



EUROPEAN CENTRAL BANK

EUROSYSTEM

T2S CHANGE REQUEST		
General Information (Origin of Request)		
<input type="checkbox"/> User Requirements (URD) or GUI Business Functionality Document (BFD) <input checked="" type="checkbox"/> Other User Functional or Technical Documentation (SYS)		
Request raised by: Eurosystem	Institute: 4CB	Date raised: 25/02/2025
Request title: RTS Enhancements: Minimising the sending of SETT/LCMM internal messages		Request No.: T2S 0849 SYS
Request type: Common	Classification: Scope Enhancement	Urgency: Fast-track ¹
1. Legal/business importance parameter²: High		2. Market implementation efforts parameter³: Low
3. Operational/Technical risk parameter⁴: Low		4. Financial impact parameter: (provided by 4CB) ⁵
Requestor Category: 4CB		Status: Proposed for a release

Reason for change and expected benefits/business motivation:

This change request focuses on reducing the number of messages exchanged internally in T2S, especially when it comes to messages exchanged between Settlement (SETT) and Life cycle Management and Matching (LCMM) domains. With an increase in transaction volumes in general, and also an expected increase of peak volumes for Corporate Actions events, it is necessary to optimise the internal communication in T2S, in order to better handle peaks of high volumes and better manage the usage of T2S CPU during high-volume conditions.

With the onboarding of additional end-investor markets in T2S, and specifically the planned change of Euronext Copenhagen to become an end-investor market, it is necessary to introduce this change in order to improve the T2S performance, especially related to corporate actions peak volumes.

Minimising the sending of internal messages SETT/LCMM

For each settlement attempt in failure, the Settlement Engine sends a 'T2S internal' message to LCMM to report the instruction status and the failure reason(s), enabling in particular LCMM to forward it to the end client.

Such internal messages are sent even if there is no change in the status. This results in massive information exchanged with limited value for the participant, as the messages with no status change are filtered by LCMM and are never sent to the clients in A2A mode. In U2A mode, they are only used to refresh the latest settlement attempt timestamp on the GUI.

Such internal messages with no status change represent significant volumes and CPU consumption

- 320 000 daily messages
- 50% of failure reasons in RTS
- 34% of failure reasons in NTS
- 37% of communications from SETT to LCMM
- Millions of internal IMS messages and DB2 data base updates
- Up to 140 update messages with no status change can be sent for a single transaction during the day

¹ Fast-track justification: A fast-track approach is requested due to the urgent need to implement this change in view of the onboarding of additional end-investor markets in T2S and to accommodate for the increase in transaction volumes and peaks for Corporate Action events, foreseen already in 2027.

² Legal/business importance parameter was set to "High" because the change is needed to better handle peaks of high volumes and better manage the usage of T2S CPU during high-volume conditions.

³ Market implementation effort parameter was set to "Low" as the change does not imply significant changes to T2S Actors.

⁴ Operational/technical risk parameter was set to "Low" because it is not expected that this change will have an operational impact on the T2S Actors.

⁵ Low < 100kEUR < Low-Medium < 200kEUR < Medium < 400kEUR < High < 700kEUR < Very high

Description of requested change:**Minimising the sending of internal messages SETT/LCMM (Related to proposal 1.16 in the T2S Strategic Evolution Report)**

The change will consist for the Settlement module to stop informing LCMM when recycling status/failure reason of a transaction remains unchanged.

- During RTS, SETT will implement a 'filtering' in real time.
- This CR will also impact the NTS phase: during this period, the filtering will be done per sequence.

T2S will still keep;

- one daily reporting at the first settlement attempt of the day;
- a second reporting at EOD cut-off if it is still in failure.

The expected client impact is that the timestamp on the GUI will not be refreshed when the settlement attempt does not change the status (the timestamp will remain the one of the first settlement attempt of the day, or the most recent status change)

Example:

Business day	Calendar day	Period	Time	Action	Status message A2A	Staus timestamp on the GUI	
						Today	After CR impl.
D	D-1	NTS	21.30	First Settlement attempt	Yes	21.30 of BD=D 1st Settlement attempt	21.30 of BD=D 1st Settlement attempt
D	D	RTS	11.00	Settlement attempt Failure reason <u>unchanged</u>	No	11:00 of BD=D	Unchanged 21:30 still shown
D	D	RTS	11:15	Query via GUI of SI status	Not applicable.	11:15 of BD=D	Unchanged 21:30 still shown
D	D	RTS	13.00	Settlement attempt Failure reason <u>changed</u>	Yes	13:00 of BD=D (new failure reason)	13:00 of BD=D (new failure reason)
D	D	RTS	15.00	Settlement attempt Failure reason <u>unchanged</u>	No	15:00 of BD=D	Unchanged 13:00 still shown
D	D	RTS Closure	16.00	Settlement attempt Failure reason <u>changed due to cut-off</u>	Yes	16.00 of BD=D (Settlement attempt in RTSC)	16.00 of BD=D (Settlement attempt in RTSC)
D+1	D	SOD	19:00	Query via GUI of SI status	Not applicable.	16.00 of BD=D (Settlement attempt in RTSC of BD=D)	16.00 of BD=D (Settlement attempt in RTSC of BD=D)
D+1	D	NTS	22.00	First Settlement attempt of the new BD	Yes	22.00 of BD=D + 1	22.00 of BD=D + 1

The benefit of this proposal will be to

- Avoid the sending a significant number of message by SETT to LCMM;
- Harmonise U2A process and A2A process.

Submitted annexes / related documents:**Outcome/Decisions:**

*CRG on 5 March 2025: the CRG agreed to recommend CR-0849 for authorisation by the T2S Steering Level, following a fast-track approach.

*AMI-SeCo on 14 March 2025: the AMI-SeCo agreed with the CRG recommendation of CR-0849 for T2S Steering Level Authorisation.

*CSG on 14 March 2025: the CSG agreed to authorise CR-0849.

*NECSG on 14 March 2025: the NECSG agreed to authorise CR-0849.

*MIB on 27 March 2025: the MIB agreed to authorise CR-0849.

*PMG on 10 April 2025: the PMG agreed to launch the detailed assessment of CR-0849 with a view of scoping in R2026.NOV.

Documentation to be updated:

Preliminary assessment:

Detailed assessment:
