

T2/T2S CONSOLIDATION

USER REQUIREMENTS DOCUMENT

FOR

FUTURE RTGS (RTGS)

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1 HIGH VALUE PAYMENTS SETTLEMENT (HVP)

1.1 OVERVIEW

1.1.1 Context Diagram

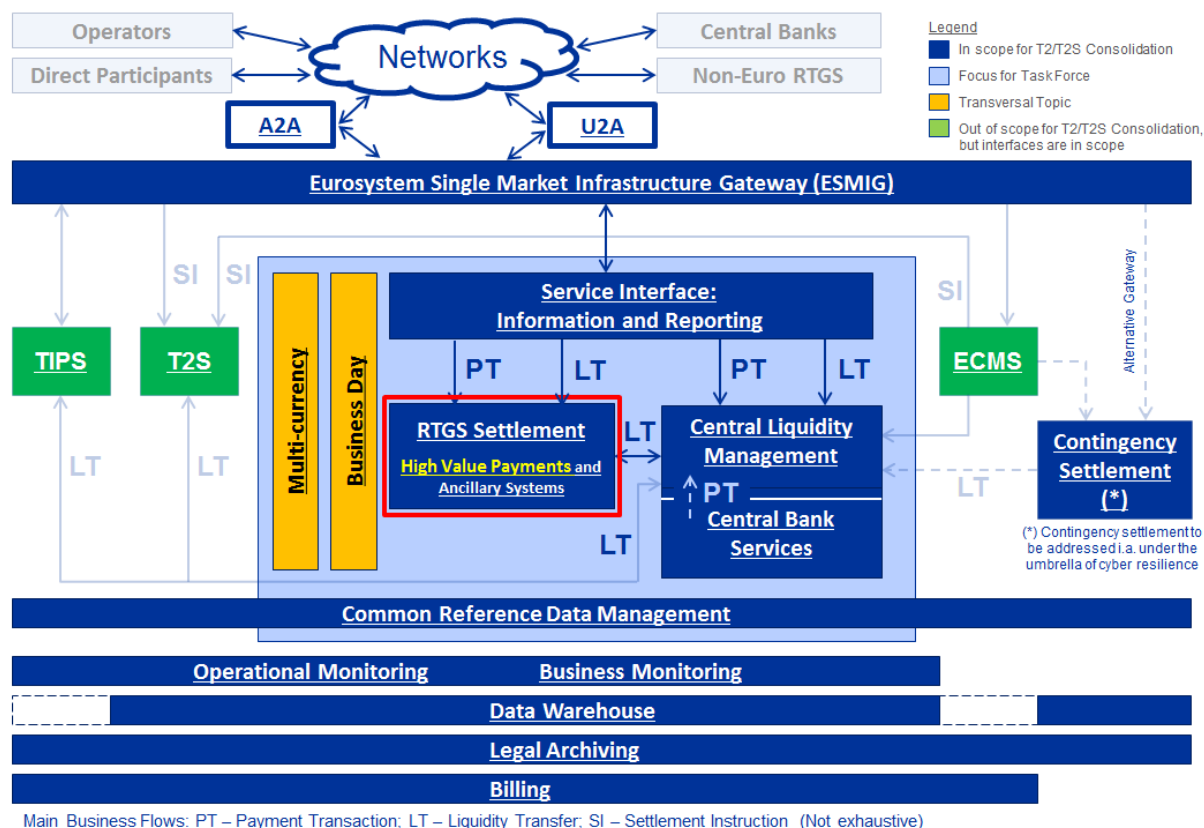


Figure 1: Context diagram for High Value Payments Settlement

This section describes the services offered for High Value Payments (HVP). The RTGS for High Value Payments processes payment orders on the participants' RTGS Dedicated Cash Accounts (DCA).

This includes the entry disposition, the settlement and the queue management.

As a general rule, it is intended to keep most features almost unchanged or enhanced compared to TARGET2. Nevertheless, the introduction of a Central Liquidity Management feature in order to centralise the liquidity management for RTGS, T2S and TIPS, and to settle all Central Bank Operations, including credit line updates, on CLM as well as the migration to ISO20022, will lead to some changes to the current settlement processes for high value payments in TARGET2. As a consequence, this URD gives the full picture of all the requirements for RTGS. More details will be provided during the realisation phase within the UDFS for RTGS.

The description of the processes in this document does not differentiate whether the orders are submitted to the Service in U2A or A2A mode.

1.1.2 Business Processes

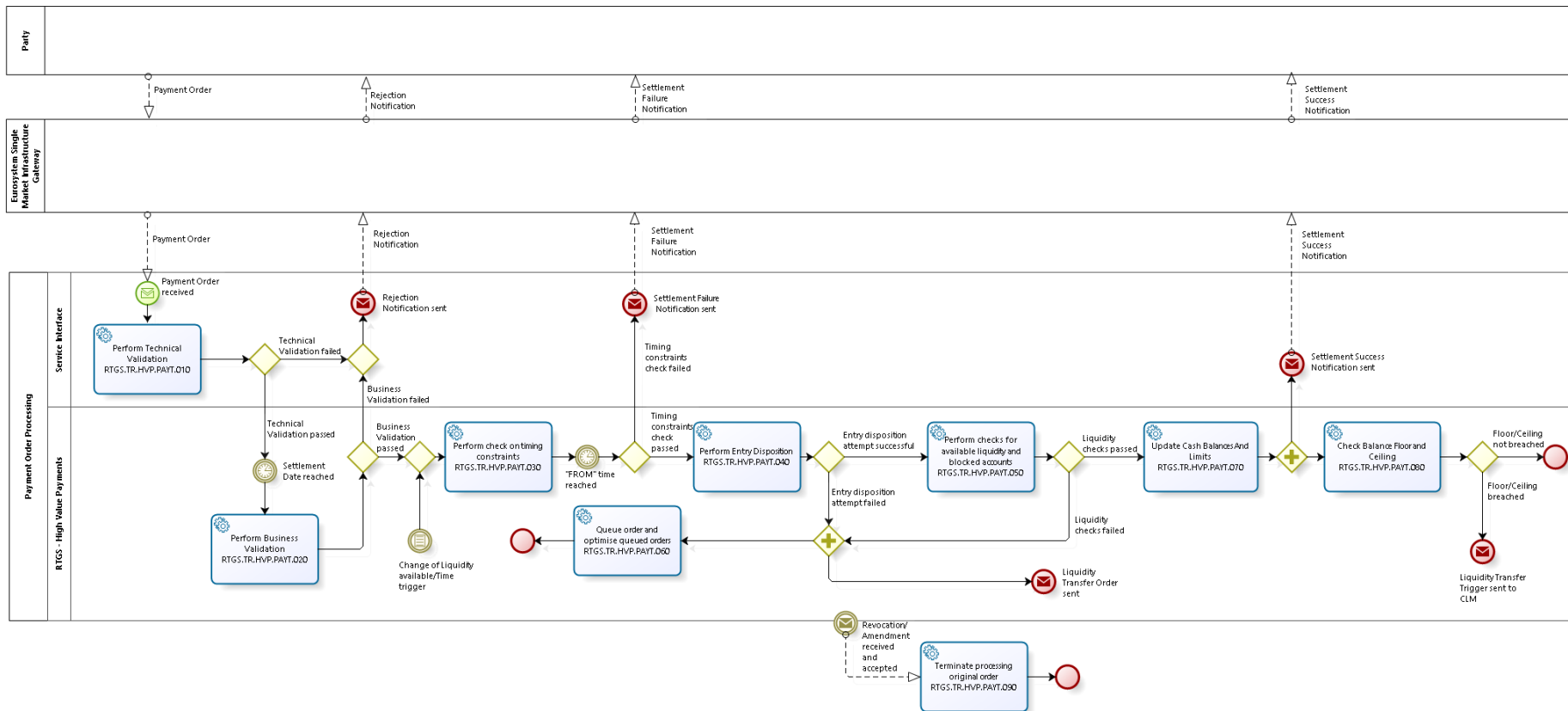
Business Process Name	BP Reference	Business Process Description
Payment Order Processing	RTGS.BP.HVP.PAYT	Processing of a payment order, which can be: <ul style="list-style-type: none"> • A credit transfer; or • A direct debit; The credit transfer can also be warehoused or processed as a backup payment
Queue Management/Payment Order Amendment	RTGS.BP.HVP.PAYA	Amendment of a payment order previously submitted with respect to a predefined set of interventions. Including Queue Management.
Queue Management/Payment Order Cancellation	RTGS.BP.HVP.PAYC	Cancellation of a payment order previously submitted. Including Queue Management.
Liquidity Reservation	RTGS.BP.HVP.LIQR	Execution of a liquidity reservation (increase and decrease).
Intra-RTGS Liquidity Transfer	RTGS.BP.HVP.LIQT	Intra-RTGS liquidity transfer for the settlement of a liquidity transfer between RTGS DCAs (including sub accounts) within the same Liquidity Transfer Group.
Process inter-service liquidity transfer order from MCA to DCA - RTGS part	RTGS.BP.HVP.LTRCV	Second part of the CLM process CLM.BP.CLM.LTSEN, and similar to CLM.BP.CLM.LTRCV
Process inter-service liquidity transfer order from DCA to MCA - RTGS part	RTGS.BP.HVP.LTSEN	First part of the CLM process CLM.BP.CLM.LTRCV, and similar to CLM.BP.CLM.LTSEN
Process liquidity transfer order between two DCAs in different settlement services - RTGS part	RTGS.BP.HVP.LTDCA	This process is the RTGS part of the related CLM process. Within this process, RTGS could be <ul style="list-style-type: none"> - either the sending service, and the process is similar to RTGS.BP.HVP.LTSEN - or the receiving service, and the process is similar to RTGS.BP.HVP.LTRCV

Table 1: Business Processes for High Value Payments

1.2 PAYMENT ORDER PROCESSING

Business Process Ref: RTGS.BP.HVP.PAYT

1.2.1 Business Process Model



Business Process Model 1: Payment Order Processing

1.2.2 Process Overview

Process goal:

This business process describes the processing of a payment order. An RTGS participant will initiate the process by sending the respective message containing a payment order to RTGS, which will process the payment order. If the message content is either invalid or would fail the reference data checks, it will be rejected and a rejection notification will be sent to the sender of the message. If the message content is valid and reference data checks have been passed, the Service will perform a series of operations according to the content of the message.

These core settlement operations of a payment order include various checks on timing, e.g. has the predefined latest execution time been reached. As a result of these checks, the core settlement operation may not be successful and a settlement failure notification is sent to the sender.

Furthermore, there will be checks on blocked accounts/Parties. If these checks are not passed (i.e., one of the accounts/Parties involved is blocked), the payment order will be earmarked and its processing suspended (until possible approval/rejection by the CB or continuation after unblocking).

Additionally, the core settlement operation also includes provision checks on available liquidity on the account to be debited, whether any Limits are possibly breached, whether any liquidity reservations/segregation are possibly breached as well as specific offsetting checks. If, on the one hand, these provision checks fail and all the aforementioned checks succeeded, the payment order will be queued for a re-attempt for settlement. The queue will then be dissolved through offsetting with new incoming liquidity and optimisation algorithms, payment order amendment (e.g. change the order of payments in the queue) or through payment order cancellation or through time-induced rejection (e.g. start of End of Day process, Reject Time reached). If, on the other hand, these provision checks succeed, the core settlement operation will result in a success and the Service will finally and irrevocably book the payment order on the debit and credit accounts involved. In that case, the Service can optionally send a settlement success notification to the sender of the order. All in all, the sender will receive - as long as no additional instructions are sent affecting the settlement of the original payment order - at maximum one notification related to the payment order from the Service through push-mode: either a rejection (negative validation), or a failure (no settlement, e.g. Till Time reached), or a cancellation, or a success notification.

The payment order settlement process described in this section is as generic as possible, i.e. the description aims at capturing the essential user requirements imposed by the different RTGS services: High Value Payments and Ancillary Systems. While main features of the settlement process are described in this section, the discrepancies with and specifics for settlement of Ancillary System transactions can be found in section 2 of this User Requirements Document.

Process context:

- ▶ This generic process is valid for all types of payment orders.

Pre-conditions:

- ▶ Appropriate privileges have been granted to the sender

Time constraints:

- ▶ The processing has to be executed within the opening hours of HVP (see section 3.4 on Availability of Services in the User Requirement Document for Shared Services), i.e. from the opening of the Service until the End of Day process starts, and outside the maintenance window, taking into account the different cut-offs depending on the payment type)

Expected results:

RTGS shall either:

- ▶ Settle the payment order,
- ▶ Queue the payment order,
- ▶ Reject (if validation fails) / Cancel the payment order,
- ▶ Send a failure notification for:
 - the Reject Time reached, or
 - the 'not settled' payment order (at the End of Day revocation, since no failure notification is sent after each unsuccessful settlement attempt), or
- ▶ Send an optional (according to subscription) settlement success notification.

Triggers:

- ▶ This process is triggered by a participant/Central Bank sending the payment order.

1.2.3 User Requirements

1.2.3.1 TECHNICAL VALIDATION

Task Ref: RTGS.TR.HVP.PAYT.010

Id	RTGS.UR.HVP.PAYT.010.005
Name	File management
Description	Where the messages are sent packaged in a file, RTGS 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.

Id	RTGS.UR.HVP.PAYT.010.010
Name	Technical Validation - Syntax/Schema checks
Description	RTGS shall parse the message and perform a field level validation - e.g. on correct data type, size. RTGS shall check whether all mandatory fields are populated.

	If the validation fails, a rejection notification with appropriate reason code must be sent to the sender of the message (depending on the submission channel, a message in A2A mode or an error message on the screen in U2A mode).
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Id	RTGS.UR.HVP.PAYT.010.020
Name	Technical validation - duplicate checks
Description	The Service interface shall ensure that the same message has not already been received on the same business day.

1.2.3.2 BUSINESS VALIDATION

Task Ref: RTGS.TR.HVP.PAYT.020

Id	RTGS.UR.HVP.PAYT.020.005
Name	Check for duplicate payment order
Description	<p>RTGS shall carry out a duplicate submission control for incoming payment orders. This control shall include the following fields:</p> <ul style="list-style-type: none"> • Sender of the message; • Message Type; • Receiver; • Transaction Reference Number; • Related Reference; • Value Date; • Amount.

Id	RTGS.UR.HVP.PAYT.020.010
Name	Business Validation - Process specific authorisation checks
Description	<p>RTGS shall ensure that the sender of a payment order can be:</p> <ul style="list-style-type: none"> • The owner of the account to be debited; • The owner of the account to be credited (in the case of a direct debit and if there is a contractual arrangement between creditor and debtor to do so); • A third party which is neither debtor nor creditor (in the case of a mandated payment or if there is a contractual arrangement between the third party and both creditor and debtor to do so, e.g., an Ancillary System); or • A Central Bank acting on behalf of a credit institution. <p>The check has to be performed as soon as the message has passed the technical validation.</p>

Id	RTGS.UR.HVP.PAYT.020.020
Name	Business Validation - Check on value date for non-warehouse payments
Description	<p>Excluding warehouse payments, RTGS shall only accept a payment order that specifies a value date as of current business date, except when the CB has activated the back-valued payments for one participant. In such a case, the value date check is de-activated.</p>

Note: RTGS will send non-warehouse payment orders having passed all the checks described above, immediately to the business validation step described below.

Id	RTGS.UR.HVP.PAYT.020.025
Name	Business Validation - Check on value date for warehouse payments
Description	<p>RTGS shall only accept a warehouse payment order that specifies a value date that is not later than ten calendar days from the business day on which RTGS received the payment order. Nonetheless, RTGS shall perform the authorisation checks described above as soon as the message has passed the technical validation, in particular, before the value date.</p>

Note: Once the value date is reached and the Service opens for payments (see Shared Services / Business Day), RTGS will send the warehouse payment order automatically and immediately to the business validation step described below.

RTGS will perform the checks described below in one step in order to capture all the possible breaches; the checks therefore must not stop after the first breach occurring, as there could be further breaches in the subsequent checks. If the validation failed overall, RTGS must send rejection notifications with appropriate reason codes for all breaches which occurred to the sender.

Id	RTGS.UR.HVP.PAYT.020.030
Name	Business Validation - Payment type specific checks
Description	RTGS shall check consistency versus a to-be-defined set of rules which depend on the message type. Customer payments will have to pass specific checks, whereas interbank payments will have to pass different checks.

Id	RTGS.UR.HVP.PAYT.020.050
Name	Business Validation - field and reference data checks
Description	<p>RTGS shall perform the following field and reference data checks:</p> <ul style="list-style-type: none"> • Field value validation - codes are valid, domain values are within allowed range; • Cross-field validation - e.g. currency of the accounts involved is the same as the amount currency etc.; • Database checks - e.g. existence of parties and accounts

Id	RTGS.UR.HVP.PAYT.020.070
Name	Business Validation - direct debit check
Description	RTGS shall check whether a Direct Debit Mandate exists between the account to be debited and the payee Party, and that the maximum amount granted in the Mandate is not exceeded.

Id	RTGS.UR.HVP.PAYT.020.080
Name	Business Validation - Check of backup payments
Description	Backup payments are accepted only where the CB has activated the feature for its participant.

Id	RTGS.UR.HVP.PAYT.020.090
Name	Business Validation - mandated payment check

Description	The mandated payment is sent by a Central Bank on behalf of its direct participant, in the case of contingency situations. It can be either a credit transfer or a direct debit.
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Id	RTGS.UR.HVP.PAYT.020.100
Name	Business Validation - Account checks
Description	The system should identify the accounts to be debited and to be credited from the BIC11 indicated in the message. In CRDM, each BIC11 is mapped to only one Cash Account, may it be for the direct participant itself (including multi-addressee) or its indirect participants.

1.2.3.3 CHECK ON TIMING CONSTRAINTS

Task Ref: RTGS.TR.HVP.PAYT.030

The participants have the possibility to determine the execution time of their transactions, through From Time and either Till Time or Reject Time.

Id	RTGS.UR.HVP.PAYT.030.010
Name	From Time
Description	RTGS shall ensure that a payment order can only be submitted to settlement if its From Time, if indicated, has been reached.

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

Id	RTGS.UR.HVP.PAYT.030.020
Name	Reject Time / Till Time
Description	<p>RTGS shall ensure that a payment order can only be submitted to settlement if its Reject Time, if indicated, has not yet been reached. As soon as the Reject Time is reached and if the payment order has not been settled, the payment order will be rejected and a settlement failure notification will be sent out.</p> <p>If Till Time has been specified instead, the payment order shall not be rejected when this time is reached and the payment order has not been settled, and RTGS shall allow it to be submitted for settlement beyond this time.</p> <p>At 15 minutes before the indicated Reject Time / Till Time and if the payment order has not been settled, RTGS shall send out a warning notification to the party to be debited.</p>

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

Id	RTGS.UR.HVP.PAYT.030.030
Name	End of Day - specific cut-off times
Description	<p>RTGS shall ensure that a new payment order can only be submitted to settlement if the relevant cut-off time is not yet reached. RTGS has to settle:</p> <ul style="list-style-type: none"> • New customer payments by a predefined customer payment cut-off time; • New interbank payments by a predefined interbank payment cut-off time.

Note: both payment and interbank cut-offs could depend on the currency. This has not been decided yet, and will be further discussed during the realisation phase. See Shared Services / Business Day.

Id	RTGS.UR.HVP.PAYT.030.040
Name	End of Day - revocation of queued orders
Description	<p>RTGS shall ensure that a queued payment order can only be settled until the relevant cut-off time is reached, and the last optimisation algorithm has run (see SHRD.UR.BD.OPER.000.030 in chapter Business day in the URD for Shared Services). RTGS shall revoke:</p>

- Queued customer payments not yet settled before a predefined customer payment cut-off time;
- Queued interbank payments not yet settled before a predefined interbank payment cut-off time.

1.2.3.4 PERFORM ENTRY DISPOSITION

Task Ref: RTGS.TR.HVP.PAYT.040

Through this activity, RTGS will check whether the payment order settlement can be attempted (notably including offsetting). This is possible only if no queued payment order of the same priority or higher exists. There are two exceptions to this rule:

- ▶ Normal payment (so called "FIFO by-pass principle" for normal payments, which means that the submission time for normal payment is meaningless); and
- ▶ Offsetting bringing additional liquidity to the debited account.

Id	RTGS.UR.HVP.PAYT.040.010
Name	Priority classification
Description	<p>RTGS shall process payments according to their priority classification. The Service shall support three priority classes:</p> <ul style="list-style-type: none"> • Highly Urgent (HU) • Urgent (U) • Normal (N) <p>If no priority class is selected, RTGS shall handle payments as normal payments.</p>

Id	RTGS.UR.HVP.PAYT.040.020
Name	Conditions for settlement attempt of highly urgent and urgent payments
Description	<p>RTGS shall ensure that a highly urgent or urgent payment can, apart from the exception described below, be submitted to settlement only if no payment with a higher or the same priority is queued on the same account to be debited. RTGS shall use the FIFO principle based on submission timestamp to sequence.</p>

Id	RTGS.UR.HVP.PAYT.040.030
Name	Conditions for settlement attempt of normal payments - so called "FIFO by-pass principle" for normal payments
Description	RTGS shall ensure that a normal payment can, apart from the exception described below, be submitted to settlement only if no payment with a higher priority is queued on the same account to be debited.

Note: This means that the submission time for normal payment is meaningless.

Id	RTGS.UR.HVP.PAYT.040.040
Name	Exception for settlement attempt – offsetting with liquidity increase
Description	Even if the conditions described above are not fulfilled, RTGS shall nevertheless attempt settlement for the payment if bilateral offsetting between the debited and credited accounts brings additional liquidity to the debited account. In the event that this optimisation feature does not improve the debited participant liquidity, RTGS shall queue the payment order.

Id	RTGS.UR.HVP.PAYT.040.050
Name	Offsetting for settlement attempt
Description	<p>When RTGS has submitted a payment order to settlement, offsetting is required in order to reduce the liquidity needed for its settlement, in any case.</p> <p>RTGS can select other payments together with the payment submitted to settlement if those former are:</p> <ul style="list-style-type: none"> • Payments on top of the receiver's queue ("offsetting position 1"); and • Payments not on top of the receiver's queue, but bringing liquidity to the receiver ("extended offsetting").

1.2.3.5 PERFORM CHECKS FOR AVAILABLE LIQUIDITY AND BLOCKED ACCOUNTS

Task Ref: RTGS.TR.HVP.PAYT.050

RTGS shall settle a payment order only when it fulfils all of the following conditions (see Shared Services URD / CRDM and Business Data Definitions):

- ▶ The debit account is not blocked for debit.
- ▶ The credit account is not blocked for credit.
- ▶ The party whose account is subject to the credit is not blocked.

- ▶ The party whose account is subject to the debit is not blocked.
- ▶ The bilateral or multilateral Limits are not breached for normal payments.
- ▶ The available liquidity is sufficient.

Note: For a EURO-CB, this check is not relevant since a EURO-CB Account can be negative. For a non-CB party, the credit line is managed within CLM, so the balance on the debit account cannot be negative.

- ▶ The reservation is sufficient:
 - Two reservations are available: one for highly urgent (HU) payments, and one for urgent (U) payments;
 - At the Start of Day, reservations are set according to the standing orders, and up to the available balance. The amount that cannot be reserved is called the Pending Value and is queued. Following any incoming credit, the Pending Value is updated and the Defined Value (i.e. the reserved amount minus the related debits) of the related reservation is increased;
 - After each debit of HU and U payment, the Defined Value of the related reservation is updated
 - The condition for drawing liquidity depends on the priority of the payment. As described hereafter, a payment can draw liquidity from its own reservation and lower level reservations.

Id	RTGS.UR.HVP.PAYT.050.010
Name	Blocked accounts validation
Description	RTGS shall check whether the credited accounts are eligible (i.e. not blocked) for being credited and debited accounts are eligible for debiting. If the check fails, RTGS shall earmark the payment order and shall, for the time being, take it out of the processing. The payment order can be re-released or rejected through authorisation by the Central Bank of the blocked account.

Id	RTGS.UR.HVP.PAYT.050.020
Name	Blocked parties validation
Description	RTGS shall check whether the credited parties are eligible (i.e. not blocked) for being credited and debited parties are eligible for debiting. If the check fails, RTGS shall earmark the payment order and shall, for the time being, take it out of the processing. The payment order can be re-released or rejected through authorisation by the Central Bank of the blocked party.

Id	RTGS.UR.HVP.PAYT.050.030
Name	Limit check
Description	<p>RTGS shall perform a check toward bilateral and multilateral Limits, only for normal payments.</p> <p>First, RTGS shall check whether a bilateral Limit exists between the debited account and the credited account. Where the amount of the normal payment is less than the free bilateral limit position, the check is positive. If the check fails, RTGS shall queue the order.</p> <p>Where no bilateral Limit is defined, RTGS shall check the multilateral Limit. Where the amount of the normal payment is less than the free multilateral limit position, the check is positive. If the check fails, RTGS shall queue the order.</p>

Id	RTGS.UR.HVP.PAYT.050.040
Name	Balance check for highly urgent payments
Description	<p>RTGS shall ensure that a highly urgent payment will, if any, draw liquidity from:</p> <ol style="list-style-type: none"> 1. The HU reservation; 2. If this is not enough, then additionally from the non-reserved liquidity (balance of the account minus the HU and U reservations); and 3. If this is still not enough, then additionally the U reservation <p>Where not enough liquidity is available, RTGS shall queue the payment and then check whether the user has configured an Event-based Liquidity Transfer Order for the event where there is a of lack of cash for HU payments, to draw liquidity from the MCA linked to its RTGS DCA (through the associated liquidity transfer account link).</p>

Id	RTGS.UR.HVP.PAYT.050.050
Name	Balance check for urgent payments
Description	<p>RTGS shall ensure that a urgent payment will, if any, draw liquidity from:</p> <ol style="list-style-type: none"> 1. The U reservation 2. If not enough, then additionally from the non-reserved liquidity (balance of the account minus the HU and U reservations) <p>Where not enough liquidity is available, RTGS shall queue the payment and then check whether the user has configured an Event-based Liquidity Transfer Order for the event where there is a lack of cash for U payments, to draw liquidity from the MCA linked to its RTGS DCA (through the associated liquidity transfer account link).</p>

Id	RTGS.UR.HVP.PAYT.050.060
Name	Balance check for normal payments
Description	<p>RTGS shall ensure that a normal payment will, if any, draw liquidity from the non-reserved liquidity (balance of the account minus the HU and U reservations)</p> <p>Where not enough liquidity is available, RTGS shall queue the payment.</p>

1.2.3.6 QUEUE PAYMENT ORDER AND OPTIMISE QUEUED PAYMENT ORDERS

Task Ref: RTGS.TR.HVP.PAYT.060

If the entry disposition fails, this activity includes the identification of the related queue where the payment order is to be located

Id	RTGS.UR.HVP.PAYT.060.010
Name	Identification of the queue
Description	<p>RTGS shall manage queued payments according to the priority of the payment:</p> <ul style="list-style-type: none"> • Highly urgent queue; • Urgent queue; and • Normal queue

Id	RTGS.UR.HVP.PAYT.060.020
Name	Order in the queues
Description	RTGS shall ensure that the payment orders are ordered, by default, according to the submission time, i.e. FIFO.

Note: This default order may be changed through amendment/cancellation of queued payment orders (see queue management processes).

Optimisation has the objective to dissolve as soon as possible the queues. It can be either event-based, i.e. triggered when any event that can help settling a payment occurs, such as new liquidity on an account or settlement of a payment higher in a queue, or time-based, i.e. started regularly, to take into account all the events that occurred since the last optimisation.

Optimisation is aiming at resolving the reasons for non-settlement, i.e. either lack of liquidity through offsetting, or breach of a Limit which can be bilateral or multilateral. It is described in terms of objective (to increase the number of settled payments) and constraints (balances and limits, order in the queues). Optimisation is designed in a way to provide liquidity-saving features.

Id	RTGS.UR.HVP.PAYT.060.030
Name	Optimisation objectives
Description	RTGS shall reduce the stock of unsettled payments and minimise the needed liquidity through optimisation. The constraints described before in the entry disposition (order in the queues, FIFO by-pass principle for normal payments, offsetting) need to be applied strictly.

1.2.3.7 BOOKING

Task Ref: RTGS.TR.HVP.PAYT.070

1.2.3.7.1 Update Cash Balances and Limit

Id	RTGS.UR.HVP.PAYT.070.010
Name	Update cash balance - Booking on a gross basis
Description	RTGS shall post each and every payment order on a gross basis. This is without prejudice to the use of offsetting effects in the provision check when RTGS submits several payment orders together for settlement and they settle simultaneously on a gross basis within one legal and logical second.

Id	RTGS.UR.HVP.PAYT.070.020
Name	Update reservation - Debiting highly urgent payment
Description	<p>For each debiting Highly Urgent payment, RTGS shall update the reservations according to the steps of the check:</p> <ol style="list-style-type: none"> 1. The available amount within the HU reservation is updated; 2. Where the amount in the HU reservation is not enough, and the non-reserved liquidity for normal payments is not enough either, the remaining amount is deducted from the U reservation.

Id	RTGS.UR.HVP.PAYT.070.030
Name	Update reservation - Debiting urgent payment
Description	For each debiting urgent payment, RTGS shall update the U reservation according to the available amount within the U reservation.

Id	RTGS.UR.HVP.PAYT.070.040
Name	Update pending reservation
Description	Where there is a pending reservation, RTGS shall reduce the Pending Value in the case of a crediting payment bringing liquidity to a party, first the pending HU reservation and then the pending U reservation, by the same amount.

Id	RTGS.UR.HVP.PAYT.070.050
Name	Update Limit in the case of a debit payment
Description	RTGS shall, for each normal payment debiting an account, decrease the free bilateral or multilateral Limit by the same amount

Id	RTGS.UR.HVP.PAYT.070.060
Name	Update Limit in the case of a credit payment
Description	RTGS shall, for each payment (whatever its priority), increase the free bilateral or multilateral Limit.

At the Start of Day, limits are set according to the standing orders (so called Defined Limit), and are updated throughout the business day after each relevant credit and debit (so called Free Limit Position)

Id	RTGS.UR.HVP.PAYT.070.065
Name	Update maximum amount in the case of a direct debit
Description	RTGS shall, for each direct debit, increase the used amount related to the maximum amount of the Direct Debit Mandate.

Id	RTGS.UR.HVP.PAYT.070.070
Name	Update - All-or-none basis
Description	RTGS shall perform all of the specified updates above in one transaction on an all-or-none basis.

Id	RTGS.UR.HVP.PAYT.070.080
Name	Exclusive control over the settlement
Description	RTGS shall ensure that no credit or debit can take place on the RTGS DCA without being processed by the settlement process.

This requirement will prevent concurrency of different settlement processes for the same units of liquidity.

Id	RTGS.UR.HVP.PAYT.070.090
Name	Exclusive control over the update
Description	RTGS shall ensure that no update specified above can take place on the RTGS DCA without being processed by the settlement process.

Id	RTGS.UR.HVP.PAYT.070.100
Name	Final booking process
Description	RTGS shall ensure that, once booked on the cash accounts, cash debits and credits must be final, i.e. irrevocable and unconditional.

1.2.3.7.2 Check Balance Floor and Ceiling

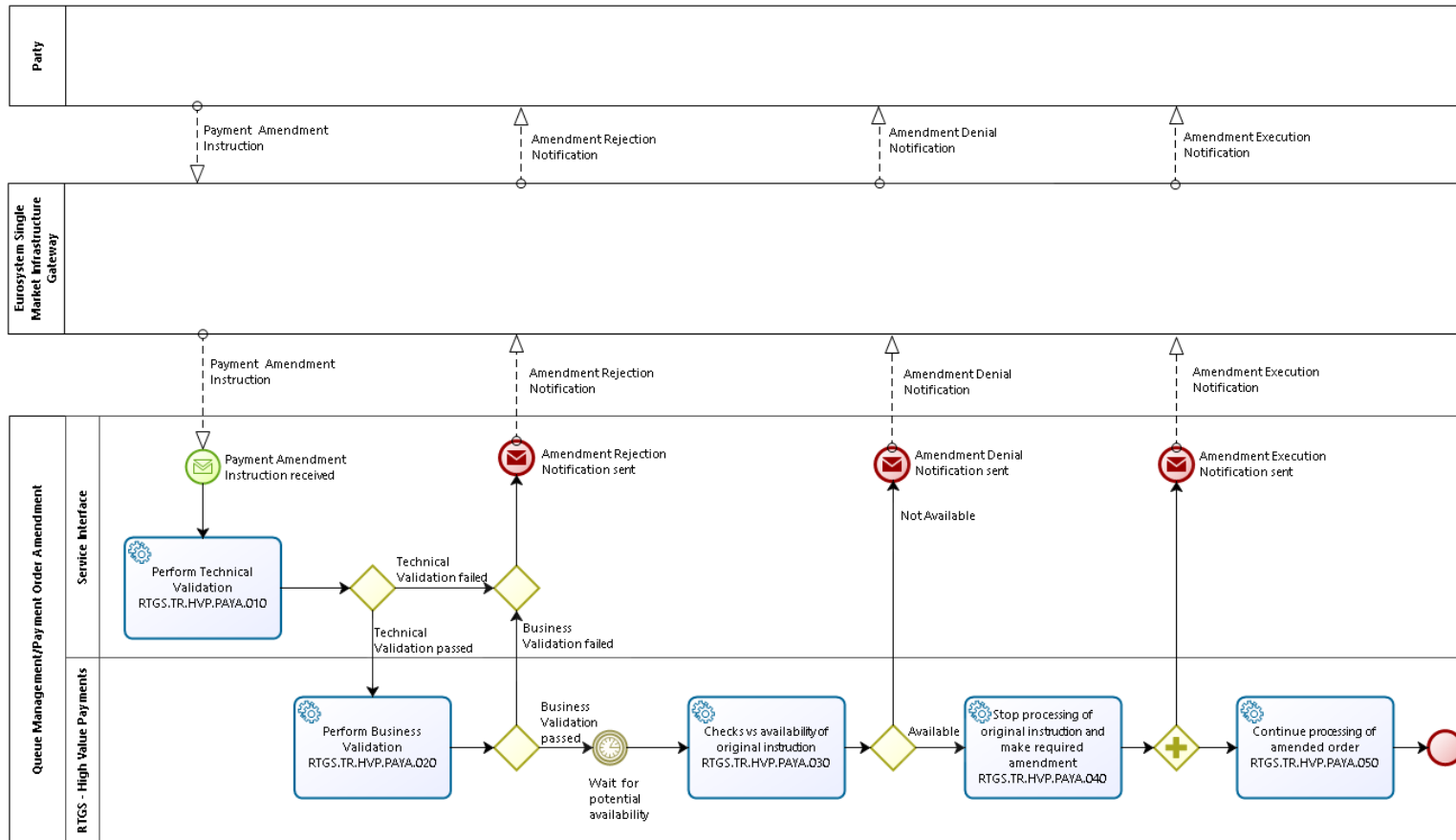
Task Ref: RTGS.TR.HVP.PAYT.080

Id	RTGS.UR.HVP.PAYT.080.010
Name	Floor and ceiling
Description	<p>Once the payment is final, RTGS shall check whether the account balance is below the floor balance that the account owner defined for the account or is above the ceiling balance that the account owner defined for the account. This check is performed only where the participant has defined a floor and/or a ceiling for the account. The check is done both on the debited and credited accounts.</p> <p>If either is the case, then the second step is to check which action has been specified:</p> <ul style="list-style-type: none">• Notification to be sent in A2A and/or Notification to be sent as an alert in U2A• Event-based Liquidity Transfer Order for submission to Central Liquidity Management to adjust the liquidity on the accounts involved so that the balance of the affected account reaches the specified target amount. <p>The outcome of this final check does not affect the finality of the settlement of the payment.</p>

1.3 QUEUE MANAGEMENT/PAYMENT ORDER AMENDMENT

Business Process Ref: RTGS.BP.HVP.PAYA

1.3.1 Business Process Model



Business Process Model 2: Queue Management/Payment Order Amendment

1.3.2 Process Overview

Process goal:

- ▶ This business process describes the amendment of a payment order. The process will be initiated by a party participating in the Service via sending of the respective message to the service. The Service will process the message. If the message content is either invalid or would result in reference data checks to fail, it will be rejected and a rejection notification with appropriate reason code will be sent to the sender of the amendment. If the message content is valid and reference data checks have been passed successfully, the Service will perform an amendment attempt of the original payment order the amendment message is referring to. If the amendment operation fails, an amendment denial notification with appropriate reason code is sent to the sender of the amendment. Where the amendment operation succeeds, the Service will amend the original payment accordingly and the Service will send an amendment success notification to both the sender of the amendment and to the initial sender of the original payment order¹.
- ▶ The following control options are offered:
 - Change priority (not possible for highly urgent) (This does not change the submission time);
 - Move one or more payment orders to the top of the queue in which they are held, for re-ordering the queued transaction (triggering their settlement attempt). Where several payment orders were selected they will be put on top of the queue according to their previous order. The default order is determined by the submission timestamp;
 - Move one or more payment orders to the bottom of the queue in which they are held, for re-ordering the queued transaction (possibly triggering the settlement of another payment order). Where several payment orders were selected they will be put at the bottom of the queue according to their previous order. The default order is determined by the submission timestamp;
 - Change of execution time (including warehoused payments) (only if it was set before) (possibly triggering the settlement of another payment order).

Process context:

- ▶ This generic process is valid for all types of amendments of queued payment orders.

Pre-conditions:

- ▶ Respective privileges have been granted to the sender

Time constraints:

- ▶ The processing has to be executed within the opening hours of HVP (see section 3.4 on Availability of Services in the User Requirement Document for Shared Services), i.e. from the opening of the Service until the End of Day process starts, and outside the maintenance window.

¹ Where the sender of the amendment is the sender of the original payment, only one notification will be sent.

Expected results:

RTGS shall either

- ▶ Reject/Deny the amendment instruction; or
- ▶ Accept and perform the amendment on the queued payment order;

Triggers:

- ▶ This process is triggered by a request from a participant/Central Bank sending the amendment instruction (via A2A or U2A).

1.3.3 User Requirements

1.3.3.1 TECHNICAL VALIDATION

Task Ref: RTGS.TR.HVP.PAYA.010

Same as **RTGS.TR.HVP.PAYT.010**.

1.3.3.2 BUSINESS VALIDATION

Task Ref: RTGS.TR.HVP.PAYA.020

Id	RTGS.UR.HVP.PAYA.020.010
Name	Business Validation - Process specific authorisation checks
Description	<p>RTGS shall ensure that an amendment of a payment order can be sent:</p> <ul style="list-style-type: none"> • By the participant owning the account to be debited or • By the respective CB acting on its behalf. <p>If the validation failed, a rejection notification with appropriate reason code shall be sent to the sender of the payment amendment instruction.</p>

Note: For direct debits, the debtor (=receiver) can initiate a reprioritisation and a reordering within the queue.

Additionally, **RTGS.UR.HVP.PAYT.020.050** and **RTGS.UR.HVP.PAYT.020.005** apply.

Id	RTGS.UR.HVP.PAYA.020.020
Name	Amendment of payment orders
Description	<p>RTGS shall check the validity of amendment instructions. Only the following payment amendment instructions are valid:</p> <ul style="list-style-type: none">• Change priority (not possible for highly urgent) (This does not change the submission time).• Move one or more payment orders to the top of the queue in which they are held, for re-ordering the queued transaction (triggering their settlement attempt). Where several payment orders were selected they will be put on top of the queue according to their previous order. The default order is determined by the submission timestamp.• Move one or more payment orders to the bottom of the queue in which they are held, for re-ordering the queued transaction (possibly triggering the settlement of another payment order). Where several payment orders were selected they will be put at the bottom of the queue according to their previous order. The default order is determined by the submission timestamp.• Change of execution time (including warehoused payments) (only if it was set before) (possibly triggering the settlement of another payment order). <p>If the validation failed, RTGS shall send a rejection notification with appropriate reason code to the sender of the payment amendment instruction.</p>

1.3.3.3 CHECKS VS. AVAILABILITY OF ORIGINAL PAYMENT ORDER

Task Ref: RTGS.TR.HVP.PAYA.030

Id	RTGS.UR.HVP.PAYA.030.010
Name	Status of original payment order
Description	<p>The original payment order to be amended with the respective payment amendment instruction has to be in an intermediate (i.e. not end) state (excluding blocked payments) to be eligible for amendment (e.g. queued and not considered in an ongoing optimisation simulation process, an order for which the From Time was not reached yet or a warehouse payment). Thus, amendment of payment orders is not feasible if they are already in an end state (settled, rejected or cancelled). The check for availability should also wait for a short period of time until a currently ongoing optimisation cycle is over, so that the payment orders not settled within this settlement attempt reached again an intermediate state</p> <p>The availability can be also dependent not only on the state, but also on the attribute to be changed itself. E.g., one can change the Till Time or Reject Time as long it has not passed, and only to a time which is in the future.</p>

1.3.3.4 STOP PROCESSING OF ORIGINAL PAYMENT ORDER AND MAKE REQUIRED AMENDMENT

Task Ref: RTGS.TR.HVP.PAYA.040

Id	RTGS.UR.HVP.PAYA.040.010
Name	Stop processing and Amendment of payment order
Description	<p>RTGS shall stop processing the original payment order from the general processing of payment orders before and while the requested amendment takes place. This means that RTGS shall remove a currently queued payment orders from its queue, if it is not considered in an ongoing optimisation simulation process.</p> <p>An original payment order for which the From Time is not reached yet or a warehouse payment will be directly amended according to the valid payment amendment instruction.</p>

1.3.3.5 CONTINUE PROCESSING OF AMENDED ORDER

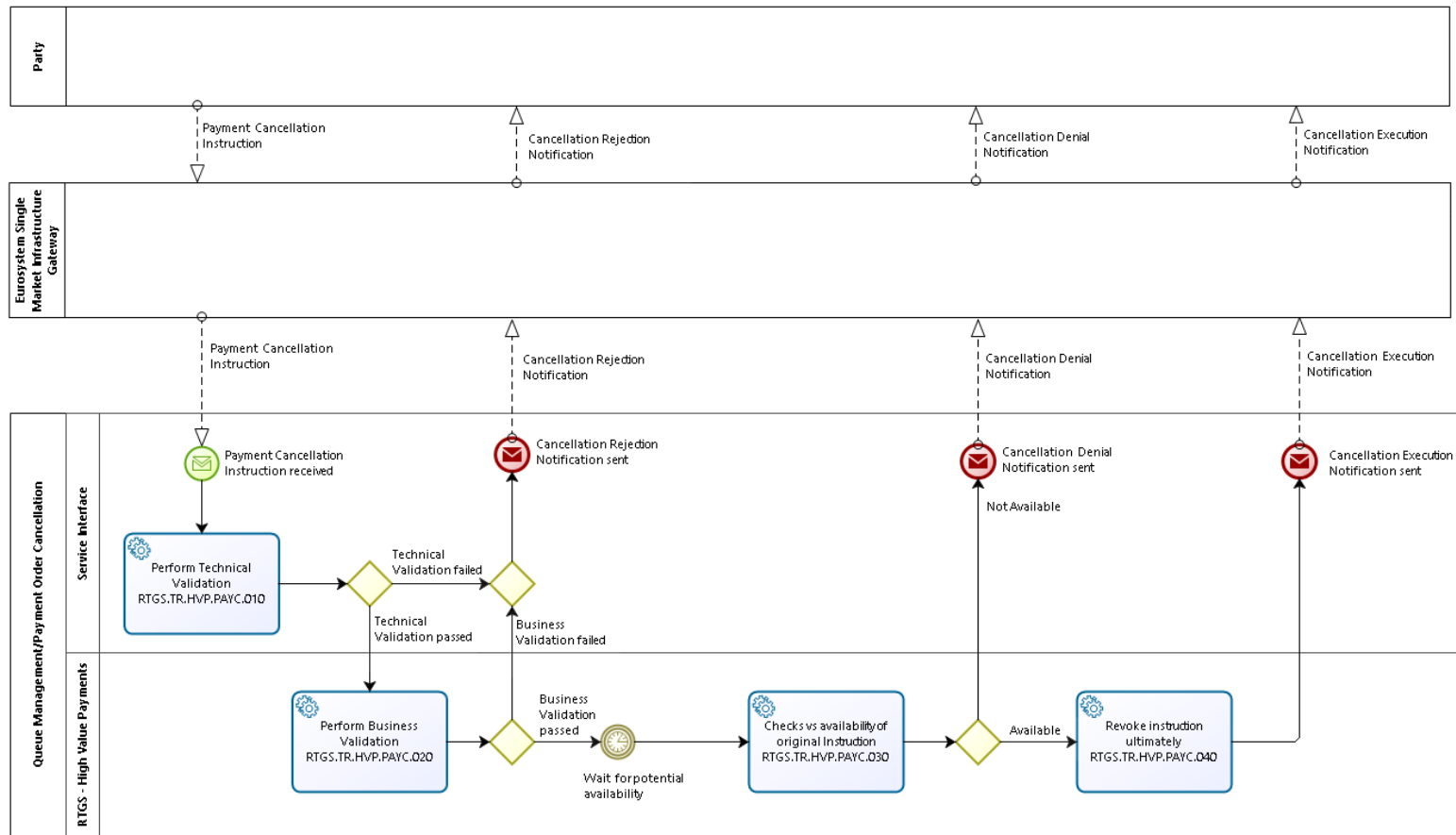
Task Ref: RTGS.TR.HVP.PAYA.050

Id	RTGS.UR.HVP.PAYA.050.010
Name	Continue processing of amended payment order
Description	Depending on the most recent state of the original payment order and the attribute of the order in the queue which was amended, RTGS shall process the amended payment order through the core settlement operations chain. If the queue order was changed, RTGS shall place the amended payment order at the respective position and the usual queue dissolution processes will capture it. If, on the other hand, the priority has changed, RTGS shall place the amended payment order in the queue according to the new priority and the original submission time of the original payment order (i.e., the amendment does not result in an update of that relevant timestamp; the position in the new queue is determined as if the original payment order has already been placed to that queue originally).

1.4 QUEUE MANAGEMENT/PAYMENT ORDER CANCELLATION

Business Process Ref: RTGS.BP.HVP.PAYC

1.4.1 Business Process Model



Business Process Model 3: Queue Management/Payment Order Cancellation

1.4.2 Process Overview

Process goal:

This business process describes the cancellation of a payment order. The process will be initiated by a party participating in the Service via sending of the respective message to the service. The Service will process the message. If the message content is either invalid or would result in reference data checks to fail, it will be rejected and a rejection notification will be sent to the sender of the cancellation. If the message content is valid and reference data checks have been passed successfully, the Service will perform a cancellation attempt of the original payment order the cancellation message is referring to. If the cancellation operation fails, a cancellation denial notification with appropriate reason code is sent to the sender of the cancellation. Where the cancellation operation succeeds, the Service will cancel the original message and the Service will send a cancel success notification to both the sender of the cancellation and the initial sender of the original payment order².

Process context:

- ▶ This generic process is valid for the cancellation of a queued payment order.

Pre-conditions:

- ▶ Respective privileges have been granted to the sender

Time constraints:

- ▶ The processing has to be executed within the opening hours of HVP (see section 3.4 on Availability of Services in the User Requirement Document for Shared Services), i.e. from the opening of the Service until the End of Day process starts, and outside the maintenance window.

Expected results:

- ▶ RTGS shall either
 - Reject/Deny the cancellation instruction or
 - Accept and perform the cancellation on the queued payment order

Triggers:

- ▶ This process is triggered by a request from a participant/Central Bank sending the cancellation instruction (via A2A or U2A).

² Where the sender of the cancellation is the sender of the original payment, only one notification will be sent.

1.4.3 User Requirements

1.4.3.1 TECHNICAL VALIDATION

Task Ref: RTGS.TR.HVP.PAYC.010

Same as **RTGS.TR.HVP.PAYT.010**.

1.4.3.2 BUSINESS VALIDATION

Task Ref: RTGS.TR.HVP.PAYC.020

Id	RTGS.UR.HVP.PAYC.020.010
Name	Business Validation - Process specific authorisation checks
Description	<p>RTGS shall ensure that the cancellation instruction can be sent by the sending participant, or the respective Central Bank acting on behalf its credit institutions/customers.</p> <p>If the validation failed, RTGS shall send a rejection notification with appropriate reason code to the sender of the cancellation.</p>

Note: For direct debits, the creditor (=sender) can initiate the cancellation.

Additionally, **RTGS.UR.HVP.PAYT.020.050** and **RTGS.UR.HVP.PAYT.020.005** apply.

1.4.3.3 CHECKS VS. AVAILABILITY OF ORIGINAL INSTRUCTION

Task Ref: RTGS.TR.HVP.PAYC.030

Id	RTGS.UR.HVP.PAYC.030.010
Name	Status of original payment order
Description	<p>The payment order to be cancelled with the respective instruction has to be in an intermediate (i.e. not end) state to be eligible for cancellation (e.g. queued). Thus, cancellation of payment orders is not feasible if they are already in an end state (settled, rejected or cancelled).</p> <p>RTGS must reject the cancellation of a payment order the Service has already rejected, settled or cancelled and to which the payment cancellation refers to.</p> <p>A payment order eligible for cancellation can either be a queued payment order, an order for which the From Time was not reached yet or a warehouse payment.</p> <p>Payment orders which are captured in an optimisation cycle must also be treated as "potentially settled" and are therefore not available to an immediate cancellation. The check for availability should also wait for a short period of time until a currently ongoing optimisation cycle is over, so that the payment orders not settled within this settlement attempt reached again an intermediate state.</p>

1.4.3.4 REVOKE INSTRUCTION ULTIMATELY

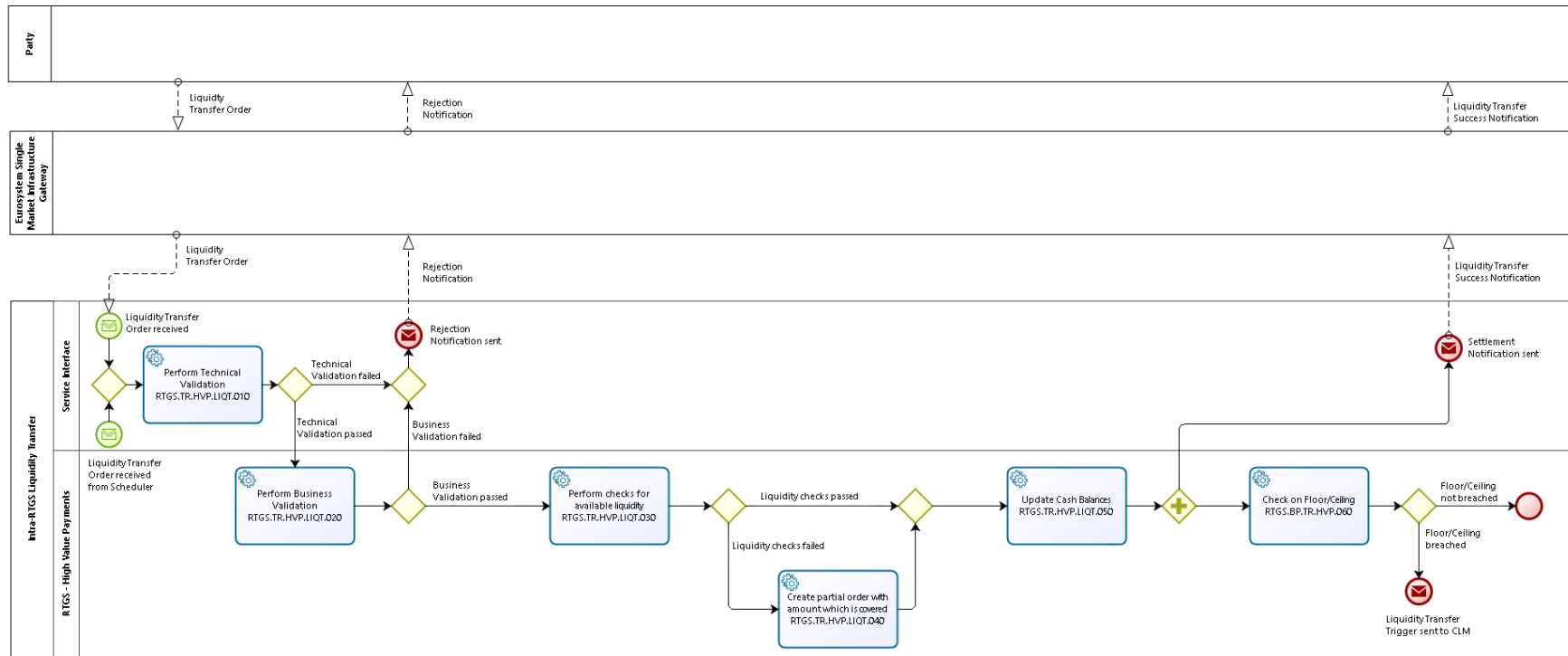
Task Ref: RTGS.TR.HVP.PAYC.040

Id	RTGS.UR.HVP.PAYC.040.010
Name	Revoke Instruction ultimately
Description	RTGS shall cancel the original payment order according to the valid Payment Cancellation Instruction.

1.5 INTRA-RTGS LIQUIDITY TRANSFER

Business Process Ref: RTGS.BP.HVP.LIQT

1.5.1 Business Process Model



Business Process Model 4: Intra-RTGS Liquidity Transfer

1.5.2 Process Overview

Process goal:

- ▶ This business process describes the processing of an intra-RTGS liquidity transfer order
 - From a participant RTGS DCA to another RTGS DCA. This could be from an AS participant RTGS DCA for all payments to its RTGS DCA dedicated to one or several AS. This could as well be from one RTGS DCA to a sub account dedicated to one procedure 6 Interfaced AS (and vice versa);
 - From a participant RTGS DCA to the Technical Account related to an AS using procedure 6 Real-Time (and vice-versa);
 - From one RTGS DCA to another RTGS DCA within the same Liquidity Transfer Group, or within the Whitelist if defined.
- ▶ Standing Liquidity Transfer Orders, Immediate Liquidity Transfers and Event-based Liquidity Transfers are covered by this business process. The process will be initiated by either the RTGS participant itself or by the AS on the participants' behalf or by the CB on the participants' behalf via sending the respective liquidity transfer to RTGS. RTGS will process the liquidity transfer. If the liquidity transfer content is either invalid or would result in reference data checks to fail, it will be rejected and a rejection notification will be sent to the sender (depending on the channel, a proper message in A2A mode or an error message on the screen in U2A mode). If the liquidity transfer content is valid and certain reference data checks have been passed, RTGS will attempt to transfer (part of) the liquidity amount requested to the account referred to. Where the intra-RTGS liquidity transfer (partly) succeeds, RTGS will transfer (part of) the amount requested and RTGS will send a (partly) transfer success notification to the participants involved (where the participant opted for it).

Process context:

- ▶ This generic process is valid for all types of intra-RTGS liquidity transfers.

Pre-conditions:

- I. Both RTGS DCAs/sub accounts exist
- II. Respective privileges have been granted to the sender

Time constraints:

- ▶ The processing has to be executed within the opening hours of HVP (see section 3.4 on Availability of Services in the User Requirement Document for Shared Services), i.e. from the opening of the Service until the End of Day process starts, and outside the maintenance window.

Expected results:

- ▶ Liquidity successfully transferred

Triggers:

- ▶ Liquidity transfer order (Immediate Liquidity Transfer via A2A or U2A; or triggered by a Standing Liquidity Transfer Order or an Event-based Liquidity Transfer Order)

1.5.3 User Requirements

1.5.3.1 PERFORM TECHNICAL VALIDATION

Task Ref: RTGS.TR.HVP.LIQT.010

Same as **RTGS.TR.HVP.PAYT.010**.

1.5.3.2 PERFORM BUSINESS VALIDATION

Task Ref: RTGS.TR.HVP.LIQT.020

The checks described below will be performed in one step in order to capture all the possible breaches; the checks therefore must not stop after the first breach occurring, if there could be further breaches in the subsequent checks. If the validation failed overall, a rejection notification with appropriate reason codes for all breaches which occurred must be sent to the sender.

Id	RTGS.UR.HVP.LIQT.020.005
Name	Check for duplicate liquidity transfer
Description	<p>RTGS shall carry out a duplicate submission control for incoming liquidity transfers. This control shall include the following fields:</p> <ul style="list-style-type: none"> • Sender of the message; • Message Type; • Receiver; • Transaction Reference Number; • Related Reference; • Value Date; and • Amount.

Id	RTGS.UR.HVP.LIQT.020.010
Name	Business Validation - Process specific authorisation checks
Description	<p>RTGS shall perform service specific authorisation checks. A liquidity transfer order from the participant's RTGS DCA to the RTGS DCA dedicated to AS can be sent by the participant, the AS, the AS on the participant's behalf or the respective CB acting on behalf its participants/AS.</p> <p>The liquidity transfer order can also be triggered by the scheduler in the case of standing orders. The request for a liquidity retransfer from the RTGS DCA dedicated to AS to the participant's RTGS DCA can be sent by the participant, AS or the respective CB acting on behalf of its AS or triggered by a Standing Liquidity Transfer Order set up by the participant.</p>

Id	RTGS.UR.HVP.LIQT.020.025
Name	Business Validation - Liquidity Transfer Group
Description	<p>RTGS shall check whether both accounts belong to the same participant, or to participants within the same Liquidity Transfer Group or not. If not, the order will be rejected.</p> <p>This check is not performed for CB Accounts.</p>

Id	RTGS.UR.HVP.LIQT.020.020
Name	Business Validation - Whitelist check
Description	<p>RTGS shall check if the sending account is on the Whitelist for liquidity transfers of the receiving account (if the receiving account has activated the Whitelist feature).</p> <p>RTGS shall check if the receiving account is on the Whitelist for liquidity transfers of the sending account (if the sending account has activated the Whitelist feature).</p> <p>If not, the order will be rejected.</p> <p>This check is not performed for accounts belonging to the same participant, or where the liquidity transfer involves one or more CB Accounts.</p>

Additionally, **RTGS.UR.HVP.PAYT.020.050** applies.

1.5.3.3 PERFORM CHECKS FOR AVAILABLE LIQUIDITY

Task Ref: RTGS.TR.HVP.LIQT.030

Id	RTGS.UR.HVP.LIQT.030.010
Name	Check vs. amount to be transferred
Description	RTGS shall check whether enough liquidity is available. Where there is a lack of liquidity the usual rules for partial execution apply (cf Table 6 "Liquidity Transfer Types" in the section on Ancillary Systems).

1.5.3.4 CREATE PARTIAL REQUEST WITH AN AMOUNT WHICH IS COVERED

Task Ref: RTGS.TR.HVP.LIQT.040

Id	RTGS.UR.HVP.LIQT.040.010
Name	Partial Request
Description	If the liquidity transfer is initiated either by an AS on its participants' behalf or by an automatic trigger from the scheduler, RTGS shall settle the liquidity transfer partially. For several standing orders, where the sum of all standing orders for intra-RTGS liquidity transfers of the participant to be settled at the same event is larger than the available liquidity; RTGS shall reduce all respective standing orders in a pro-rata mode.

1.5.3.5 UPDATE CASH BALANCES

Task Reference RTGS.TR.HVP.LIQT.050

Id	RTGS.UR.HVP.LIQT.050.010
Name	Update Cash Balances
Description	RTGS shall book the liquidity transfer finally and irrevocably on the two RTGS accounts and shall update the defined value. RTGS shall send a (partly) success notification to the sending party and to the owner of the debited account.

1.5.3.6 CHECK ON FLOOR/CEILING

Task Reference RTGS.TR.HVP.LIQT.060

Id	RTGS.UR.HVP.LIQT.060.010
Name	Check on Floor/Ceiling
Description	Similar to RTGS.UR.HVP.PAYT.080.010

1.6 PROCESS INTER-SERVICE LIQUIDITY TRANSFER ORDER FROM MCA TO DCA - RTGS PART

This process is the second part of the CLM process "Inter-service LT between CLM and RTGS", the part within RTGS.

It is similar to the process described within CLM "Process inter-service liquidity transfer order from DCA to MCA". For the sake of simplicity, only the specific rules are described here.

The Whitelist check (see RTGS.UR.HVP.LIQT.020.020) applies to both the sender and the receiver sides. For inter-service checks (same comment for the next two processes), it will be decided during the realisation phase whether they are both performed in the first step (in CLM), or only on the sender in the first step, and on the receiver in the second step.

1.7 PROCESS INTER-SERVICE LIQUIDITY TRANSFER ORDER FROM DCA TO MCA - RTGS PART

This process is the first part of the CLM process "Inter-service LT between RTGS and CLM", the part within RTGS.

It is similar to the process described within CLM "Process inter-service liquidity transfer order from MCA to DCA". For the sake of simplicity, only the specific rules are described here.

The only specific rule is for liquidity transfers triggered by a lack of cash in CLM. The rule for Partial Settlement is different from the standard one defined in RTGS.UR.HVP.LIQT.040.

Id	RTGS.UR.HVP.LTRCV.040.010
Name	Partial Request
Description	In the case of liquidity transfers triggered by a lack of cash in CLM, they can be partially settled. And the remaining part should be queued (it will be decided during the realisation phase whether this queueing is done within RTGS or through the involvement of CLM with a second LT with a specific flag to indicate that it should be queued). In such a case, the processing will be similar to payment orders as described in the process "Payment Order Processing", considering that those LT are Highly Urgent. The queue will be common for payment orders and queued liquidity transfers.

1.8 PROCESS LIQUIDITY TRANSFER ORDER BETWEEN TWO DCAs IN DIFFERENT SETTLEMENT SERVICES - RTGS PART

This process is the RTGS part of the CLM process "Process liquidity transfer order between two DCAs in different settlement services".

Within this process, RTGS could be either:

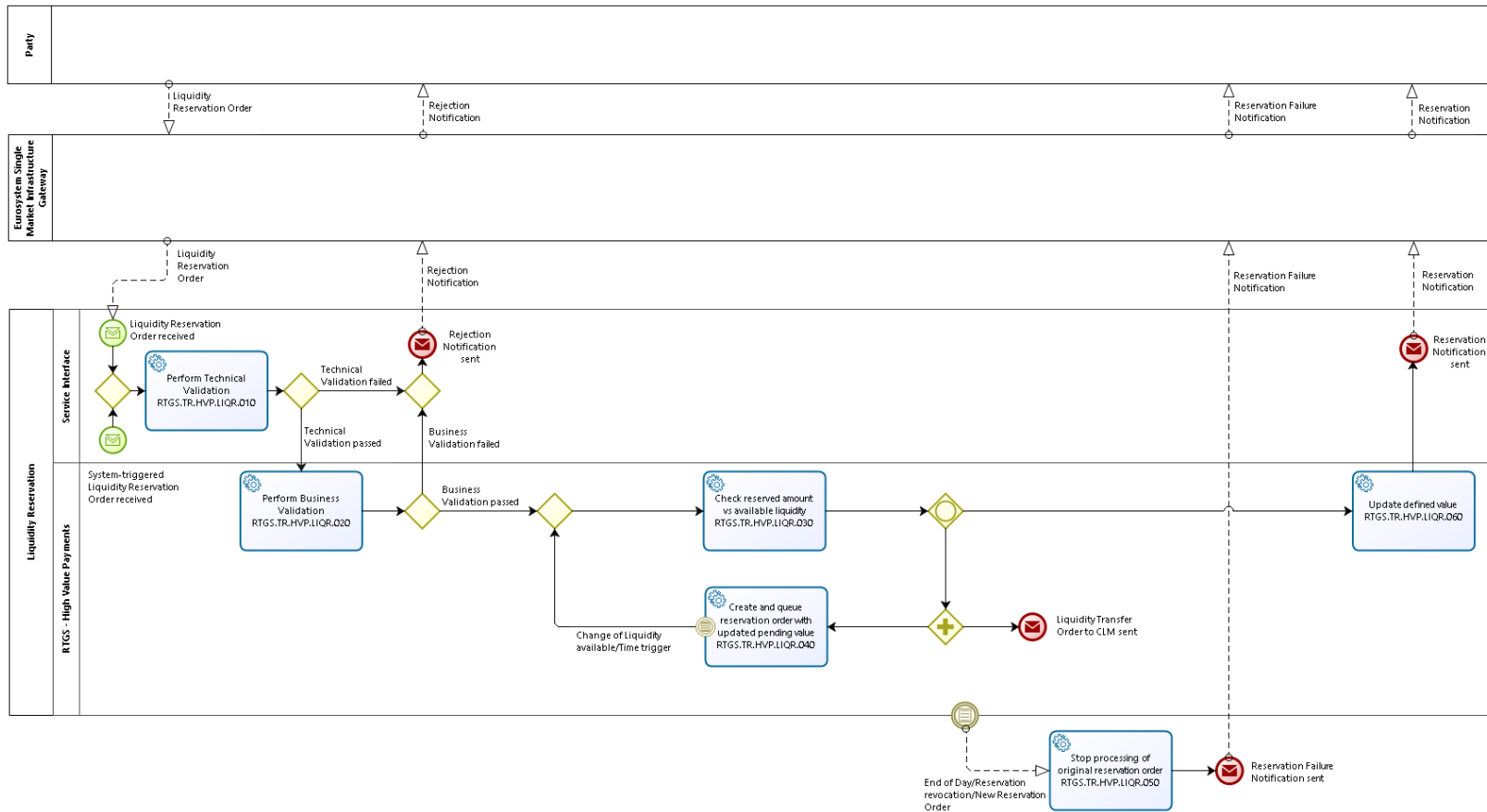
- the sending service, and the process is similar to "Process inter-service liquidity transfer order from DCA to MCA - RTGS part" above; or
- the receiving service, and the process is similar to "Process inter-service liquidity transfer order from MCA to DCA - RTGS part" above.

No specific rule has been identified for this process.

1.9 LIQUIDITY RESERVATION

Business Process Ref: RTGS.BP.HVP.LIQR

1.9.1 Business Process Model



Business Process Model 5: Liquidity Reservation

1.9.2 Process Overview

Process goal:

- ▶ This business process describes the processing of a request to reserve liquidity. The initiation of this process takes place through the execution of a Start of Day standing order to reserve liquidity or through the receipt of a liquidity reservation order from the account owner or another entity that the account owner has authorised to act on its behalf.
- ▶ The Service performs a technical validation of the liquidity reservation order and, if successful, it also performs a subsequent business validation of the liquidity reservation order. The Service shall send a rejection if either the technical validation or the business validation fails. If the Service completes both the technical validation and the business validations without identifying any errors, then the Service will attempt to reserve the requested amount on the account referred.
- ▶ Where the reservation operation (partly) succeeds, the Service will reserve (part of) the amount requested and the Service will send a (partial) reservation success notice to the sender of the request and to the account owner³.
- ▶ The amount that cannot be reserved is called the Pending Value and is queued. Following any incoming credit, the Pending Value is updated if possible and the Defined Value (i.e. the reserved amount minus the related debits) of the related reservation is increased.

Process context:

- ▶ This generic process is valid for all types of liquidity reservations.

Pre-conditions:

- ▶ The RTGS DCA exists
- ▶ Respective privileges have been granted to the sender

Time constraints:

- ▶ The processing has to be executed within the opening hours of HVP (see section 3.4 on Availability of Services in the User Requirement Document for Shared Services), i.e. from the opening of the Service until the End of Day process starts, and outside the maintenance window.

Expected results:

- ▶ Liquidity successfully reserved

Triggers:

- ▶ A liquidity reservation order (via A2A or U2A)
- ▶ A Standing Order for Reservation

³ Where the sender of the reservation is the account owner, only one notification will be sent.

1.9.3 User Requirements

1.9.3.1 TECHNICAL VALIDATION

Task Ref: RTGS.TR.HVP.LIQR.010

Same as **RTGS.TR.HVP.PAYT.010**.

1.9.3.2 BUSINESS VALIDATION

Task Ref: RTGS.TR.HVP.LIQR.020

Id	RTGS.UR.HVP.LIQR.020.010
Name	Business Validation - Process specific authorisation checks
Description	<p>RTGS shall ensure that the reservation request can be sent by the sending participant, the participant owning the account to be debited or the respective CB acting on behalf its credit institutions/customers. The request can also come from the scheduler in the case of a standing order.</p> <p>If the validation failed, a rejection notification with appropriate reason code shall be sent to the sender.</p>

Additionally, **RTGS.UR.HVP.PAYT.020.050** and **RTGS.UR.HVP.PAYT.020.005** apply.

1.9.3.3 CHECK RESERVED AMOUNT VS AVAILABLE LIQUIDITY

Task Ref: RTGS.TR.HVP.LIQR.030

Id	RTGS.UR.HVP.LIQR.030.010
Name	Check vs. amount to be pre-empted
Description	<p>RTGS shall check if the liquidity available covers the requested reservation amount. According to the check, RTGS shall create a partial reservation request with the amount which can be immediately covered. RTGS shall reserve this covered amount for the purpose indicated immediately.</p>

Note: The amount which is surpassing the available liquidity coverage is called Pending Value.

1.9.3.4 CREATE AND QUEUE RESERVATION ORDER WITH UPDATED PENDING VALUE

Task Ref: RTGS.TR.HVP.LIQR.040

Id	RTGS.UR.HVP.LIQR.040.010
Name	Create and queue reservation
Description	RTGS will queue the remaining (reduced) pending part and will process it in an event-oriented way. Whenever there is an increase in the available liquidity an asynchronous resolving process attempts to process the pending reservation order. Even if the increase of available liquidity is not sufficient for the complete processing, RTGS shall process the pending reservation partly (RTGS shall decrease the pending reservation and increase the defined value).

Id	RTGS.UR.HVP.LIQR.040.020
Name	Interventions on queued reservations
Description	RTGS shall allow for interventions on pending reservation requests: New reservation requests related to the participant's RTGS account will either increase the pending amount, or decrease it.

Note: Due to the asynchronous processing incoming liquidity might be blocked and used by a parallel booking process before the attempt to increase the reservation has been performed.

1.9.3.5 STOP PROCESSING OF ORIGINAL RESERVATION ORDER

Task Ref: RTGS.TR.HVP.LIQR.050

Id	RTGS.UR.HVP.LIQR.050.010
Name	Stop Processing
Description	Upon receipt of End of Day notification, a reservation revocation or a new reservation order, RTGS shall stop to process of the original reservation order.

1.9.3.6 UPDATE DEFINED VALUE

Task Ref: RTGS.TR.HVP.LIQR.060

Id	RTGS.UR.HVP.LIQR.060.010
Name	Update defined value
Description	RTGS shall book the reservations finally and irrevocably.

2 RTGS SERVICES FOR ANCILLARY SYSTEMS (AS)

2.1 OVERVIEW

2.1.1 Context Diagram

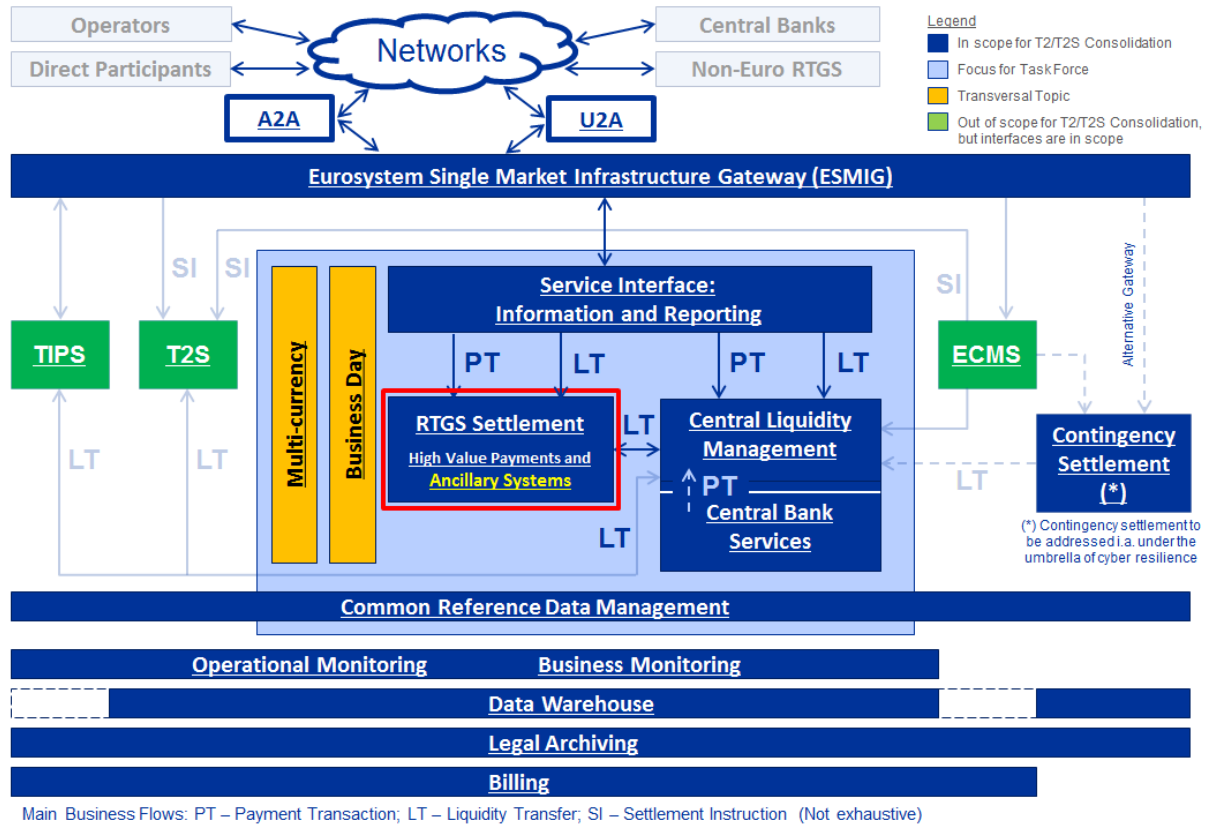


Figure 2: Context diagram for RTGS Services for Ancillary Systems

This section describes the RTGS services for Ancillary Systems (AS). It includes *Ancillary System Transaction Processing*. RTGS processes Payments transactions orders on AS accounts and the accounts of AS participants.

2.1.2 Business Process

Business Process Name	BP Reference	Business Process Description
Ancillary System Transaction Processing	RTGS.BP.AS.AST	Settlement of an AS transaction.

Table 2: Business Process for Ancillary Systems

2.1.3 Account types for Ancillary Systems Business

The following diagram depicts a generic account constellation for an AS participant (Party A), e.g. a settlement bank with various types of settlement businesses and with accounts opened in the book of one Central Bank:

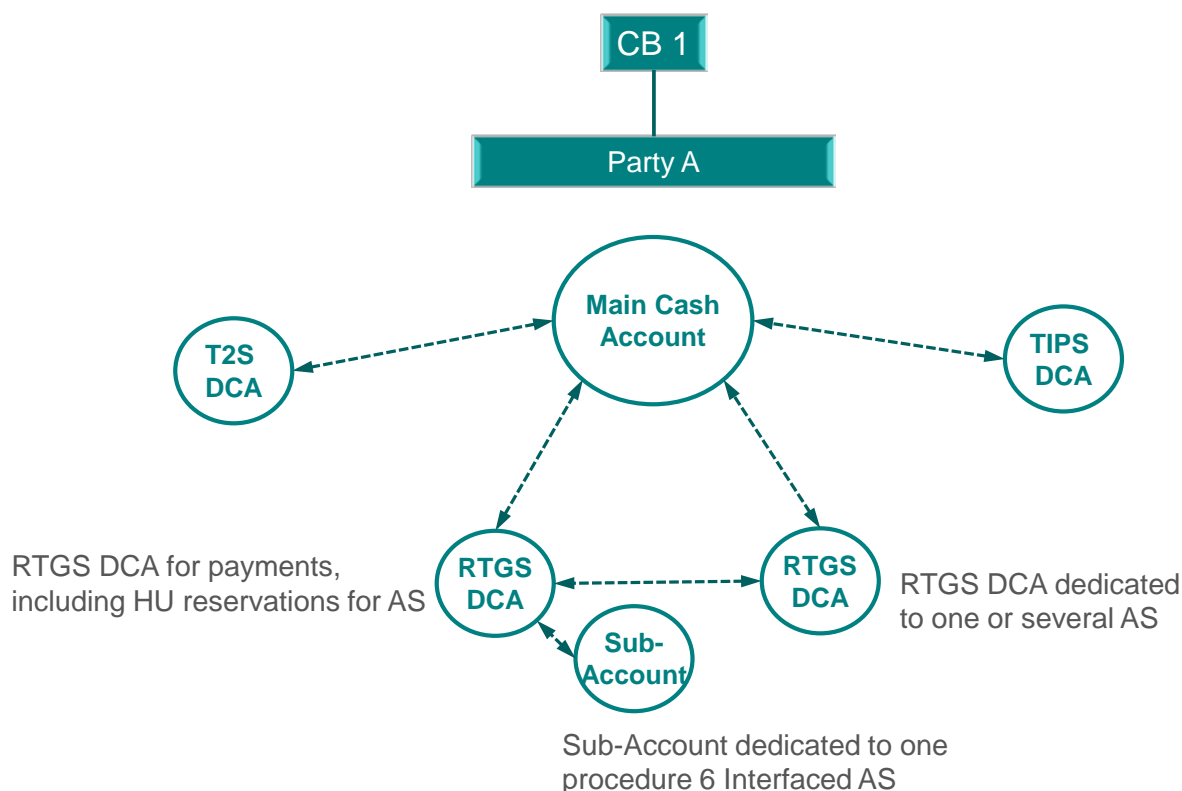


Figure 3: Generic account constellation for an AS participant

Besides DCAs for securities and instant payments settlement, it has an RTGS DCA for High Value Payments (with reserved amounts for Highly-Urgent AS related transactions) and two accounts for AS transactions: one account (for AS procedure "Settlement on dedicated Liquidity Accounts (interfaced)") as a sub account of the RTGS DCA for High Value Payments, the second account (for other AS) as an RTGS DCA dedicated to one or several AS.

Account type	Ownership
RTGS DCA	Party A
Sub account	Party A
Guarantee Funds Account	Guarantor, CB or the AS
Technical Account	CB or the AS

Table 3: Account Types and their ownership

2.1.3.1 SEPARATION OF LIQUIDITY

Account type	Settlement Procedure	Shared among several AS?
RTGS DCA	<ul style="list-style-type: none"> • direct settlement in the former TARGET2 PM account (e.g., Continuous Linked Settlement payments); • "Real-Time Settlement"; • "Bilateral Settlement"; • "Standard Multilateral Settlement"; • "Simultaneous Multilateral Settlement"; and • "Settlement on dedicated Liquidity Accounts (real-time)"⁴ 	<ul style="list-style-type: none"> • Y
Sub account	<ul style="list-style-type: none"> • "Settlement on dedicated Liquidity Accounts (interfaced)" 	<ul style="list-style-type: none"> • N

Table 4: Separation of liquidity for different settlement procedures

⁴ Liquidity for "Settlement on dedicated Liquidity Accounts (real-time)" can be transferred from the RTGS DCA to a technical account either held by the AS or the CB for prefunding purposes.

2.1.3.2 SOURCES OF LIQUIDITY

The following table provides a summary on the liquidity used for settlement and the respective accounts the liquidity stems from:

Liquidity source	Usage	Complementation	Segregation of liquidity
RTGS DCA	Usage of reservations for HU payment.	Possibly complemented by other reservations/liquidity as outlined in the reservations section on HVP settlement on the RTGS DCA.	No further separation by AS procedure/AS possible.
RTGS DCA dedicated to AS	Usage of liquidity transferred from the MCA or the RTGS DCA to the RTGS DCA dedicated to AS.	By default, no automated complementation is set up. Complementation can be set up by the participant through Event-based Liquidity Transfer Orders.	Separation by AS procedure/AS possible.
Sub account	Usage of liquidity transferred from the RTGS DCA to the sub account.	By default, no automated complementation is set up. Complementation can be set up by the participant through Event-based Liquidity Transfer Orders.	Separation by AS using procedure 6 Interfaced mandatory.
Guarantee Funds	Furthermore, a guarantee funds mechanism can be used for multilateral settlement procedures.	-	-

Table 5: Liquidity usage for AS settlement

2.1.4 Liquidity Transfer Types for Ancillary System Business

In general, the following types of liquidity transfers are foreseen:

Liquidity Transfer Type	Initiator	Settlement	Amount
Immediate liquidity transfer	AS participant	Only fully settable, if possible	Given in LT Order
	AS (on behalf)	Partially settable, if necessary	Given in LT Order
	CB (on behalf)	Only fully settable, if possible	Given in LT Order
Standing Liquidity Transfer Order	AS participant	Partially settable, if necessary	Given in LT Order

Table 6: Liquidity Transfer Types

2.1.5 Ancillary System Settlement Procedures

The following former TARGET2 settlement procedures will be supported by the service:

Procedure	Former ASI Procedure	Description
Direct settlement in the former TARGET2 PM account (e.g., Continuous Linked Settlement payments).	Participant interface	Usual real-time gross mode settlement of bilateral high value payments.
Real-time Settlement	2	Usual real-time gross mode settlement of bilateral high value payments.
Bilateral Settlement	3	Usual real-time gross mode settlement of bilateral high value payments.
Settlement on dedicated Liquidity Account (so-called technical account for procedure 6) (real-time)	6 Real-Time	Usual real-time gross mode settlement of bilateral high value payments.
Settlement on dedicated Liquidity Account (so-called sub accounts) (interfaced)	6 Interfaced	Usual real-time gross mode settlement of bilateral high value payments.
Standard Multilateral settlement	4	"Debits first", i.e. first all the debits are executed, then all the credits. If one of the transactions fails, the others, probably already executed, are unwound.
Simultaneous multilateral settlement	5	"All or Nothing", i.e. debits and credits are simultaneously executed. If one of the transactions fails, all the others aren't executed neither.

Table 7: Settlement Procedures

Considering the migration to ISO20022, there will be no difference in RTGS between the participant interface and AS interface. As a consequence, the functionality of the former procedures 2 and 3 will be provided using individual payment XML messages. Banks will be able to grant to AS the right to debit the account of the bank for the AS settlement. HU priority will be used for AS transactions, and From Time / Information period / Settlement period can be defined (see HVP URD / Payment Order Processing above). AS transactions can be sent in a file (see Shared Services / ESMIG).

For procedure 6 RT, one account being the so-called Technical Account for procedure 6 RT which will have an End of Day balance will be used per AS.

For procedure 6 Interfaced, the accounts to be used for the banks will be sub accounts and an AS can use a technical account.

The additional specific features for procedures 6 RT and Interfaced are described below.

For procedures 4 and 5, AS transactions will be sent by files. The Service will manage the links as formerly in TARGET2 ("Debits first" or "all or nothing"), according the parameters set for the AS in CRDM (which procedure is used, see Business Data Definition). Information and settlement periods will be provided as they were formerly in TARGET2 as well, including the (optional) activation of the guarantee mechanism where there is a failure at the end of the settlement period.

2.1.5.1 SETTLEMENT ON DEDICATED LIQUIDITY ACCOUNTS (INTERFACED)

The features listed below ensure that the TARGET2 procedure known as "Settlement on dedicated Liquidity Accounts (interfaced)" can be almost fully mapped to the consolidated RTGS service:

Feature	Mapping
Dedicated Liquidity	Liquidity on sub account (one sub account per AS)
Start of procedure / End of procedure ⁵	Regular liquidity transfers (e.g. from RTGS DCA to sub account) at these business events can be set up through standing orders.
Blocking/control of liquidity by the AS	Whenever the AS using this interfaced procedure starts a cycle, the liquidity on the sub account involved will be controlled/blocked by the AS. The control is given back to the participant through the end of cycle, meaning that liquidity increase on the sub account is possible between two cycles.
Liquidity increase during cycle initiated by the participant	Always possible, either through a liquidity transfer or a payment ⁶ .
Increase of Liquidity during cycle through Auto-collateralisation/redemption and coupon payments	Will not be supported anymore.

Table 8: Features for "Settlement on dedicated Liquidity Accounts (interfaced)"

2.1.5.2 SETTLEMENT ON DEDICATED LIQUIDITY ACCOUNTS (REAL-TIME)

In addition to the features described for Settlement on dedicated Liquidity Accounts (interfaced)", the features listed below ensure that the TARGET2 procedure known as "Settlement on dedicated Liquidity Accounts (real-time)" can be almost fully mapped to the consolidated RTGS service:

⁵ It will be decided during the realisation phase whether one single procedure will be defined (no distinction between Night-Time and Day-Time) or two procedures as formerly in TARGET2, and whether they will be triggered by the system or by the AS.

⁶ Further details regarding which messages are used and when exactly the respective liquidity increase is booked, will be provided in the UDFS.

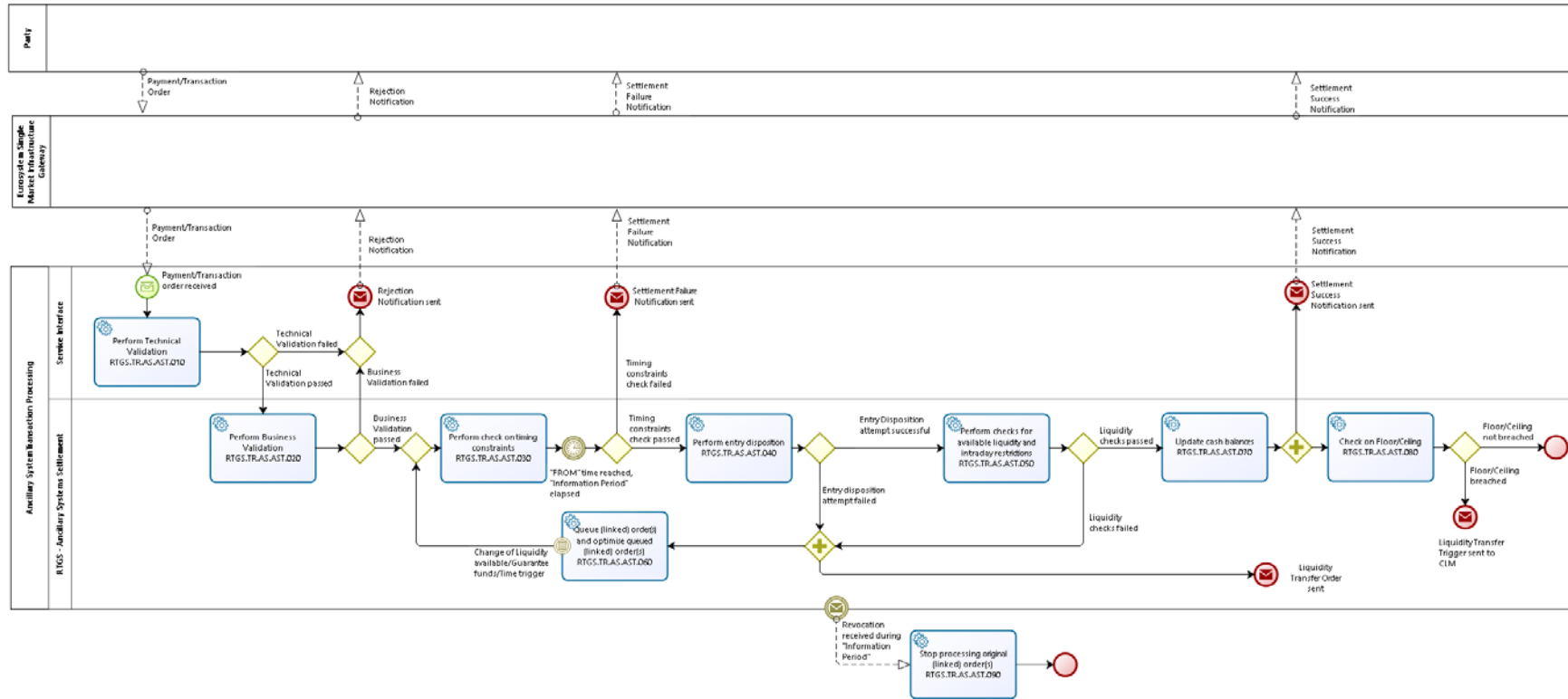
Feature	Proposal for mapping
Cross-AS settlement	Can be realised as liquidity transfers between two different technical AS accounts owned by ACHs. The Whitelist functionality ensures that only authorised ACHs can send Cross-AS payments to a specific account.

Table 9: Features for "Settlement on dedicated Liquidity Accounts (real-time)"

2.2 ANCILLARY SYSTEM TRANSACTION PROCESSING

Business Process Ref: RTGS.BP.AS.AST

2.2.1 Business Process Model



Business Process Model 6: Ancillary System Transaction Processing

2.2.2 Process Overview

Process goal:

- ▶ The Ancillary System Transaction Processing is similar to the High Value Payments processing, meaning that the processing of AS transactions has many similarities with the processing of HVP payments, except the specificities described below.
- ▶ Specificities:
 - The process will be initiated by the Ancillary System participating in the service, its participants or the CB acting on behalf via sending of the respective request message to the service;
 - The consideration of possible links between different AS transaction orders sent in one "batch";
 - The usage of guarantee funds.
 - The information period.
 - The settlement period.
 - The common monitoring of different AS transaction orders sent in one "batch".

Process context:

- ▶ This generic process is valid for all types of Ancillary Systems Transactions.

Pre-conditions:

- ▶ The RTGS DCAs/sub accounts exist
- ▶ Respective privileges have been granted to the sender

Time constraints:

- ▶ The processing has to be executed within the opening hours of AS (see section 3.4 on Availability of Services in the User Requirement Document for Shared Services), i.e. from the opening of the Service until the End of Day process starts, and outside the maintenance window.

Expected results:

RTGS shall either

- ▶ Settle the AS transaction or
- ▶ Queue the AS transaction or
- ▶ Reject (if validation fails) / Cancel the AS transaction or
- ▶ Send a failure notification for
 - the Reject Time reached or

- the not settled AS transaction (at the End of Day revocation, since no failure notification are sent after each unsuccessful settlement attempt) or
- ▶ Send an optional (according to subscription) settlement success notification.

Triggers:

- ▶ This process is triggered by a valid request from the Ancillary System/participant/Central Bank

2.2.3 User Requirements

Request messages from AS can be sent in "batch" mode, i.e. through files, meaning that:

- for multilateral settlement procedures 4 and 5, the settlement should not break the links ("Debits first" or "all or nothing")
- for monitoring purposes, for all procedures 3 to 6, it should be possible to have a complete view on the status of all the payments in the file

2.2.3.1 PERFORM TECHNICAL VALIDATION

Task Ref: RTGS.TR.AS.AST.010

Same as **RTGS.TR.HVP.PAYT.010**.

2.2.3.2 PERFORM BUSINESS VALIDATION

Task Ref: RTGS.TR.AS.AST.020

Id	RTGS.UR.AS.AST.020.010
Name	Business Validation - Process specific authorisation checks
Description	<p>RTGS shall check if the Ancillary System is, indeed, authorised to debit/credit the settlement bank according to a list of settlement banks per Ancillary System.</p> <p>If the validation failed, rejection notifications with appropriate reason code must be sent to the Ancillary System.</p>

Additionally, **RTGS.TR.HVP.PAYT.020** applies.

2.2.3.3 PERFORM CHECK ON TIMING CONSTRAINTS

Task Ref: RTGS.TR.AS.AST.030

Similar to **RTGS.TR.HVP.PAYT.030** with the following additional requirements:

Id	RTGS.UR.AS.AST.030.010
Name	Settlement period
Description	<p>RTGS shall consider the following timing constraints with respect to settlement:</p> <ul style="list-style-type: none"> The "Settlement Period" is a time period set by the sender, An AS transaction can only be submitted to settlement if its "Settlement Period", if indicated, has not yet elapsed. Otherwise, it will be rejected.

Id	RTGS.UR.AS.AST.030.020
Name	Information period
Description	<p>RTGS shall consider the following timing constraints with respect to settlement: The "Information Period" is a time period set by the sender.</p> <p>An AS transaction can only be submitted to settlement if its "Information Period", if indicated, has already elapsed. If no "Information Period" is indicated, no restriction applies in that respect. At the start of the information period, the system will be informing the settlement banks about the upcoming settlement via U2A broadcast.</p>

2.2.3.4 PERFORM ENTRY DISPOSITION

Task Ref: RTGS.TR.AS.AST.040

Similar to **RTGS.TR.HVP.PAYT.040**.

The main difference stems from the fact that single AS transactions will be of Highly Urgent priority by default. That means that the entry disposition follows the same pattern for each single AS transaction. Either they are settled immediately or they are allocated to the HU queue. For files of transactions, the links have to be respected in the entry disposition. As for reservations, there will be a special reservation for AS transactions/HU payments in place.

2.2.3.5 PERFORM CHECKS FOR AVAILABLE LIQUIDITY AND INTRADAY RESTRICTIONS

Task Ref: RTGS.TR.AS.AST.050

Blocked accounts validation and Blocked parties validation Same as **RTGS.UR.RTGS.PAYT.050.010** and 020

Limit check: as all AS transactions are of highly urgent priority, there is no check against bilateral or multilateral Limits.

Balance checks for highly urgent payments

Similar to **RTGS.TR.HVP.PAYT.050.040**

Id	RTGS.UR.AS.AST.050.010
Name	Blocking for "Settlement on dedicated Liquidity Accounts (interfaced)"
Description	RTGS shall respect that during the settlement process of settlement procedure "Settlement on dedicated Liquidity Accounts (interfaced)" the sub account balance is exclusively reserved for the AS settlement in the case of a running cycle.

Id	RTGS.UR.AS.AST.050.020
Name	Balance check - First Step
Description	RTGS shall consider linkage constraints due to multilateral settlement. For linked transactions, the check has to be successful for all linked transactions involved (possibly at different points in time for the standard multilateral settlement).

Id	RTGS.UR.AS.AST.050.030
Name	Balance check failure - Handling without guarantee funds
Description	If Provision Check III fails for AS transactions, and no guarantee funds mechanism has been envisaged, RTGS shall queue order(s) until the end of the settlement period or End of Day, respectively.

Id	RTGS.UR.AS.AST.050.040
Name	Balance check failure - Handling with guarantee funds
Description	<p>RTGS shall consider usage of guarantee funds with respect to settlement:</p> <p>If the first balance check fails, where a guarantee mechanism has been envisaged for linked transactions, a guarantee fund usage request is sent out to the party controlling the guarantee account when the intended settlement period has elapsed. The request can either be accepted or rejected by the AS.</p> <p>If it was accepted, the guarantee funds will be considered in a second step upon. That means, the accounts to be debited which lacked liquidity in the first step, will be replaced by the guarantee account.</p> <p>If then still one of the various linked transactions cannot be settled, the process for revoking the file and unwinding (see next RTGS.UR.AS.AST.070.010) should be started. The system will be informing the settlement banks via U2A broadcast.</p>

2.2.3.6 QUEUE (LINKED) ORDER(S) AND OPTIMISE QUEUED (LINKED) ORDER(S)

Task Ref: RTGS.TR.AS.AST.060

Similar to **RTGS.TR.HVP.PAYT.060**. The main difference is the optimisation for linked transaction described below.

Id	RTGS.UR.AS.AST.060.010
Name	Optimisation for linked transactions
Description	<p>RTGS shall consider linkage constraints within optimisation and due to multilateral settlement.</p> <p>For linked transactions, the optimisation has to ensure that all linked transactions are processed such that the links are not broken.</p>

2.2.3.7 UPDATE CASH BALANCES

Task Ref: RTGS.TR.AS.AST.070

Similar to RTGS.TR.HVP.PAYT.070 with one additional requirement;

Id	RTGS.UR.AS.AST.070.010
Name	Unwinding for linked transactions - standard multilateral settlement
Description	<p>RTGS shall consider linkage constraints due to multilateral settlement in the case of unsuccessful settlement attempts.</p> <p>For the standard multilateral settlement, if one of the debits fails, the debits already executed need to be unwound when the file is revoked. The file shall be revoked when, after the settlement period, not all debits have been settled or if the AS or Central Bank on behalf revokes the file or at the End of Day, if a settlement period has not been defined.</p>

2.2.3.8 CHECK ON FLOOR/CEILING

Task Ref: RTGS.TR.AS.AST.080

Same as **RTGS.TR.HVP.PAYT.080**.

3 NON-FUNCTIONAL REQUIREMENTS FOR HIGH VALUE PAYMENTS SETTLEMENT AND RTGS SERVICES FOR ANCILLARY SYSTEMS

3.1 AVAILABILITY

Id	RTGS.UR.NFR.ALL.030
Name	Availability
Description	Availability, calculated on a quarterly basis, shall be at least 99.7%.

RTGS may be subject to incidents or failures, which may cause a temporary and unforeseen interruption of the service. Regardless of the total number of such unplanned interruptions, the overall availability calculated on a quarterly basis shall be at least 99.7%. Payments not settled in the “entry disposition” are excluded. Warehoused payments are excluded. Payments stemming from batch procedures of AS are excluded. Start of the measurement period will be adapted to neutralise the “morning queuing effect”.

Id	RTGS.UR.NFR.ALL.040
Name	Planned Maintenance window
Description	RTGS will provide a maintenance window.

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

3.2 DISASTER RECOVERY

Id	RTGS.UR.NFR.ALL.050
Name	Recovery Point Objective
Description	RTGS shall ensure a recovery point objective value of zero minutes in the event of site failures. Where there is a loss of a complete region the recovery point objective (RPO) shall not exceed two minutes.

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

RTGS ensures synchronous point of consistency creations and, as a consequence, no data loss in the event of failures, unless the Service cannot be restarted in the same region and a failover to the backup region has to be conducted. In this case a data loss of two minutes will be tolerated.

Id	RTGS.UR.NFR.ALL.060
Name	Recovery Time Objective
Description	RTGS shall ensure a recovery time objective value of one hour in the event of site failures. Where there is a loss of a complete region the recovery time objective (RTO) shall not exceed two hours.

The RTO is the maximum amount of time required for recovery or restart of the Service to a specified point of consistency. In the event of a site failure, RTGS shall ensure maximum time of unavailability of one hour starting from the time when the decision to restart the Service is made up to the time the Service is restored. In the event of a major failure or a regional disaster, RTGS shall ensure maximum time of unavailability of two hours starting from the time when the decision to restart the Service is made up to the time the Service is restored.

3.3 PERFORMANCE REQUIREMENTS

Id	RTGS.UR.NFR.ALL.070
Name	Response Time Goals
Description	RTGS shall process 95% of the transactions within 2 minutes and 100% of the transactions within 5 minutes.

Id	RTGS.UR.NFR.ALL.080
Name	Peak Workload per second
Description	RTGS shall be able to process 50 transactions per second, enduring the peak load for at least one hour.

Id	RTGS.UR.NFR.ALL.090
Name	Upward Scalability
Description	<p>RTGS shall be scalable to handle higher throughputs in order to cope with e.g. short-term market shocks and foreseeable increases:</p> <ul style="list-style-type: none"> • A 20% higher workload within 15 minutes and • A double of the workload (but up to 200 transactions per second) within 365 days.

In the course of the service's lifecycle the number of transactions to be handled might change due to market changes or adapted business behaviour. To be able to cope with this, RTGS shall be able to handle higher throughputs.

3.4 INFORMATION SECURITY AND CYBER RESILIENCE

Id	RTGS.UR.NFR.ALL.100
Name	Information Security
Description	<p>RTGS shall be compliant with the Information Security Requirements and Controls.</p> <p>Note: For details see the Market Infrastructure Security Requirements and Controls document.</p> <p>All requirements must be fulfilled in a central integrated way.</p>

Id	RTGS.UR.NFR.ALL.110
Name	Cyber Resilience
Description	<p>RTGS shall be compliant with Cyber Resilience Requirements.</p> <p>Note: For details see Market Infrastructure Cyber Resilience Requirements document.</p> <p>All requirements must be fulfilled in a central integrated way.</p>

4 USER INTERACTION

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

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

4.1 GENERAL USER REQUIREMENTS FOR USER INTERACTION

4.1.1 Query

Id	RTGS.UR.RTGS.UI.ALL.010
Name	Query Audit Trail
Description	<p>All Services shall provide the functionality to query through U2A and A2A interfaces the modified data at the attribute level, the user performing the change and the timestamp of the change made.</p> <p>It should be visible which attributes were changed, together with the new values.</p> <p>The query shall return relevant business attributes of the Audit Trail.</p>

Id	RTGS.UR.RTGS.UI.ALL.020
Name	Query System time
Description	<p>All Services shall provide the functionality to query system time to align the time of a connected application through an A2A interface.</p> <p>The query shall return the System time.</p>

4.1.2 Action

Id	RTGS.UR.RTGS.UI.ALL.030
Name	Amend/Revoke Task(s)
Description	All Services shall provide the functionality to amend or revoke task(s) through the U2A interfaces.

Id	RTGS.UR.RTGS.UI.ALL.040
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Name	Act on behalf
Description	All Services shall provide the functionality to act on behalf through U2A and A2A interfaces for: <ul style="list-style-type: none"> • Central Banks, to act on behalf of any Party belonging to their banking community; and • The TARGET Service Desk, to act on behalf of any Party.

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

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

4.2 USER INTERACTION FOR FUTURE RTGS

4.2.1 Query

The User Interaction section covers intraday queries. For intraday queries, the Value Date would by default be 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 the User Rights and Access UR / Overview.

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

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

Id	RTGS.UR.RTGS.UI.010
Name	Query payments/files
Description	RTGS shall provide the functionality to query the status and details of all payments on any account. The user can query within his data scope, which is

determined by the Party BIC and the DCA number (Party BICs and DCA numbers in case of a Central Bank as a user). In addition the query shall allow the user to specify any combination of the following optional selection criteria.

The following payment types can be queried:

- Payments
- Warehoused payments
- Liquidity transfers
- AS Transactions

Optional selection criteria:

- Entry Time (from-to)
- Settlement Time (from-to)
- Payment type
- Priority
- Debit/Credit
- Sender BIC
- Receiver BIC
- Specific Amount or amount range (from - to)
- File Reference
- Status
- Either Party Name or Party BIC
- Transaction reference
- Counterpart country
- Currency code
- DCA number

The query shall return all business attributes of the payments including the processing status. When a file is queried, the status of the file would be also provided with the remaining business attributes.

Id	RTGS.UR.RTGS.UI.020
Name	Query message
Description	<p>RTGS shall provide the functionality to query any message in XML format. The user can query within his data scope, which is determined by the Party BIC and the DCA number (Party BICs and DCA numbers in case of a Central Bank as a user). In addition the query shall allow the user to specify any combination of the following optional selection criteria.</p> <p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none"> • Entry Time (from-to)

	<ul style="list-style-type: none"> • Message type • Status • Amount • Inbound or outbound • Sender BIC • Receiver BIC • Either Party Name or Party BIC • Transaction reference • DCA number <p>The query shall return the message in XML format, including the processing status.</p> <p>This query shall only be provided in U2A mode.</p>
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Id	RTGS.UR.RTGS.UI.030
Name	Query account balance
Description	<p>RTGS shall provide the functionality to query the balance on any account. The user can query within his data scope, which is determined by the Party BIC and the DCA number (Party BICs and DCA numbers in case of a Central Bank as a user). In addition the query shall allow the user to specify any combination of the following optional selection criteria. This query is also relevant to query liquidity on AS Level.</p> <p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none"> • DCA Number • Either Party BIC or Party Name <p>The query shall return the current and projected account balance and all business attributes of the account(s).</p>

Id	RTGS.UR.RTGS.UI.040
Name	Query reservations
Description	<p>RTGS shall provide the functionality to query all reservations on any account. The user can query within his data scope, which is determined by the Party BIC and the DCA number (Party BICs and DCA numbers in case of a Central Bank as a user). In addition the query shall allow the user to specify any combination of the following optional selection criteria.</p>

	<p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none"> • DCA Number • Either Party BIC or Party Name <p>The query shall return all business attributes of the reservations, including the defined value, which equals the reserved value minus all the debits, and the Pending Value where the original amount to be reserved was not entirely reserved</p>
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Id	RTGS.UR.RTGS.UI.050
Name	Query Limits
Description	<p>RTGS shall provide the functionality to query all Limits (multilateral and bilateral Limit) on any account. The user can query within his data scope, which is determined by the Party BIC and the DCA number (Party BICs and DCA numbers in case of a Central Bank as a user)In addition the query shall allow the user to specify any combination of the following optional selection criteria.</p> <p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none"> • DCA Number • Either Party BIC or Party Name <p>The query shall return all business attributes of the Limits.</p>

Id	RTGS UR.RTGS.UI.100
Name	Query Broadcast
Description	<p>All User Interaction relevant services shall provide the functionality to query detailed information on broadcasts through a U2A interface. Normal information provided in pull mode should be distinguished from alert broadcasts information provided in push mode.</p>

Id	RTGS.UR.RTGS.UI.110
Name	Query account statement
Description	<p>RTGS shall provide the functionality to query on the account statement. The user can query within his data scope, which is determined by the Party BIC</p>

	<p>and the MCA number (Party BICs and MCA numbers in case of a Central Bank as a user)In addition the query shall allow the user to specify any combination of the following optional selection criteria.</p> <p><u>Optional selection criteria:</u></p> <ul style="list-style-type: none"> • DCA Number • Either Party BIC or Party Name <p>The query shall return all business attributes of the account statement.</p> <p>Note: More information about producing, sending and downloading a report can be found in the Information and Reporting section of the Shared Services URD.</p>
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4.2.2 Actions

Id	RTGS.UR.RTGS.UI.130
Name	Change order of payments in a queue
Description	RTGS shall provide the functionality to change the order of payments (including warehoused payments) currently pending for settlement through U2A and A2A interface. The change should only be possible for payments not having reached a final status yet.

Id	RTGS.UR.RTGS.UI.135
Name	Create a payment
Description	<p>RTGS shall provide the functionality to create a payment through U2A interface.</p> <p>Note: The ability to enter payments would be subject to necessary rights, allowing an organisation to control the use of this feature.</p>

Id	RTGS.UR.RTGS.UI.140
Name	Modify a payment
Description	RTGS shall provide the functionality to modify the priority and/or the execution time of a payment (including warehoused payments) currently available in the system through U2A and A2A interface. The change should only be possible for payments not having reached a final status yet.

Id	RTGS.UR.RTGS.UI.150
Name	Cancel a payment
Description	RTGS shall provide the functionality to revoke a payment (including warehoused payments) currently available in the system through U2A and A2A interface. The cancellation should only be possible for payments not having reached a final status yet.

Id	RTGS.UR.RTGS.UI.160
Name	Revoke an AS file
Description	RTGS shall provide the functionality to revoke an AS file which has not reached a final status yet through U2A and A2A interface.

Id	RTGS.UR.RTGS.UI.180
Name	Create a liquidity transfer
Description	RTGS shall provide a functionality to create a liquidity transfer through U2A and A2A interface.

Id	RTGS.UR.RTGS.UI.190
Name	Create a back-up payment
Description	RTGS shall provide a functionality to create a back-up payment through U2A interface. This action has to be activated by the CB on participant level.

Id	RTGS.UR.RTGS.UI.200
Name	Create an immediate reservation order
Description	RTGS shall provide the functionality to create a reservation order through the U2A interface and the A2A interface.

Id	RTGS.UR.RTGS.UI.210
Name	Amend an immediate reservation order
Description	RTGS shall provide the functionality to amend a reservation order through the U2A interface and the A2A interface.

Id	RTGS.UR.RTGS.UI.220
Name	Delete an immediate reservation order
Description	RTGS shall provide the functionality to delete a reservation order through the U2A interface and the A2A interface.

The table below shows a summary of the above described queries and actions in U2A and A2A mode.

Functionality	Query/ Action	U2A	A2A
RTGS	Query payments/files	X	X
RTGS	Query account balance	X	X
RTGS	Query reservation	X	X
RTGS	Query Limits	X	X
RTGS	Query message	X	
RTGS	Query Broadcast	X	
RTGS	Query account statement	X	X
RTGS	Change order of payments in a queue	X	X
RTGS	Create /Modify/Cancel a payment	X	X
RTGS	Revoke an AS file	X	X
RTGS	Create a liquidity transfer	X	X
RTGS	Create a back-up payment	X	
RTGS	Create/Amend/Delete an immediate reservation order	X	X
Reference Data	Create/Amend/Delete a Standing Order for Limit)	X	X
Reference Data	Grant Access rights to individual users	X	

Table 100: Summary of queries and actions in U2A and A2A mode for future RTGS services

5 BUSINESS DATA DEFINITIONS

5.1 ENTITIES AND ATTRIBUTES

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

- ▶ Party
- ▶ Party Name
- ▶ Limit
- ▶ Cash Account
- ▶ Payment
- ▶ Liquidity Transfer
- ▶ Standing Order
- ▶ Direct Debit Mandate
- ▶ Reservation
- ▶ Standing Order for Reservation
- ▶ Whitelist
- ▶ Currency
- ▶ Service
- ▶ User
- ▶ Role
- ▶ Privilege
- ▶ Access Rights

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