EUROPEAN CENTRAL BANK

EUROSYSTEM

T2S CHANGE REQUEST FORM		
General Information (Origin of Request) ☒ User Requirements (URD) or GUI Business Functionality Document (BFD) ☐ Other User Functional or Technical Documentation (SYS)		
Request raised by: CSG TF on T+1	**Institute:** CSD	**Date raised:** 10/07/2025
Request title: Adjustment of the Night-Time Settlement for accommodating the shortening of the settlement cycle to T+1		**Request No.:** T2S 0858 URD
Request type: Common	**Classification:** Scope enhancement	**Urgency:** Fast-track[1]
1. Legal/business importance parameter[2]: High		**2. Market implementation efforts parameter[3]:** Medium
3. Operational/Technical risk parameter[4]: Medium		**4. Financial impact parameter:** Very high
Requestor Category: CSD		**Status:** Allocated to a Release

Reason for change and expected benefits/business motivation:

The settlement cycle is commonly referred to as the period between the trade date (the moment of a trade, denoted as 'T') and the settlement date[5] .

The European Commission published on Wednesday, 12 February 2025, a legislative proposal[6] to introduce a targeted amendment to the Central Securities Depository Regulation (CSDR) with the objective to shorten the settlement cycle in the EU from two days (so-called "T+2") to one ("T+1") for transactions in transferable securities – such as shares or bonds – executed on trading venues, recommending that the EU move to T+1 takes place by 11 October 2027.

During the business validation process, T2S ensures that the trade date precedes or coincides with the Intended Settlement Date contained in the settlement instruction, otherwise, the instruction is rejected.

After successful validation, T2S attempts settlement as soon as relevant criteria are fulfilled, i.e. settlement instructions are matched and have reached their Intended Settlement Date (ISD), without any limitation on the gap between trade date and settlement date. As such, T2S already settles a substantial volume of transactions on T+1 [trade date + 1 business day] or T+0 [trade date].

However, the shortening of the settlement cycle from T+2 to T+1 will compress the time available for relevant market actors to perform all the activities between trading and settlement. In turn, this is expected to lead T2S actors (CSDs and their participants) to submit their settlement flows later in the T2S settlement day than it is the case today.

The CSG TF assessed the necessary changes for moving to T+1 on 11 October 2027 in light of the policy objective to maintain, and if possible, improve the current levels of settlement efficiency in T2S. A particular consideration was to allow T2S actors, including Central Counterparties (CCPs) and their

[1]. Fast track justification: A fast-track approach is requested since the regulatory requirements for moving to T+1 settlement cycle must be implemented before the go-live date on 11 October 2027 set-up by the EU Authorities.
[2]. Legal/business importance parameter was set to 'High' because this change will allow the shortening of the settlement cycle, compressing the time for T2S actors to perform their activities between trading and settlement.
[3]. Market implementation effort parameter was set to 'Medium' because it is not expected that a long implementation test campaign is needed to test the changes in the NTS to support T+1.
[4]. Operational/technical risk parameter was set to 'Medium' since it is not expected that this change will create an operational or technical risk on the user side.
[5] Definition used by European Commission (here)
[6] Proposal for a regulation to shorten settlement cycle for EU securities

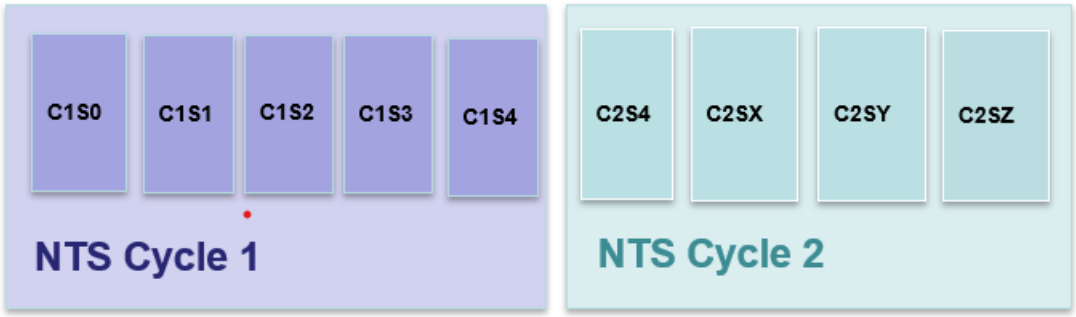
clients, to leverage on T2S Night-Time Settlement (NTS) efficient netting and optimisation algorithms, as is the case today.

To this end, the CSG TF identified that extending the T2S NTS by delaying the start of the fifth sequence (C1S4) of the first NTS cycle would best accommodate the needs of T2S actors. With the objective to maximise settlement efficiency in T2S, the CSG TF also identified the benefits of adding a new partial settlement sequence in the first NTS cycle and implementing a time gap between the first and second NTS cycle to provide T2S actors sufficient time to process the settlement results of the first cycle and take necessary actions for the start of the second NTS cycle (e.g., instruct, or amend settlement instructions). Upon implementation of the new schedule, the T2S community will monitor the duration of sequences including the time-gap between the two NTS cycles.

Description of requested change:

Under normal operating conditions, and after the completion of the Start of Day (SoD) phase events, the T2S Night-Time Settlement (NTS) shall start at 20:00 CET (event C1P0) and will be followed by the first four sequences of the first cycle i.e., C1S0, C1S1, C1S2, C1S3, whereby the next settlement sequence starts directly after the successful completion of the previous one, as of today[7].

Current T2S Night-Time Settlement Structure



After the completion of the fourth settlement sequence of the first NTS (C1S3), the following changes shall be made to the T2S NTS schedule:

- T2S shall update the first NTS cycle as follows:
  - To trigger the start of the C1S4 sequence only at 00:00 CET[8], whereby settlement shall be paused until then.
  - A new partial settlement sequence C1SX shall be created and be triggered directly after the completion of C1S4. This new partial settlement sequence C1SX shall follow the same processing logic as the partial settlement sequence in the second NTS cycle (C2SX).
  - The completion of this new C1SX marks the end of the first NTS cycle.
  - Apart from the inclusion of a new partial settlement sequence, the scope of transactions of the first NTS cycle remains unchanged.
- Following the completion of the first NTS cycle, T2S shall pause settlement until the start of the second NTS cycle with the processing of its first sequence C2S4, that shall be triggered at 02:00

[7] A settlement sequence is completed with the triggering of the respective settlement reporting by T2S (i.e. T2S starts to generate status advice and settlement confirmation messages related to the completed settlement sequence). There is no dependency between the completion of the reporting by T2S and the start of the next sequence or cycle.
[8] Start of the C1S4 sequence at 00:00 as per Market Recommendation from the Industry Committee, provided after the T2S initial contribution that mentioned the start of the C1S4 at 23:00.

CET[9].

- The scope of transactions as well as the structure of the second NTS cycle remain unchanged

In line with the current design of T2S, during these two timeframes whenever the settlement is stopped - e.g. before reaching C1S4 at 00:00 CET and before C2S4 at 02:00 CET - T2S will continue non-settlement related processing, e.g. settlement instructions received will be validated/matched and the related status outbound messages will be sent, maintenance instructions such as update of hold and release flag would also be processed, as is the case today in the Start of Day and End of Day periods where settlement is not running.

Future T2S Night-Time Settlement schedule

Cycle	Sequence	Description	Current schedule timing / dependencies	T+1 schedule changes
First	C1S0	Liquidity transfers from RTGS systems and from a T2S Dedicated Cash Account to another T2S dedicated cash account of the same T2S party, cash Settlement Restrictions regeneration related to the CoSD blocking and any cash Settlement Restrictions	20:00 / C1P0 completion	None
	C1S1	Corporate Actions on stock, new liquidity transfers, new cash Settlement Restrictions and all cash Settlement Restrictions not settled in the previous sequence	C1S0 completion	None
	C1S2	FOP for rebalancing purpose, new liquidity transfers, new cash Settlement Restrictions, new Corporate Actions on stock and all Settlement Instructions/restrictions which failed to settle in the previous sequences	C1S1 completion	None
	C1S3	Central Bank Operations, new liquidity transfers, new cash Settlement Restrictions, new Corporate Actions on stock, new FOP for rebalancing purpose and all Settlement Instructions/restrictions which failed to settle in the previous sequences	C1S2 completion	None
	C1S4	New liquidity transfers and all the remaining Settlement Instructions/restrictions which are new or failed to	C1S3 completion	+ start time condition: 00:00

[9] Start of the C2S4 sequence at 02:00 as per Market Recommendation from the Industry Committee, provided after the T2S initial contribution that mentioned the start of the C2S4 at 01:00.

		settle in the previous sequences		
	C1SX	New liquidity transfers and all the Settlement Instructions/restrictions which are new or failed to settle in the previous sequences and partial settlement on all unsettled Settlement Instructions, if eligible to partial settlement processing.	C1S4 completion	New partial settlement window
Second	C2S4	New liquidity transfers and all the Settlement Instructions/restrictions which are new or failed to settle in previous cycle	First NTS cycle completion (C1S4)	First NTS cycle completion (C1SX) + start time condition: 02:00
	C2SX	New liquidity transfers and all the Settlement Instructions/restrictions which are new or failed to settle in the previous sequences and partial settlement on all unsettled Settlement Instructions, if eligible to partial settlement processing.	C2S4 completion	None
	C2SY	Reimbursement of the "multiple liquidity providers"	C2SX completion	None
	C2SZ	Liquidity transfers	C2SY completion	None

It shall be possible to activate the revised T2S NTS schedule for T+1 at a flexible date after the release deployment in production. This is taking into account that the T+1 transition date is not aligned on T2S release deployment dates and is planned for 11 October 2027.

Potential impact on the handling of contingency or exceptional situations (e.g. delayed NTS processing) shall be subject to an operational assessment in the relevant T2S technical group (i.e. OMG).

Submitted annexes / related documents:

Outcome/Decisions:

*ECB on 10 July 2025: the ECB team checked the completeness of the CR template, assigned change request number CR-0858 and informed the CR initiator.
*CRG on 09 September 2025: the CRG agreed to recommend CR-0858 for authorisation by the Steering Level, following a fast-track approach.
*PMG on 11 September 2025: the PMG agreed to launch the detailed assessment of CR-0858 with a view of scoping in R2027.JUN, subject to T2S Steering Level authorization.
*AMI-SeCo on 17 September 2025: the AMI-SeCo agreed with the CRG recommendation of CR-0858 for T2S Steering Level Authorisation, following a fast-track approach.
*CSG on 17 September 2025: the CSG agreed to authorise CR-0858, following a fast-track approach.
*NECSG on 17 September 2025: the NECSG agreed to authorise CR-0858, following a fast-track approach.
*MIB on 3 October 2025: the MIB agreed to authorise CR-0858, following a fast-track approach.
*OMG on 2 February 2026: the OMG identified no operational impact from the inclusion of CR-0858 in R2027.JUN.
*CRG on 9 February 2026: the CRG agreed to recommend to the PMG the inclusion of CR-0858 in the scope of R2027.JUN.
*PMG on 9 February 2026: the PMG agreed to recommend the inclusion of CR-0858 in the scope of R2027.JUN.
*CSG on 19 February 2026: the CSG approved the inclusion of CR-0858 in the scope of R2027.JUN.
*NECSG on 19 February 2026: the NECSG approved the inclusion of CR-0858 in the scope of R2027.JUN.
*MIB on 26 February 2026: the MIB approved the inclusion of CR-0858 in the scope of R2027.JUN.

Documentation to be updated:

GFS:

SETT

2.1.1.2 Schedule and calendar

Update of Table Overall view of T2S settlement day: delete previous target objectives for completion time of First and Last night-time cycle

Overall view of T2S settlement day

The overall T2S settlement day stands along the following timing and deadlines that are only indicative within the GFS document:

TIME	DESCRIPTION
18:45 – 20:00	SOD period
20:00 – 03:00	First night-time cycle Night-time static data update First night-time cycle reporting ~~(22:20~~ 02:00 ~~set as target objective for completion time)~~[1] Last night-time cycle 2 Night-time static data update Last night-time cycle reporting ~~(00:00~~ 03:00 ~~set as target objective for completion time)~~[2] Night-time reporting Last night-time static data update reporting
03:00 (but not earlier than 15 minutes after last night-time cycle is completed)– 05:00 (or two hours after start of MW if it started later than 03:00)	Maintenance Window
…	

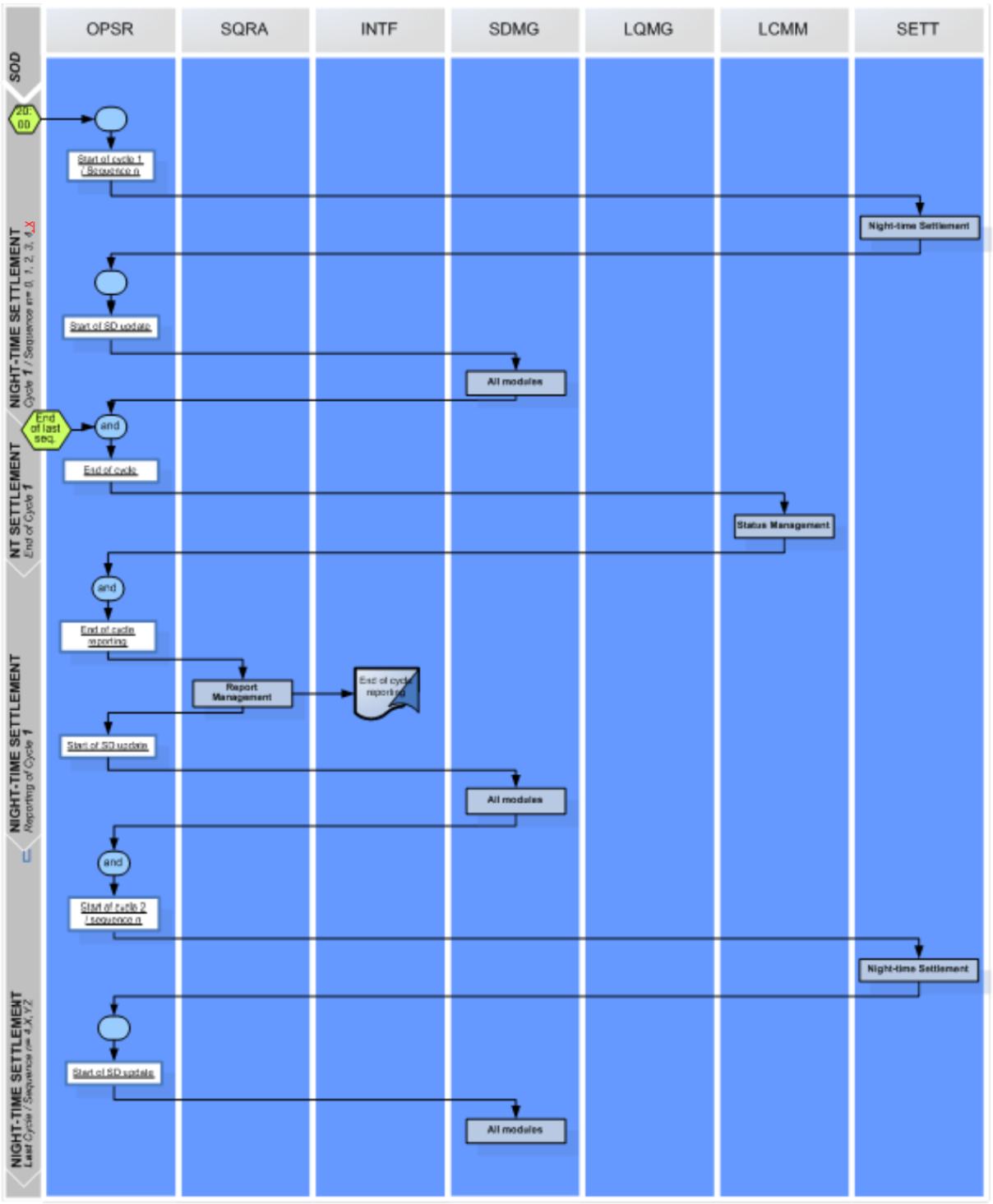
[1] ~~The time provided covers standard peak volumes and excludes extreme peak day volumetrics.~~

[2] Following further detailed definition of the timing of the T2S Schedule and further consultation with T2S stakeholders, additional cycles may need to be added during the night-time settlement period.

…

Update Diagram 2: add new sequence X to the Night-Time Settlement First Cycle

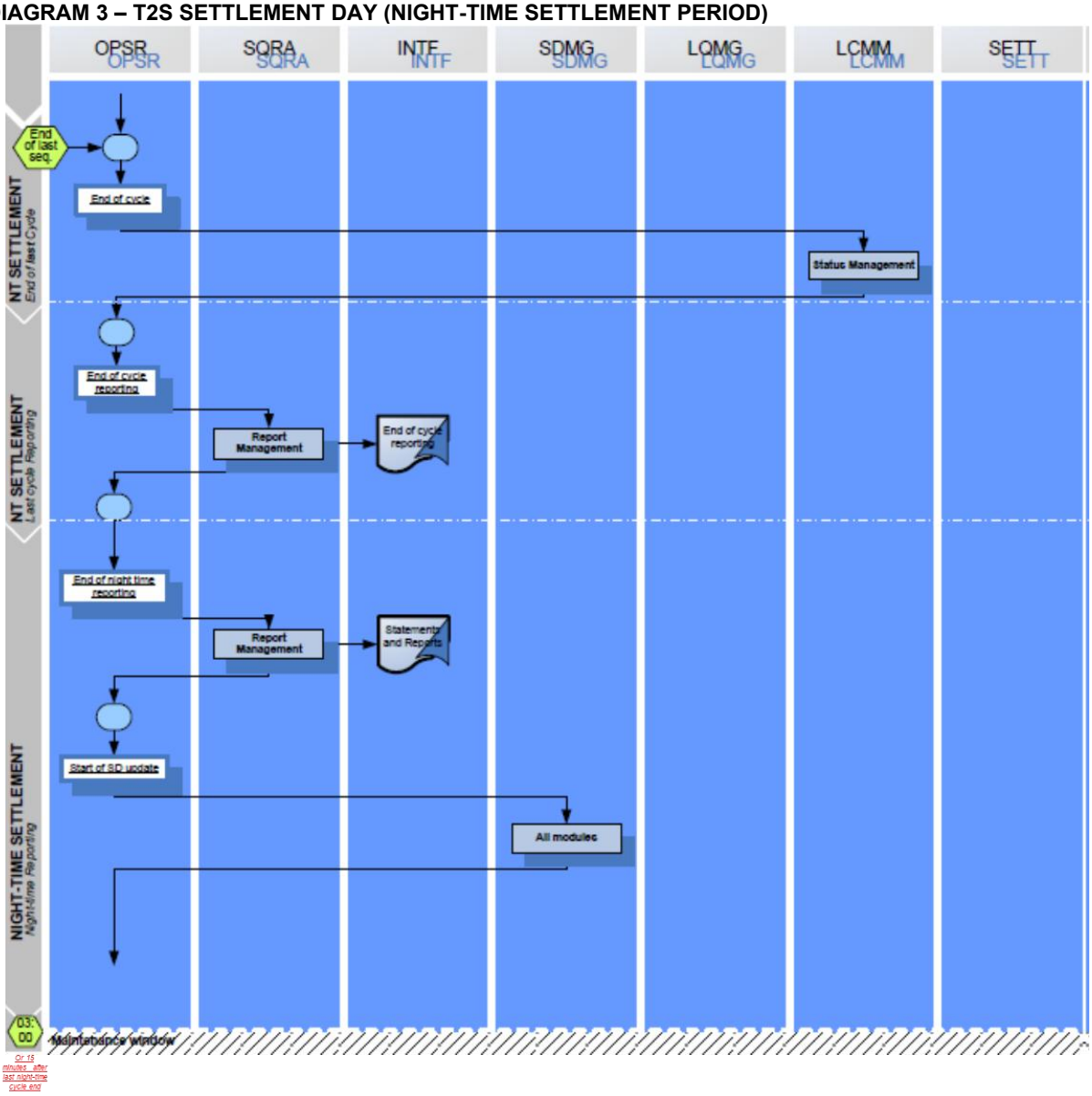
DIAGRAM 2 – T2S SETTLEMENT DAY (NIGHT-TIME SETTLEMENT PERIOD)



…

Update Diagram 3: add new maintenance window start time (at 03:00 but not earlier than 15 minutes after the end of the last night-time cycle)

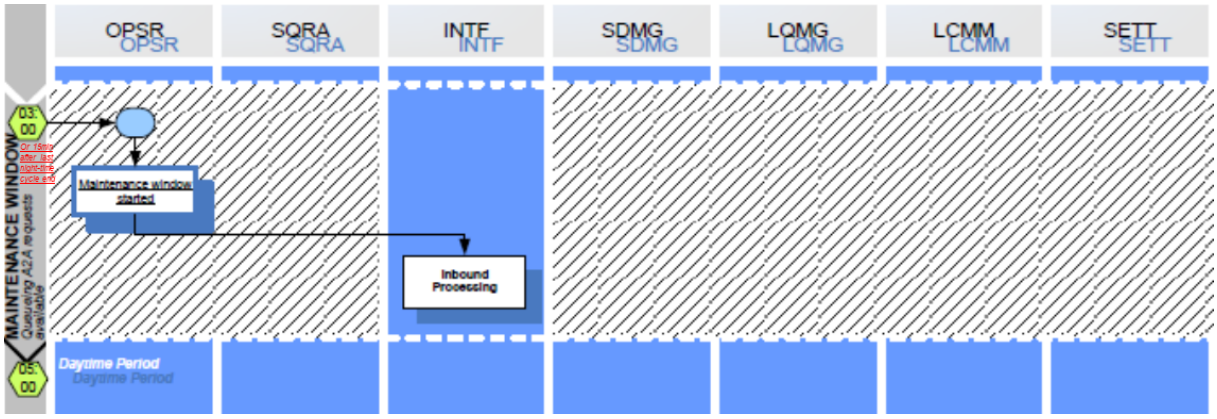
DIAGRAM 3 – T2S SETTLEMENT DAY (NIGHT-TIME SETTLEMENT PERIOD)



…

Update Diagram 4 & text: add new maintenance window start time (03:00 but not earlier than 15 minutes after the end of the last night-time cycle)

DIAGRAM 3 – T2S SETTLEMENT DAY (NIGHT-TIME SETTLEMENT PERIOD)



The maintenance window starts after the successful completion of the previous night-time settlement period and when time 03:00 is reached (but not earlier than 15 minutes after the end of the last night-time settlement cycle). For the 15 minutes in between the completion of night-time settlement and start of the maintenance window, T2S will be in real-time settlement.

...

TABLE – FIRST NIGHT-TIME CYCLE

Update Table - FIRST NIGHT-TIME CYCLE: add new sequence X to the Night-Time Settlement First Cycle

FIRST NIGHT-TIME CYCLE	
…	…
Sequence 4	All eligible transactions for the current T2S settlement day which are sent to T2S before start of sequence 4 are proposed for settlement. Sequence 4 includes CA on flows Sequence 4 includes transactions not settled in sequence 3 {T2S.07.060} {T2S.03.110}.
Sequence X	All eligible transactions for the current T2S settlement day which are sent to T2S before start of sequence X are proposed for settlement. Partial settlement is applied to all unsettled transactions which are eligible for submission to partial settlement processing {T2S.03.135} {T2S.07.080} {T2S.08.220}. Sequence X includes transactions not settled in sequence 4 {T2S.03.110}.

…

UDFS:

SETT

1.4.3.1 Settlement Day high level schedule

Update of Diagram 39: amend with new unique maintenance window start time (MW will be triggered at 03:00 but

not earlier than 15 minutes after NTS is completed.)

Inclusion of footnote: If last night-time cycle ends 02.40, Maintenance window starts 03.00. If last night-time cycle ends 03.05, Maintenance window starts 03.20 (03.05+15min)

DIAGRAM 39 – HIGH LEVEL SCHEDULE OF A SETTLEMENT DAY

[xx] If last night-time cycle ends 02.40, Maintenance window starts 03:00. If last night-time cycle ends 03:05, Maintenance window starts 03:20 (03:05+15min)

…

1.4.3.2 Settlement Day high level processes

Update of Table 37: include the new partial settlement sequence (C1SX) during the night-time settlement first cycle, and new time dependencies (start of C1S4 at 00:00, start of C2S4 at 02:00)

TABLE 37 – SETTLEMENT DAY HIGH LEVEL PROCESSES

T2S TIME-LINE	T2S PERIODS	HIGH LEVEL DESCRIPTION
18:45 – 20:00	Start of day (SOD)	The start of day period including: l Change of business date in T2S; l Taking the common Snapshot (T2S and T2); l Preparation for night-time settlement: – Revalidation of Settlement Instructions/Settlement Restrictions/amendments/hold and release instructions that failed to settle or to be executed as of their Intended Settlement date; – At 19:00, final deadline to accept data feeds, effective for the current business date, from collateral management systems and payment/settlement banks; CBs and Payment Banks can send their Securities Valuation as soon as possible, ideally by 17:45, but in any case T2S will accept Securities Valuations until 19:00. – At 20:00, final deadline to accept settlement instructions for settlement processing in the sequence 1 of the first night time cycle. – Valuation of securities positions; – Valuation of collateral eligible Settlement Instructions.
20:00 – 00:00	Night-time settlement (NTS) – cycle 1 – part 1	The night-time settlement period including two cycles: l The first night-time cycle with reporting and processing of static data maintenance instructions/maintenance instructions at the end of each settlement sequences including ~~5~~ 6 sequences: – The sequence 0 (liquidity transfers from RTGS systems and from a T2S Dedicated Cash Account to another T2S dedicated cash account of the same T2S party, cash Settlement Restrictions regeneration related to the CoSD blocking and any cash Settlement Restrictions); – The sequence 1 (Corporate Actions on stock, new liquidity transfers, new cash Settlement Restrictions and all cash Settlement Restrictions not settled in the previous sequence); – The sequence 2 (FOP for rebalancing purpose, new liquidity transfers, new cash Settlement Restrictions, new Corporate Actions on stock and all Settlement Instructions/restrictions which failed to settle in the previous sequences); – The sequence 3 (Central Bank Operations, new liquidity transfers, new cash Settlement Restrictions, new Corporate Actions on stock, new FOP for rebalancing purpose and all Settlement Instructions/restrictions which failed to settle in the previous sequences);
00:00 – 02:00	Night-time settlement (NTS) – cycle 1 – part 2	- At 00:00, final deadline to accept settlement instructions for settlement processing in the sequence 4 of the first night time cycle. - ~~And t~~The sequence 4 (new liquidity transfers and all the remaining Settlement Instructions/restrictions which are new or failed to settle in the previous sequences); - And the sequence X (new liquidity transfers and all the Settlement Instructions/restrictions which are new or failed to settle in the previous sequences and partial settlement on all unsettled Settlement Instructions, if eligible to partial settlement processing); - The duration of the first night-time settlement cycle is dependent on settlement volumes ~~but should finish by 20:20~~ 02:00 ~~(target objective) as long as standard peak volumes are not exceeded.~~
02:00 – 03:00	Night-time settlement (NTS) –	**l** The last night-time cycle, including partial settlement, with reporting and processing of static data maintenance instructions/maintenance

	cycle 2	instructions at the end of each settlement sequences including 4 sequences: – The sequence 4 (new liquidity transfers and all the Settlement Instructions/restrictions which are new or failed to settle in previous cycle); – The sequence X (new liquidity transfers and all the Settlement Instructions/restrictions which are new or failed to settle in the previous sequences and partial settlement on all unsettled Settlement Instructions, if eligible to partial settlement processing); – The sequence Y (reimbursement of the "multiple liquidity providers"); – The sequence Z (liquidity transfers). The duration of the last night-time settlement cycle is dependent on settlement volumes~~. but should finish by 00:00~~ 03:00 ~~(target objective) as long as standard peak volumes are not exceeded.~~
03:00 (but not earlier than 15 minutes after the end of the last night-time cycle) – 05:00 (or 15 minutes after start of MW).	Maintenance window (MWI)	The maintenance optional daily window
~~02:30~~ 03:00 (but not earlier than 15 minutes after the end of the last night-time cycle) Saturday – 02:30 Monday	Maintenance window (MWI)	The mandatory maintenance window
…		

…

1.4.4.2 Night-time settlement (NTS)

…

Update: delete previous target objectives for first and last night-time cycles completions

NTS Reporting

At the end of each night-time sequence, T2S generates full or delta reports as per the report configuration setup of the relevant T2S Actors. T2S sends also to the T2S Actors messages such as settlement status advices, settlement confirmation, posting notification, etc that were queued due to an execution of a settlement sequence.

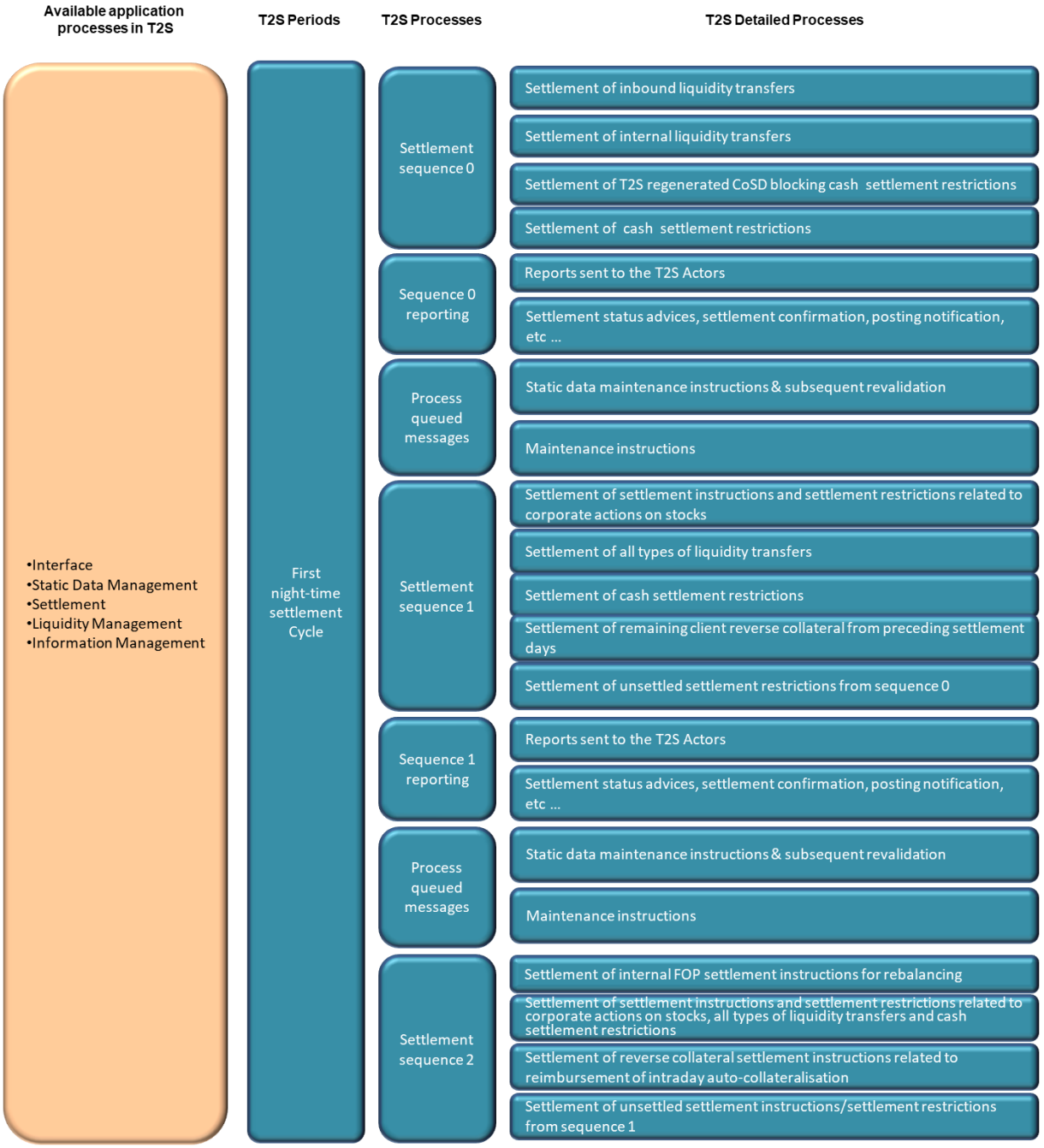
The duration of the night-time settlement cycles is dependent on settlement volumes. ~~The target objective for the first and last night-time cycles should finish by 22:20~~ 02:00 ~~and 00:00~~ 03:00 ~~respectively, as long as volumes do not exceed standard peak volumes.~~

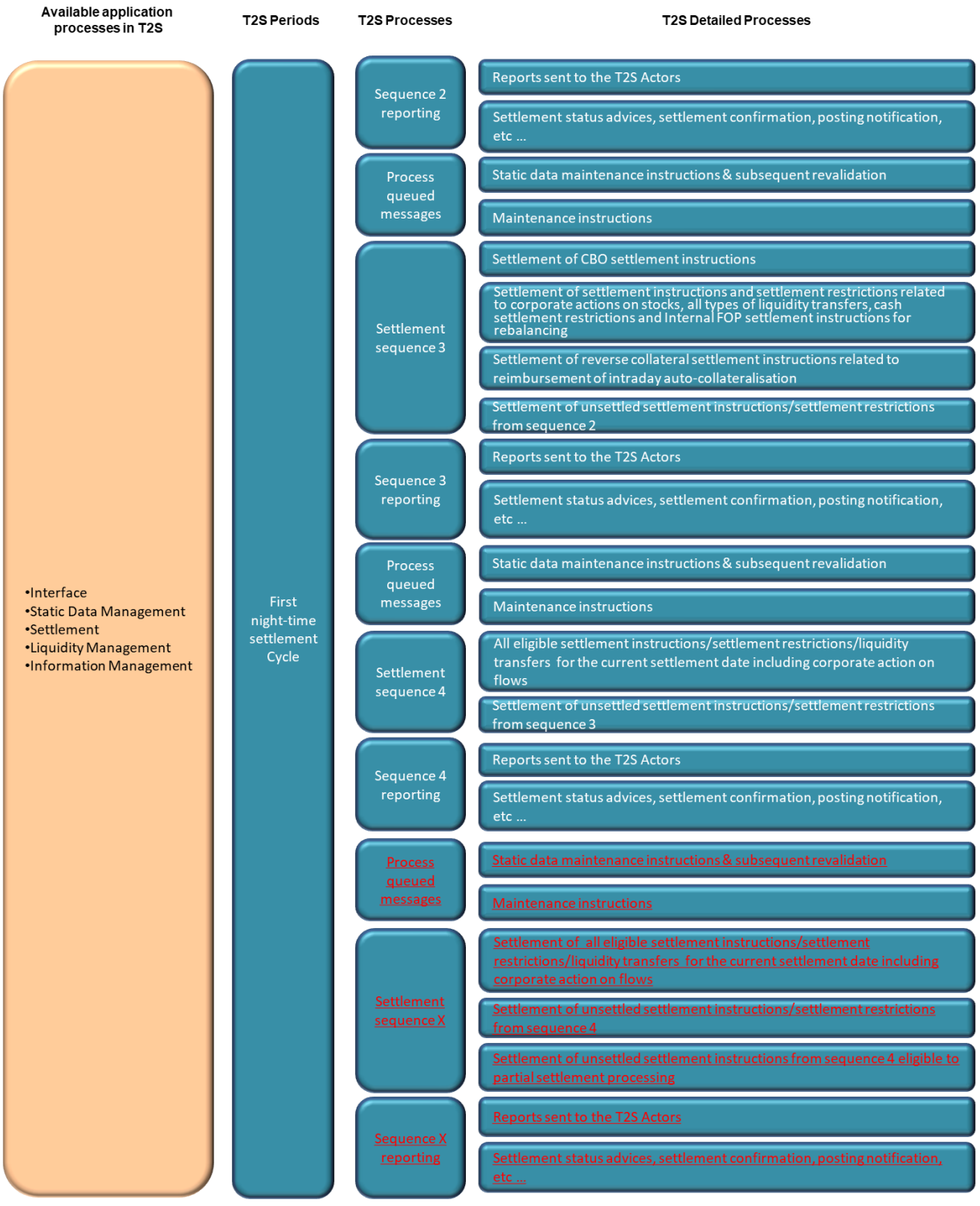
…

1.4.4.2.2. First night-time settlement cycle schedule

Update Diagram 42: add row for the new partial settlement sequence (C1SX) as well as a notion of potential pause to ensure compliance with new C1S4 time dependence

DIAGRAM 42 – FIRST NIGHT-TIME SETTLEMENT CYCLE SCHEDULE


Available application processes in T2S
T2S Periods
T2S Processes
T2S Detailed Processes
•Interface
•Static Data Management
•Settlement
•Liquidity Management
•Information Management
First night-time settlement Cycle
Settlement sequence 0
Settlement of inbound liquidity transfers
Settlement of internal liquidity transfers
Settlement of T2S regenerated CoSD blocking cash settlement restrictions
Settlement of cash settlement restrictions
Sequence 0 reporting
Reports sent to the T2S Actors
Settlement status advices, settlement confirmation, posting notification, etc ...
Process queued messages
Static data maintenance instructions & subsequent revalidation
Maintenance instructions
Settlement sequence 1
Settlement of settlement instructions and settlement restrictions related to corporate actions on stocks
Settlement of all types of liquidity transfers
Settlement of cash settlement restrictions
Settlement of remaining client reverse collateral from preceding settlement days
Settlement of unsettled settlement restrictions from sequence 0
Sequence 1 reporting
Reports sent to the T2S Actors
Settlement status advices, settlement confirmation, posting notification, etc ...
Process queued messages
Static data maintenance instructions & subsequent revalidation
Maintenance instructions
Settlement sequence 2
Settlement of internal FOP settlement instructions for rebalancing
Settlement of settlement instructions and settlement restrictions related to corporate actions on stocks, all types of liquidity transfers and cash settlement restrictions
Settlement of reverse collateral settlement instructions related to reimbursement of intraday auto-collateralisation
Settlement of unsettled settlement instructions/settlement restrictions from sequence 1

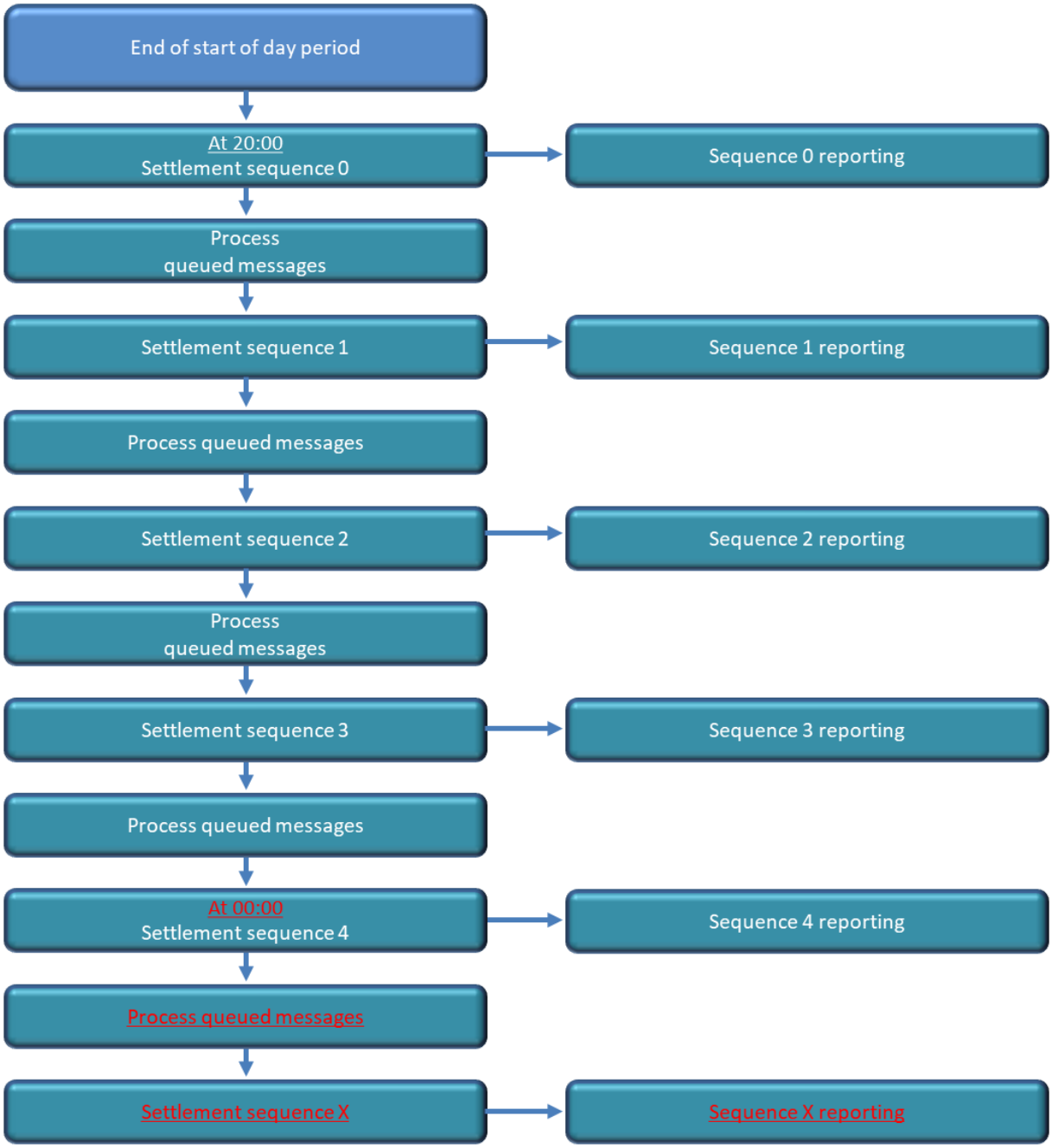


…

1.4.4.2.3 First night-time settlement cycle dependencies

Update Diagram 43: add new time dependency for C1S4 start (00:00) and new partial settlement sequence (C1SX)

DIAGRAM 43 – FIRST NIGHT-TIME SETTLEMENT CYCLE DEPENDENCIES



Update Table 40: add new time dependence for C1S4 start (00:00) within existing rows and new rows related to the new partial settlement sequence (C1SX)

TABLE 40 – DEPENDENCIES BETWEEN PROCESSES DURING THE FIRST NIGHT-TIME CYCLE

T2S DETAILED PROCESSED	DEPENDENCIES	
	TYPE OF DEPENDENCY	DESCRIPTION
…		
Process queued messages	After the end of Sequence 3	This process starts after the end of sequence 3 processing.
Settlement sequence 4	After the queued messages processing and Time: 00:00	This process starts after the processing of all queued messages. In addition, this process does not start before 00:00
Sequence 4 reporting	After the end of Sequence 4	This process starts after the end of sequence 4 processing.

Process queued messages	After the end of Sequence 4	This process starts after the end of sequence 4 processing.
Settlement sequence X	After the queued messages processing	This process starts after the processing of all queued messages.
Sequence X reporting	After the end of Sequence X	This process starts after the end of sequence X processing.

…

1.4.4.2.4 First night-time settlement cycle processes

Update Table 41: add new rows related to the new partial settlement sequence (C1SX)

TABLE 41 – PROCESSES DURING THE FIRST NIGHT-TIME SETTLEMENT CYCLE

…	
Sequence 4 reporting	As per the report configuration, T2S generates and sends full or delta reports to the relevant T2S Actors. T2S sends also to the T2S Actors a bundled file (or several files if the size exceeds 32MB) including all messages such as settlement status advices, posting notification, etc resulting from the execution of the settlement sequence.

Sequence X

T2S PROCESSES	DESCRIPTION OF THE PROCESSES
Process queued messages	The following messages which were validated and accepted during the execution of the sequence 4 are executed: l Static data maintenance instructions; l Maintenance instructions. For all static data updates (i.e immediate updates and updates with future date), T2S performs a revalidation of all Settlement Instructions and Settlement Restrictions that failed to settle or that have not yet been submitted to a settlement attempt to ensure that they are valid with regards to the considered static data update. Maintenance instructions (i.e Amendment Instructions, Cancellation Instructions, Hold/Release/Partial Release Instructions) are only revalidated at the SOD revalidation process. In case the underlying Settlement Instruction or Settlement Restriction to be maintained is cancelled due to their revalidation, the maintenance instruction is denied when trying to be executed but not cancelled. Additionally, T2S responds: l To new queries received via U2A/A2A and; l To those queries already received via A2A but queued due to a settlement sequence run.
Settlement sequence X	T2S attempts settlement of all validated and accepted Settlement Instructions, Partially Released Settlement Instructions, Settlement Restrictions and liquidity transfers before start of sequence X, for the current settlement day, as listed below: l Settlement Instructions related to DVP; l Settlement Instructions related to FOP; l Settlement Instructions related to PFOD; l Settlement Instructions related to CA on stocks and on flows; l Settlement Instructions related to BATM; l Settlement Instructions related to CBO; l Reverse collateral Settlement Instructions related to reimbursement of intraday auto-collateralisation; l Settlement of securities/cash Settlement Restrictions; l Settlement of all liquidity transfers (i.e. inbound, internal and outbound). This sequence also processes the unsettled Settlement Instructions and Settlement Restrictions in sequence 4.

	Here, T2S applies partial settlement to all fails due to a lack of securities (i.e. unsettled Settlement Instructions, partially release Settlement Instructions) which are eligible for submission to partial settlement processing.[141] Additionally, T2S responds to queries received via A2A except for queries related to securities positions or cash balances. If these queries are received via U2A, they are rejected. If T2S receives the queries via A2A, they are queued and processed during the next reporting phase. T2S also queues the maintenance on the Settlement Instructions/Settlement Restrictions which are under settlement during this sequence
Sequence X reporting	As per the report configuration, T2S generates and sends full or delta reports to the relevant T2S Actors. T2S sends also to the T2S Actors a bundled file (or several files if the size exceeds 32MB) including all messages such as settlement status advices, posting notification, etc resulting from the execution of the settlement sequence.

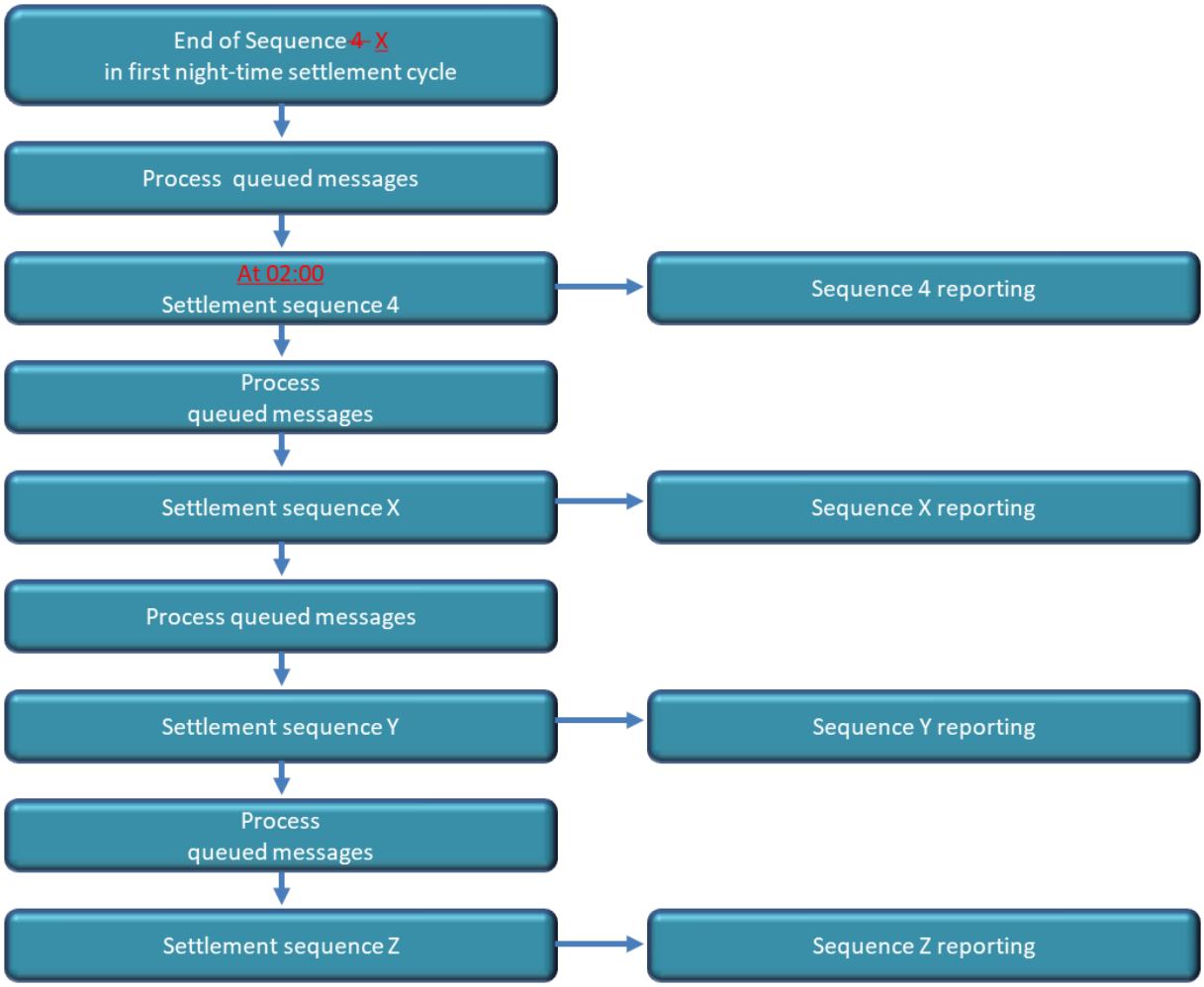
[141] For Partially Released Settlement Instructions to be considered during sequence x of the night time settlement the partial release must occur after the start of day and before the start of sequence C1S4

…

1.4.4.2.6 Last night-time settlement cycle dependencies

Update Diagram 45: add new time dependence for C2S4 (02:00) and reference to the new last sequence of the first night-time settlement cycle (C1SX)

DIAGRAM 45 – LAST NIGHT-TIME SETTLEMENT CYCLE DEPENDENCIES



Update Table 42: update with the new previous C1SX sequence and add new time dependence for C2S4

TABLE 42 – DEPENDENCIES BETWEEN PROCESSES DURING THE LAST NIGHT-TIME CYCLE

T2S DETAILED PROCESSED	DEPENDENCIES	
	TYPE OF DEPENDENCY	DESCRIPTION
Process queued messages	End of sequence 4 X in first night-time settlement cycle	This process starts after completion of the first night-time cycle.
Settlement sequence 4	After the queued messages processing and Time: 02:00	This process starts after the processing of all queued messages. In addition, this process does not start before 02:00
…		

…

1.4.4.2.7 Last night-time settlement cycle processes

Update Table 43: include reference to C1SX as last sequence of first cycle

TABLE 43 – PROCESSES DURING THE LAST NIGHT-TIME SETTLEMENT CYCLE

Sequence 4

T2S PROCESSES	DESCRIPTION OF THE PROCESSES
Process queued messages	The following messages which were validated and accepted before the execution of the sequence 4 X of the last cycle are executed:

	l Static data maintenance instructions; l Maintenance instructions. For all static data updates (i.e immediate updates and updates with future date), T2S performs a revalidation of all Settlement Instructions and Settlement Restrictions that failed to settle or that have not yet been submitted to a settlement attempt to ensure that they are valid with regards to the considered static data update. Maintenance instructions (i.e Amendment Instructions, Cancellation Instructions, Hold/Release/Partial Release Instructions) are only revalidated at the SOD revalidation process. In case the underlying Settlement Instruction or Settlement Restriction to be maintained is cancelled due to their revalidation, the maintenance instruction is denied when trying to be executed but not cancelled. Additionally, T2S responds: l To new queries received via U2A/A2A and; l To those queries already received via A2A but queued due to a settlement sequence run.
…	

…

1.4.4.3 Maintenance Window (MWI)

Update text: new start time for daily optional and weekend mandatory maintenance windows (03:00 but not earlier than 15 minutes after the end of the last night-time cycle)

This section presents the maintenance window processes in the T2S settlement day. The optional daily maintenance window only occurs when urgent maintenance activities are required. This optional daily maintenance window takes place from 3.00 (but not earlier than 15 minutes after NTS is completed) until 5.00 (or two hours after start of MW) ~~, after the completion of the night-time settlement period~~. The weekend maintenance window takes place from ~~2:30~~ 03:00 (but not earlier than 15 minutes after NTS is completed) on Saturday to 2:30 on Monday and is not optional. [xx]

Real-time settlement period commences immediately after ~~In case the NTS completes before 3.00 from Mondays to Fridays and before 2.30 on Saturdays, the real-time settlement period commences~~ and lasts until the start of the maintenance window.

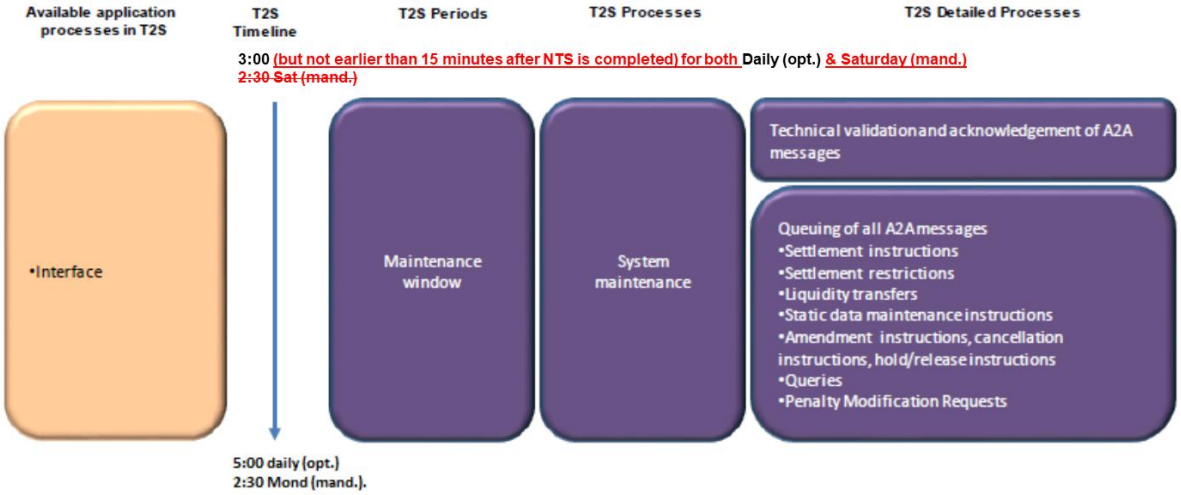
[xx] If last night-time cycle ends 02.40, Maintenance window starts 03:00. If last night-time cycle ends 03:05, Maintenance window starts 03:20 (03:05+15min)

…

1.4.4.3.2 Maintenance window schedule

Update Diagram 46 & text: new start time for daily optional and weekend mandatory maintenance windows (03:00 but not earlier than 15 minutes after the end of the last night-time cycle)

DIAGRAM 46 – MAINTENANCE WINDOWS



The weekend maintenance window takes place from ~~2:30~~ 3:00 (but not earlier than 15 minutes after NTS is completed) on Saturday to 2:30 on Monday and is not optional.[XX]

[XX] If last night-time cycle ends 02:40, Maintenance window starts 03:00. If last night-time cycle ends 03:05, Maintenance window starts 03:20 (03:05+15min)

…

1.4.4.4 Real-Time settlement (RTS)

Update text: new start time for daily optional and weekend mandatory maintenance windows (03:00 but not earlier than15 minutes after the end of the last night-time cycle)

Real-time settlement period commences immediately after ~~In case the NTS completes before 3:00 from Mondays to Fridays and before 2.30 on Saturdays, real-time settlement period begins before~~ and lasts until the start of the maintenance window.

REM:

UDFS:

Chapter 4.2.1: T2S Proprietary Codes

EventTypeCode_T2S_1

CODE	NAME	DEFINITION
BATM	Intraday BATM cut-off	Intraday BATM cut-off
C1R0	Start of cycle 1 / Settlement reporting of Sequence 0	Start of cycle 1 / Settlement reporting of Sequence 0
C1R1	Start of cycle 1 / Settlement reporting of Sequence 1	Start of cycle 1 / Settlement reporting of Sequence 1
C1R2	Start of cycle 1 / Settlement reporting of Sequence 2	Start of cycle 1 / Settlement reporting of Sequence 2
C1R3	Start of cycle 1 / Settlement reporting of Sequence 3	Start of cycle 1 / Settlement reporting of Sequence 3
C1R4	Start of cycle 1 / Settlement reporting of Sequence 4	Start of cycle 1 / Settlement reporting of Sequence 4
C1RX	Start of cycle 1 / Settlement reporting of Sequence X	Start of cycle 1 / Settlement reporting of Sequence X
C1U0	[…]	[…]

LCMM

3.6.1.6 Hold and Release
3.6.1.6.1 Concept

3.6.1.6.2 Overview

…

Footnotes

1 Party Hold indicator can be i) instructed by the T2S actor ii) put automatically by T2S upon the fulfilment of a restriction type case 1 or, iii) put automatically by T2S if it has not been set and the "Hold Release Default" value of the Securities Account included in the instruction is set to "Hold".

2 No settlement attempt can be performed unless the Settlement Instruction is under Partial Release Process and Partial Settlement of Settlement Instructions under Partial Release Process is allowed (i.e. Real Time Settlement or Sequence X (C1SX or C2SX) of Night Time Settlement is running) (see section Partial Settlement).

3.6.1.6.6 Partial Release process

…
Once executed, a partially released Settlement Instruction will be submitted to a settlement attempt depending on the phase of the day (see section Partial Settlement)

I If it is executed during the Night Time Settlement, the partially released Settlement Instruction will only be submitted to a settlement attempt when ~~the corresponding sequence runs~~ Sequence X (C1SX or C2SX) runs.

1.6.3.3.3 Flat File Report Generation process

…

Parameter synthesis

The following parameters are specified for the Setup of a Flat File Report.

CONCERNED PROCESS	PARAMETER	CREATED BY	UPDATED BY	MANDATORY/ OPTIONAL	POSSIBLE VALUES	STANDARD OR DEFAULT VALUE
…	…	…	…	…	…	…
Setup of a Report	Intraday Delta Mode	T2S Operator	T2S Operator	Optional [10]	~~C1R4~~ C1RX [339] C2RZ C1DP C2DP	EMPTY
…	…	…	…	…	…	…

339 ~~C1R4~~ C1RX ("End of First NTS cycle"), C2RZ ("End of Second NTS cycle"), C4R4 ("End of Fourth NTS cycle"), C5RZ ("End of Fifth NTS cycle") events are used to configure intraday Delta Flat File reports semt.016, semt.017, semt.018, semt.034.

10 If previous parameter Delta Mode has a value T, CSDs can opt for receiving intraday delta flat file reports, on top of the EoD delta flat file report, by selecting all or some of the available business events. Configuration for each report is independent of the other reports (i.e. events chosen for one type of intraday flat file report may differ from the events chosen for other type of intraday flat file report).

C1DP ("End of First NTS cycle"), C2DP ("End of Second NTS cycle"), C4DP ("End of Fourth NTS cycle"), C5DP ("End of Fifth NTS cycle") events are used to configure intraday Delta Flat File report semt.002.

Preliminary assessment:

n.a.

Detailed assessment:

T2S Specific Components		Common Components	
LCMM		**Common Reference Data Management**	
	Instructions validation		Party data management
X	Status management		Securities data management
	Instruction matching		Cash account data management
	Instructions maintenance		Securities account data management
	Penalty Mechanism		Rules and parameters data management
			Access rights management
Settlement		**CRDM business interface**	
	Standardisation and preparation to settlement		Report management
X	Night-time Settlement		Query management
	Daytime Recycling and optimisation		Communication
	Daytime Validation, provisioning & booking		Outbound Processing
	Auto-collateralisation		Inbound Processing
Liquidity Management			
	Outbound Information Management		
	NCB Business Procedures		
	Liquidity Operations		
Statistics and archive			
	Short term statistical information		Legal archiving
			Data Warehouse
T2S Interface		**Eurosystem Single Market Infrastructure Gateway**	
	Communication		Communication
	Outbound Processing		Outbound Processing
X	Inbound Processing		Inbound Processing
T2S information management			
X	Report management		
	Query management		
Operational Services			
	Data Migration (T2S DMT)		Data Migration (CRDM DMT)
	MOP Contingency Templates		Business Day Management
	Omega Tool		Business Day Management business interface
X	AID Tool		Billing
			Billing business interface
			Operational and Business Monitoring

Impact on major documentation		
Document	**Chapter**	**Change**
Impacted GFS chapter	2.1.1.2 Schedule and calendar	Update - Table Overall view of the T2S settlement day - Diagram 2, 3 and 4

		- Table First Night-Time Cycle With the new First Cycle sequence (X) and the new start time for optional and mandatory maintenance windows (3:00 but not earlier than 15 minutes after the end of the last night-time cycle)
Impacted UDFS chapter	1.4.3.1 Settlement day high level schedule	Update - Diagram 39 With new maintenance window start time
	1.4.3.2 Settlement Day high level processes	Update - Table 37 With the new partial settlement sequence (C1SX) and new timeline (Start of C2S4 at 02:00)
	1.4.4.2 Night-time settlement	Delete with target objectives for First and Last night-time settlement cycles end.
	1.4.4.2.2. First night-time settlement cycle schedule	Update - Diagram 42 With a new row for the new partial settlement sequence (C1SX) and potential pause to ensure compliance with the new C1S4 time dependence
	1.4.4.2.3 First night-time settlement cycle dependencies	Update - Diagram 43 - Table 40 With a new time dependence for C1S4 start (00:00) and the new partial settlement sequence (C1SX)
	1.4.4.2.4 First night-time settlement cycle processes	Update - Table 41 With the new partial settlement sequence (C1SX)
	1.4.4.2.6 Last night-time settlement cycle dependencies	Update - Diagram 45 - Table 42 With the new time dependence for C2S4 start (02:00) and last first cycle sequence (C1SX)
	1.4.4.2.7 Last night-settlement cycle processes	Update - Table 43 With reference to the new last first cycle sequence (C1SX)
	1.4.4.3 Maintenance Window	Update text with new start times for optional and mandatory maintenance windows
	1.4.4.3.2 Maintenance window schedule	Update - Diagram 46 & text With new start times for optional and mandatory maintenance windows
	1.4.4.4 Real-Time Settlement (RTS)	Update text with new start times for optional and mandatory maintenance windows
	4.2.1 T2S Proprietary Codes	Update Table for EventTypeCode_T2S_1 to include new Event Code C1RX

	1.6.3.3.3 Flat File Report Generation process	Update "Parameter Synthesis" table and footnote 339.
Impacted URD chapter	*To be added*	*To be added*
Additional deliveries for Message Specification (UDFS, MyStandards, MOP contingency templates)	MyStandards UG: admi.005_T2S	Inclusion of new Event Code 'C1RX' in EventTypeCode_T2S_1
UHB	--	No impact
External training materials	--	No impact
Other impacted documentation (FA Sch. 05, FA Sch. 07)	--	No impact
Impacted GDPR message/ screen fields	--	No impact

Links with other requests				
Links	Reference		Title	

OVERVIEW OF THE IMPACT OF THE REQUEST ON THE T2S SYSTEM AND ON THE PROJECT

Summary of functional, development, infrastructure and migration impacts

SETT:

The requirement in the CR is to modify the chain of events triggering the night-time sequences during the first cycle as well as the last cycle.

T2S Operator will be able to activate the new NTS scheduler after this change request is deployed. This is to cope with the potential need to activate the new events with the T+1 go-live on 11 October 2027, or at some other date instead of with the R2027.JUN

With this CR, the following changes must be implemented in T2S:

- The first night-time Cycle will start at 20:00 (current behaviour), but the settlement algorithms shall be paused after the C1S3 sequence and the start of the C1S4 shall be delayed until 00:00.
- A new NTS sequence (C1SX) shall be added to the first night-time Cycle as the successor of the C1S4 sequence. The new sequence will have the same selection criteria as the current C2SX sequence and should execute the partial settlement.
- Once the first night-time Cycle has ended after the new sequence C1SX, the settlement algorithms shall be paused again until 02:00 before triggering the last Cycle. In other words, the C2S4 shall be delayed until 02:00.

Regarding future average finish times of First and Last NTS Cycles in a context of T+1: based on current estimates, the first and last night-time cycle should finish on average by 01:05 and 02:50 respectively, excluding reporting, as long as volumes do not exceed standard volumes and pending confirmation based on Production experience.

CR Delivery: in line with the outcome of technical groups consultation, the CR will be implemented in Production (T2S R.2027.JUN) **in a single phase** (option 1 presented to the market)

INTF:

The handle event processing function must be adapted to the new chain of events that triggers the night sequences during the first cycle and the last cycle in order to ensure the interface a synchronized processing of the different events within its internal domain.

The received new NTS sequence (C1SX) is part of the settlement day events and will be used for the processing of the inbound communication. This includes inbound queuing functions, U2A inbound processing rejections and the creation of outbound files. This affects the file creation for the night-time settlement, especially as it must be ensured that the outgoing file contains full result of a single night-time settlement sequence.

REM (Report Management):

The new event for the report configuration in the new sequence C1SX in the first NTS will be created.
The new event type codes 'C1RX' shall be available in the pull-down list of events in field "Business Event" on Available Report Select/List Screen.
Additionally, the new business events shall be available for report configurations on the Report Configuration New and Search/List Screen in CRDM.

The new report event for additional sequence in first NTS cycle has to be made available for querying already created reports using admi.005 message.

LQMG:

For the Settlement of Liquidity Transfers in C1SX, a new Event needs to be created.
While no changes to LQMG functions themselves will take place, it needs to be ensured that the new Settlement Sequence with New Event 'C1PX' will function the same processing logic as analogous events in other Night Time Settlement Sequences in which Liquidity Transfers are allowed to settle.

MSG:

The new Event Code 'C1RX' needs to be added to EventTypeCode_T2S_1 for inclusion in the T2S admi.005 UG for Xpath /Document/RptQryReq/RptQryCrit/NewQryNm.

LCMM:

Adaptation of LCMM to be able to cope with the new chain of events, including the new C1SX sequence and the new start times.

Adjustments to the AID Tool Identification function to include the new C1SX as a valid "operational day business status", and to extend the special posting searches in AID-SECU/CASH Settlement views to include C1SX.
Technical adjustments (to be further detailed during development DA) including:

- Development of a new application and its associated programs for reporting the new C1SX sequence
- Adjust Event Manager, Last Message Manager and NTS End-of-Processing monitoring
- Adjust internal documentation related to night-time cycles
- Split of the IMS transaction flows during NTS to be able to cope with increased volumes under T+1

This CR will require NFTs including custom-designed scenarios.

For Production, those Flat File configurations associated with the current End of First NTS cycle event (C1R4) must be modified to the new End of First NTS cycle event (C1RX) by the Operator, since those changes will not be automatically done with the deployment. These configurations must be manually modified during the RTS before the start of the deployment, so they are in place when the SOD phase starts after installation.

Main Cost Drivers

General Remarks on the detailed and cost assessment:

CR-0858 is not only introducing a new event, but it is also introducing a new timeframe with delays between Cycle/sequences that implies to review all algorithms impacted.
As such, the new C1SX sequence is not a simple duplicate of the existing C2SX sequence, which affects application costs especially.

Namely, on SETT side, the mathematical-optimization (see the document "T2S NTS Algorithms Objectives" for further details on the ECB website) requires extensive developments:
The new C1SX requires a new algorithm to be defined for resilience purposes which prevents a simple reuse of the current C2SX algorithm.
Given the new volumetric assumptions and new timeframe for each sequence at T+1, a review of existing mathematical-optimization algorithms must be conducted for 4 sequences of Cycle 1 (C1S1 to C1S4) and 2 sequences of Cycle 2 (C2S4 and C2SX), to avoid impacting settlement efficiency

These algorithms being highly complex require thorough specification, implementation and testing, hence respective effort.

- Update of internal and external specifications and documentation: 10%
- Development works/ software changes: 40%
  - Update of the NTS scheduler and adding of a new Partial Settlement sequence (C1SX),
  - Adaptations in LCMM to manage the new cycle C1SX. Adaptation of the Event Manager/ Last Message to deal with the new events, optimization in LCMM in relation to NTS, e.g. implementation of new IMS channel dedicated to NTS reporting and enable Status Management (MSMMIP25/MSMMIP28) to handle messages not related to NTS. Adaptations to the AID tool.
  - Adaptations in the LQMG processes with regard to the new settlement cycle C1SX.
  - Changes in INTF A2A: Adapt the A2A Outbound Management Framework to handle new notifications from LCMM related to the new NTS sequence and its related Last message, adapt Event Management Framework to handle new events to queue/unqueue Cash Balance and Securities Position related Queries, adapt camt.019 FNTS generation process to count also NTS files related to new sequences, adapt Scout Operational Tool to monitor the NTS Reporting of the new sequence, import new admi.005 message schema
  - Changes in INTF U2A: configure the new events and define their expected behaviour regarding screen deactivation and reactivation, add the new event C1RX to the report search screen.
- Validation and non-regression testing 25%
- The investment cost for HW and SW (15%) are for infrastructure optimization to support the amended NTS, including new potential processing peaks in the first weeks of production,.

Impact on other TARGET Services and projects

T2 RTGS/ CLM:
CR-0858 impacts T2 (RTGS/CLM) due to the new start time for the maintenance windows (MWs), as both T2S and T2 MWs should be aligned.
Under the new proposal for CR-0858:

- The optional daily MW should take place from“3:00 but not earlier than 15 minutes after the end of the last night-time cycle”; and
- The mandatory weekend MW should take place from “03:00 but not earlier than 15 minutes after the end of the last NTS cycle”.

To change the start time of the T2 MW, a new T2 Change Request is required. However, introducing a dynamic start time linked to the end of the last NTS of T2S is not feasible for T2. Therefore, the start time of the T2 MWs should be fixed at 03:00 .

T2-DWH:
The CR-0858 impacts T2-DWH. The impact results from the daily data load currently running between 22:00 until 01:00 am CET (the current SLA of 00:00 am CET cannot be met due to significantly increased volumes and is therefore subject to an update) when T2S is consuming very limited resources. A parallel running of T2S NTS and T2-DWH daily data load is not deemed feasible without a capacity increase due to limited resources on production environment. While major T2S NTS activities are assumed between 01:00 and 03:00 am CET, significant T2S activities from resource consuming perspective are also envisaged before midnight (e.g. sending of large numbers of messages). Thus, to avoid costly capacity increases and/or changes to the loading process the daily load of T2-DWH data should be re-scheduled to start directly after T2S NTS when T2S is consuming very limited resources. This would result in finishing the T2 DWH daily load by 06:00 am CET and adjusting the pertinent SLA accordingly. However, since the detailed T2S activity pattern between 20:00 and 03:00 am CET, which might offer the possibility to schedule without significant process changes parts of the T2 DWH daily data load during phases of limited T2S activity, is not known at the current juncture, 4CB will try to gain insights regarding a possible earlier T2 DWH SLA already during the T2S R.2027.JUN NFT and propose a final new T2 DWH SLA latest after having observed the activities of T2 and T2S one year after T2S R.2027.JUN being in Production.

Summary of project risk

No risks have been identified during detailed assessment.

Security analysis

No adverse effect has been identified during security assessment.

Other impacts (yes/no)

No

DG - MARKET INFRASTRUCTURE & PAYMENTS

target services | T2S

19 December 2025

Cost assessment on Change Requests

T2S-0858-URD – Adjustment of the Night-Time Settlement for accommodating the shortening of the settlement cycle to T+1			
One-off	Assessment costs* - Preliminary - Detailed	 not charged 10,000.00	 Euro Euro
One-off	Development costs	1,646,534.15	Euro
Annual	Operational costs - Maintenance costs - Running costs	 125,706.94 10,095.56	 Euro Euro

*The relevant assessment costs will be charged regardless of whether the CR is implemented (Cf. T2S Framework Agreement, Schedule 7, par. 5.2.3).