principles shall apply for credit line updates:</p> <ul style="list-style-type: none"> <li>• Credit line updates shall be handled with the highest priority. There is therefore no need to indicate a priority in the credit line modification requests;</li> <li>• Whether the credit line update is possible, shall be checked immediately after its submission;</li> <li>• Credit line modification requests may be pending;</li> <li>• Credit line modification requests may be replaced (i.e. processing stopped upon receipt of a new credit line modification request) as long as they are not executed (i.e. they are pending); and</li> <li>• Credit line updates shall be continuously attempted to process whenever new funds are credited to the involved account.</li> </ul>

### 1.2.3.2 PERFORM TECHNICAL VALIDATION

#### Task Ref: CLM.CB.TR.CLM.MCL.010

The credit lines in CLM shall be updated by the CB in charge by sending a credit line modification order from the relevant collateral management system or through a manual update via U2A screen.

At the reception of a credit line modification request, the component interface shall complete technical validation by performing checks such as field level validation (fields have correct data type and size) and for duplicate messages.

<b>Id</b>	CLM.CB.UR.CLM.MCL.010.005
<b>Name</b>	File management
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CLM.MCL.010.010
<b>Name</b>	Check mandatory fields
<b>Description</b>	The component interface shall ensure that all mandatory fields in the message received are populated.

<b>Id</b>	CLM.CB.UR.CLM.MCL.010.020
<b>Name</b>	Perform all possible technical validations
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CLM.MCL.010.030
<b>Name</b>	Processing in case of passed technical validation
<b>Description</b>	In case of a positive result of the technical validation, the order shall be sent to CLM for further processing.

<b>Id</b>	CLM.CB.UR.CLM.MCL.010.040
<b>Name</b>	Processing in case of failed technical validation
<b>Description</b>	In case of 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 instructing collateral management system.  In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).

### 1.2.3.3 PERFORM BUSINESS VALIDATION

#### Task Ref: **CLM.CB.TR.CLM.MCL.020**

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

<b>Id</b>	CLM.CB.UR.CLM.MCL.020.010
<b>Name</b>	Authorisation check
<b>Description</b>	CLM shall check that only authorised collateral management systems or CB operators (in case of manual update) are allowed to send a credit line modification request.

<b>Id</b>	CLM.CB.UR.CLM.MCL.020.020
<b>Name</b>	Business validation of the values
<b>Description</b>	CLM shall check that all provided values are valid according to predefined values or cross-field validations.  As of ECMS launch, there is a need to do a value date check. CLM shall check that the value date specified in the credit line modification request matches with the current business day.

<b>Id</b>	CLM.CB.UR.CLM.MCL.020.030
<b>Name</b>	Processing in case of failed business validation
<b>Description</b>	<p>In case of 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 instructing collateral management system.</p> <p>In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).</p>

#### 1.2.3.4 CHECK IF CREDIT LINE UPDATE IS POSSIBLE

##### Task Ref: **CLM.CB.TR.CLM.MCL.030**

In case of a positive result of the business validation of the credit line modification request, CLM shall check if the credit line update is possible.

<b>Id</b>	CLM.CB.UR.CLM.MCL.030.010
<b>Name</b>	Check for pending credit line modification request
<b>Description</b>	<p>When a credit line modification request (for a credit line decrease) is pending for a fixed amount, CLM shall reject this pending instruction in case it receives a new credit line modification request (fixed or delta).</p> <p>It shall be possible to have several credit line modification requests for delta amounts pending in parallel, but all pending credit line modification requests for delta amounts for one account shall be rejected if a fixed amount request is submitted.</p>

<b>Id</b>	CLM.CB.UR.CLM.MCL.030.020
<b>Name</b>	Processing of credit line decrease
<b>Description</b>	If a credit line is in use, requests to decrease the credit line shall remain pending in the event of insufficient available liquidity to cover the change in the credit line.

<b>Id</b>	CLM.CB.UR.CLM.MCL.030.030
<b>Name</b>	Inform about pending status
<b>Description</b>	<p>CLM shall inform the instructing collateral management system about the pending status of the credit line modification requests.</p> <p>In case of a manual update of the credit line via the U2A screen, the notification shall be displayed directly on the screen.</p>

### 1.2.3.5 UPDATE CREDIT LINE

#### Task Ref: CLM.CB.TR.CLM.MCL.040

If the update of the credit line is possible, CLM shall perform the update of the credit line and inform the instructing collateral management system about the positive result of the update.

<b>Id</b>	CLM.CB.UR.CLM.MCL.040.010
<b>Name</b>	Execution of credit line update
<b>Description</b>	Updates of credit lines shall be executed immediately and the credit line shall be processed according to the update type indicated in the request, i.e. fixed amount or delta amount.

<b>Id</b>	CLM.CB.UR.CLM.MCL.040.020
<b>Name</b>	Priority of credit line modification request
<b>Description</b>	If the update of the credit line is not possible, the request shall be queued. A pending reduction of credit line should block all upcoming debits if the liquidity on the account is not sufficient.

<b>Id</b>	CLM.CB.UR.CLM.MCL.040.030
<b>Name</b>	Update notification
<b>Description</b>	<p>A notification of execution shall be sent to the instructing collateral management system.</p> <p>In case of a manual input via the U2A screen, the notification shall be displayed directly on the screen.</p> <p>Moreover, CLM account holders shall be able to get information about their credit line changes (U2A and A2A).</p>

### 1.2.3.6 QUEUE REQUEST

#### Task Ref: CLM.CB.TR.CLM.MCL.050

If the update of the credit line is not possible, CLM shall queue the credit line modification request.

<b>Id</b>	CLM.CB.UR.CLM.MCL.050.010
<b>Name</b>	Processing of a pending credit line modification request
<b>Description</b>	There shall be continuous attempts to process queued credit line modification requests whenever new funds are credited to the involved account.

<b>Id</b>	CLM.CB.UR.CLM.MCL.050.020
<b>Name</b>	Automatic trigger of liquidity transfer between RTGS DCA and MCA
<b>Description</b>	<p>In case there is insufficient liquidity on the CLM account holder's MCA to settle a credit line modification request, CLM shall automatically trigger an inter-service liquidity transfer order with the missing amount from the CLM account holder's RTGS DCA defined for payments to the same CLM account holder's MCA. The respective automated liquidity transfer order shall be placed on top of the queue of all pending payment orders and liquidity transfer orders on the RTGS DCA.</p> <p>If only a partial settlement of the automated liquidity transfer order is possible, then CLM shall execute the liquidity transfer order in the amount as confirmed by RTGS. RTGS shall create a new automated liquidity transfer order for the remaining part that shall be queued in RTGS until it can be entirely processed.</p> <p>If the pending credit line decrease can be fully settled with the incoming liquidity stemming from other sources than the inter-service liquidity transfer order previously automatically triggered, CLM shall revoke the pending inter-service liquidity transfer order towards RTGS.</p> <p>Any change in the liquidity required to process a pending credit line decrease 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.</p> <p>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.</p>

### 1.2.3.7 STOP PROCESSING OF MODIFICATION REQUEST

**Task Ref: CLM.CB.TR.CLM.MCL.060**

<b>Id</b>	CLM.CB.UR.CLM.MCL.060.010
<b>Name</b>	Rejection of a pending credit line modification request for a fixed amount
<b>Description</b>	<p>A pending credit line modification request for a fixed amount shall be automatically rejected by CLM in case it:</p> <ul style="list-style-type: none"> <li>• Receives a new credit line modification request (fixed or delta); or</li> <li>• Is still pending by the start of End of Day processing.</li> </ul>

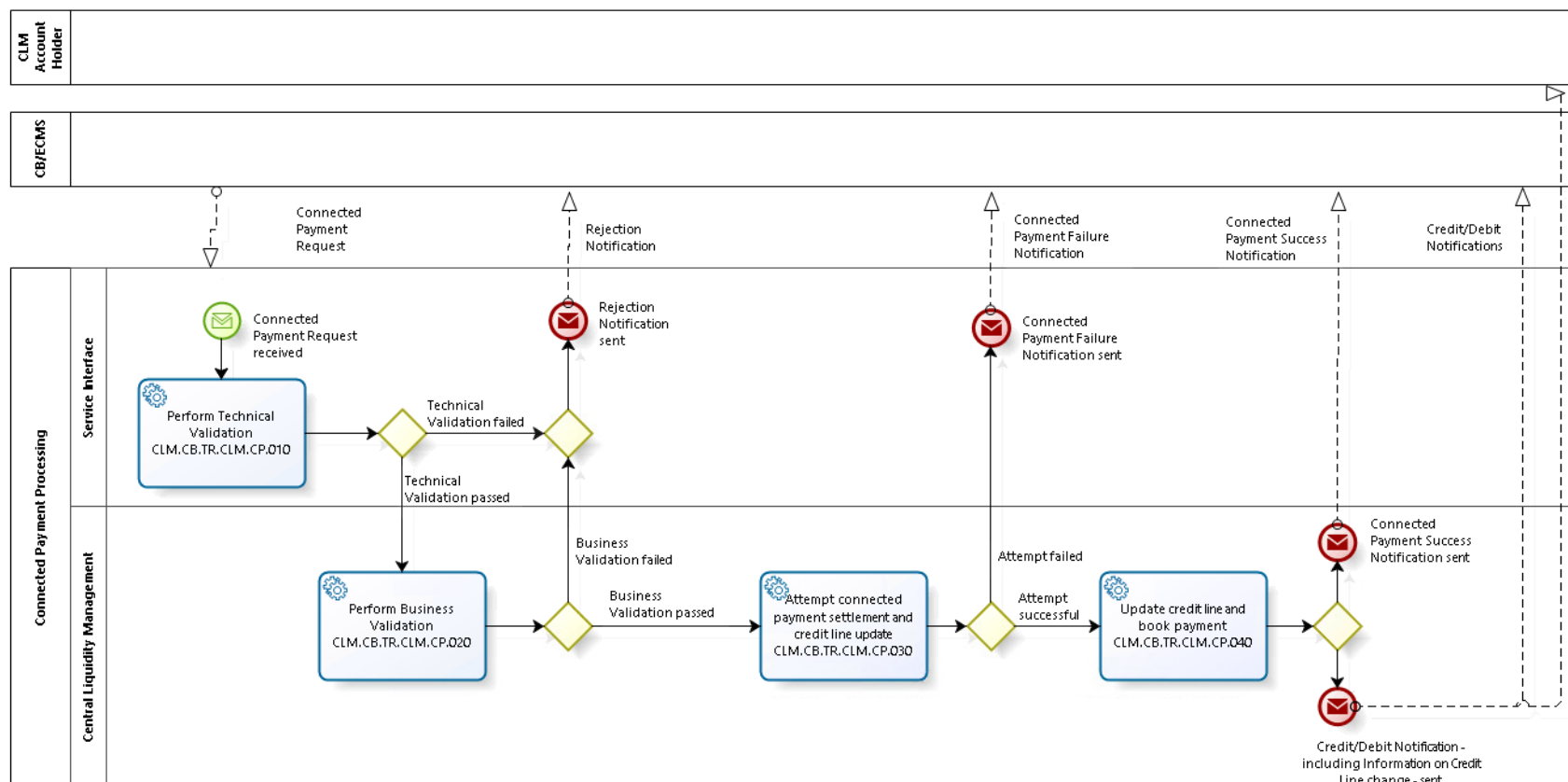
<b>Id</b>	CLM.CB.UR.CLM.MCL.060.020
<b>Name</b>	Rejection of a pending credit line modification request for a delta amount
<b>Description</b>	<p>A pending credit line modification request for a delta amount shall be automatically rejected by CLM in case it:</p> <ul style="list-style-type: none"> <li>• Receives a new credit line modification request (only fixed); or</li> <li>• Is still pending by the start of End of Day processing.</li> </ul>

<b>Id</b>	CLM.CB.UR.CLM.MCL.060.030
<b>Name</b>	Rejection notification
<b>Description</b>	<p>A notification message per rejected request shall be sent to the instructing collateral management system (as of the go-live of ECMS) with the relevant error code(s).</p> <p>In case of a manual update via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).</p>

### 1.3 CONNECTED PAYMENT PROCESSING

Business Process Ref: CLM.CB.BP.CLM.CP

#### 1.3.1 Business Process Model



---

## Business Process Model 2: Connected Payment Processing



### 1.3.2 Process Overview

#### Process goal:

This process describes how a connected payment order (i.e. payment orders that trigger a change in the credit line of this CLM account holder and an immediate debit/credit of its account to compensate the change in this credit line) shall be processed within CLM.

#### Pre-conditions:

A Party involved in a connected payment order with its CB needs to be a CLM account holder and have an MCA.

#### Time constraints:

The processing of connected payment orders shall not be possible between the CB general cut-off for the use of Standing Facilities (i.e. 18:40) and the start of the provisioning of liquidity for the new business day (i.e. 19:00), as well as during the maintenance window.

#### Expected results:

The connected payment order shall lead to the increase/decrease of a CLM account holder's credit line at the same time as a payment order is executed between the CLM account holder's MCA and a CB account. The connected payment order should be processed "all or nothing" - either both the credit line update and the payment order are executed or none of the two.

#### Triggers:

Connected payment orders can be initiated by a connected payment request sent by the respective CB system or triggered by ECMS.

### 1.3.3 User Requirements

#### 1.3.3.1 GENERAL USER REQUIREMENTS FOR CONNECTED PAYMENT ORDER PROCESSING

<b>Id</b>	CLM.CB.UR.CLM.CP.000.010
<b>Name</b>	Settlement principles for connected payment orders
<b>Description</b>	<p>The following principles shall apply for connected payment orders:</p> <ul style="list-style-type: none"><li>• Connected payment orders shall be handled with the highest priority;</li><li>• Attempt to settle connected payment order immediately after its submission;</li><li>• Two different connected payment order settlement scenarios are possible:<ul style="list-style-type: none"><li>- full and</li><li>- no execution (i.e. no queuing);</li></ul></li><li>• The connected payment order should be processed "all or nothing" - either both the credit line update and the payment order are executed or none of the two; and</li><li>• Connected payment orders cannot be revoked as there is no queuing.</li></ul>

### 1.3.3.2 PERFORM TECHNICAL VALIDATION

#### Task Ref: CLM.CB.TR.CLM.CP.010

At the reception of a connected payment request, 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.

<b>Id</b>	CLM.CB.UR.CLM.CP.010.005
<b>Name</b>	File management
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CLM.CP.010.010
<b>Name</b>	Check mandatory fields
<b>Description</b>	The component interface shall ensure that all mandatory fields in the message received are populated.

<b>Id</b>	CLM.CB.UR.CLM.CP.010.020
<b>Name</b>	Check for duplicate message
<b>Description</b>	The component interface shall ensure that the same message has not already been received.

<b>Id</b>	CLM.CB.UR.CLM.CP.010.030
<b>Name</b>	Perform all possible technical validations
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CLM.CP.010.040
<b>Name</b>	Processing in case of passed technical validation
<b>Description</b>	In case of a positive result of the technical validation, the order shall be sent to CLM for further processing.

<b>Id</b>	CLM.CB.UR.CLM.CP.010.050
<b>Name</b>	Processing in case of failed technical validation
<b>Description</b>	In case of a negative result of the technical validation, the request shall be rejected and a notification with the appropriate error code(s) shall be sent to the instructing CB system.

### 1.3.3.3 PERFORM BUSINESS VALIDATION

#### Task Ref: **CLM.CB.TR.CLM.CP.020**

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

<b>Id</b>	CLM.CB.UR.CLM.CP.020.010
<b>Name</b>	Authorisation check
<b>Description</b>	CLM shall check that the instructing CB system is allowed to instruct a connected payment order on the relevant CLM account holder's MCA.

<b>Id</b>	CLM.CB.UR.CLM.CP.020.020
<b>Name</b>	Business validation of the values
<b>Description</b>	CLM shall check that all provided values are valid according to predefined values or cross-field validations.

<b>Id</b>	CLM.CB.UR.CLM.CP.020.030
<b>Name</b>	Account check
<b>Description</b>	CLM shall check that the MCA and the CB 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 of the MCA is not blocked at Party level.

<b>Id</b>	CLM.CB.UR.CLM.CP.020.040
<b>Name</b>	Processing in case of failed business validation
<b>Description</b>	In case of 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 instructing CB system.

#### 1.3.3.4 ATTEMPT CONNECTED PAYMENT SETTLEMENT AND CREDIT LINE UPDATE

##### Task Ref: CLM.CB.TR.CLM.CP.030

In case of a positive result of the business validation checks, CLM shall check whether the concurrent booking of the payment order and the credit line update are feasible. Two different scenarios are possible: full and no execution.

Id	CLM.CB.UR.CLM.CP.030.010
Name	Principles for the processing of a connected payment order
Description	<p>CLM shall apply the following principles when checking if the processing of a connected payment order is feasible:</p> <ul style="list-style-type: none"> <li>• The successful booking of the payment order shall take place concurrently with the update of the credit line;</li> <li>• The credit line part of the connected payment request is treated equally to a delta amount credit line modification request;</li> <li>• A connected payment order shall never be queued; in case of insufficient available liquidity on MCA, this payment order shall immediately be rejected; and</li> <li>• If a connected payment is settled, any already pending fixed amount credit line modification is rejected;</li> <li>• CLM shall reject connected payment requests immediately if they <ul style="list-style-type: none"> <li>- cannot settle due to lack of available liquidity on MCA; and</li> <li>- would decrease the liquidity on MCA, but there are already pending delta amount credit line modification requests for the same MCA.</li> </ul> </li> </ul>

Id	CLM.CB.UR.CLM.CP.030.020
Name	Send rejection notification
Description	In case of rejection of the connected payment order, CLM shall send a notification to the instructing CB system with the relevant error code(s).

#### 1.3.3.5 UPDATE CREDIT LINE AND BOOK PAYMENT

##### Task Ref: CLM.CB.TR.CLM.CP.040

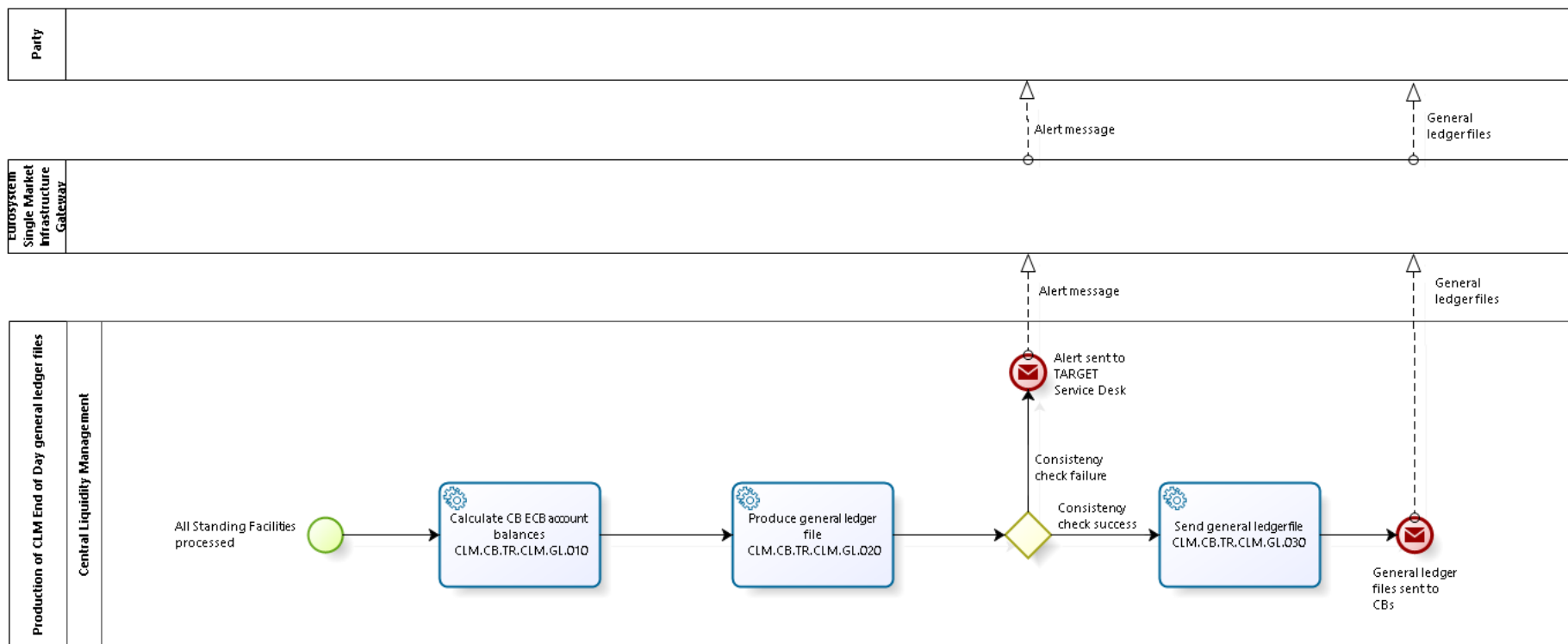
Id	CLM.CB.UR.CLM.CP.040.010
Name	Booking of payment order and credit line update
Description	<p>If the settlement of the connected payment order is possible, CLM shall:</p> <ul style="list-style-type: none"> <li>• Book the payment order (by debiting the CLM account holder's MCA and crediting the CB account) and simultaneously increase the credit line by the amounts indicated in the connected payment order; or</li> <li>• Book the payment order (by crediting the CLM account holder's MCA and debiting the CB account) and simultaneously decrease the credit line by the amounts indicated in the connected payment order.</li> <li>• Reject any fixed pending credit line modifications.</li> </ul> <p>The payment order amount may differ from the credit line update amount.</p>

<b>Id</b>	CLM.CB.UR.CLM.CP.040.020
<b>Name</b>	Send confirmation notification
<b>Description</b>	<p>Once the payment order is settled and the credit line is updated, CLM shall send a notification to the instructing CB system. If the instructing party is not the CB account holder, the CB account holder shall receive a notification based on message subscription.</p> <p>Moreover, CLM account holders shall be able to get information about their credit line changes (U2A and A2A).</p>

## 1.4 PRODUCTION OF CLM END OF DAY GENERAL LEDGER FILES

Business Process Ref: CLM.CB.BP.CLM.GL

### 1.4.1 Business Process Model



Business Process Model 3: Production of CLM End of Day general ledger files

## 1.4.2 Process Overview

### Process goal:

This process describes how the CLM End of Day general ledger files shall be produced.

### Pre-conditions:

CBS has received the End of Day general ledger files from other settlement services (e.g. RTGS, T2S, TIPS). See section 2.8 on Collect End of Day general ledger files from settlement services in this User Requirements Document for business process CLM.CB.BP.CBS.CEODB.

### Time constraints:

The CLM general ledger files shall be produced during the End of Day processing after the settlement of Standing Facilities.

### Expected results:

After preparing the CLM general ledger files, CLM shall forward them to CBS that will then send all general ledger files to the respective CBs.

### Triggers:

The production of the CLM general ledger file shall be triggered once all the End of Day general ledger files have been received from the other settlement services.

## 1.4.3 User Requirements

### 1.4.3.1 CALCULATE CB ECB ACCOUNT BALANCES

#### Task Ref: **CLM.CB.TR.CLM.GL.010**

Once all End of Day general ledger files have been received from the other settlement services, CLM shall start to calculate the CB ECB account balances.

<b>Id</b>	CLM.CB.UR.CLM.GL.010.010
<b>Name</b>	Calculate CB ECB account balances
<b>Description</b>	Based on the End of Day general ledger files from other settlement services received by CBS, CLM shall calculate for each CB the starting and End of Day balance of the CB's ECB account.

### 1.4.3.2 PRODUCE GENERAL LEDGER FILE

#### Task Ref: **CLM.CB.TR.CLM.GL.020**

Once the CB ECB account balances have been calculated, CLM shall produce the CLM general ledger files.

<b>Id</b>	CLM.CB.UR.CLM.GL.020.010
<b>Name</b>	Number of CLM general ledger files to be produced
<b>Description</b>	CLM shall produce one general ledger file per CB that shall include for each

	<p>CB:</p> <ul style="list-style-type: none"> <li>Starting and End of Day balance of the CB's ECB account;</li> <li>Starting and End of Day balance of the accounts in CLM; and</li> <li>Turnover on accounts in CLM.</li> </ul>
<b>Id</b>	CLM.CB.UR.CLM.GL.020.020
<b>Name</b>	Consistency checks
<b>Description</b>	<p>CLM shall perform consistency checks for each general ledger file:</p> <ul style="list-style-type: none"> <li>Dedicated Transit Accounts check between the various settlement services;</li> <li>Single balance checks per account: Each published balance at the end of the day is checked by adding up the account turnovers with the balance at the start of the day per each published account; and</li> <li>Final balance check of all accounts of the responsible CB: All published End of Day balances shall be added up. The result must be zero.</li> </ul> <p>In case of an error, the End of Day processing and the transmittance of the general ledger files to CBS shall be stopped. An alert message shall be sent to the TARGET Service Desk and the account holder of the Dedicated Transit Accounts.</p>

#### 1.4.3.3 SEND GENERAL LEDGER FILE

##### **Task Ref: CLM.CB.TR.CLM.GL.030**

Once the general ledger files have been produced, CLM shall send them to CBS for further processing.

<b>Id</b>	CLM.CB.UR.CLM.GL.030.010
<b>Name</b>	Format of the file to be sent to CBS
<b>Description</b>	The format to be used shall be a structured ISO message (not a flat file in a XML envelope).



## 2 CENTRAL BANK SERVICES (CBS)

### 2.1 OVERVIEW

#### 2.1.1 Context Diagram

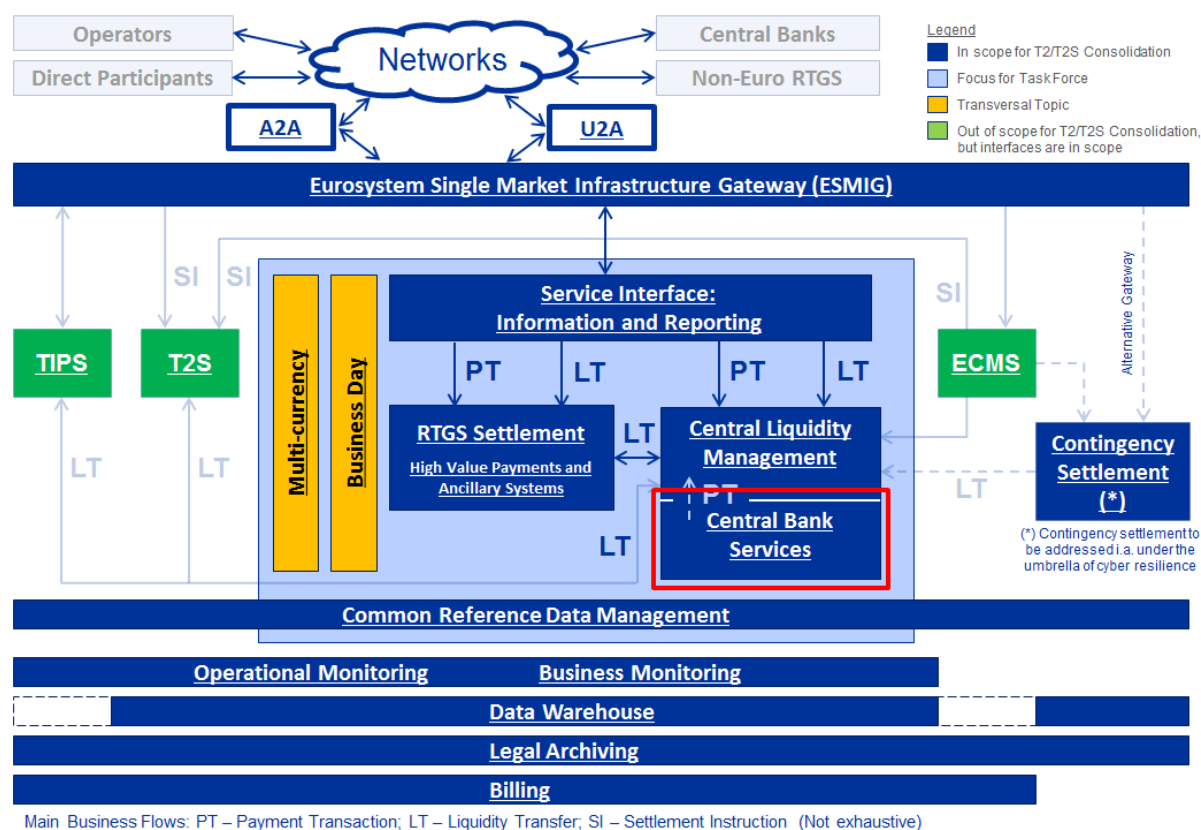


Figure 2: Context diagram for Central Bank Services

## 2.1.2 Business Processes

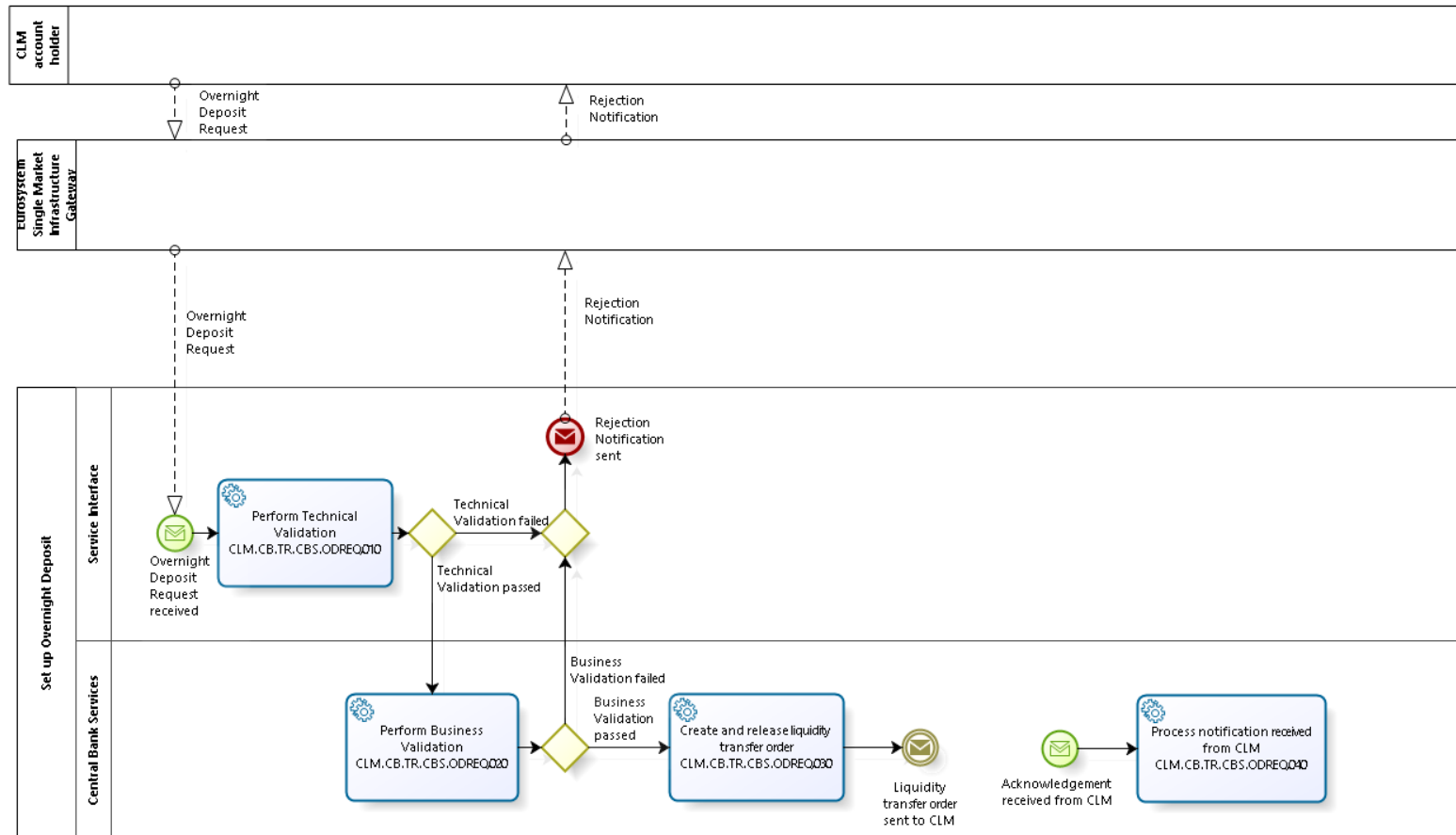
Business Process	BP Reference	Business Process Description
Set up Overnight Deposit	CLM.CB.BP.CBS.ODREQ	This business process describes how the setup of an overnight deposit shall be processed within CBS.
Overnight Deposit Reverse Transaction	CLM.CB.BP.CBS.ODREV	This business process describes how the reverse of an overnight deposit shall be processed within CBS.
Overnight Deposit Reimbursement and Interest Calculation	CLM.CB.BP.CBS.ODRIC	This business process describes how the refunding and the interest calculation linked to an overnight deposit shall be processed within CBS.
Set up Marginal Lending on Request	CLM.CB.BP.CBS.MLREQ	This business process describes how the setup of a marginal lending on request shall be processed within CBS.
Process Automatic Marginal Lending	CLM.CB.BP.CBS.MLAUTO	This business process describes how CBS shall initiate and process an automatic marginal lending.
Marginal Lending Reimbursement and Interest Calculation during transition period	CLM.CB.BP.CBS.MLRIC	This business process describes how the reimbursement and the interest calculation linked to a marginal lending on request and automatic marginal lending shall be processed within CBS during transition period.
Marginal Lending Reimbursement and Interest Calculation after transition period	CLM.CB.BP.CBS.MLRIC.ECMS	This business process describes how the reimbursement and the interest calculation linked to a marginal lending on request and automatic marginal lending shall be processed within CBS after transition period.
Collect End of Day general ledger files from settlement services	CLM.CB.BP.CBS.CEODB	This business process describes how CBS shall collect the End of Day general ledger files from the settlement services.
Input Minimum Reserve Requirement	CLM.CB.BP.CBS.IMRR	This business process describes how CBS shall process the minimum reserve requirement input by the CBs.
Minimum Reserve and Excess Reserve Management	CLM.CB.BP.CBS.MRERM	This business process describes how CBS shall perform some functionality for the minimum and excess reserve requirements management.

Table 2: Business Processes for Central Bank Services

## 2.2 SET UP OVERNIGHT DEPOSIT

Business Process Ref: CLM.CB.BP.CBS.ODREQ

### 2.2.1 Business Process Model



Business Process Model 4: Set up Overnight Deposit

## 2.2.2 Process Overview

### Process goal:

This process describes how the setup of an overnight deposit shall be processed within CBS.

### Process context:

CLM account holders can use the deposit facility to make overnight deposits with their national CBs.

As to the overnight deposit, CLM account holders shall be able to transfer liquidity from their MCA or via interservice liquidity transfer to the relevant overnight deposit account. It shall also be possible to activate the reverse transaction in order to reduce the amount deposited in the overnight deposit account before the deadline for the usage of Standing Facilities. CBS shall then calculate the interest to be paid on the overnight deposit and, at the start of the next business day, return automatically the capital amount and the interest to CLM. In case of a negative interest rate, CBS shall calculate the interest to be paid by the CLM account holders on the overnight deposit and, at the start of the next business day, return automatically the capital amount to CLM and debit the interest to be charged from the CLM account holder's MCA.

### Pre-conditions:

A Party wishing to initiate an overnight deposit needs to:

- ▶ Be a CLM account holder;
- ▶ Be eligible to the overnight deposit facility; and
- ▶ Have an MCA in CLM.

There is a need for dedicated overnight deposit account(s) to be set up in the CLM.

### Time constraints:

It shall be possible for CLM account holders to set up an overnight deposit from the opening time of CLM (i.e. 19:00 and after overnight deposit and marginal lending reimbursement and interest calculation) until the general cut-off for the use of Standing Facilities (i.e. 18:15 with additional fifteen minutes on the last day of the reserve maintenance period) with the exception of the maintenance window.

### Expected results:

The setup of an overnight deposit shall lead to the transfer of liquidity from the CLM account holder's MCA to an overnight deposit account. Setup is also possible through an inter-service liquidity transfer crediting an overnight deposit account.

### Triggers:

The setup of an overnight deposit can be initiated through:

- ▶ An overnight deposit request sent by the CLM account holder in A2A; or
- ▶ Manual input via U2A screen by the CLM account holder (or CB operator acting on behalf of the CLM account holder).
- ▶ An inter-service liquidity transfer crediting an overnight deposit account.

## 2.2.3 User Requirements

### 2.2.3.1 GENERAL USER REQUIREMENTS FOR SET UP OF OVERNIGHT DEPOSIT

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.000.010
<b>Name</b>	Settlement principles for the liquidity transfer orders linked to overnight deposits
<b>Description</b>	<p>The following principles shall apply for the processing of liquidity transfer orders linked to overnight deposits:</p> <ul style="list-style-type: none"> <li>• Attempt to settle liquidity transfer order immediately after its submission;</li> <li>• Liquidity transfer orders are either settled completely or rejected (no partial settlement); and</li> <li>• Liquidity transfer orders cannot be queued nor revoked.</li> </ul>

### 2.2.3.2 PERFORM TECHNICAL VALIDATION

#### Task Ref: **CLM.CB.TR.CBS.ODREQ.010**

At the reception of an overnight deposit request, 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.

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.010.005
<b>Name</b>	File management
<b>Description</b>	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.
<b>Id</b>	CLM.CB.UR.CBS.ODREQ.010.010
<b>Name</b>	Check mandatory fields
<b>Description</b>	The component interface shall ensure that all mandatory fields in the message received are populated.
<b>Id</b>	CLM.CB.UR.CBS.ODREQ.010.020
<b>Name</b>	Check for duplicate message
<b>Description</b>	The component interface shall ensure that the same message has not already been received.

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.010.030
<b>Name</b>	Perform all possible technical validations
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.010.040
<b>Name</b>	Processing in case of passed technical validation
<b>Description</b>	In case of a positive result of the technical validation, the request shall be sent to CBS for further processing.

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.010.050
<b>Name</b>	Processing in case of failed technical validation
<b>Description</b>	In case of a negative result of the technical validation, the request shall be rejected and a notification with the appropriate error code(s) shall be sent to the CLM account holder.  In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).

### 2.2.3.3 PERFORM BUSINESS VALIDATION

#### Task Ref: **CLM.CB.TR.CBS.ODREQ.020**

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

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.020.010
<b>Name</b>	Authorisation check
<b>Description</b>	CBS shall check that only authorised users of the CLM account holder are allowed to send an overnight deposit order for the relevant credit institution.

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.020.020
<b>Name</b>	Business validation of the values
<b>Description</b>	CBS shall check that all provided values are valid according to predefined values or cross-field validations.

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.020.030
<b>Name</b>	Account check
<b>Description</b>	CBS shall check that the MCA and the overnight deposit account mentioned in the overnight deposit request exist and are active for settlement in the relevant currency. Moreover, CBS shall also check that the CLM account holder of the MCA is not blocked at Party level.

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.020.040
<b>Name</b>	Processing in case of failed business validation
<b>Description</b>	In case of a negative result of the business validation, the request shall be rejected and a notification with the appropriate error code(s) shall be sent to the CLM account holder.  In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).

#### 2.2.3.4 CREATE AND RELEASE LIQUIDITY TRANSFER ORDER

##### Task Ref: CLM.CB.TR.CBS.ODREQ.030

In case of a positive result of the business validation checks of the overnight deposit request, CBS shall create a liquidity transfer order and transfer it to CLM for further processing.

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.030.010
<b>Name</b>	Create and release liquidity transfer order
<b>Description</b>	Once the overnight deposit request has successfully passed the business validation checks, CBS shall create and release to CLM a liquidity transfer order to transfer the amount indicated in the request from the CLM account holder's MCA to the relevant overnight deposit account.

#### 2.2.3.5 PROCESS NOTIFICATION RECEIVED FROM CLM

##### Task Ref: CLM.CB.TR.CBS.ODREQ.040

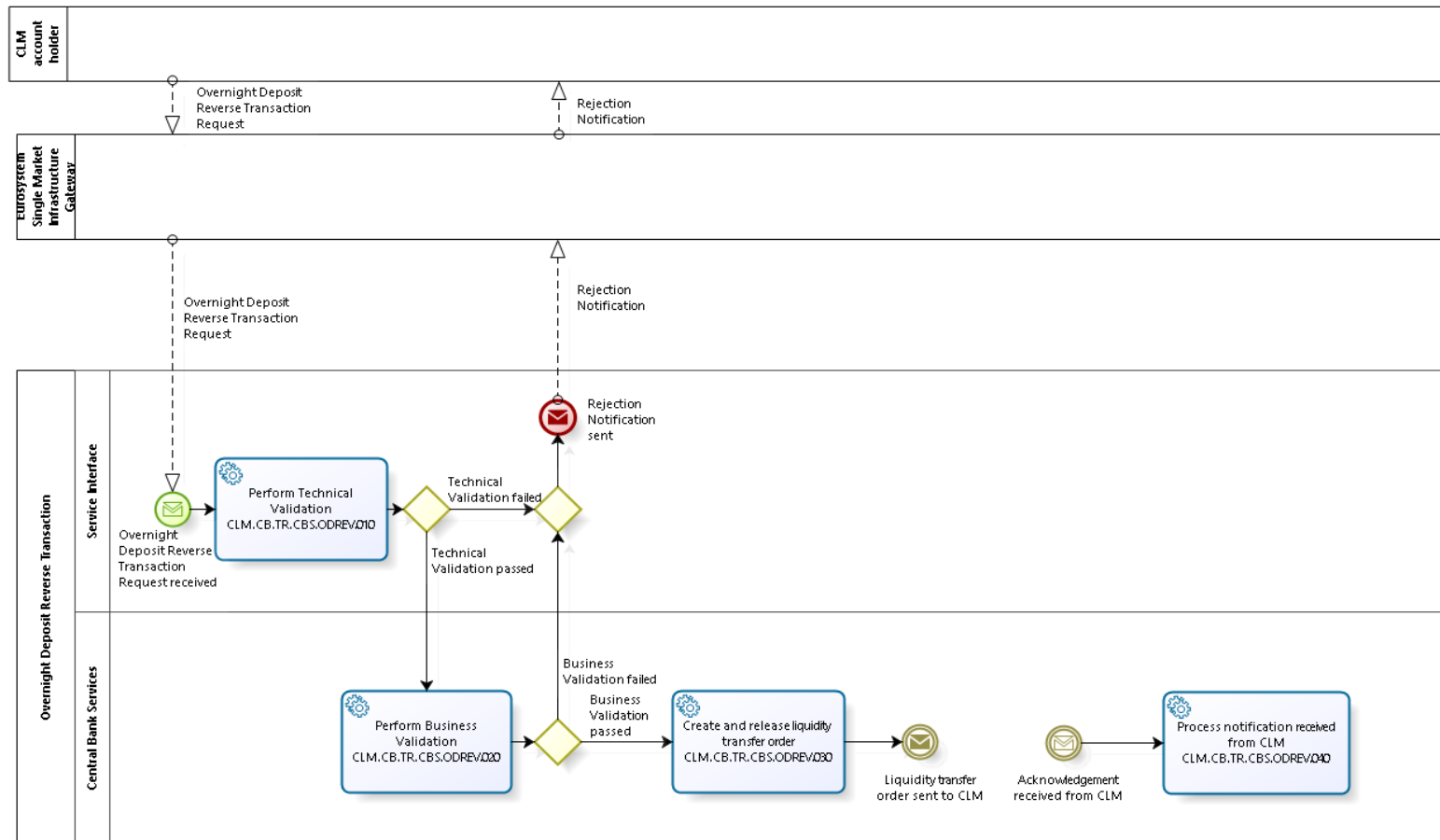
At the reception of the liquidity transfer order sent by CBS, CLM shall process it. The processing of the liquidity transfer order in CLM is described in section 1.4 on Process intra-service liquidity transfer order in the User Requirements Document for CLM for the business process CLM.BP.CLM.ISLT. Once processed, CLM shall send an acknowledgement to CBS.

<b>Id</b>	CLM.CB.UR.CBS.ODREQ.040.010
<b>Name</b>	Process notification received from CLM
<b>Description</b>	At the reception of the acknowledgement from CLM, CBS shall process it.

## 2.3 OVERNIGHT DEPOSIT REVERSE TRANSACTION

Business Process Ref: CLM.CB.BP.CBS.ODREV

### 2.3.1 Business Process Model





---

## Business Process Model 5: Overnight Deposit Reverse Transaction

### 2.3.2 Process Overview

#### Process goal:

This process describes how the reverse of an overnight deposit shall be processed within CBS.

#### Process context:

Once the CLM account holder has set up an overnight deposit order, it shall be possible for the CLM account holder (before the deadline for the usage of Standing Facilities) to activate the reverse transaction in order to reduce the amount deposited in the overnight deposit account.

#### Pre-conditions:

A Party wishing to initiate a reverse overnight deposit needs to:

- ▶ Be a CLM account holder;
- ▶ Be eligible to the overnight deposit facility; and
- ▶ Have a MCA in CLM.

There is also a need for a dedicated overnight deposit account to be set up in CLM.

An overnight deposit for that business day has been previously set up.

#### Time constraints:

It shall be possible for CLM account holders to reverse an overnight deposit from the opening time of CLM (i.e. 19:00 and after overnight deposit and marginal lending reimbursement and interest calculation) until the general cut-off for the use of Standing Facilities (i.e. 18:15 with additional fifteen minutes in the last day of the reserve maintenance period) with the exception of the maintenance window.

#### Expected results:

The reverse transaction shall lead to the transfer of liquidity from the overnight deposit account to the CLM account holder's MCA in the CLM.

#### Triggers:

The reverse overnight deposit order can be initiated through:

- ▶ A reverse overnight deposit request sent by the CLM account holder in A2A; or
- ▶ Manual input via U2A screen by the CLM account holder (or CB operator on behalf of the CLM account holder).

## 2.3.3 User Requirements

### 2.3.3.1 GENERAL USER REQUIREMENTS FOR OVERNIGHT DEPOSIT REVERSE TRANSACTION

<b>Id</b>	CLM.CB.UR.CBS.ODREV.000.010
<b>Name</b>	Settlement principles for the liquidity transfer orders linked to reverse overnight deposit transaction
<b>Description</b>	The principles described in CLM.CB.UR.CBS.ODREQ.000.010 (Settlement principles for the liquidity transfer orders linked to overnight deposits) shall also apply for the processing of a reverse overnight deposit transaction.

### 2.3.3.2 PERFORM TECHNICAL VALIDATION

#### Task Ref: **CLM.CB.TR.CBS.ODREV.010**

At the reception of a reverse overnight deposit request, 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.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.010.005
<b>Name</b>	File management
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.010.010
<b>Name</b>	Check mandatory fields
<b>Description</b>	The component interface shall ensure that all mandatory fields in the message received are populated.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.010.020
<b>Name</b>	Check for duplicate message
<b>Description</b>	The component interface shall ensure that the same message has not already been received.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.010.030
<b>Name</b>	Perform all possible technical validations
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.010.040
<b>Name</b>	Processing in case of passed technical validation
<b>Description</b>	In case of a positive result of the technical validation, the request shall be sent to CBS for further processing.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.010.050
<b>Name</b>	Processing in case of failed technical validation
<b>Description</b>	In case of a negative result of the technical validation, the request shall be rejected and a notification with the appropriate error code(s) shall be sent to the CLM account holder.  In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).

### 2.3.3.3 PERFORM BUSINESS VALIDATION

#### Task Ref: **CLM.CB.TR.CBS.ODREV.020**

In case of a positive result of the technical validation of the reverse overnight deposit order, CBS shall validate the message received against the reference data and perform additional checks/validations.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.020.010
<b>Name</b>	Authorisation check
<b>Description</b>	CBS shall check that only authorised users of the CLM account holder are allowed to send a reverse overnight deposit request for the relevant CLM account holder.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.020.020
<b>Name</b>	Business validation of the values
<b>Description</b>	CBS shall check that all provided values are valid according to predefined values or cross-field validations.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.020.030
<b>Name</b>	Account check
<b>Description</b>	CBS shall check that the MCA and the overnight deposit account mentioned in the reverse overnight deposit request exist and are active for settlement in the relevant currency. Moreover, CBS shall also check that the CLM account holder of the MCA is not blocked at Party level.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.020.040
<b>Name</b>	Processing in case of failed business validation
<b>Description</b>	In case of a negative result of the business validation, the request shall be rejected and a notification with the appropriate error code(s) shall be sent to the CLM account holder.  In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).

#### 2.3.3.4 CREATE AND RELEASE LIQUIDITY TRANSFER ORDER

##### **Task Ref: CLM.CB.TR.CBS.ODREV.030**

In case of a positive result of the business validation checks of the reverse overnight deposit request, CBS shall create a liquidity transfer order and transfer it to CLM for further processing.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.030.010
<b>Name</b>	Create and release liquidity transfer order
<b>Description</b>	Once the reverse overnight deposit request has successfully passed the business validation checks, CBS shall create and release to CLM a liquidity transfer order to transfer the amount indicated in the request from the relevant overnight deposit account to the CLM account holder's MCA.

#### 2.3.3.5 PROCESS NOTIFICATION RECEIVED FROM CLM

##### **Task Ref: CLM.CB.TR.CBS.ODREV.040**

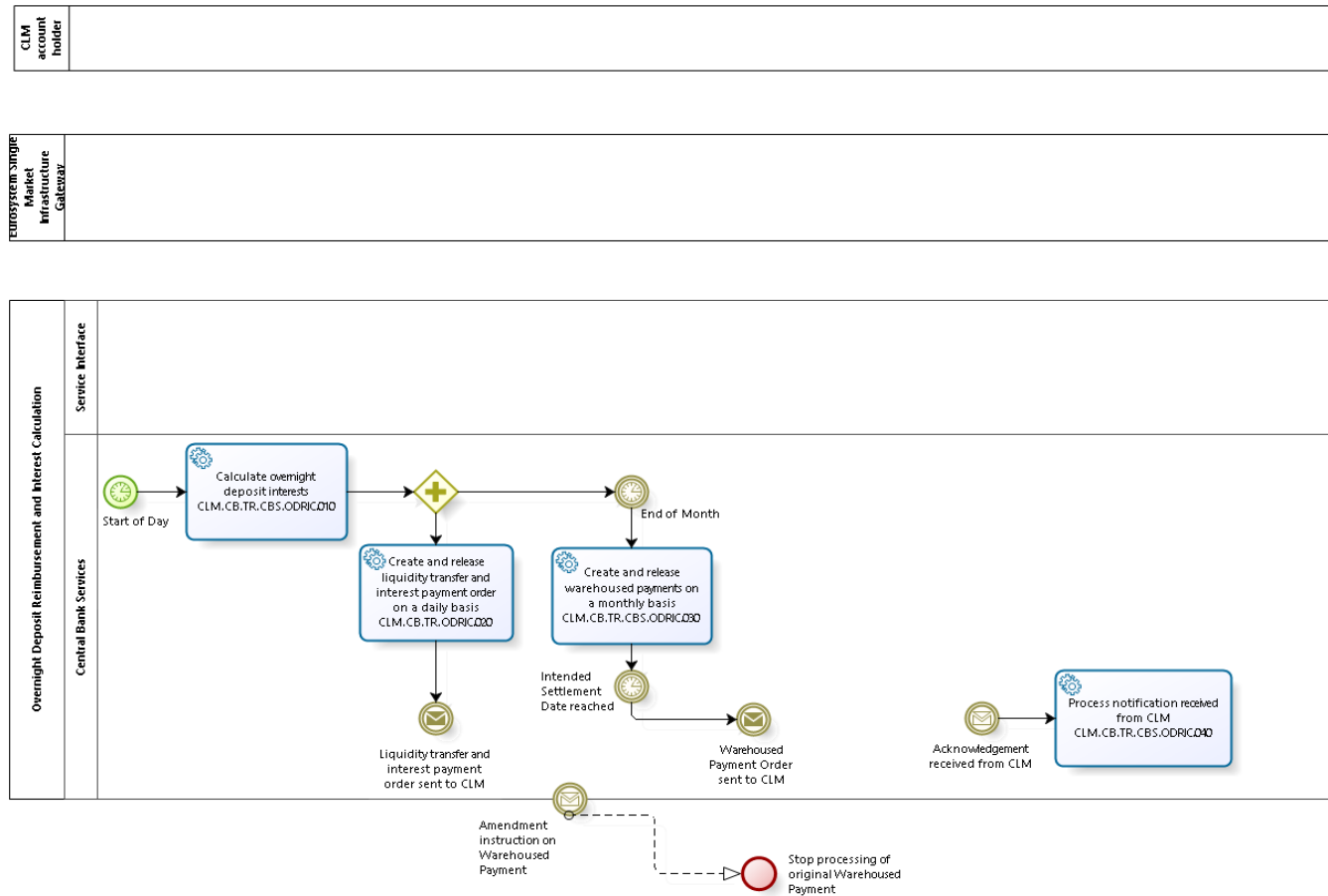
At the reception of the liquidity transfer order sent by CBS, CLM shall process it. The processing of the liquidity transfer order in CLM is described in section 1.4 on Process intra-service liquidity transfer order in the User Requirements Document for CLM for the business process CLM.BP.CLM.ISLT. Once processed, CLM send an acknowledgement to CBS.

<b>Id</b>	CLM.CB.UR.CBS.ODREV.040.010
<b>Name</b>	Process notification received from CLM
<b>Description</b>	At the reception of the acknowledgement from CLM, CBS shall process it.

## 2.4 OVERNIGHT DEPOSIT REIMBURSEMENT AND INTEREST CALCULATION

Business Process Ref: CLM.CB.BP.CBS.ODRIC

### 2.4.1 Business Process Model



Business Process Model 6: Overnight Deposit Reimbursement and Interest Calculation

## 2.4.2 Process Overview

### Process goal:

This process describes how the refunding and the interest calculation linked to an overnight deposit shall be processed within CLM/CBS.

### Process context:

At the start of the following business day, CLM/CBS shall calculate the interest to be paid on the overnight deposit.

### Pre-conditions:

For the refunding and the interest payment, a Party needs to:

- ▶ Be a CLM account holder;
- ▶ Be eligible to the overnight deposit facility; and
- ▶ Have a MCA in CLM.

An overnight deposit has been set up on a dedicated overnight deposit account.

CLM/CBS also require the overnight deposit rate for the interest calculation.

### Time constraints:

CBS shall calculate, as of the start of the provisioning of liquidity phase on the following business day (i.e. 19:00), the interest to be paid on the overnight deposit and automatically send the liquidity transfer order for the capital amount and the interest payment order to CLM.

### Expected results:

The liquidity transfer order linked to the refunding of the capital amount shall lead to the transfer of liquidity from the overnight deposit account to the CLM account holder's MCA.

In case of positive interest rate, the interest payment order shall credit the CLM account holder's MCA and debit a CB account.

In case of a negative interest rate, the interest payment order shall debit the CLM account holder's MCA and credit the CB account.

### Triggers:

CBS shall automatically calculate the interest and send automatically the liquidity transfer order for the capital amount and the interest payment order to CLM.

## 2.4.3 User Requirements

### 2.4.3.1 GENERAL USER REQUIREMENTS FOR OVERNIGHT DEPOSIT REIMBURSEMENT AND INTEREST CALCULATION

<b>Id</b>	CLM.CB.UR.CBS.ODRIC.000.010
<b>Name</b>	Settlement principles for the liquidity transfer order linked to reimbursement of and the payment order linked to interest payment on overnight deposit
<b>Description</b>	<p>The principles described in CLM.CB.UR.CBS.ODREQ.000.010 (Settlement principles for the liquidity transfer orders linked to overnight deposits) shall also apply for the processing of liquidity transfer orders linked to reimbursement.</p> <p>The principles described in CLM.UR.CLM.PAYT.000.010 (Settlement principles for payment orders linked to Central Bank Operations and Cash Withdrawals or for any other payment order on MCA) defined in the User Requirements Document for CLM shall also apply for the processing of interest payment on overnight deposit.</p>

### 2.4.3.2 CALCULATE OVERNIGHT DEPOSIT INTERESTS

#### Task Ref: **CLM.CB.TR.CBS.ODRIC.010**

At the start of each business day, CBS shall calculate the interest to be paid on the outstanding overnight deposits initiated on the previous business day.

<b>Id</b>	CLM.CB.UR.CBS.ODRIC.010.010
<b>Name</b>	Calculate interest
<b>Description</b>	<p>For the interest calculation, CBS shall use the relevant overnight deposit interest rate.</p> <p>In case of multiple overnight deposit requests and/or reverse transactions for the same CLM account holder, the interest shall be calculated based on the aggregated amount.</p>

<b>Id</b>	CLM.CB.UR.CBS.ODRIC.010.020
<b>Name</b>	Calculate interest for out countries
<b>Description</b>	As interest will be paid on a monthly basis to Central Banks from a non-Eurosystem country (instead on a daily basis), CBS shall calculate the cumulated interest to be paid at the end of the calendar month.



### 2.4.3.3 CREATE AND RELEASE LIQUIDITY TRANSFER AND INTEREST PAYMENT ORDERS ON A DAILY BASIS

#### Task Ref: **CLM.CB.TR.CBS.ODRIC.020**

Once the interest calculation is done, CBS shall create and release to CLM the liquidity transfer and interest payment orders for the reimbursement of the overnight deposit and the related interest payment for Eurosystem countries on a daily basis.

<b>Id</b>	CLM.CB.UR.CBS.ODRIC.020.010
<b>Name</b>	Create liquidity transfer and interest payment orders
<b>Description</b>	<p>Once the daily interest calculation is done, CBS shall create:</p> <ul style="list-style-type: none"> <li>• one liquidity transfer order for the capital amount (to debit the relevant overnight deposit account and credit the CLM account holder's MCA) and</li> <li>• an interest payment order for the interest amount (to debit (credit) the CB account and credit (debit) the CLM account holder's MCA in case of positive (negative) overnight deposit rate).</li> </ul> <p>For Central Banks from non-Eurosystem countries, CBS shall only create one liquidity transfer order for the capital amount (CBS shall create at the end of the month warehoused payment orders for the cumulated interest payment amount).</p>

<b>Id</b>	CLM.CB.UR.CBS.ODRIC.020.020
<b>Name</b>	Release of the liquidity transfer and interest payment orders to CLM
<b>Description</b>	Once created, the liquidity transfer and interest payment orders shall be sent to CLM for further processing.

### 2.4.3.4 CREATE AND RELEASE WAREHOUSED PAYMENTS ON A MONTHLY BASIS

#### Task Ref: **CLM.CB.TR.CBS.ODRIC.030**

At the end of the month, CBS shall create and release to CLM the warehoused payment orders for the interest payment amounts calculated for the Central Banks from non-Eurosystem countries.

<b>Id</b>	CLM.CB.UR.CBS.ODRIC.030.010
<b>Name</b>	Create warehoused payment orders
<b>Description</b>	<p>In the case of Central Banks from non-Eurosystem countries, CBS shall create on the first business day of the following calendar month warehoused payment orders for the cumulated interest to be paid.</p> <p>The warehoused payment orders shall have a settlement date five business days after the first business day of the following month. The respective connected Central Bank shall have the possibility to check the interest calculated and to revoke the warehoused payment order if the calculation is not correct.</p>

<b>Id</b>	CLM.CB.UR.CBS.ODRIC.030.020
<b>Name</b>	Release warehoused payment orders to CLM
<b>Description</b>	CBS shall release the warehoused payment orders to CLM for further processing on the intended settlement date (i.e. ten calendar days after the first business day of the following month).

#### 2.4.3.5 PROCESS NOTIFICATION RECEIVED FROM CLM

##### **Task Ref: CLM.CB.TR.CBS.ODRIC.040**

At the reception of the liquidity transfer order, payment order or warehoused payment order sent by CBS, CLM shall process them and send an acknowledgement to CBS once they are processed. The processing of the payment order in CLM is described in section 1.6 on Process payment order linked to Central Bank Operations and Cash Withdrawals in the User Requirements Document for CLM for the business process CLM.BP.CLM.PAYT. The processing of the liquidity transfer order in CLM is described in section 1.4 on Process intra-service liquidity transfer order in the User Requirements Document for CLM for the business process CLM.BP.CLM.ISLT.

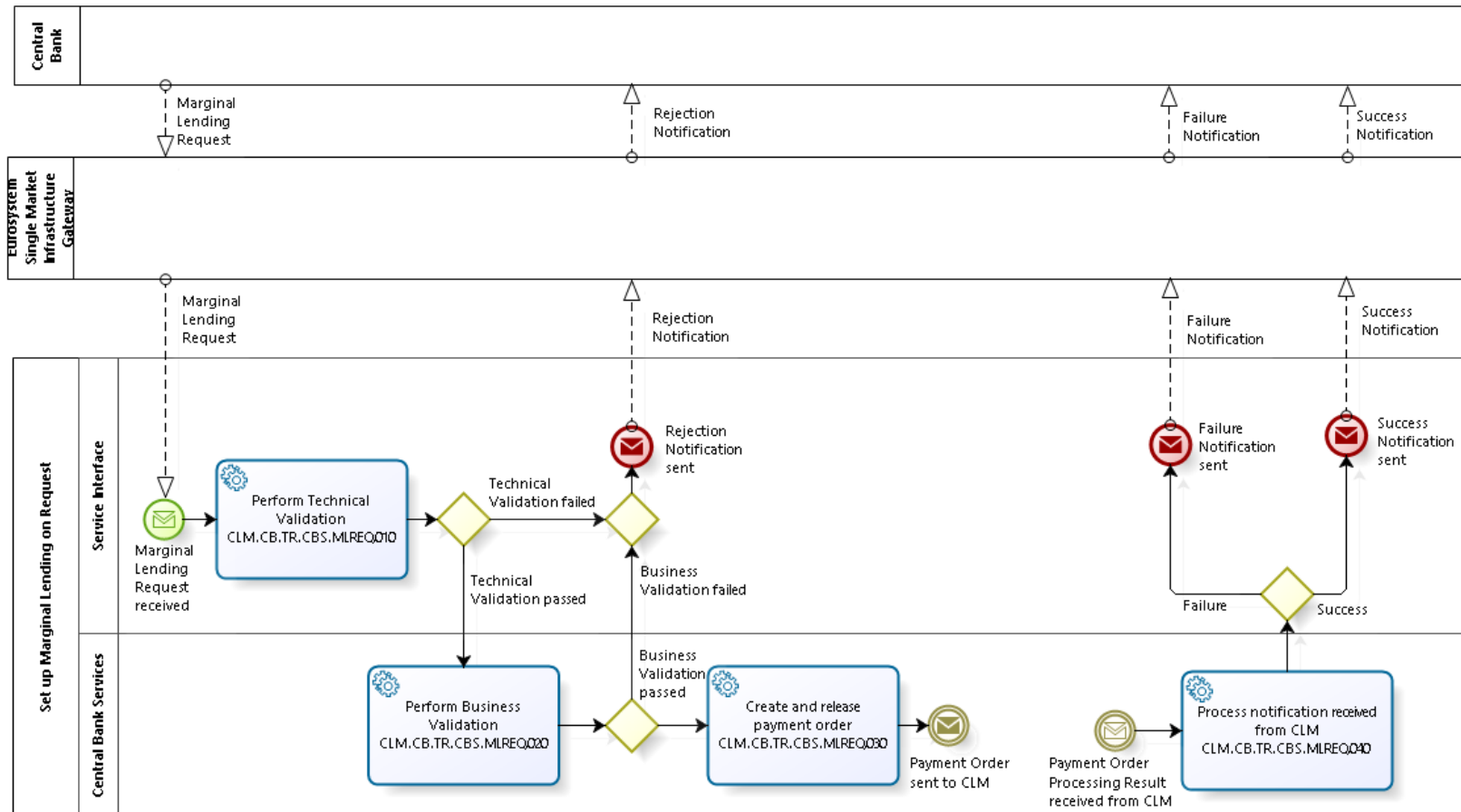
<b>Id</b>	CLM.CB.UR.CBS.ODRIC.040.010
<b>Name</b>	Send notification
<b>Description</b>	At the reception of the notification from CLM, CBS shall process it.

## 2.5 SET UP MARGINAL LENDING ON REQUEST

Business Process Ref: CLM.CB.BP.CBS.MLREQ

**Note:** the business process described in this section **Error! Reference source not found.** applies only *during* the transition period, i.e. between the go-lives of CLM and ECMS. *After* the transition period, the set-up of marginal lending on request will be done in ECMS, and ECMS will then send regular and connected payments to CLM. Those payments will be processed as per the requirements laid out in Section 1.6 of “T2-T2S Consolidation - User Requirements Document - T2 - Central Liquidity Management” and Section **Error! Reference source not found.** of this document.

### 2.5.1 Business Process Model



### Business Process Model 7: Set up Marginal Lending on Request during transition period

## 2.5.2 Process Overview

### Process goal:

This process describes how the setup of a marginal lending on request shall be processed within CBS during transition period.

### Process context:

Counterparties can use the marginal lending facility to obtain overnight liquidity from the CBs against eligible assets. The marginal lending on request is initiated by the CLM account holder through the CB system.

### Pre-conditions:

To set up a marginal lending on request, a Party needs to:

- ▶ Be a CLM account holder;
- ▶ Be eligible to the marginal lending facility; and
- ▶ Have a MCA in CLM.

Moreover, there is a need for dedicated marginal lending accounts in CLM.

### Time constraints:

CBS shall be able to receive and process a marginal lending on request as of opening its service for the new business day (i.e. 19:00 and after overnight deposit and marginal lending reimbursement and interest calculation) until the CB general cut-off for the use of Standing Facilities (i.e. 18:40 with additional fifteen minutes in the last day of the reserve maintenance period) with the exception of the maintenance window.

### Expected results:

The successful processing of a marginal lending on request shall lead to the credit on the CLM account holder's MCA and the debit on the marginal lending account.

### Triggers:

The marginal lending on request can be initiated through:

- ▶ An order sent by the CB system; or
- ▶ Manual input via U2A screen by the CB operator.

## 2.5.3 User Requirements

### 2.5.3.1 GENERAL USER REQUIREMENTS FOR SET UP MARGINAL LENDING ON REQUEST

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.000.010
<b>Name</b>	Settlement principles for the liquidity transfer orders linked to marginal lending on request
<b>Description</b>	The settlement principles for liquidity transfer orders described in section 1.4 on Process intra-service liquidity transfer order in the User Requirements Document for CLM for the business process CLM.BP.CLM.ISLT shall apply.

### 2.5.3.2 PERFORM TECHNICAL VALIDATION

#### Task Ref: CLM.CB.TR.CBS.MLREQ.010

At the reception of a marginal lending on request order sent by the CB system, 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.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.010.005
<b>Name</b>	File management
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.010.010
<b>Name</b>	Check mandatory fields
<b>Description</b>	The component interface shall ensure that all mandatory fields in the message received are populated.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.010.020
<b>Name</b>	Check for duplicate message
<b>Description</b>	The component interface shall ensure that the same message has not already been received.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.010.030
<b>Name</b>	Perform all possible technical validations
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.010.040
<b>Name</b>	Processing in case of passed technical validation
<b>Description</b>	In case of a positive result of the technical validation, the order shall be sent to CBS for further processing.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.010.050
<b>Name</b>	Processing in case of failed technical validation
<b>Description</b>	<p>In case of 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 instructing CB system.</p> <p>In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).</p>

### 2.5.3.3 PERFORM BUSINESS VALIDATION

#### Task Ref: **CLM.CB.TR.CBS.MLREQ.020**

In case of a positive result of the technical validation of the marginal lending on request order, CBS shall validate the message received against the reference data and perform additional checks/validations.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.020.010
<b>Name</b>	Authorisation check
<b>Description</b>	CBS shall check that the instructing CB system (or CB operator in case of manual input) is authorised to initiate a marginal lending on request for the CLM account holder mentioned in the order.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.020.020
<b>Name</b>	Business validation of the values
<b>Description</b>	CBS shall check that all provided values are valid according to predefined values or cross-field validations.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.020.030
<b>Name</b>	Account check
<b>Description</b>	CBS shall check that the MCA and the marginal lending account mentioned in the marginal lending on request order exist and are active for settlement in the relevant currency. Moreover, CBS shall also check that the CLM account holder of the MCA is not blocked at Party level.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.020.040
<b>Name</b>	Processing in case of failed business validation
<b>Description</b>	<p>In case of 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 instructing CB system.</p> <p>In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).</p>

### 2.5.3.4 CREATE AND RELEASE LIQUIDITY TRANSFER ORDER

#### Task Ref: **CLM.CB.TR.CBS.MLREQ.030**

In case of a positive result of the business validation checks of the marginal lending on request order, CBS shall create a liquidity transfer order and send it to CLM for further processing.

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.030.010
<b>Name</b>	Create and release liquidity transfer order
<b>Description</b>	Once the marginal lending on request order has successfully passed the business validation checks, CBS shall create a liquidity transfer order to: <ul style="list-style-type: none"> <li>• Credit the CLM account holder's MCA; and</li> <li>• Debit the relevant marginal lending account.</li> </ul>

<b>Id</b>	CLM.CB.UR.CBS.MLREQ.030.020
<b>Name</b>	Release of the liquidity transfer order to CLM
<b>Description</b>	Once created, CBS shall release the liquidity transfer order on behalf of the CB system to CLM for further processing.

### 2.5.3.5 PROCESS NOTIFICATION RECEIVED FROM CLM

#### Task Ref: **CLM.CB.TR.CBS.MLREQ.040**

At the reception of the liquidity transfer order sent by CBS, CLM shall process it and send a confirmation or a rejection notification to CBS. The processing of the liquidity transfer order in CLM is described in section 1.4 on Process Intra-service liquidity transfer order in the User Requirements Document for CLM for the business process CLM.BP.CLM.ISLT.

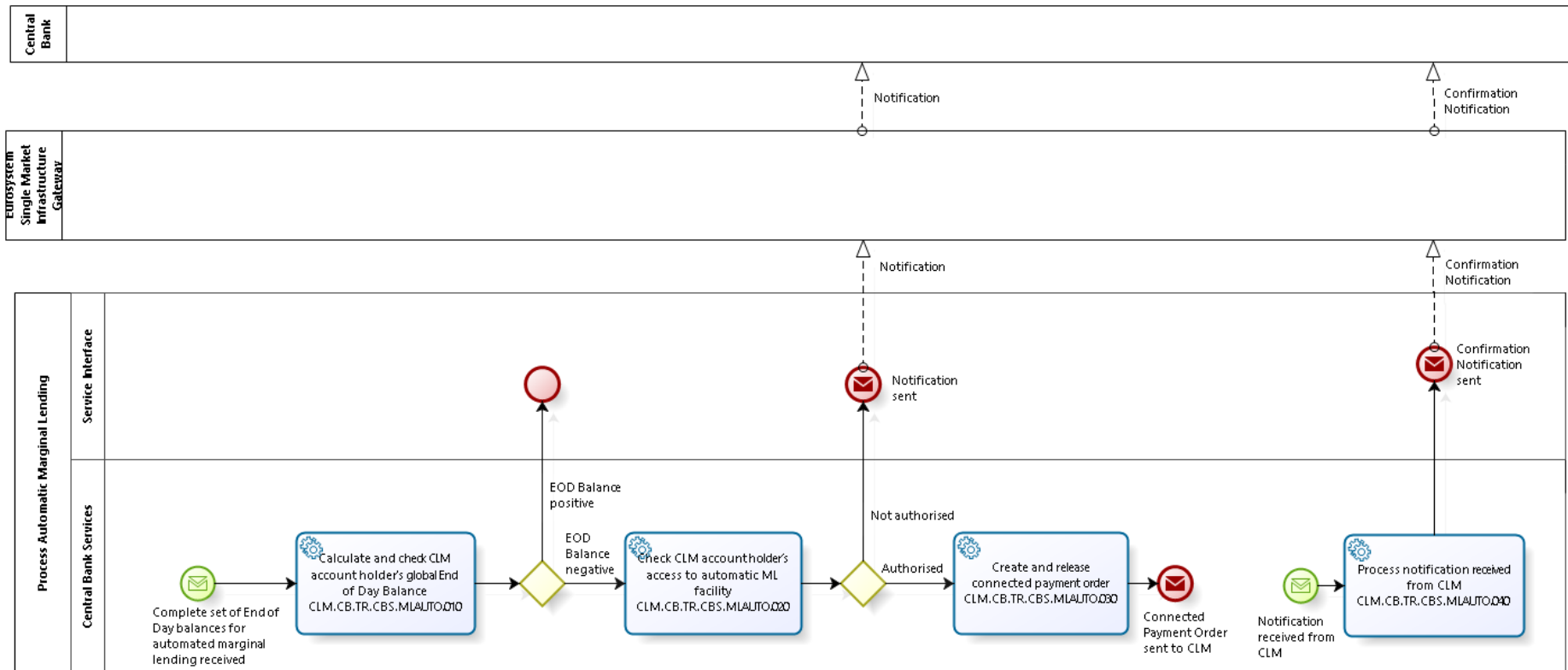
<b>Id</b>	CLM.CB.UR.CBS.MLREQ.040.010
<b>Name</b>	Send notification
<b>Description</b>	At the reception of the confirmation or rejection notification with the appropriate error code(s) from CLM, CBS shall relay this notification to the instructing CB system. In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).



## 2.6 PROCESS AUTOMATIC MARGINAL LENDING DURING TRANSITION PERIOD

Business Process Ref: CLM.CB.BP.CBS.MLAUTO

### 2.6.1 Business Process Model



Business Process Model 8: Process Automatic Marginal Lending during transition period

## 2.6.2 Process Overview

### Process goal:

This process describes how CBS shall initiate and process an automatic marginal lending during the transition period.

### Process context:

The aim of the automatic marginal lending is the automatic transformation of intraday credit into overnight credit at the end of the business day.

### Pre-conditions:

For the setup of an automatic marginal lending, a Party needs to:

- ▶ Be a CLM account holder;
- ▶ Be eligible to the marginal lending facility; and
- ▶ Have a MCA in CLM.

Moreover, there is a need for dedicated marginal lending accounts in CLM.

### Time constraints:

The automatic marginal lending shall take place during the End of Day processing after the cut-off for Standing Facilities.

### Expected results:

The successful processing of an automatic marginal lending shall lead to the credit on the CLM account holder's MCA, the debit on the marginal lending account and the concurrent update of the CLM account holder's credit line.

### Triggers:

During the End of Day process, CBS shall automatically check the global End of Day balances of each Party eligible to the marginal lending facility (in TIPS, T2S, RTGS and CLM) and identify if there is a need for an automatic marginal lending.

## 2.6.3 User Requirements

### 2.6.3.1 GENERAL USER REQUIREMENTS FOR PROCESS OF AUTOMATIC MARGINAL LENDING

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.000.010
<b>Name</b>	Availability of Parties' End of Day balances
<b>Description</b>	The automatic marginal lending process is dependent on the availability of all Parties' End of Day balances. CBS must therefore make sure that all End of Day balances are available before initiating the process.

## 2.6.3.2 CALCULATE AND CHECK CLM ACCOUNT HOLDER'S GLOBAL END OF DAY BALANCE

### Task Ref: CLM.CB.TR.CBS.MLAUTO.010

During the End of Day process, CBS shall calculate the global End of Day balance (composed of the individual End of Day balances within each settlement service) for each CLM account holder.

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.010.010
<b>Name</b>	Calculate CLM account holder's global End of Day balance
<b>Description</b>	To calculate a CLM account holder's global End of Day balance, CBS shall consider the End of Day balances of the DCAs that belong to the CLM account holder and the End of Day balance of the CLM account holder's MCA(s).

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.010.020
<b>Name</b>	Check CLM account holder's global End of Day balance
<b>Description</b>	CBS shall check if the global End of Day balance is positive or negative.

## 2.6.3.3 CHECK CLM ACCOUNT HOLDER'S ACCESS TO AUTOMATIC MARGINAL LENDING FACILITY

### Task Ref: CLM.CB.TR.CBS.MLAUTO.020

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.020.010
<b>Name</b>	Check access to marginal lending facility
<b>Description</b>	If the global End of Day Balance is negative (i.e. meaning that the CLM account holder has not returned its intraday credit), CBS shall check if the CLM account holder is allowed to access the marginal lending facility.

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.020.020
<b>Name</b>	Notify spill over
<b>Description</b>	If the CLM account holder is not allowed to access the marginal lending facility, CBS shall notify, through a message, about the spill over to the relevant CB responsible for applying the penalty procedure.

#### 2.6.3.4 CREATE AND RELEASE CONNECTED PAYMENT ORDER

##### Task Ref: CLM.CB.TR.CBS.MLAUTO.030

In case there is a need for and the CLM account holder is allowed to access the automatic marginal lending facility, CBS shall create and release to CLM a connected payment order.

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.030.010
<b>Name</b>	Create connected payment order
<b>Description</b>	<p>If the CLM account holder is allowed to access the marginal lending facility, CBS shall create a connected payment order to:</p> <ul style="list-style-type: none"> <li>• Credit the CLM account holder's MCA;</li> <li>• Debit the relevant marginal lending account; and</li> <li>• Simultaneously decrease the CLM account holder's credit line.</li> </ul>

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.030.020
<b>Name</b>	Release of the connected payment order to CLM
<b>Description</b>	Once created, CBS shall release the connected payment order on behalf of the CB system to CLM for further processing.

#### 2.6.3.5 PROCESS NOTIFICATION RECEIVED FROM CLM

##### Task Ref: CLM.CB.TR.CBS.MLAUTO.040

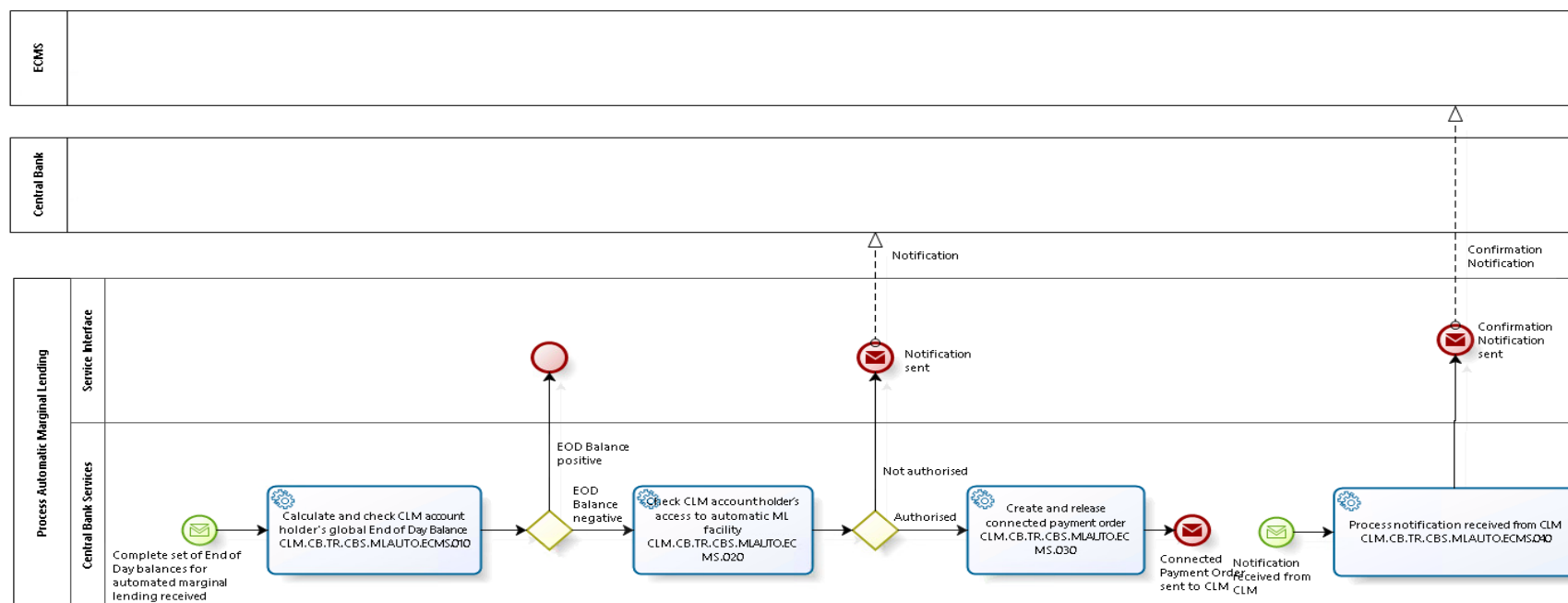
At the reception of the connected payment order sent by CBS, CLM shall process it and then send a confirmation notification to CBS. The processing of the payment orders in CLM is described in section 1.3 on Connected Payment Processing in this User Requirements Document for the business process CLM.CB.BP.CLM.CP (Connected Payment Processing).

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.040.010
<b>Name</b>	Send notification
<b>Description</b>	At the reception of the confirmation notification from CLM, CBS shall relay this notification to the relevant CB system.

## 2.7 PROCESS AUTOMATIC MARGINAL LENDING AFTER TRANSITION PERIOD

Business Process Ref: CLM.CB.BP.CBS.MLAUTO.ECMS

Business Process Model



### Business Process Model 91: Process Automatic Marginal Lending after the transition period

Note: the diagram does not display the final notification sent to ECMS once all automatic marginal lending have been processed (see CLM.CB.UR.CBS.MLAUTO.ECMS.040.010)

## Process Overview

### Process goal:

This process describes how CBS shall initiate and process an automatic marginal lending after the transition period.

### Process context:

The aim of the automatic marginal lending is the automatic transformation of intraday credit into overnight credit at the end of the business day.

### Pre-conditions:

For the setup of an automatic marginal lending, a Party needs to:

- ▶ Be a CLM account holder;
- ▶ Be eligible to the marginal lending facility; and
- ▶ Have a MCA in CLM.

### Time constraints:

The automatic marginal lending shall take place during the End of Day processing after the CLM CB cut-off.

### Expected results:

The successful processing of an automatic marginal lending shall lead to the credit on the CLM account holder's MCA, the debit on the CB account and the concurrent update of the CLM account holder's credit line.

### Triggers:

During the End of Day process, CBS shall automatically check the global End of Day balances of each Party eligible to the marginal lending facility (in TIPS, T2S, RTGS and CLM) and identify if there is a need for an automatic marginal lending.

## 2.7.1 User Requirements

### 2.7.1.1 GENERAL USER REQUIREMENTS FOR PROCESS OF AUTOMATIC MARGINAL LENDING

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.ECMS.000.010
<b>Name</b>	Availability of Parties' End of Day balances
<b>Description</b>	The automatic marginal lending process is dependent on the availability of all Parties' End of Day balances. CBS must therefore make sure that all End of Day balances are available before initiating the process.

## 2.7.1.2 CALCULATE AND CHECK CLM ACCOUNT HOLDER'S GLOBAL END OF DAY BALANCE

**Task Ref: CLM.CB.TR.CBS.MLAUTO.ECMS.010**

During the End of Day process, CBS shall calculate the global End of Day balance (composed of the individual End of Day balances within each settlement service) for each CLM account holder.

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO. ECMS.010.010
<b>Name</b>	Calculate CLM account holder's global End of Day balance
<b>Description</b>	To calculate a CLM account holder's global End of Day balance, CBS shall consider the End of Day balances of the DCAs that belong to the CLM account holder and the End of Day balance of the CLM account holder's MCA(s).

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO. ECMS.010.020
<b>Name</b>	Check CLM account holder's global End of Day balance
<b>Description</b>	CBS shall check if the global End of Day balance is positive or negative.

## 2.7.1.3 CHECK CLM ACCOUNT HOLDER'S ACCESS TO AUTOMATIC MARGINAL LENDING FACILITY

**Task Ref: CLM.CB.TR.CBS.MLAUTO. ECMS.020**

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO. ECMS.020.010
<b>Name</b>	Check access to marginal lending facility
<b>Description</b>	If the global End of Day Balance is negative (i.e. meaning that the CLM account holder has not returned its intraday credit), CBS shall check if the CLM account holder is allowed to access the marginal lending facility.

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO. ECMS.020.020
<b>Name</b>	Notify spill over
<b>Description</b>	If the CLM account holder is not allowed to access the marginal lending facility, CBS shall notify, through a message, about the spill over to the relevant CB responsible for applying the penalty procedure.

## 2.7.1.4 CREATE AND RELEASE CONNECTED PAYMENT

**Task Ref: CLM.CB.TR.CBS.MLAUTO. ECMS.030**

In case there is a need for and the CLM account holder is allowed to access the automatic marginal lending facility, CBS shall create and release to CLM a connected payment order.

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.ECMS.030.010
<b>Name</b>	Create connected payment order
<b>Description</b>	<p>If the CLM account holder is allowed to access the marginal lending facility, CBS shall create a connected payment order to:</p> <ul style="list-style-type: none"> <li>• Credit the CLM account holder's MCA;</li> <li>• Debit the relevant CB account; and</li> <li>• Simultaneously decrease the CLM account holder's credit line.</li> </ul>

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO.ECMS.030.020
<b>Name</b>	Release of the connected payment order to CLM
<b>Description</b>	Once created, CBS shall release the connected payment order on behalf of the CB system to CLM for further processing.

#### 2.7.1.5 PROCESS NOTIFICATION RECEIVED FROM CLM

##### Task Ref: **CLM.CB.TR.CBS.MLAUTO.ECMS.040**

At the reception of the connected payment order sent by CBS, CLM shall process it and then send a confirmation notification to CBS. The processing of the payment orders in CLM is described in section 1.3 on Connected Payment Processing in this User Requirements Document for the business process CLM.CB.BP.CLM.CP (Connected Payment Processing).

<b>Id</b>	CLM.CB.UR.CBS.MLAUTO. ECMS.040.010
<b>Name</b>	Send notification
<b>Description</b>	At the reception of each notification from CLM, CBS shall relay this notification to the relevant CB system (based on subscription).

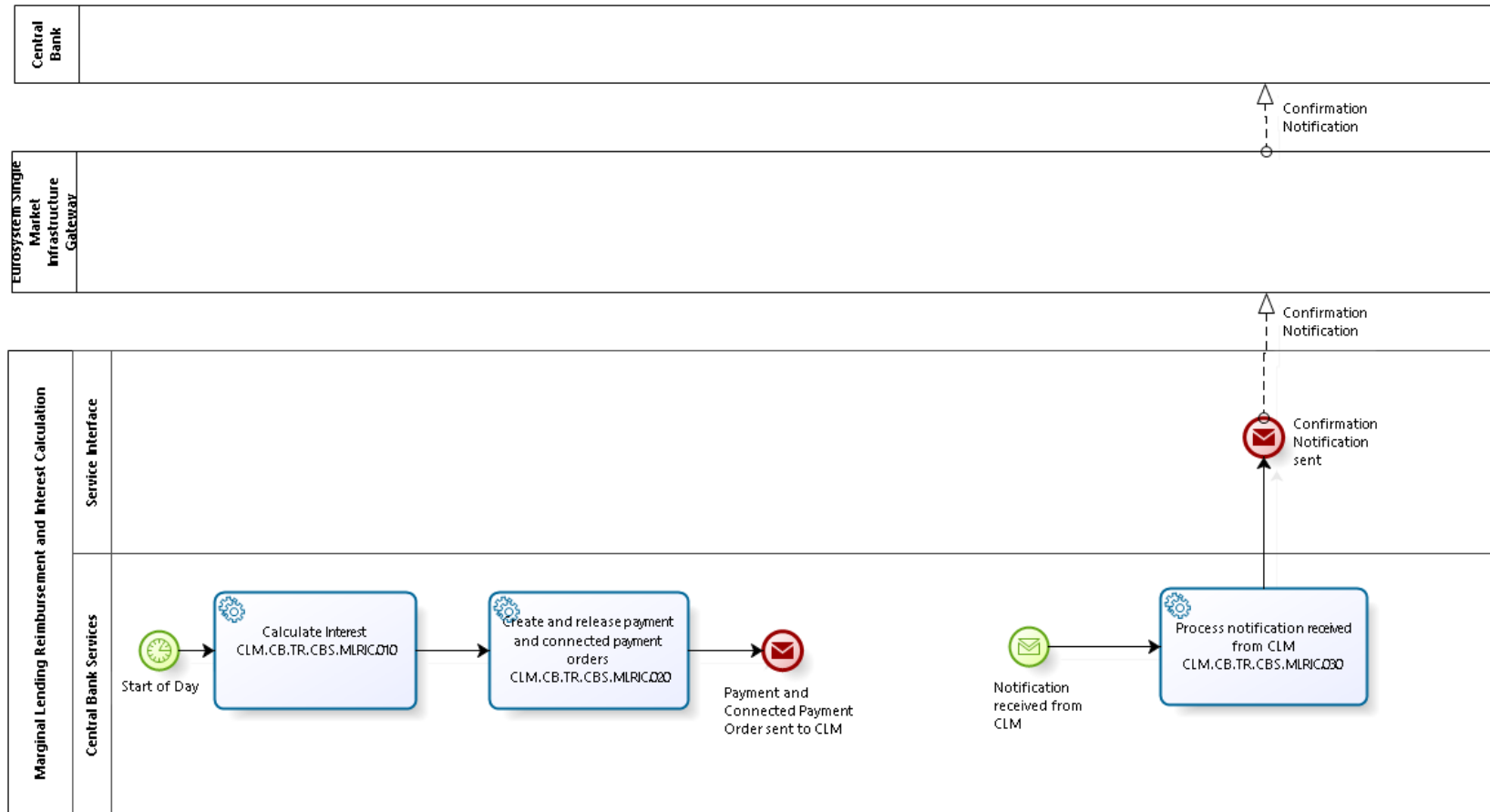
<b>Id</b>	CLM.CB.UR.CBS.MLAUTO. ECMS.040.020
<b>Name</b>	Completion information for automatic marginal lending
<b>Description</b>	The start of day of the next business day in CLM needs to guarantee that all automatic marginal lending of the previous business day is completed. The notification about the start of business day by CLM can be used by ECMS as completion information.



## 2.8 MARGINAL LENDING REIMBURSEMENT AND INTEREST CALCULATION DURING THE TRANSITION PERIOD

Business Process Ref: CLM.CB.BP.CBS.MLRIC

### 2.8.1 Business Process Model



---

**Business Process Model 10: Marginal Lending Reimbursement and Interest Calculation during the transition period**

## 2.8.2 Process Overview

### Process goal:

This process describes how the reimbursement and the interest calculation linked to a marginal lending (on request and / or automatic) shall be processed within CBS during the transition period.

### Process context:

At the start of the business day in CLM, CBS shall calculate the interest to be paid on the marginal lending (on request and / or automatic) initiated on the previous business day.

### Pre-conditions:

For the reimbursement and the interest payment, a Party needs to:

- ▶ Be a CLM account holder;
- ▶ Be eligible to the marginal lending facility; and
- ▶ Have a MCA in CLM.

There is also a need for dedicated marginal lending accounts in CLM.

Moreover, the reimbursement and interest calculation process shall start if there are existing marginal lending transactions (on request and / or automatic) from the previous business day.

### Time constraints:

CBS shall calculate as of the start of provisioning of liquidity phase on the following business day (i.e. 19.00) the interest to be paid on the marginal lending (on request and/or automatic) and automatically send the payment orders on capital amount and the interest amount to CLM.

### Expected results:

The connected payment order linked to the reimbursement of an automatic marginal lending shall lead to the debit on the CLM account holder's MCA, the credit on the marginal lending account and the concurrent update of the CLM account holder's credit line.

The payment order linked to the reimbursement of a marginal lending on request shall lead to the debit on the CLM account holder's MCA and the credit on the marginal lending account.

The interest payment order shall debit the CLM account holder's MCA and credit the CB account.

## 2.8.3 User Requirements

### 2.8.3.1 CALCULATE INTEREST

#### Task Ref: CLM.CB.TR.CBS.MLRIC.010

At the start of each business day, CBS shall calculate the interest to be paid on the outstanding marginal lending orders (on request and/or automatic) initiated on the previous business day.

<b>Id</b>	CLM.CB.UR.CBS.MLRIC.010.010
<b>Name</b>	Calculate interest
<b>Description</b>	For the interest calculation, CBS shall use the relevant marginal lending interest rate.  CBS shall calculate the interest at operation level.  In case of multiple marginal lending operations for the same CLM account holder, the interest shall be calculated based on the aggregated amount.

<b>Id</b>	CLM.CB.UR.CBS.MLRIC.010.020
<b>Name</b>	Option not to include marginal lending on request in the interest calculation
<b>Description</b>	It shall be possible for the TARGET Service Desk to exclude the marginal lending on request from the interest calculation, i.e. CBS shall in this case only calculate the interest for automatic marginal lending.  This exclusion shall be possible at the level of the currency.

### 2.8.3.2 CREATE AND RELEASE PAYMENT AND CONNECTED PAYMENT ORDERS

#### Task Ref: CLM.CB.TR.CBS.MLRIC.020

Once the interest calculation is done, CBS shall create and release to CLM payment and/or connected payment orders for the reimbursement and interest payment.

<b>Id</b>	CLM.CB.UR.CBS.MLRIC.020.010
<b>Name</b>	Create and release payment order for the reimbursement of a marginal lending on request
<b>Description</b>	For the reimbursement of a marginal lending on request, CBS shall create and release to CLM a payment order to: <ul style="list-style-type: none"> <li>• Debit the CLM account holder's MCA; and</li> <li>• Credit the marginal lending account.</li> </ul>

<b>Id</b>	CLM.CB.UR.CBS.MLRIC.020.020
<b>Name</b>	Create and release connected payment order for the reimbursement of an automatic marginal lending
<b>Description</b>	For the reimbursement of an automatic marginal lending, CBS shall create and release to CLM a connected payment order to: <ul style="list-style-type: none"> <li>• Debit the CLM account holder's MCA;</li> <li>• Credit the marginal lending account; and</li> </ul>

	<ul style="list-style-type: none"> <li>Simultaneously increase the CLM account holder's credit line.</li> </ul>
<b>Id</b>	CLM.CB.UR.CBS.MLRIC.020.030
<b>Name</b>	Create and release a payment order for the interest payment
<b>Description</b>	<p>For the interest payment, CBS shall create and release to CLM a payment order to:</p> <ul style="list-style-type: none"> <li>Debit the CLM account holder's MCA; and</li> <li>Credit the CB account.</li> </ul> <p>CBS shall not generate an interest payment order in case the marginal lending rate is zero.</p>

### 2.8.3.3 PROCESS NOTIFICATION RECEIVED FROM CLM

#### Task Ref: CLM.CB.TR.CBS.MLRIC.030

At the reception of the payment and/or connected payment orders sent by CBS, CLM shall process them and then send a confirmation notification to CBS for the refunding of the marginal lending facility.

<b>Id</b>	CLM.CB.UR.CBS.MLRIC.030.010
<b>Name</b>	Send notification to CB system
<b>Description</b>	<p>At the reception of the confirmation notification from CLM, CBS shall relay this notification to the relevant CB system.</p> <p>Note: "A debit/credit notification is sent (according to message subscription) to the owner of the MCA that has been debited and (according to message subscription) to the CB as owner of the CB account as per the process "Connected Payment Processing (chapter 1.3)".</p>

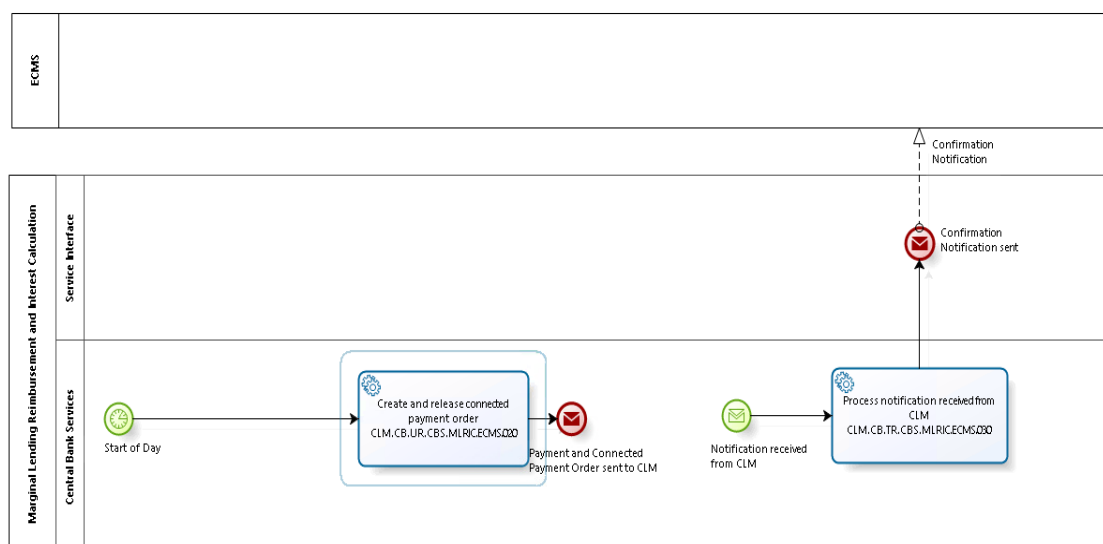
## 2.9 MARGINAL LENDING REIMBURSEMENT AND INTEREST CALCULATION AFTER TRANSITION PERIOD

**Business Process Ref:** CLM.CB.BP.CBS.MLRIC.ECMS

**Note :** This process 2.9 is only applicable to Automatic Marginal Lending, as ECMS will generate reimbursement and interest payments of marginal lending on request as well as interest payments for automatic marginal lending and send them to CLM as connected or regular payment orders, which are handled in section **Error! Reference source not found.** of this document and 1.6 of the document “T2-T2S Consolidation - User Requirements Document - T2 - Central Liquidity Management”.

Note: Interest calculation for automatic marginal lending is also done in ECMS, which will send payment orders to CLM. Therefore the following section only includes the CLM part of the process: the reimbursement of the automatic marginal lending

### 2.9.1 Business Process Model



**Business Process Model 111: Automatic Marginal Lending Reimbursement after transition period**

### 2.9.2 Process Overview

**Process goal:**

This process describes how the reimbursement linked to an automatic marginal lending shall be processed within CBS after the transition period.

**Process context:**

Start of the business day in CLM

**Pre-conditions:**

For the reimbursement, a Party needs to:

- ▶ Be a CLM account holder;
- ▶ Be eligible to the marginal lending facility; and
- ▶ Have a MCA in CLM.

Moreover, the reimbursement process shall start if there are existing automatic marginal lending transactions from the previous business day.

**Time constraints:**

At the start of provisioning of liquidity phase on the following business day (i.e. 19.00) CBS shall automatically send the connected payments to CLM.

**Expected results:**

The connected payment order linked to the reimbursement of an automatic marginal lending shall lead to the debit on the CLM account holder's MCA and the credit on the CB account. There shall be a concurrent update of the CLM account holder's credit line.

## 2.9.3 User Requirements

### 2.9.3.1 CREATE AND RELEASE CONNECTED PAYMENT ORDER

**Task Ref: CLM.CB.TR.CBS.MLRIC. ECMS.020**

CBS shall create and release to CLM a connected payment order for the reimbursement.

<b>Id</b>	CLM.CB.UR.CBS.MLRIC. ECMS.020.020
<b>Name</b>	Create and release a connected payment order for the reimbursement of an automatic marginal lending
<b>Description</b>	<p>For the reimbursement of an automatic marginal lending, CBS shall create and release to CLM a connected payment order to:</p> <ul style="list-style-type: none"><li>• Debit the CLM account holder's MCA</li><li>• Credit the CB account</li></ul> <p>Simultaneously increase the CLM account holder's credit line.</p>

### 2.9.3.2 PROCESS NOTIFICATION RECEIVED FROM CLM

#### Task Ref: **CLM.CB.TR.CBS.MLRIC.030**

At the reception of the connected payment orders sent by CBS, CLM shall process them and then send a notification to CBS for the refunding of the marginal lending facility.

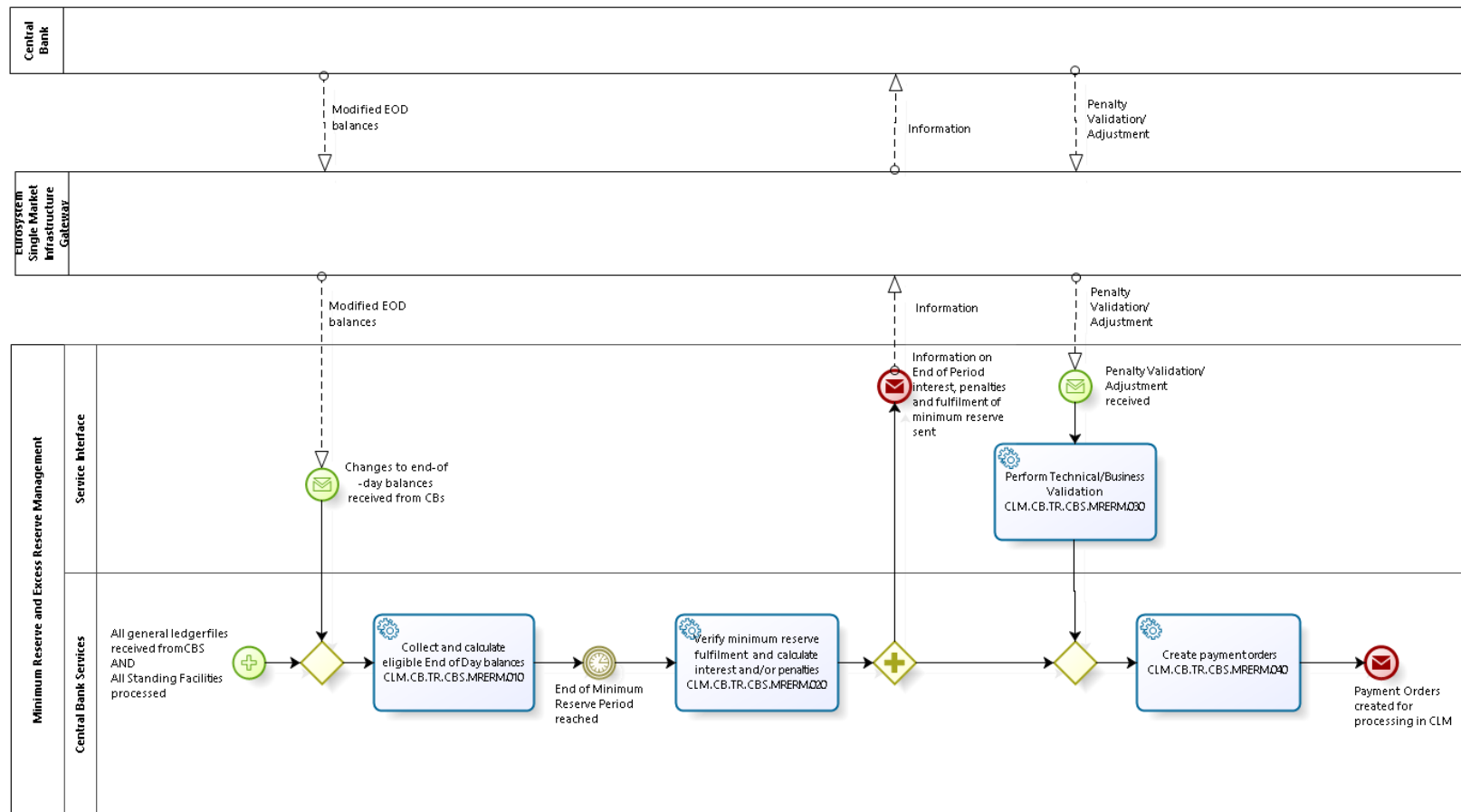
<b>Id</b>	CLM.CB.UR.CBS.MLRIC.030.010
<b>Name</b>	Send notification to CB system
<b>Description</b>	<p>At the reception of the confirmation notification from CLM, CBS shall relay this notification to ECMS.</p> <p>A debit/credit notification shall be sent (according to message subscription) to the owner of the MCA that has been debited and (according to message subscription) to the CB as owner of the CB account.</p>



## 2.10 COLLECT END OF DAY GENERAL LEDGER FILES FROM SETTLEMENT SERVICES

Business Process Ref: CLM.CB.BP.CBS.CEODB

### 2.10.1 Business Process Model



---

**Business Process Model 12: Collect End of Day general ledger files from settlement services**

## 2.10.2 Process Overview

### Process goal:

This process describes how CBS shall collect the End of Day general ledger files from the various settlement services (CLM, RTGS, TIPS, T2S and Contingency Settlement (CS)) and relay them to the relevant CBs.

Contingency Settlement shall only deliver the information to CLM once CS is closed.

### Process context:

The following shall prevail with regards to general ledger information:

- ▶ One general ledger file per settlement service (CLM, RTGS, TIPS, T2S and CS);
- ▶ The format to be used shall be a structured ISO message; and
- ▶ All general ledger files shall be delivered to CBs from CBS.

The collected End of Day general ledger files received from the different settlement services will then be subsequently used by CLM/CBS to:

- ▶ Verify the minimum reserve fulfilment;
- ▶ Calculate the automatic marginal lending; and
- ▶ Calculate the TARGET balances.

CLM shall produce the CLM general ledger file after the settlement of Standing Facilities. However CLM balances shall be taken into account for the calculation mentioned before.

### Pre-conditions:

The process is dependent on the receiving of the End of Day general ledger files from the various settlement services (CLM, RTGS, TIPS, T2S and CS).

### Time constraints:

CBS shall receive the general ledger files from every settlement service (with the exception of CLM) by the marginal lending cut-off (i.e. 18:15 with additional fifteen minutes in the last day of the reserve maintenance period).

CLM shall send the files after the settlement of Standing Facilities.

### Triggers:

The start of the End of Day process shall be the trigger to the collection of the End of Day general ledger files by CBS.

## 2.10.3 User Requirements

### 2.10.3.1 GENERAL USER REQUIREMENTS FOR THE COLLECTION OF END OF DAY GENERAL LEDGER FILES FROM THE SETTLEMENT SERVICES

<b>Id</b>	CLM.CB.UR.CBS.CEODB.000.010
<b>Name</b>	Information to be included in the End of Day general ledger files for the

	settlement services (with the exception of CLM)
Description	<p>The End of Day general ledger files sent by the settlement services (with the exception of CLM) shall contain the following information for each CB:</p> <ul style="list-style-type: none"> <li>Starting and End of Day balance of the account (and sub accounts); and</li> <li>Turnover on accounts (and sub accounts).</li> </ul>

Id	CLM.CB.UR.CBS.CEODB.000.020
Name	Information to be included in the End of Day general ledger files for CLM
Description	<p>The End of Day general ledger files sent by CLM shall contain the following information for each CB:</p> <ul style="list-style-type: none"> <li>Starting and End of Day balance of the CB's ECB account;</li> <li>Starting and End of Day balance of the accounts; and</li> <li>Turnover on accounts.</li> </ul>

#### 2.10.3.2 PERFORM TECHNICAL AND BUSINESS VALIDATION

**Task Ref:** **CLM.CB.TR.CBS.CEODB.010** and **CLM.CB.TR.CBS.CEODB.020**

At the end of each business day, CBS shall receive an End of Day general ledger file from each settlement service. At the reception of the general ledger file, CBS shall perform technical and business validation checks.

Id	CLM.CB.UR.CBS.CEODB.010.010
Name	File format
Description	The files to be received from each settlement service shall be harmonised and structured XML files.

Id	CLM.CB.UR.CBS.CEODB.010.020
Name	Check mandatory fields
Description	CBS shall ensure that all mandatory fields are populated.

Id	CLM.CB.UR.CBS.CEODB.010.030
Name	Processing in case of failed validation checks
Description	In case of a negative result of the validation checks, the file shall be rejected and an alert shall be sent to the TARGET Service Desk with the relevant error code(s).

### 2.10.3.3 CHECK FOR COMPLETENESS

**Task Ref: CLM.CB.TR.CBS.CEODB.030**

<b>Id</b>	CLM.CB.UR.CBS.CEODB.030.010
<b>Name</b>	Check for completeness
<b>Description</b>	CBS shall check that it has received all End of Day general ledger files from all settlement services.

<b>Id</b>	CLM.CB.UR.CBS.CEODB.030.020
<b>Name</b>	Generate alert if an End of Day general ledger file is missing
<b>Description</b>	If an End of Day general ledger file is not received from a settlement service within a predefined timeframe (that shall be configurable), an alert message shall be generated by CBS to the TARGET Service Desk for investigation purposes.

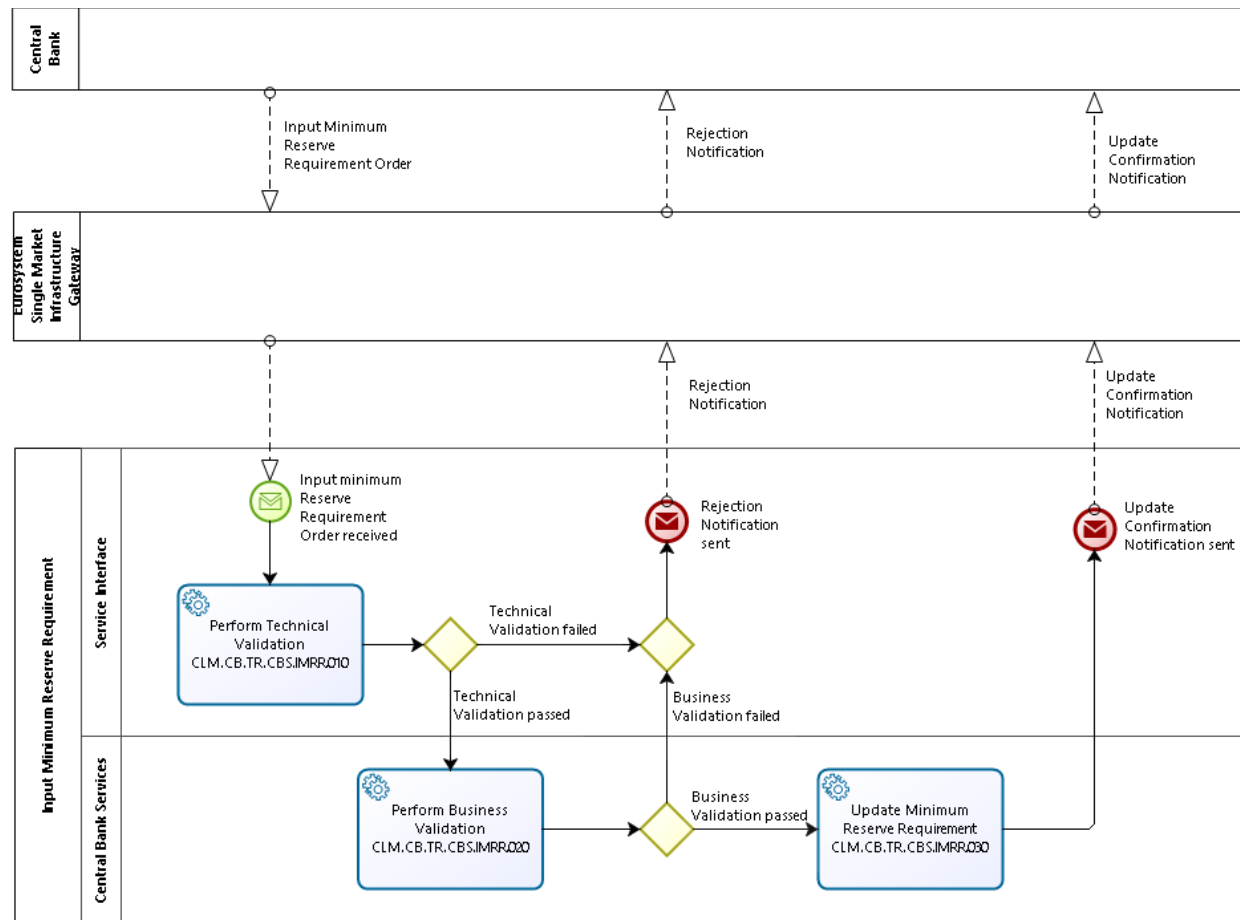
<b>Id</b>	CLM.CB.UR.CBS.CEODB.030.030
<b>Name</b>	End of Day processing in case of a missing End of Day general ledger file
<b>Description</b>	The End of Day processing shall be interrupted if any End of Day general ledger file from a settlement service has not been received.  It shall however be possible for the TARGET Service Desk to re-start the End of Day processing if one or multiple general ledger files are missing.

<b>Id</b>	CLM.CB.UR.CBS.CEODB.030.040
<b>Name</b>	Processing in case of completeness
<b>Description</b>	In case of completeness, CBS shall relay the general ledger files to CBs.

## 2.11 INPUT MINIMUM RESERVE REQUIREMENT

Business Process Ref: CLM.CB.BP.CBS.IMRR

### 2.11.1 Business Process Model



---

**Business Process Model 13: Input Minimum Reserve Requirement**

## 2.11.2 Process Overview

### Process goal:

This process describes how CBS shall process the minimum reserve requirement input by CBs.

### Process context:

This minimum reserve requirement will then be subsequently used to verify the credit institution's minimum reserve fulfilment.

### Pre-conditions:

The credit institution needs to be subject to minimum reserve.

### Time constraints:

CBs shall be able to input a minimum reserve requirement at any time for the upcoming minimum reserve periods before the period starts.

### Expected results:

The minimum reserve requirement shall be updated with the new amount indicated by the CB.

### Triggers:

The input of the minimum reserve requirement can be initiated through:

- ▶ An order sent by the relevant CB system; or
- ▶ Manual input via U2A screen by the CB operator.

## 2.11.3 User Requirements

### 2.11.3.1 PERFORM TECHNICAL VALIDATION

#### Task Ref: CLM.CB.TR.CBS.IMRR.010

At the reception of a minimum reserve requirement input request, the component interface shall complete technical validation by performing checks such as field level validation (fields shall have correct data type and size).

<b>Id</b>	CLM.CB.UR.CBS.IMRR.010.005
<b>Name</b>	File management
<b>Description</b>	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.



<b>Id</b>	CLM.CB.UR.CBS.IMRR.010.010
<b>Name</b>	Check mandatory fields
<b>Description</b>	The component interface shall ensure that all mandatory fields in the message received are populated.

<b>Id</b>	CLM.CB.UR.CBS.IMRR.010.020
<b>Name</b>	Perform all possible technical validations
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.CBS.IMRR.010.030
<b>Name</b>	Processing in case of passed technical validation
<b>Description</b>	In case of a positive result of the technical validation, the order shall be sent to CBS for further processing.

<b>Id</b>	CLM.CB.UR.CBS.IMRR.010.040
<b>Name</b>	Processing in case of failed technical validation
<b>Description</b>	In case of 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 instructing CB system.  In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).

### 2.11.3.2 PERFORM BUSINESS VALIDATION

#### Task Ref: **CLM.CB.TR.CBS.IMRR.020**

In case of a positive result of the technical validation of the minimum reserve requirement input request, CBS shall also validate the message received against the reference data and perform additional checks/validations.

<b>Id</b>	CLM.CB.UR.CBS.IMRR.020.010
<b>Name</b>	Authorisation check
<b>Description</b>	CBS shall check that only authorised CB systems or CB operators (in case of manual input) are allowed to send a minimum reserve requirement input request.

<b>Id</b>	CLM.CB.UR.CBS.IMRR.020.020
<b>Name</b>	Business validation of the values
<b>Description</b>	CBS shall check that all provided values are valid according to predefined values or cross-field validations.

<b>Id</b>	CLM.CB.UR.CBS.IMRR.020.030
<b>Name</b>	Processing in case of failed business validation
<b>Description</b>	<p>In case of a negative result of the business validation, the request shall be rejected and a notification with the appropriate error code(s) shall be sent to the instructing CB system.</p> <p>In case of a manual input via the U2A screen, the error message shall be displayed directly on the screen with the relevant error code(s).</p>

### 2.11.3.3 UPDATE MINIMUM RESERVE REQUIREMENT

#### Task Ref: **CLM.CB.TR.CBS.IMRR.030**

In case of a positive result of the business validation of the minimum reserve requirement input request, CBS shall update the minimum reserve requirement value.

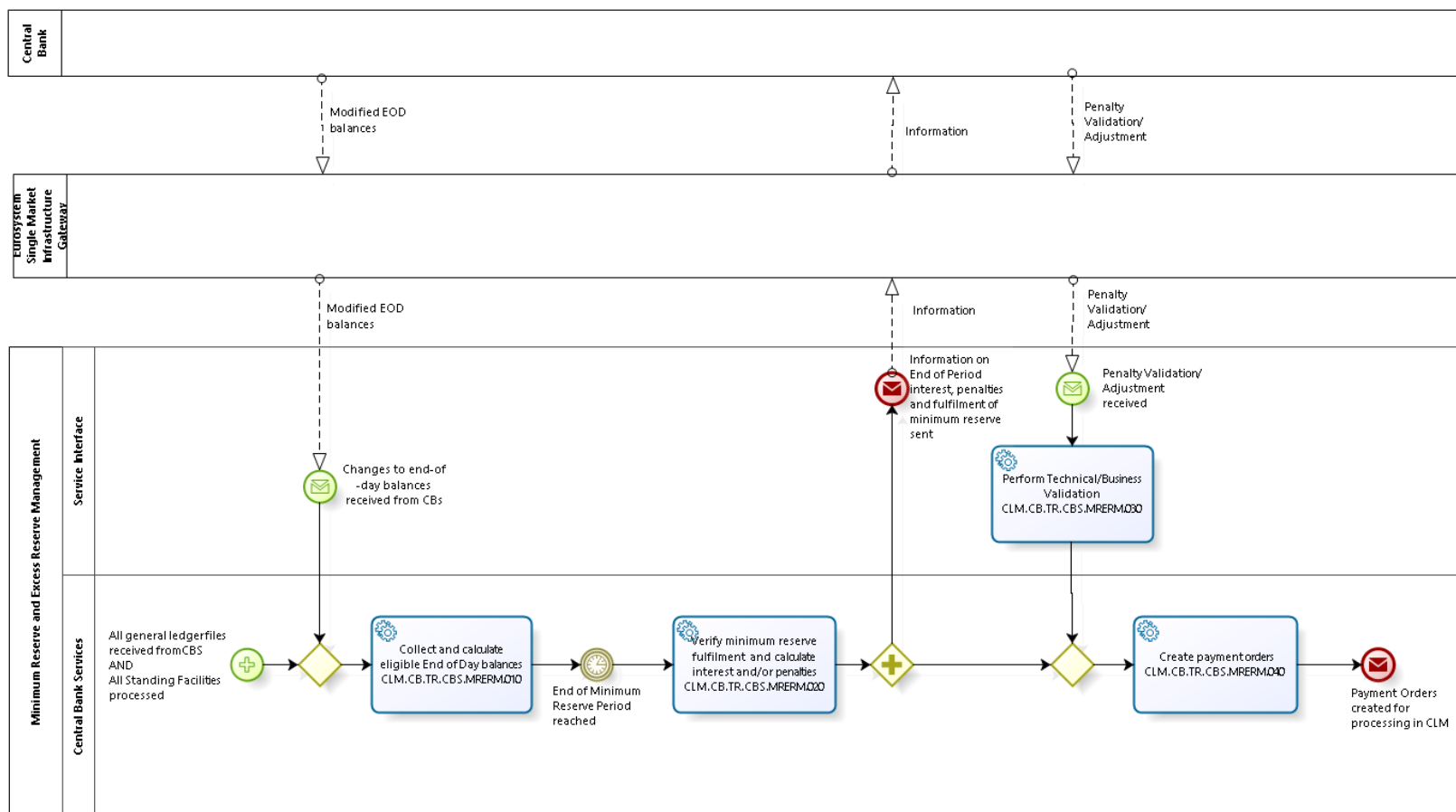
<b>Id</b>	CLM.CB.UR.CBS.IMRR.030.010
<b>Name</b>	Minimum reserve requirement value update
<b>Description</b>	In case of a positive result of the business validation of the minimum reserve requirement input request, CBS shall update the minimum reserve requirement for the relevant credit institution.

<b>Id</b>	CLM.CB.UR.CBS.IMRR.030.020
<b>Name</b>	Update confirmation to CB system
<b>Description</b>	<p>After the update of the minimum reserve requirement, CBS shall send to the instructing CB system a successful update confirmation.</p> <p>In case of a manual input via the U2A screen, the update confirmation shall be displayed directly on the screen.</p>

## 2.12 MINIMUM RESERVE AND EXCESS RESERVE MANAGEMENT

Business Process Ref: CLM.CB.BP.CBS.MRERM

### 2.12.1 Business Process Model



---

## Business Process Model 14: Minimum Reserve and Excess Reserve Management

## 2.12.2 Process Overview

### Process goal:

This process describes how CBS shall perform the minimum and excess reserve requirements management, e.g. verify the minimum reserves fulfilment, calculate the excess of reserve and calculate the interest to be paid to / received from credit institutions for minimum reserves / the exempt and non-exempt tiers of the excess of reserve. The process applies to an individual MFI in case of direct or indirect reserve management, and to a Minimum Reserve Group in case of management by pool.

### Pre-conditions:

CBS shall receive all End of Day general ledger files from the settlement services (e.g. CLM, RTGS, T2S and TIPS).

CBS shall provide the functionality to adjust the minimum reserve fulfilment of a CLM account holder through U2A and A2A interface.

### Time constraints:

CBS shall manage the minimum and excess reserve requirements after the settlement of Standing Facilities and before the start of the new business day.

### Expected results:

CBS shall:

- ▶ Calculate daily for each MFI or Minimum Reserve Group the End of Day balance as well as the running average balances;
- ▶ Verify daily the minimum reserve fulfilment for each MFI or Minimum Reserve Group and calculate the adjustment balance for the rest of the maintenance period;
- ▶ Calculate the interest to be paid to MFIs or Leader CLM Account Holder for a Minimum Reserve Group for minimum reserves after the end of the maintenance period;
- ▶ Calculate the penalties related to the reserve requirements infringement to be submitted to the relevant CB's validation process at the end of the maintenance period;
- ▶ Calculate interest on the exempt tier of the excess of reserve at the end of the maintenance period;
- ▶ Calculate interest on the non-exempt tier of the excess of reserve at the end of the maintenance period;
- ▶ Notify the CBs of the minimum reserve fulfilment, due interest and possible penalties for the pertaining MFIs or Minimum Reserve Group at the end of the maintenance period;
- ▶ Create automatically the related credit and debit instructions for the interest payments concerning the minimum reserve fulfilment and send them to CLM at the end of the maintenance period; and
- ▶ Create automatically the related credit and debit instructions for the interest payments concerning the exempt and non-exempt tier of the excess of minimum reserve and send them to CLM at the end of the maintenance period.

### Triggers:

CBS shall automatically initiate the minimum and excess reserve requirements management after receiving all End of Day general ledger files from the individual settlement services.

## 2.12.3 User Requirements

### 2.12.3.1 COLLECT AND CALCULATE ELIGIBLE END OF DAY BALANCES

**Task Ref: CLM.CB.TR.CBS.MRERM.010**

<b>Id</b>	CLM.CB.UR.CBS.MRERM.010.010
<b>Name</b>	Collect End of Day balances
<b>Description</b>	CBS shall collect the End of Day balances of all accounts to be included in the minimum reserve and excess of reserve calculation.

<b>Id</b>	CLM.CB.UR.CBS.MRERM.010.020
<b>Name</b>	Calculate global End of Day balance and running average
<b>Description</b>	CBS shall calculate for each Party the global End of Day balance of the previous business day (which is the sum of the End of Day balances of the accounts to be included in the minimum reserve and excess calculation, but potentially reduced by the credit line usage on the respective MCAs) as well as the running average of the Party's global End of Day balance up to the previous business day.

<b>Id</b>	CLM.CB.UR.CBS.MRERM.010.040
<b>Name</b>	Verify daily the minimum reserve fulfilment for each MFI or Minimum Reserve Group
<b>Description</b>	CBS shall also verify on a daily basis for each MFI or Minimum Reserve Group (for minimum reserve managed in a pool) the minimum reserve fulfilment by calculating the adjustment balance, i.e. the balance necessary to fulfil the minimum reserve.

### 2.12.3.2 VERIFY MINIMUM RESERVE FULFILMENT AND CALCULATE INTEREST AND/OR PENALTIES

**Task Ref: CLM.CB.TR.CBS.MRERM.020**

This task shall take place at the end of the maintenance period, i.e. the period over which compliance with reserve requirements is calculated and for which such minimum reserves must be held on reserve accounts.

<b>Id</b>	CLM.CB.UR.CBS.MRERM.020.010
<b>Name</b>	Verify minimum reserve fulfilment for each MFI or Minimum Reserve Group
<b>Description</b>	At the end of the maintenance period, CBS shall verify the minimum reserve fulfilment for each MFI or Minimum Reserve Group, i.e. compare the MFI's or Minimum Reserve Group global End of Day balance running average during the maintenance period with the minimum reserve requirement defined by the relevant CB.

<b>Id</b>	CLM.CB.UR.CBS.MRERM.020.020
<b>Name</b>	Calculate interest for minimum reserves
<b>Description</b>	At the end of the maintenance period, CBS shall calculate the interest to be paid to MFIs or Minimum Reserve Group for the amounts up to the minimum reserve requirement according to the relevant interest rate.

<b>Id</b>	CLM.CB.UR.CBS.MRERM.020.030
<b>Name</b>	Calculate penalties
<b>Description</b>	At the end of the maintenance period, CBS shall calculate the penalties related to the reserve requirements infringement in case the running average during the maintenance period is lower than the minimum reserve requirement for an MFI or Minimum Reserve Group.

<b>Id</b>	CLM.CB.UR.CBS.MRERM.020.040
<b>Name</b>	Calculate excess of reserve and interest on excess of reserve
<b>Description</b>	<p>At the end of the maintenance period, CBS shall calculate the excess of minimum reserve and the interests on the exempt and non-exempt tiers of excess of reserve according to the relevant interest rates.</p> <p>For credit institutions subject to minimum reserve requirements, the excess of reserve is the difference between the global End of Day balance running average and the minimum reserve requirements.</p> <p>For credit institutions not subject to minimum reserve requirements and other Parties (with the exception of CBs), the excess of reserve is the global End of Day balance running average.</p>

<b>Id</b>	CLM.CB.UR.CBS.MRERM.020.050
<b>Name</b>	Notification to CB systems
<b>Description</b>	After verifying the minimum reserve fulfilment and the interest / penalties calculation, CBS shall send a notification to the CB systems on the minimum reserve fulfilment, due interest and possible penalties for the pertaining Parties.

With regards to penalties, a feedback from CBs is required before creating the payment orders.

### 2.12.3.3 PERFORM TECHNICAL/BUSINESS VALIDATION

#### Task Ref: CLM.CB.TR.CBS.MRERM.030

CBS shall perform technical and business validation checks on the feedback received from the CB systems with regards to penalties. The validation of penalties shall be possible on a U2A basis.

<b>Id</b>	CLM.CB.UR.CBS.MRERM.030.010
<b>Name</b>	Check relevance of CB system feedback
<b>Description</b>	CBS shall check that the response received from the CB system is related to a notification it has sent and for which it requires a feedback.

### 2.12.3.4 CREATE PAYMENT ORDERS

#### Task Ref: CLM.CB.TR.CBS.MRERM.040

After the interest and penalties calculation, CBS shall create payment orders to be processed within CLM.

<b>Id</b>	CLM.CB.UR.CBS.MRERM.040.010
<b>Name</b>	Create payment orders for minimum reserve fulfilment
<b>Description</b>	After the interest and penalties calculation, CBS shall create automatically the related payment orders for minimum reserve fulfilment (the payment order with regards to penalties shall only be created after the CB validation process) and send them to CLM for further processing.

<b>Id</b>	CLM.CB.UR.CBS.MRERM.040.020
<b>Name</b>	Create payment orders for excess of minimum reserve
<b>Description</b>	After the interest calculation, CBS shall create automatically the related payment orders for both the exempt and non-exempt tiers of the excess of minimum reserve and send them to CLM for further processing (in case of interest rate =0% no payment order shall be created).

<b>Id</b>	CLM.CB.UR.CBS.MRERM.040.030
<b>Name</b>	Value date of payment orders
<b>Description</b>	The value date of interest related payment orders shall be two business days after the end of the maintenance period.

## 2.13 CONTINGENCY UPLOAD OF A2A FILES AND MESSAGES IN U2A

### 2.13.1 Process Overview

**Process goal:**



This process describes how CBS shall let a central bank upload A2A files and messages through the U2A GUI in case of a contingency.

**Pre-conditions:**

National central bank has received an A2A file or message from the participant through an agreed channel outside or TARGET Services.

CBS shall provide the functionality to load this A2A file or message through the U2A interface.

**Time constraints:**

This functionality should be available at any time from the CLM start of day to the CLM end of day, excluding the maintenance window.

**Expected results:**

The processing of the A2A file/message and subsequent communications are identical to those following an A2A submission by the participant as file/message sender, as if the central bank had not been involved in sending the message.

## 2.13.2 User Requirements

<b>Id</b>	CLM.CB.UR.CBS.A2AU2A.010.010
<b>Name</b>	Upload A2A File or message in U2A
<b>Description</b>	<p>CBS shall let a central bank upload A2A files and messages (except for queries) either on behalf of a participant or for its own use through the U2A GUI in case of a contingency.</p> <p>This will be subject to a four-eye validation: two different central bank users will each load the message/file, with the system checking they have loaded the same message/file, by comparing the checksum of the two messages/files loaded. If the checksums are the same, one file will be sent to the back-end for processing. If they are different, an error will be displayed to the second central bank user in U2A, and no file will be processed. This mechanism is not to be confused with the duplicate check, which will be performed as for any A2A message/file (if the abovementioned 4 eye check is successful).</p> <p>CBS will check that the central bank is the system entity of the message/file sender or the sender of the message/file.</p> <p>Access to the functionality will be granted through a specific privilege.</p>

<b>Id</b>	CLM.CB.UR.CBS.A2AU2A.010.020
<b>Name</b>	Upload A2A File or message in U2A – NRO
<b>Description</b>	CBS shall have a mechanism that lets a central bank user confirm the upload of an A2A message/file in U2A in order to ensure non repudiation of origin.

## 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 functionalities 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 regards to design and the implementation of the actual screens.

### 3.1 GENERAL USER REQUIREMENTS FOR USER INTERACTION

#### 3.1.1 Query

<b>Id</b>	CLM.CB.UR.ALL.UI.010
<b>Name</b>	Query Audit Trail
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.ALL.UI.020
<b>Name</b>	Query System time
<b>Description</b>	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

<b>Id</b>	CLM.CB.UR.ALL.UI.030
<b>Name</b>	Amend/ Revoke Task(s)
<b>Description</b>	All components shall provide the functionality to amend or revoke task(s) through the U2A interfaces.

<b>Id</b>	CLM.CB.UR.ALL.UI.040
<b>Name</b>	Act on behalf
<b>Description</b>	All components shall provide the functionality to act on behalf through U2A and A2A interfaces for: <ul style="list-style-type: none"> <li>Central Banks, to act on behalf of any Party belonging to their banking</li> </ul>

	community; and
	<ul style="list-style-type: none"> <li>The TARGET Service Desk, to act on behalf of any Party.</li> </ul>

<b>Id</b>	CLM.CB.UR.ALL.UI.050
<b>Name</b>	Access rights
<b>Description</b>	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.

<b>Id</b>	CLM.CB.UR.ALL.UI.060
<b>Name</b>	Four-eyes (confirm, withdraw, amend)
<b>Description</b>	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.

## 3.2 USER INTERACTION FOR CENTRAL BANK SERVICES

The section below describes the query and action possibilities in Central Bank Services for Central Banks (or Crisis managers).

### 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 and CBS.

<b>Id</b>	CLM.CB.UR.CBS.UI.010
<b>Name</b>	Query Standing Facilities transaction of the respective banking community
<b>Description</b>	<p>CBS shall provide the function to query Standing Facilities transactions (marginal lending and overnight deposit) of the respective banking community. The Central Bank user can query within his data scope.</p> <p>The query shall return the following information about all Standing Facilities transactions of the respective banking community for the current business day:</p> <ul style="list-style-type: none"> <li>Party BIC</li> <li>Party Name (U2A only)</li> <li>Operation type (marginal lending or overnight deposit)</li> <li>Transaction Reference Number</li> </ul>

	<ul style="list-style-type: none"> <li>• Credit/Debit</li> <li>• Amount of the transaction</li> <li>• Status</li> <li>• Entry Time</li> <li>• Settlement Time</li> </ul>
--	--

<b>Id</b>	CLM.CB.UR.CBS.UI.020
<b>Name</b>	Query minimum reserve requirements per CLM account holder
<b>Description</b>	<p>CBS shall provide a functionality to query the minimum reserve requirements per CLM account holder. The Central Bank user can query within his data scope, which is determined by the Party BICs and MCA numbers.</p> <p>The user shall specify the following mandatory selection criteria.</p> <p><u>Mandatory selection criteria:</u></p> <ul style="list-style-type: none"> <li>• Maintenance period (current or upcoming)</li> <li>• Either Party BIC or Party Name</li> </ul> <p>The query shall return all relevant information about minimum reserve requirements including both exempt and non-exempt tiers excess reserve and the minimum reserve running average per CLM account holder.</p>

<b>Id</b>	CLM.CB.UR.CBS.UI.030
<b>Name</b>	Query minimum reserve of a banking community
<b>Description</b>	<p>CBS shall provide a functionality to query the minimum reserve requirement of a whole banking community listing the CLM account holders being subject to minimum reserve requirement. The Central Bank user can query within his data scope/ banking community, which is determined by the Party BICs and MCA numbers.</p> <p>The user shall specify the following mandatory selection criterion.</p> <p><u>Mandatory selection criterion:</u></p> <ul style="list-style-type: none"> <li>• Maintenance period (current or upcoming).</li> </ul> <p>The query shall return all relevant information about minimum reserve requirements including both exempt and non-exempt tiers excess reserve and the minimum reserve running average for the whole banking community listing the minimum reserve requirements per CLM account holder.</p>

<b>Id</b>	CLM.CB.UR.CBS.UI.040
<b>Name</b>	Query penalty
<b>Description</b>	<p>CBS shall provide the function to query penalty regarding minimum reserve infringements on a MCA.</p> <p>The Central Bank user can query within his data scope. The user shall specify</p>

	<p>at least one of the following mandatory selection criteria.</p> <p><u>Mandatory selection criteria:</u></p> <ul style="list-style-type: none"> <li>• Either Party BIC or Party Name (U2A only)</li> <li>• Maintenance Period (From-To)</li> <li>• Penalty Status</li> </ul> <p>The query shall return all relevant information about penalties regarding minimum reserve infringement, including:</p> <ul style="list-style-type: none"> <li>• Party BIC</li> <li>• Party Name (U2A only)</li> <li>• Maintenance Period (From-To)</li> <li>• Penalty Amount</li> <li>• Penalty Type</li> <li>• Penalty Status</li> </ul>
--	---

<b>Id</b>	CLM.CB.UR.CBS.UI.050
<b>Name</b>	Query the usage of marginal lending (during transition period)
<b>Description</b>	<p>CBS shall provide the functionality to query the usage of marginal lending through U2A interface. The Central Bank user can query within his data scope/ banking community, which is determined by the Party BICs and MCA numbers.</p> <p>The query shall return all relevant information about marginal lending, including:</p> <ul style="list-style-type: none"> <li>• Party BIC</li> <li>• Party Name</li> <li>• Marginal Lending Account</li> <li>• Total Balance on the Marginal Lending Account</li> </ul>

<b>Id</b>	CLM.CB.UR.CBS.UI.060
<b>Name</b>	Query the usage of overnight deposit
<b>Description</b>	<p>CBS shall provide a functionality to query the usage of overnight deposit through U2A interface. The Central Bank user can query within his data scope/ banking community, which is determined by the Party BICs and MCA numbers.</p> <p>The query shall return all relevant information about overnight deposit, including:</p> <ul style="list-style-type: none"> <li>• Party BIC</li> <li>• Party Name</li> <li>• Overnight Deposit Account</li> <li>• Total Balance on the Overnight Deposit Account</li> </ul>

<b>Id</b>	CLM.CB.UR.CBS.UI.070
<b>Name</b>	Query aggregated liquidity for all cash accounts (only for Crisis Managers)
<b>Description</b>	<p>CBS shall provide a functionality to query an aggregated liquidity view for all cash accounts (MCA and DCAs) in Euro through U2A interface.</p> <p>The query shall provide the possibility for crisis managers to see the balances of all accounts in Euro (activated by the TARGET Service Desk upon crisis manager decision) and aggregated figures for cash transfers sorted by their status (including pending).</p>

<b>Id</b>	CLM.CB.UR.CBS.UI.080
<b>Name</b>	Query to request a copy of a Report on minimum reserve information of banking community per MFI or Minimum Reserve Group
<b>Description</b>	<p>CBS shall provide the functionality to request a copy of a report on minimum reserve information of banking community per MFI or Minimum Reserve Group and maintenance period through A2A interface. The Central Bank user can query within his data scope/ banking community, which is determined by the Party BICs and MCA numbers. The user shall specify either the Party BIC or the Party Name of the MFI or the Leading CLM Account Holder.</p>

### 3.2.2 Action

<b>Id</b>	CLM.CB.UR.CBS.UI.090
<b>Name</b>	Create marginal lending on request
<b>Description</b>	<p>CBS shall provide the functionality to create marginal lending on request through U2A and A2A interface.</p>

<b>Id</b>	CLM.CB.UR.CBS.UI.100
<b>Name</b>	Create minimum reserve requirement
<b>Description</b>	<p>CBS shall provide the functionality to create the minimum reserve requirement of a CLM account holder through U2A and A2A interface.</p>

<b>Id</b>	CLM.CB.UR.CBS.UI.110
<b>Name</b>	Modify minimum reserve requirement
<b>Description</b>	<p>CBS shall provide the functionality to modify the minimum reserve requirement of a CLM account holder through U2A and A2A interface.</p>

<b>Id</b>	CLM.CB.UR.CBS.UI.120
<b>Name</b>	Adjust minimum reserve fulfilment
<b>Description</b>	<p>CBS shall provide the functionality to adjust the minimum reserve fulfilment of a CLM account holder through U2A and A2A interface.</p>

<b>Id</b>	CLM.CB.UR.CBS.UI.130
<b>Name</b>	Authorise penalties
<b>Description</b>	CBS shall provide the possibility to authorise penalties for minimum reserve infringements on MCA through U2A and A2A interface.

<b>Id</b>	CLM.CB.UR.CBS.UI.140
<b>Name</b>	Modify penalties
<b>Description</b>	CBS shall provide the possibility to modify penalties for minimum reserve infringements on MCA through U2A interface.

<b>Id</b>	CLM.CB.UR.CBS.UI.150
<b>Name</b>	Cancel penalty
<b>Description</b>	CBS shall provide the possibility to cancel penalties for minimum reserve infringements on MCA through U2A and A2A interface.

<b>Id</b>	CLM.CB.UR.CBS.UI.160
<b>Name</b>	Create operations-related broadcast
<b>Description</b>	<p>CBS shall provide the functionality to the TARGET Service Desk and CB to create an operations-related broadcast message for all or selected groups of CLM parties through U2A interface. Such messages will be pushed to CLM parties in U2A and, if the CLM party has subscribed for A2A broadcast messages, in A2A as well.</p> <p>The TARGET Service Desk and CB can send operations-related broadcasts to</p> <ul style="list-style-type: none"> <li>• all parties across CLM</li> <li>• a selected group of parties</li> <li>• all parties except for a selected group of parties</li> <li>• all parties under the responsibility of a given national central bank</li> <li>• all central banks</li> <li>• a single party</li> </ul>

Query / Action	U2A	A2A
Query Standing Facilities transaction of the respective banking community	x	x
Query minimum reserve requirements per CLM account holder	x	x
Query minimum reserve of a banking community	x	x
Query penalty	x	x
Query the usage of marginal lending	x	
Query the usage of overnight deposit	x	
Query aggregated liquidity for all cash accounts (only for Crisis Managers)	x	

Query to request a copy of a Report on minimum reserve information of banking community per MFI or Minimum Reserve Group		x
Create marginal lending on request	x	x
Create/ Modify minimum reserve requirement	x	x
Adjust minimum reserve fulfilment	x	x
Authorise/ Cancel penalties	x	x
Modify penalties	x	
Create operations-related broadcast	x	

**Table 3: Summary of queries and actions in U2A and A2A mode for Central Bank Services**

### 3.3 USER INTERACTION FOR CENTRAL LIQUIDITY MANAGEMENT

The section below describes the user requirements for queries and actions in Central Liquidity Management (CLM) for Central Banks (including the account holder of the Dedicated Transit Account).

#### 3.3.1 Query

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

<b>Id</b>	CLM.CB.UR.CLM.UI.010
<b>Name</b>	Query aggregated available liquidity in CLM for the whole banking community
<b>Description</b>	<p>CLM shall provide a functionality to query an aggregated view of all liquidity for the whole banking community with breakdown per CLM account holder and per account through U2A interface. The Central Bank user can query within his data scope/ banking community, which is determined by the Party BICs and account numbers.</p> <p>The query shall return all relevant information for the current business day including:</p> <ul style="list-style-type: none"> <li>• Party BIC</li> <li>• Party Name</li> <li>• Balance on MCA</li> <li>• Credit line on MCA</li> <li>• Balance on RTGS DCA</li> <li>• Balance on TIPS DCA (and TIPS AS Technical Account)</li> <li>• Balance on T2S DCA</li> <li>• Number of transactions on each account</li> <li>• Pending transactions (debits and credits)</li> <li>• Aggregated (overall available liquidity) in CLM</li> <li>• Balance of CB Accounts</li> <li>• Balance of CB ECB Accounts</li> <li>• Balance of ECB Mirror Accounts</li> <li>• Balance of AS Technical Accounts</li> <li>• Balance of AS Guarantee Funds Accounts</li> </ul>



	<ul style="list-style-type: none"> <li>• Balance of Transit Accounts</li> <li>• Marginal Lending Accounts</li> <li>• Overnight Deposit Accounts</li> </ul>
--	--

<b>Id</b>	CLM.CB.UR.CLM.UI.020
<b>Name</b>	Query liquidity on Banking Group level
<b>Description</b>	<p>CLM shall provide a functionality to query liquidity on Banking Group level with breakdown per CLM account holder and per service through U2A interface. The Central Bank user can query within his data scope/ banking community, which is determined by the Party BICs and MCA numbers.</p> <p>Central Banks shall have the possibility to perform the monitoring of Banking Groups (including all cash accounts within all services) following the existing Oversight requirements. The query shall return all relevant information for the current business day, including:</p> <ul style="list-style-type: none"> <li>• Banking Group Identifier</li> <li>• Party BIC</li> <li>• Party Name</li> <li>• Balance on MCA</li> <li>• Balance on RTGS DCA</li> <li>• Balance on TIPS DCA</li> <li>• Balance on T2S DCA</li> <li>• Credit Line (on MCA)</li> </ul>

<b>Id</b>	CLM.CB.UR.CLM.UI.030
<b>Name</b>	Query liquidity on Banking Group level (activated only upon Crisis Managers decision)
<b>Description</b>	<p>CLM shall provide a functionality to query liquidity on Banking Group level through U2A interface. The query can be activated in crisis situation upon a decision taken by Crisis Managers.</p> <p>The query shall return all relevant information for the current business day, including:</p> <ul style="list-style-type: none"> <li>• Banking Group Identifier</li> <li>• Party BIC</li> <li>• Party Name</li> <li>• Balance on MCA</li> <li>• Balance on RTGS DCA</li> <li>• Balance on TIPS DCA</li> <li>• Balance on T2S DCA</li> <li>• Credit line (on MCA)</li> <li>• Pending cash transfers (debit and credit)</li> <li>• Overall balance of all accounts</li> </ul>

	In addition each account balance shall be made available.
--	---

<b>Id</b>	CLM.CB.UR.CLM.UI.040
<b>Name</b>	Query cash transfers per status for the whole banking community
<b>Description</b>	<p>CLM shall provide the functionality to query the sum of cash transfers on the MCA and their respective status on all accounts belonging to the Central Bank's banking community through U2A interface.</p> <p>The Central Bank user can query within his data scope/ banking community, which is determined by the Party BICs and MCA numbers. In addition the query shall allow the user to specify any combination of optional selection criteria.</p> <p>Optional selection criteria:</p> <ul style="list-style-type: none"> <li>• Message type</li> <li>• Priority</li> <li>• Debit/Credit</li> <li>• Sender BIC</li> <li>• Receiver BIC</li> <li>• Amount</li> <li>• Priority</li> <li>• Status</li> </ul> <p>The query shall return all business attributes of the cash transfers per status and the overall amounts for the whole banking community including the processing status.</p>

<b>Id</b>	CLM.CB.UR.CLM.UI.050
<b>Name</b>	Query balances of all Dedicated Transit Accounts
<b>Description</b>	<p>CLM shall provide the functionality to query the balances of all Dedicated Transit Accounts in CLM (RTGS, TIPS, T2S) for reconciliation purposes between CLM and the settlement services through U2A interface.</p> <p>The query shall return an overview of the balances of all Dedicated Transit Accounts for the current business day including:</p> <ul style="list-style-type: none"> <li>• Balance on RTGS Dedicated Transit Account in CLM</li> <li>• Balance on TIPS Dedicated Transit Account in CLM</li> <li>• Balance on T2S Dedicated Transit Account in CLM</li> <li>• Overall balance of all Dedicated Transit Accounts</li> </ul> <p>Note: Only the account holder of the Dedicated Transit Account shall have access to this query.</p>

<b>Id</b>	CLM.CB.UR.CLM.UI.060
<b>Name</b>	Query to request a copy of a Report on general ledger
<b>Description</b>	CLM shall provide the functionality to request a copy of a Report on general ledger through A2A interface.

### 3.3.2 Action

<b>Id</b>	CLM.CB.UR.CLM.UI.070
<b>Name</b>	Create credit line
<b>Description</b>	CLM shall provide the functionality to create a credit line through U2A and A2A interface on MCA.

<b>Id</b>	CLM.CB.UR.CLM.UI.080
<b>Name</b>	Modify credit line
<b>Description</b>	CLM shall provide the functionality to modify a credit line through U2A and A2A interface for MCA.

<b>Id</b>	CLM.CB.UR.CLM.UI.090
<b>Name</b>	Create cash transfer
<b>Description</b>	CLM shall provide a functionality to create a cash transfer on the MCA through U2A and A2A interface (e.g. Central Bank Operation, Cash Withdrawals, Standing Facilities transfers).

<b>Id</b>	CLM.CB.UR.CLM.UI.100
<b>Name</b>	Release a debit cash transfer order for/from blocked CLM account holder
<b>Description</b>	CLM shall provide the functionality to release a debit cash transfer order for excluded CLM account holders through U2A interface.

<b>Id</b>	CLM.CB.UR.CLM.UI.110
<b>Name</b>	Release a credit cash transfer order for/from blocked CLM account holder
<b>Description</b>	CLM shall provide the functionality to release a credit cash transfer order for excluded CLM account holders through U2A interface.

<b>Id</b>	CLM.CB.UR.CLM.UI.120
<b>Name</b>	Reserve liquidity on MCA dedicated for seizure
<b>Description</b>	CLM shall provide the function to reserve liquidity on MCA dedicated for seizure based on court decision(s) through U2A interface.  Note: The reservation of liquidity on MCA is a tool to handle the blocking of liquidity on the MCA in case of seizure; however the exact handling of seizure

is subject matter of local jurisdiction and the respective Central Bank.

This table shows a summary of the above described queries and actions in U2A and A2A mode for CLM:

Query / Action	U2A	A2A
Query aggregated available liquidity in CLM for the whole banking community	x	
Query liquidity on Banking Group level	x	
Query liquidity on Banking Group level (activated only upon Crisis Managers decision)	x	
Query cash transfers per status for the whole banking community	x	
Query balances of all Dedicated Transit Accounts	x	
Query to request a copy of a Report on general ledger		x
Create/ Modify credit line	x	x
Create cash transfer	x	x
Release a debit cash transfer order for/from blocked CLM account holder	x	
Release a credit cash transfer order for/from blocked CLM account holder	x	
Reserve liquidity on MCA dedicated for seizure	x	

**Table 4: Summary of queries and actions in U2A and A2A mode for Central Liquidity Management**

## 4 BUSINESS DATA DEFINITIONS

### 4.1 ATTRIBUTES AND ENTITIES

<b>Id</b>	CLM.CB.UR.BDD.010
<b>Name</b>	Reserve Maintenance Period
<b>Description</b>	<p>Period over which compliance with reserve requirements is calculated.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> <li>Start of Reserve Maintenance Period</li> </ul> <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> <li>End of Reserve Maintenance Period</li> </ul>

<b>Id</b>	CLM.CB.UR.BDD.020
<b>Name</b>	Marginal Lending Interest Rate
<b>Description</b>	<p>Interest rate applied to a marginal lending transaction.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> <li>Marginal Lending Interest Rate</li> <li>Valid From Date</li> </ul> <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> <li>Valid To Date</li> </ul>

<b>Id</b>	CLM.CB.UR.BDD.030
<b>Name</b>	Overnight Deposit Interest Rate
<b>Description</b>	<p>Interest rate applied to an overnight deposit.</p> <p><u>Mandatory attributes:</u></p> <ul style="list-style-type: none"> <li>Overnight Deposit Interest Rate</li> <li>Valid From Date</li> </ul> <p><u>Optional attributes:</u></p> <ul style="list-style-type: none"> <li>Valid To Date</li> </ul>

## List of Business Process Models

Business Process Model 1: Modify Credit Line .....	7
Business Process Model 2: Connected Payment Processing .....	16
Business Process Model 3: Production of CLM End of Day general ledger files.....	22
Business Process Model 4: Set up Overnight Deposit .....	27
Business Process Model 5: Overnight Deposit Reverse Transaction .....	33
Business Process Model 6: Overnight Deposit Reimbursement and Interest Calculation .....	38
Business Process Model 7: Set up Marginal Lending on Request during transition period .....	44
Business Process Model 8: Process Automatic Marginal Lending during transition period.....	49
<b>Business Process Model 81: Process Automatic Marginal Lending after the transition period .....</b>	<b>53</b>
Business Process Model 9: Marginal Lending Reimbursement and Interest Calculation during the transition period .....	58
Business Process Model 91: Automatic Marginal Lending Reimbursement after transition period....	62
Business Process Model 10: Collect End of Day general ledger files from settlement services.....	66
Business Process Model 11: Input Minimum Reserve Requirement.....	71
Business Process Model 12: Minimum Reserve and Excess Reserve Management.....	76

## List of Figures

Figure 1: Context diagram for Central Liquidity Management .....	5
Figure 2: Context diagram for Central Bank Services .....	25

## List of Tables

Table 1: Business Processes for Central Liquidity Management .....	5
Table 2: Business Processes for Central Bank Services .....	26
Table 3: Summary of queries and actions in U2A and A2A mode for Central Bank Services .....	88
Table 4: Summary of queries and actions in U2A and A2A mode for Central Liquidity Management .....	92