

<b>General Information (Origin of Request)</b>		
<input checked="" type="checkbox"/> User Requirements (URD) <input checked="" type="checkbox"/> Other User Functional or Technical Documentation (SYS)		
<b>Request raised by:</b> Project Managers Group	<b>Institute:</b> ECB	<b>Date raised:</b> 28/04/2014
<b>Request title:</b> Delay of the start of night-time settlement by 30 minutes to 20:00 and clarifications on the T2S schedule timings		<b>Request ref. no:</b> T2S 0456 URD
<b>Request type:</b> Common		<b>Urgency:</b> Normal
<b>1. Legal/business importance parameter:</b> Medium	<b>2. Market implementation efforts parameter:</b> Low	
<b>3. Operational/Technical risk parameter:</b> Low	<b>4. Financial impact parameter:</b> No cost impact	
<b>Requestor Category:</b> T2S sub-group		<b>Status:</b> Authorised at Steering Level

**Reason for change and expected benefits/business motivation:**

This Change Request covers:

- the postponement of the start of night time settlement by 30 minutes from 19:30 to 20:00;
- the clarification of target objectives for the delivery of EOD reports;
- the clarification of target objectives for the completion of night-time cycles.

The requirement T2S.03.080 (Night-time settlement period) states that T2S shall deliver the end of day reporting at 18:45 at the latest and that the night-time settlement period after the end of the start-of-day (SOD) period should start that 19:30 (proposed and indicative time for the start of night-time settlement).

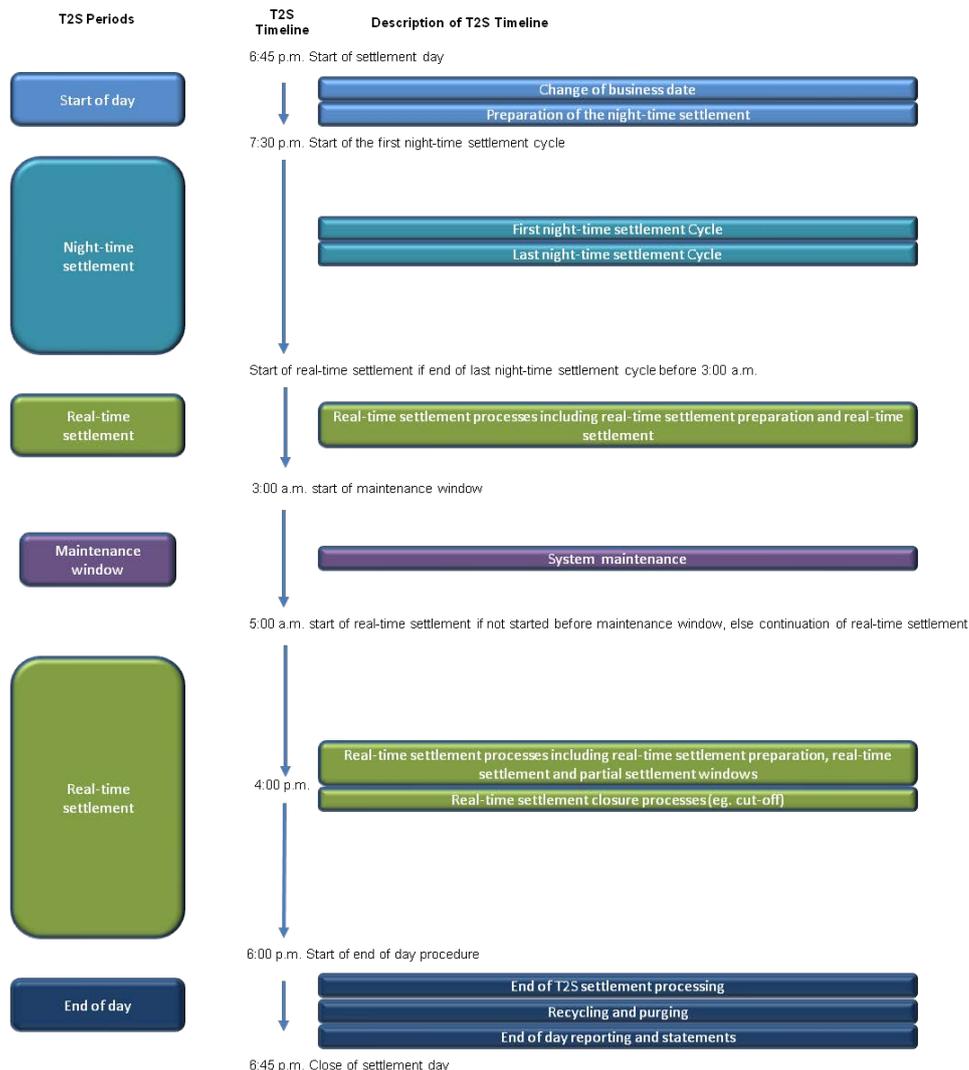
Such timing is considered too short for the CSDs to:

- Retrieve all necessary reports from T2S (via the VAN providers);
- Perform necessary reconciliations
- Process their Corporate Action processing, and
- Send the outcome of that processing to T2S for further inclusion into the first night-time cycle.

This Change Request aims at redefining the deadlines applicable during the EOD/SOD period, as well as for the night-time settlement in order to ensure that sufficient time is given to the CSDs to perform their own processing.

Several workshop were organised to better assess the volumes involved during the EOD/SOD period to define options to reduce contention during that peak period (e.g. early retrieval of report after the DvP cut-off combined with delta reporting as from 18:00, prioritisation of reports generation in order to secure early delivery of reports that are critical for the start of the CA processing shortly after 18:00,...)

The UDFS provides further details of the exact times for the different phases of the T2S schedule of the settlement day:



On 5 February 2014, a PMG ad-hoc workshop on volumetric assumptions analysed the timelines for the end of day (EOD) and start of day (SOD) and discussed that,

- For receiving reports, CSDs could resort to the delta-mode reporting during EOD in combination with earlier full- or delta-mode reports (for instance at the end of the DVP cut-off). This would avoid a need of single big report per CSD at the end of day and therefore, the EOD reporting in T2S can be optimised.
- Participants were of the view that the current times for EOD and SOD periods are very tight since the CSDs will need approximately 60 minutes to submit their instructions related to Corporate Actions (CAs) on stock after the EOD reporting.
  - Consequently, the participants of the workshop elaborated different options (i.e. to advance the start of EOD and/or delay the start of NTS period) and proposed that a delay of the start of night time settlement between 20 and 30 minutes would be sufficient and more convenient. The postponement of the start of NTS with a minimum of 20 minutes also accommodates the fact that at the end of a minimum reserve period TARGET2 requires 15 minutes more to provide liquidity to the T2S Dedicated Cash Account for the sequence 0 of the first NTS.

On 13 May 2014, there was a further meeting of the PMG ad-hoc workshop on volumetric assumptions, which focused on the EOD/SOD periods. During this workshop participants analysed a new start time of the night-time settlement within the time range between 19:45 and 20:00. Some of the participants expressed a preference for a delay of the start of night-time settlement (NTS) to 20:00 in order to maximise the time for processing corporate actions and sending settlement instructions to T2S before the start of night-time settlement. Other participants were of the opinion that the

night-time settlement should start at 19:50 in order to complete the night-time settlement and sending of settlement results 10 minutes earlier. Any instruction entered in T2S before the new start time of NTS (i.e. 20:00) will be eligible for processing in the first cycle of NTS.

There were further points of discussion relevant in this context:

The average duration of the 2 night-time cycles and the timeline of the subsequent reporting were discussed. It was explained that the target objective for the average duration of the whole NTS is 3.5 to 4 up to standard peak volumes. With regards to the timeline for sending reports during NTS, it was explained that the sending of reports and settlement related messages does not occur at fixed times during the NTS as there is no "pause" of the processing to wait for a certain time for sending them – the timing for the sending of such files and messages depends on the processing volumes in the cycles/sequences. In the NTS the next sequence processing is triggered only when the generation of the settlement related messages from Settlement is completed for the previous sequence. The complementary generation and sending of the related files and messages is done in parallel with the parallel processing of next sequence.

With regards to the postponement of the start of the NTS settlement: During the CRG meeting of 16 July 2014, it was explained that during the definitions of the T2S User Requirements, the green light approach was discarded. A green light approach could be challenging as communication issues of one T2S Actor will delay the process unnecessarily. A process is in place and it is described in the Manual of Operational Procedures (MOP).

During the CRG meeting of 17 November 2014, it was explained that the non-functional test results showed that the estimated elapsed time for the generation of the report at the EOD was 30 minutes for average day, 35 minutes for standards peak and 45 minutes for the extreme peak<sup>1</sup>.

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#### Description of requested change:

This Change Request covers:

- the postponement of the start of night time settlement by 30 minutes from 19:30 to 20:00;
- the clarification of target objectives for the delivery of EOD reports;
- the clarification of target objectives for the completion of night-time cycles.

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#### Submitted annexes / related documents:

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#### Proposed wording for the URD Change request:

The proposed changes by the change request will be included in URD v5.04

1. The requirement T2S.03.010 (Management of the settlement day periods) should be updated as follows:

##### Management of the settlement day periods

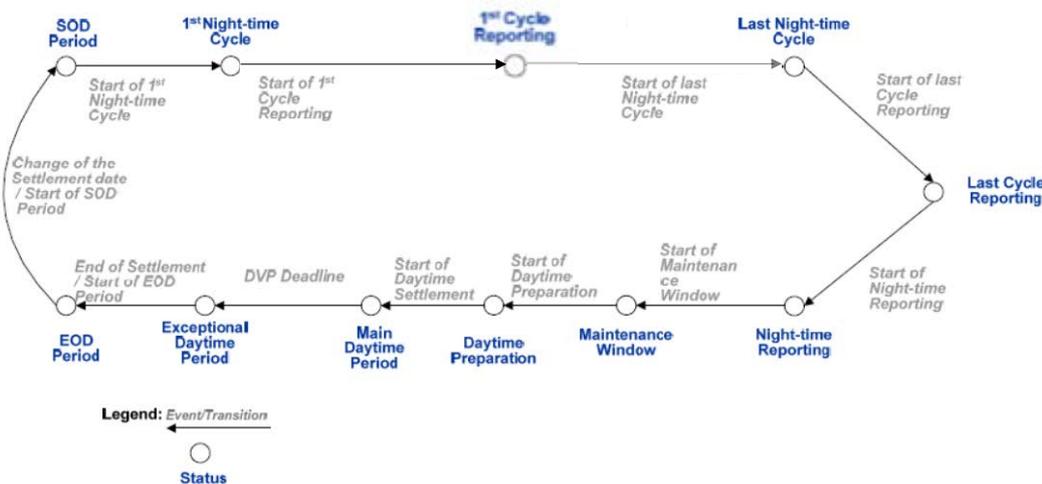
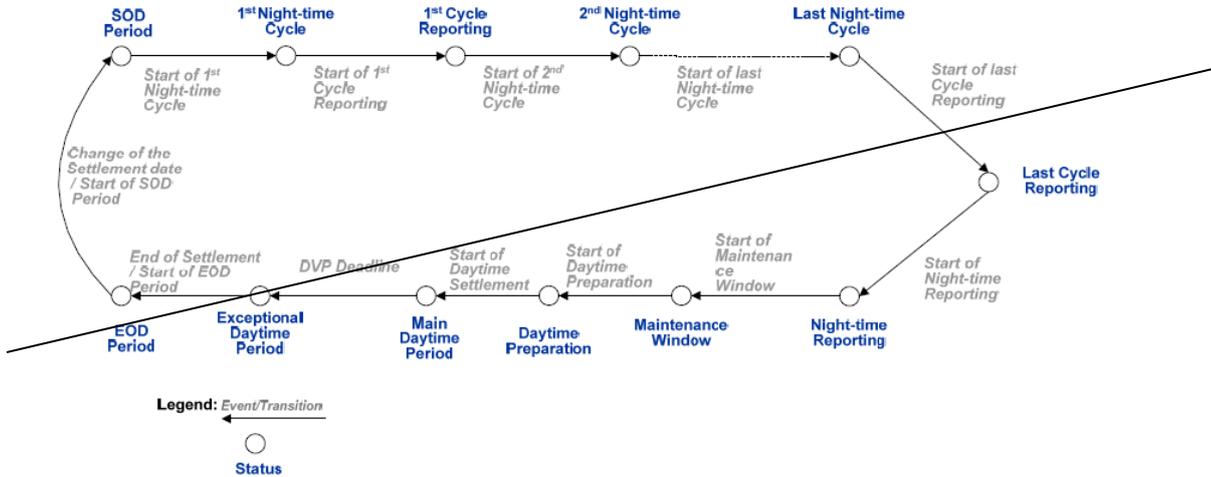
Reference ID	T2S.03.010
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T2S shall assign a status to the schedule of the settlement day. The value of this status corresponds to the ongoing

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<sup>1</sup> Please refer to the CRG presentation for further information [http://www.ecb.europa.eu/paym/t2s/progress/pdf/tg/crg/crg28/reports\\_at\\_eod-test\\_results.pdf](http://www.ecb.europa.eu/paym/t2s/progress/pdf/tg/crg/crg28/reports_at_eod-test_results.pdf)

period or main process of the settlement day. The following diagram represents the successive schedule statuses during the settlement day and the events triggering the change of status:



2. The requirement T2S.03.080 (Night-time settlement period) should be updated as follows:

**Night-time settlement period**

<b>Reference ID</b>	T2S.03.080
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The T2S schedule shall include a night-time settlement period. It shall start after the end of the “SOD” period and end prior to the maintenance window.

The night-time period mainly processes settlement instructions that were input on previous days with an intended settlement date that corresponds to the current settlement date. With the change of settlement date, T2S shall identify these settlement instructions during the “SOD” period. Therefore, T2S shall perform night-time settlement on existing settlement instructions that are collected and prioritised at the start of the process and subsequently placed in a settlement queue for settlement.

The night-time cycles shall operate in line with the T2S sequencing and optimisation rules described in Chapter 8. Sequencing rules for night-time settlement will typically start with the settlement of corporate actions by dedicating a settlement window for these instructions.

- For these corporate actions, which require the blocking of the settlement of other transactions before the completion of the corporate action process, the CSDs will use the tools that allow them to block settlement at an ISIN level or on balances. Night-time settlement shall first process transactions that are not relevant for corporate action processing. T2S shall attempt the settlement of transactions that affect blocked balances, or balances pertaining to a blocked ISIN (including those resulting from the corporate action), only after the CSD releases or removes the block on the related ISIN and/or balances.
- T2S shall not restrict any transaction type to the night-time settlement period. T2S shall process the transactions that miss the first night-time cycle during the first settlement opportunity (including daytime settlement) that follows their receipt by T2S.

At this stage of the project, 19:30-20:00 is the proposed and indicative time for the start of night-time settlement.

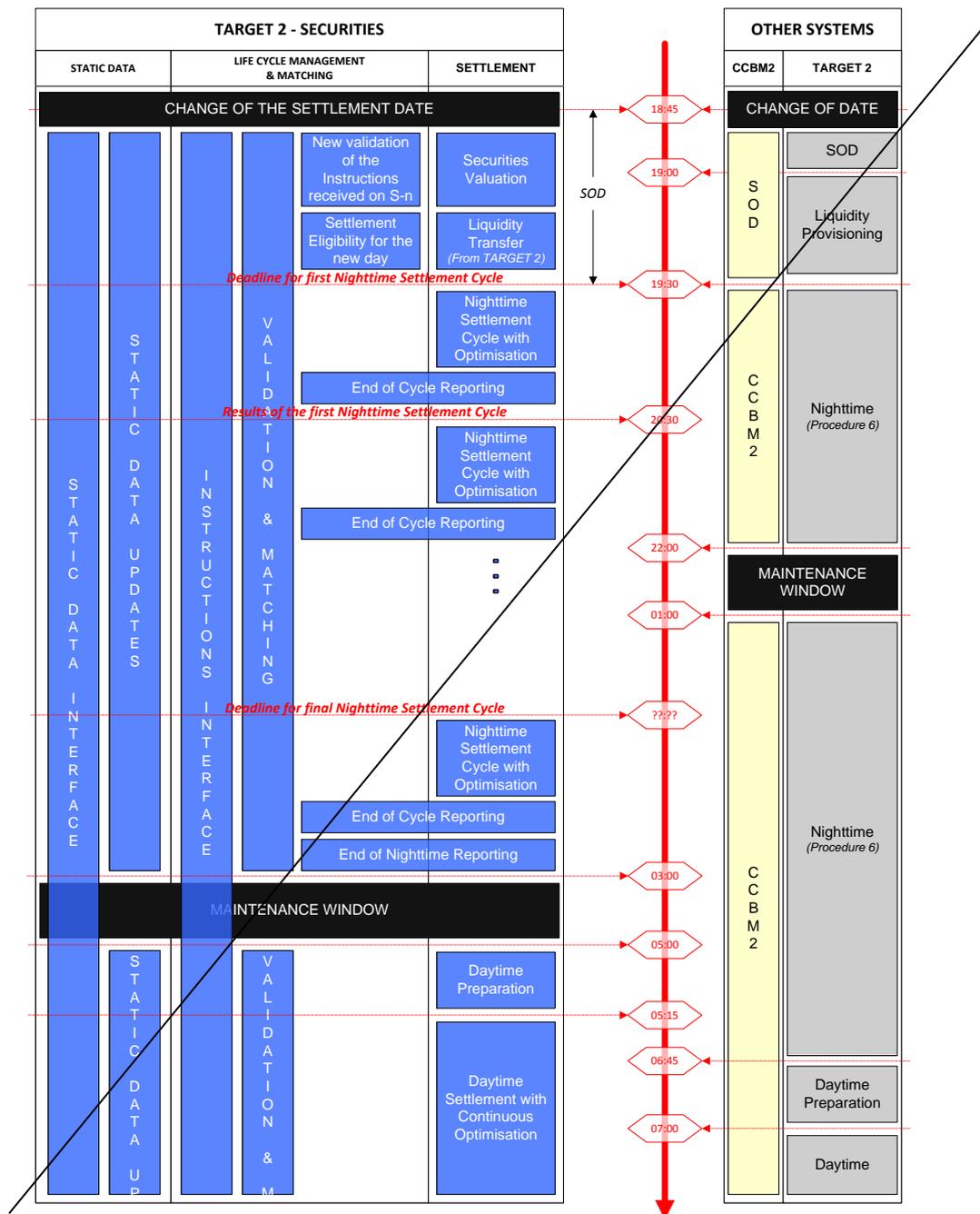
3. The requirement T2S.03.100 (Night-time settlement cycles) should be updated as follows:

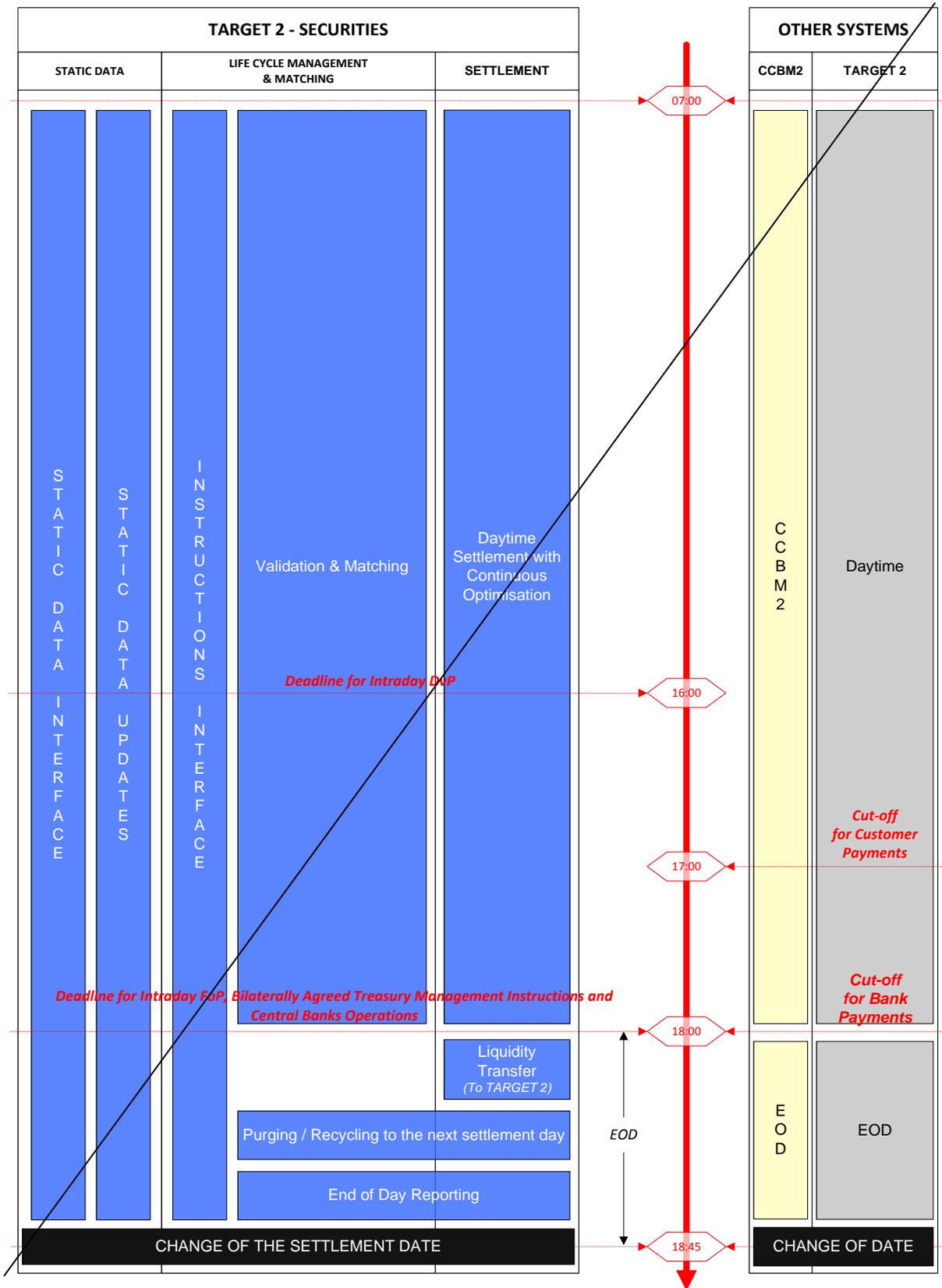
**Night-time settlement cycles**

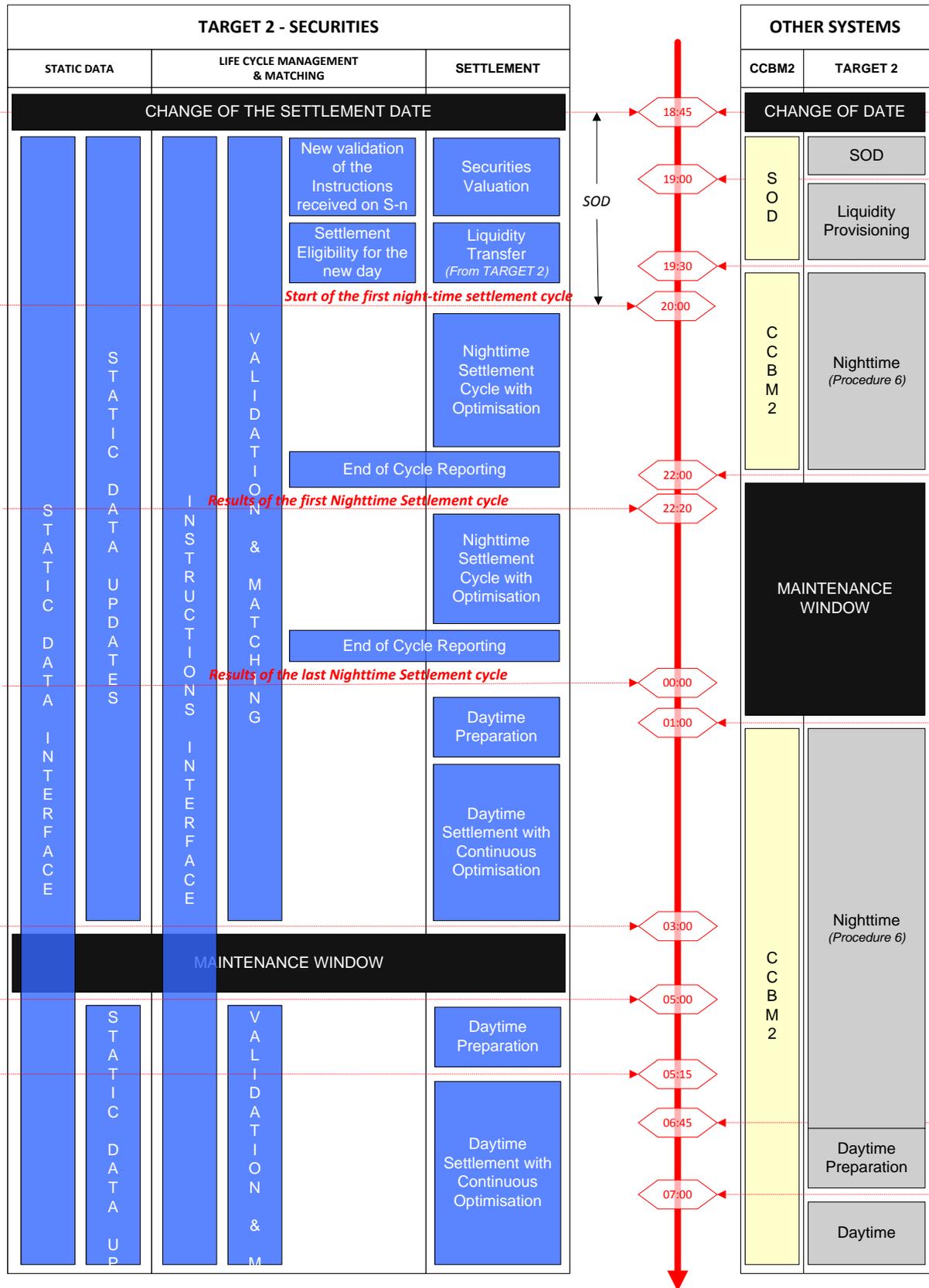
<b>Reference ID</b>	T2S.03.100
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The night-time settlement shall include ~~several~~ two settlement cycles with minimal time gaps between them. The ~~exact number of night-time cycles and their duration of the night-time cycles remains undefined.~~ It shall depend on estimated settlement volumes for 2013 and on business requirements, e.g. constraints that could result from the maintenance of links with external (I)CSDs. In this context, 20:30 22:20 and 00:00, the times by which T2S shall provide the reports and settlement related messages of the first night-time cycle and the last night-time cycle respectively, is are purely indicative and exclude extreme peak day volumetrics.

4. The T2S processing timetable diagram in section “3.1.1 High-level T2S processing timetable” should be updated:









5. The requirement T2S.03.300 (Deadline for the first night-time settlement cycle) should be updated as follows:

**Deadline for the first night-time settlement cycle**

<b>Reference ID</b>	T2S.03.300
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T2S shall set a deadline (~~19:30~~) (20:00) for receiving settlement instructions for settlement in the first night-time settlement cycle.

T2S shall attempt to settle all settlement instructions that are eligible for settlement and arrive until this deadline in the first night-time settlement cycle. T2S shall move settlement instructions that arrive after this deadline to the ~~second night-time~~ next settlement opportunity cycle.

**GFS impacts:**

Section 2.1.1.2 Schedule and calendar

Page 12, Table should be amended to consider the new start of the NTS as follows:

TIME	DESCRIPTION
<del>18:45 – 19:30</del>	<del>SOD period</del>
<del>19:30 – 20:30</del>	<del>First night-time cycle Night-time static data update First night-time cycle reporting</del>
<del>20:30 – 03:00</del>	<del>Last night-time cycle1 Night-time static data update Last night-time cycle reporting Night-time reporting Last night-time static data update reporting</del>
<del>03:00 – 05:00</del>	<del>Maintenance window</del>
<del>05:00 – 18:00</del>	<del>Daytime preparation and daytime period</del>
<del>18:00 – 18:45</del>	<del>EOD period</del>

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 set as target objective for completion time) (*) Last night-time cycle1 Night-time static data update Last night-time cycle reporting (00:00 set as target objective for completion time) (*) Night-time reporting Last night-time static data update reporting
03:00 – 05:00	Maintenance window
05:00 – 18:00	Daytime preparation and daytime period

18:00 – 18:45	EOD period
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(\*)The time provided covers standard peak volumes and excludes extreme peak day volumetrics.

Section 2.1.1.2 Schedule and calendar

Page 15, Diagram should be amended to consider the new start of the NTS as follows:

Diagram 2: T2S settlement day (night-time settlement period)

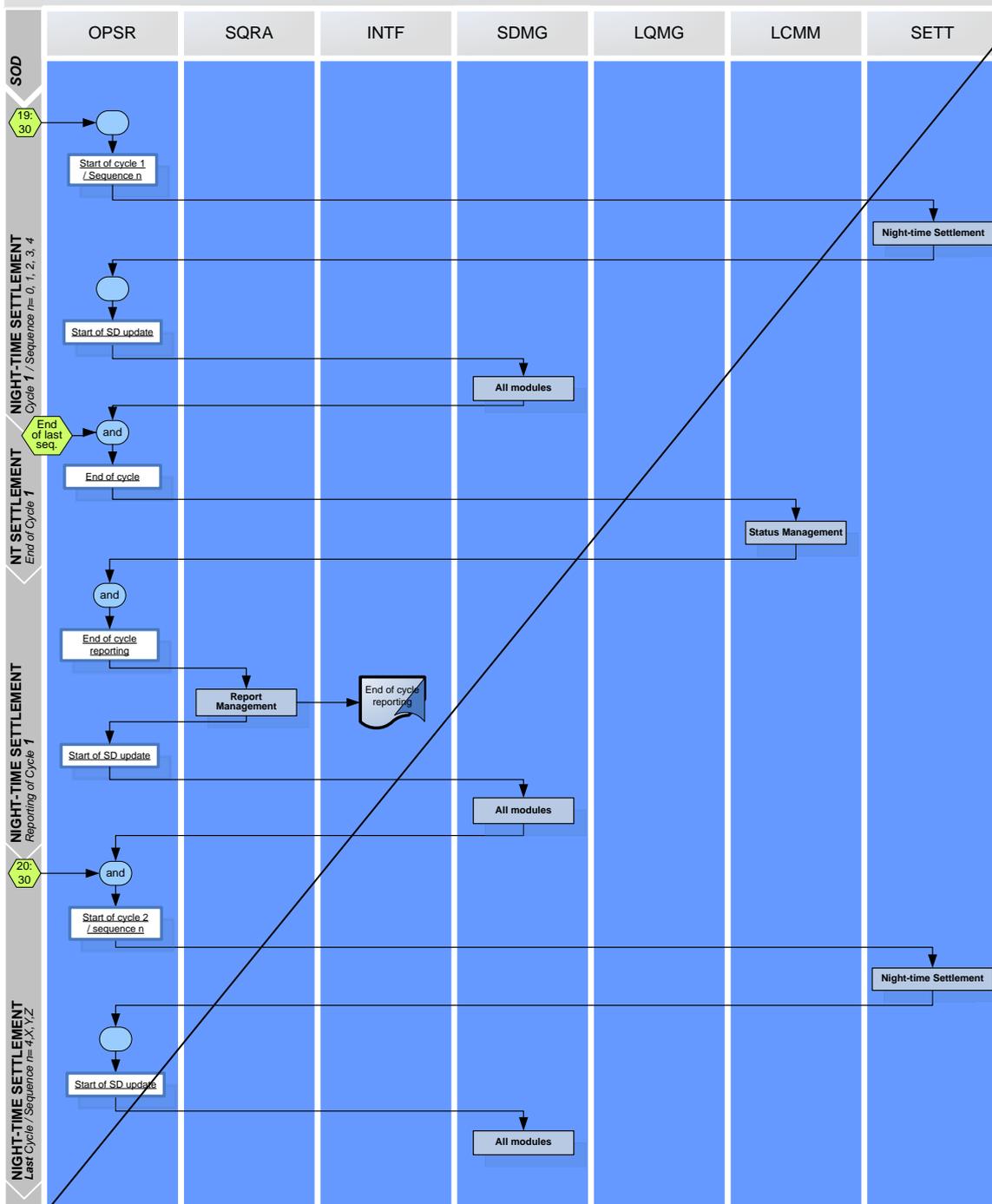
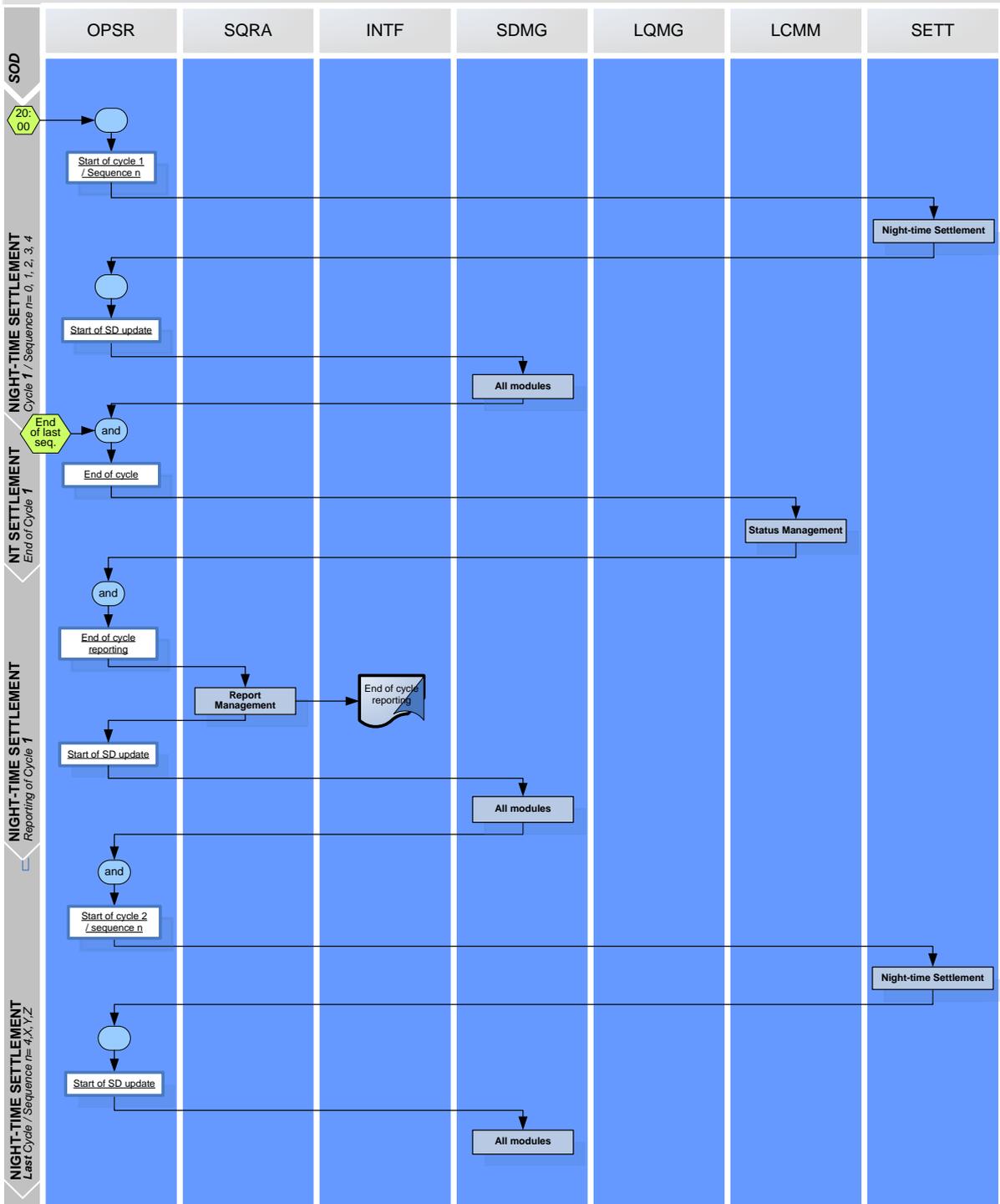


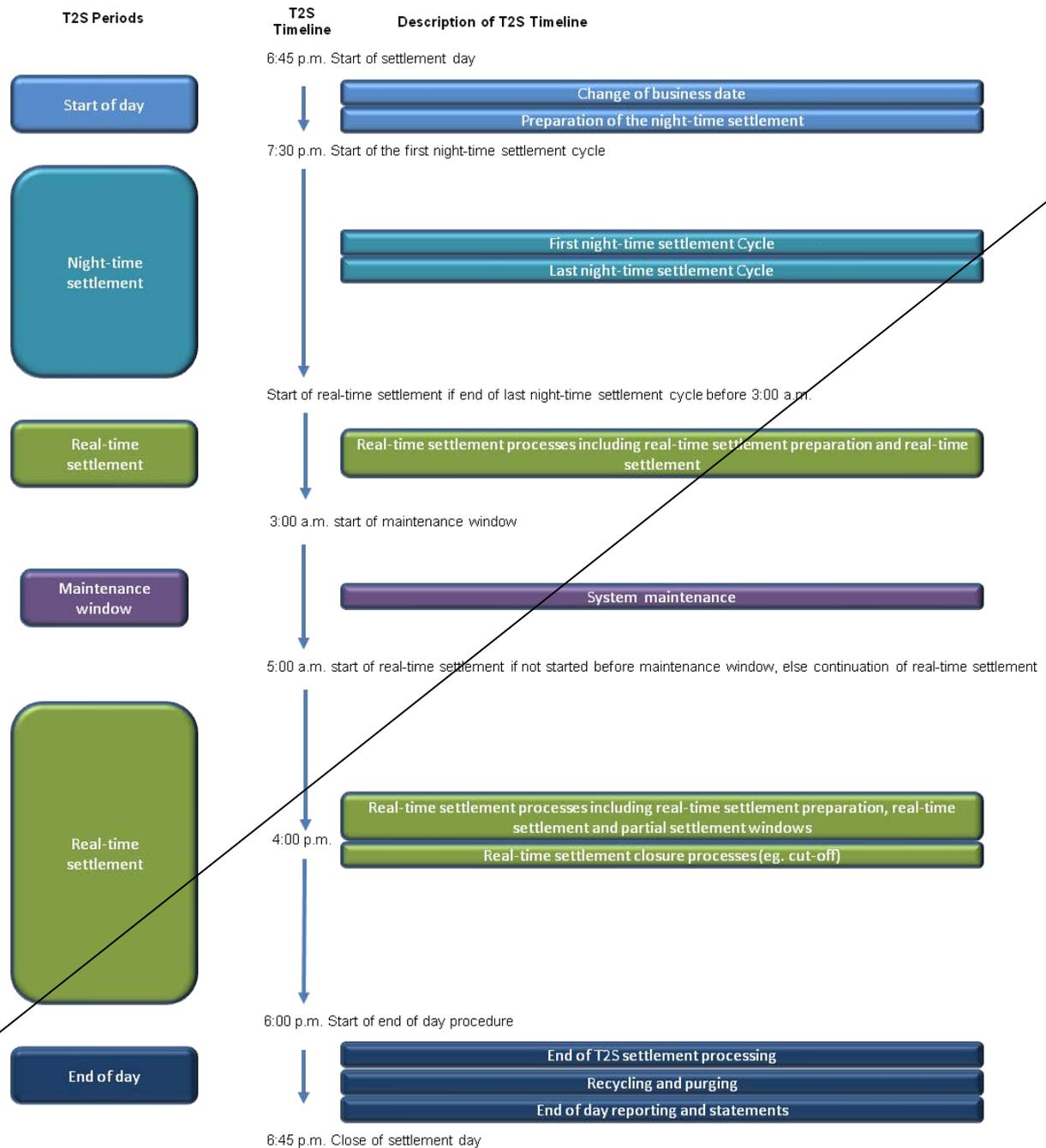
Diagram 2: T2S settlement day (night-time settlement period)

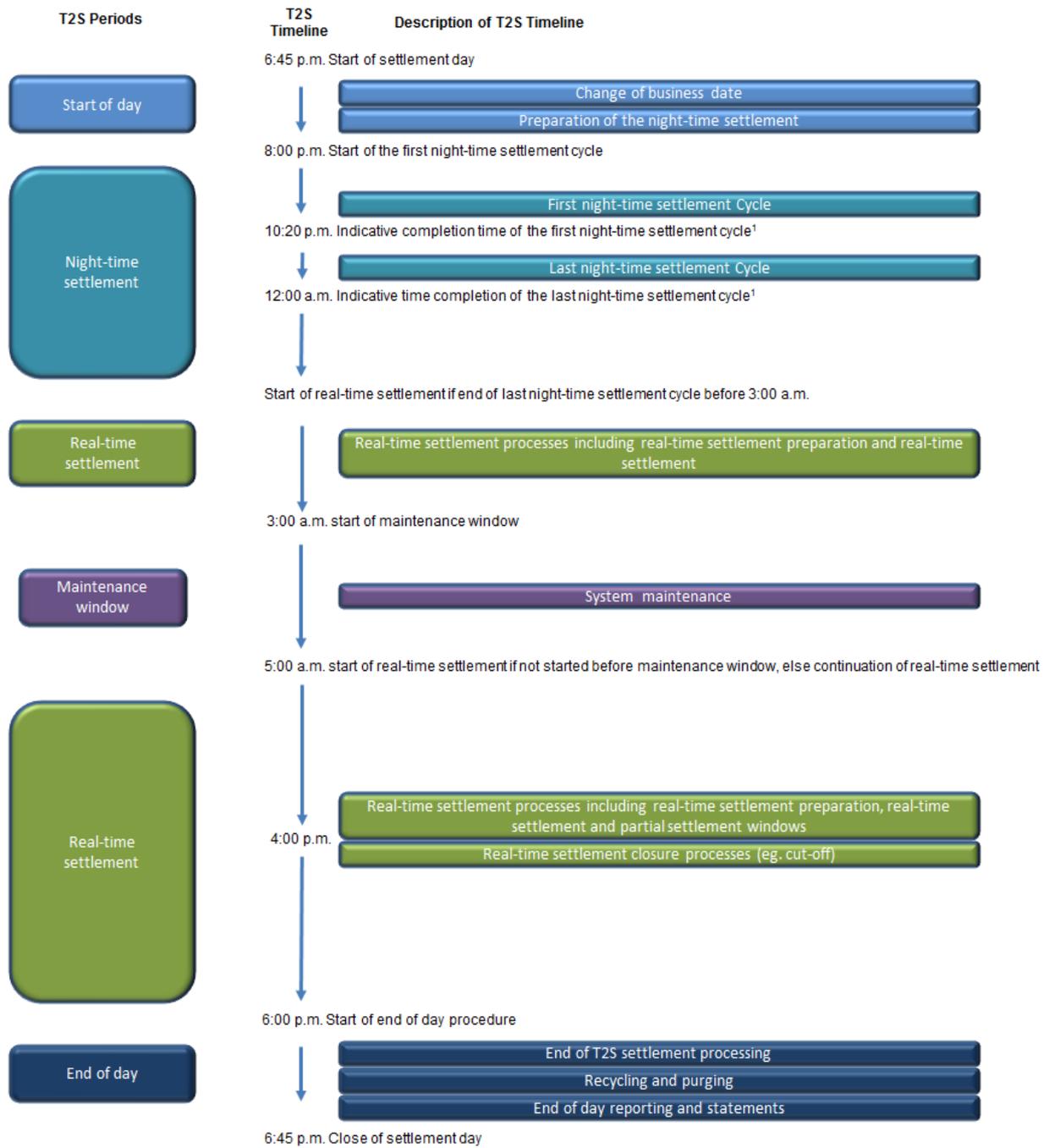


**UDFS impacts:**

Section 1.4.3.1 Settlement day high level schedule

Page 203, Diagram 55 should be amended to consider the new start of the NTS as follows:





<sup>1</sup> The duration of the night-time settlement cycles is dependent on settlement volumes. In fact, even if the duration of the settlement process itself has a pre-determined maximum duration; the duration of the generation of the settlement related messages depends on the number of transactions processed. The time provided excludes extreme peak day volumetrics and has no associated triggered functionality (no process is started or completed during the settlement day period at this time).

Section 1.4.3.2 Settlement day high level processes

Page 204, Table 88 should be amended to consider the new start of the NTS in the T2S Timeline column as follows:

T2S TIMELINE	T2S PERIODS	HIGH LEVEL DESCRIPTION
6:45 p.m. – <del>7:30</del> 8:00 p.m.	Start of day (SOD)	The start of day period including: <ul style="list-style-type: none"> <li>• Change of business date in T2S;</li> <li>• Preparation for night-time settlement:                             <ul style="list-style-type: none"> <li>– 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;</li> <li>– At 7:00 p.m., final deadline to accept data feeds<sup>118</sup>, effective for the current business date, from collateral management systems and payment/settlement banks; CBs can send their Securities Valuation as soon as possible, ideally by 5:45pm, but in any case T2S will accept Securities Valuations until 7pm.</li> <li>– <u>At 8:00 p.m., final deadline to accept settlement instructions for processing in the sequence 1 of the first night time cycle.</u></li> <li>– Valuation of securities positions;</li> <li>– Valuation of collateral eligible Settlement Instructions.</li> </ul> </li> </ul>

T2S TIMELINE	T2S PERIODS	HIGH LEVEL DESCRIPTION
<p><del>7:30-8:00</del> p.m. – 3:00 a.m.</p>	<p>Night-time settlement (NTS)</p>	<p>The night-time settlement period including two cycles:</p> <ul style="list-style-type: none"> <li>• 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 sequences: <ul style="list-style-type: none"> <li>- 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);</li> <li>- 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);</li> <li>- 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);</li> <li>- 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);</li> <li>- And the sequence 4 (new liquidity transfers and all the remaining Settlement Instructions/restrictions which are new or failed to settle in the previous sequences);</li> <li>- <u>The duration of the first night-time settlement cycle is dependent on settlement volumes but should finish by 10.20 p.m. (target objective) as long as standard peak volumes are not exceeded.</u></li> </ul> </li> <li>• The last night-time cycle, including partial settlement, with reporting and processing of static data maintenance instructions/maintenance instructions at the end of each settlement sequences including 4 sequences: <ul style="list-style-type: none"> <li>- The sequence 4 (new liquidity transfers and all the Settlement Instructions/restrictions which are new or failed to settle in previous cycle);</li> <li>- 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);</li> <li>- The sequence Y (reimbursement of the “multiple liquidity providers”);</li> <li>- The sequence Z (liquidity transfers).</li> <li>- <u>The duration of the last night-time settlement cycle is dependent on settlement volumes but should finish by 00:00 a.m. (target objective) as long as standard peak volumes are not exceeded.</u></li> </ul> </li> </ul>
<p>3:00 a.m. – 5:00 a.m.</p>	<p>Maintenance window (MWI)</p>	<p>The maintenance window.</p>

T2S TIMELINE	T2S PERIODS	HIGH LEVEL DESCRIPTION
5:00 a.m. (or after NTS if NTS ends before 3:00 a.m.) – 6:00 p.m.	Real-time settlement (RTS)	The real-time settlement period including: <ul style="list-style-type: none"> <li>• The real-time settlement preparation;</li> <li>• The real-time settlement with 2 partial settlement windows;</li> <li>• The real-time settlement closure.</li> </ul>
6:00 p.m. – 6:45 p.m.	End of day (EOD)	The end of day period including: <ul style="list-style-type: none"> <li>• The stop of settlement engine;</li> <li>• The internal T2S securities accounts consistency check;</li> <li>• The recycling and purging;</li> <li>• The end of day reporting and statements<sup>119</sup>.</li> </ul>

<sup>118</sup> T2S processes these data feeds as soon as they are available. If data feeds are not received at the 7:00 p.m. deadline, T2S bases its processes on the latest information received from the previous settlement days.

<sup>119</sup> The target objective to deliver reports is 6:30 p.m. in normal conditions, 6:35 p.m. with standard peak volumes and 6:45 p.m. in case of extreme peaks, assuming that a mechanism is in place to enable prioritising the initiation of the most critical EOD reports and no additional security requirements beyond the signature at DEP-level are implemented.

#### Section 1.4.4.2 Night-time settlement (NTS)

Page 211, the text below should be amended to consider the new start of the NTS as follows:

##### NTS Processing

During the night-time settlement period, T2S processes the Settlement Instructions, Settlement Restrictions and liquidity transfers in sequences within two settlement cycles. T2S submits Settlement Instructions, Settlement Restrictions and liquidity transfers for settlement according to an automatic pre-defined order, called "sequence".

A settlement cycle may consist of more than one sequence (for settlement of different types of Settlement Instructions, Settlement Restrictions and liquidity transfers).

In each NTS sequence, T2S:

- Processes those new Settlement Instructions, Settlement Restrictions and liquidity transfers received before the start of the sequence which are eligible for settlement at this sequence (and for the first Sequence all the ones received in T2S before ~~7:30~~ 8:00 pm even though the cycle starts after ~~7:30~~ 8:00 pm);
- Includes pending Settlement Instructions not settled during previous sequences.

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##### NTS Reporting

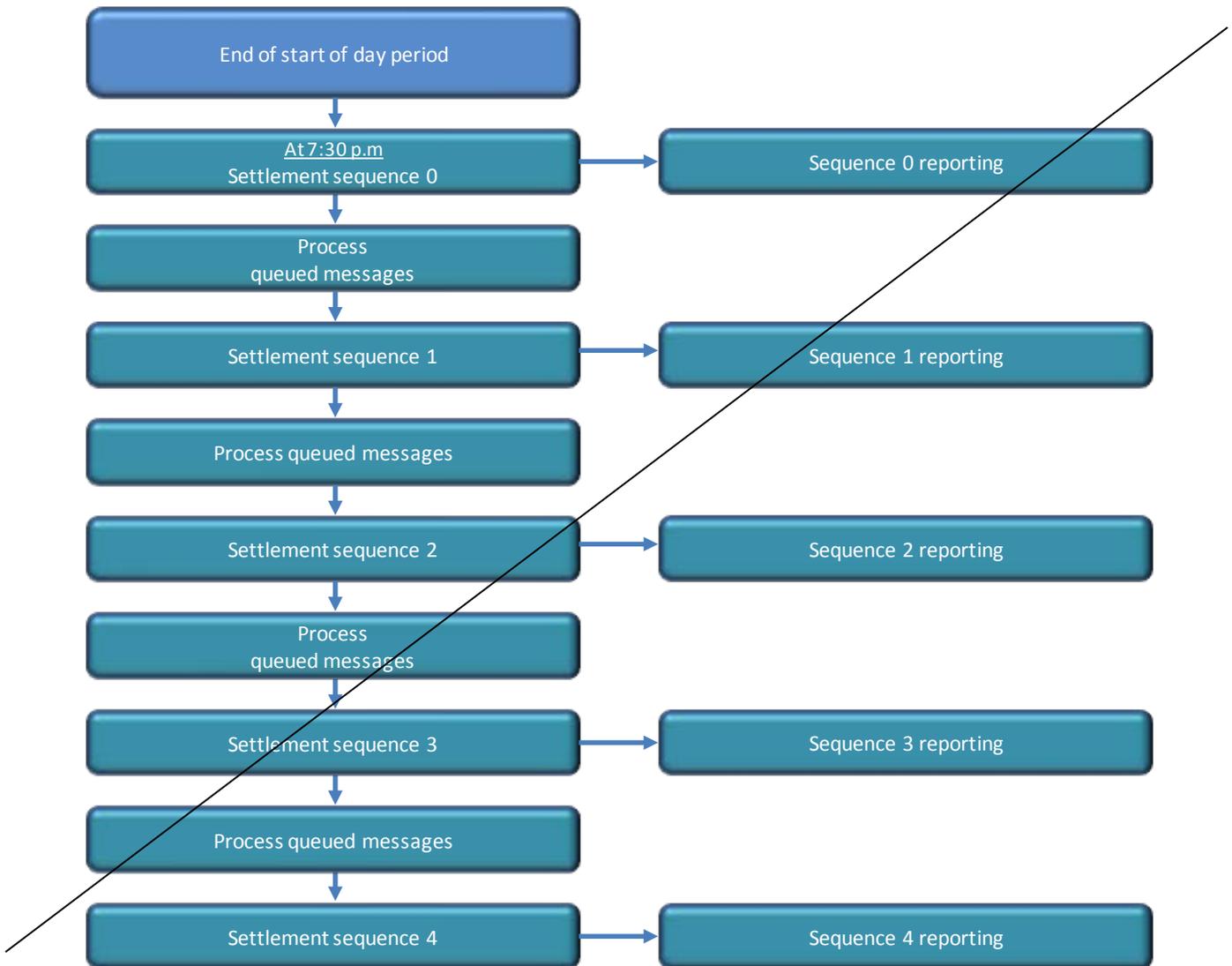
At the end of each night-time sequence, T2S generates full or delta reports as per the report configuration setup of the relevant T2S Actors.

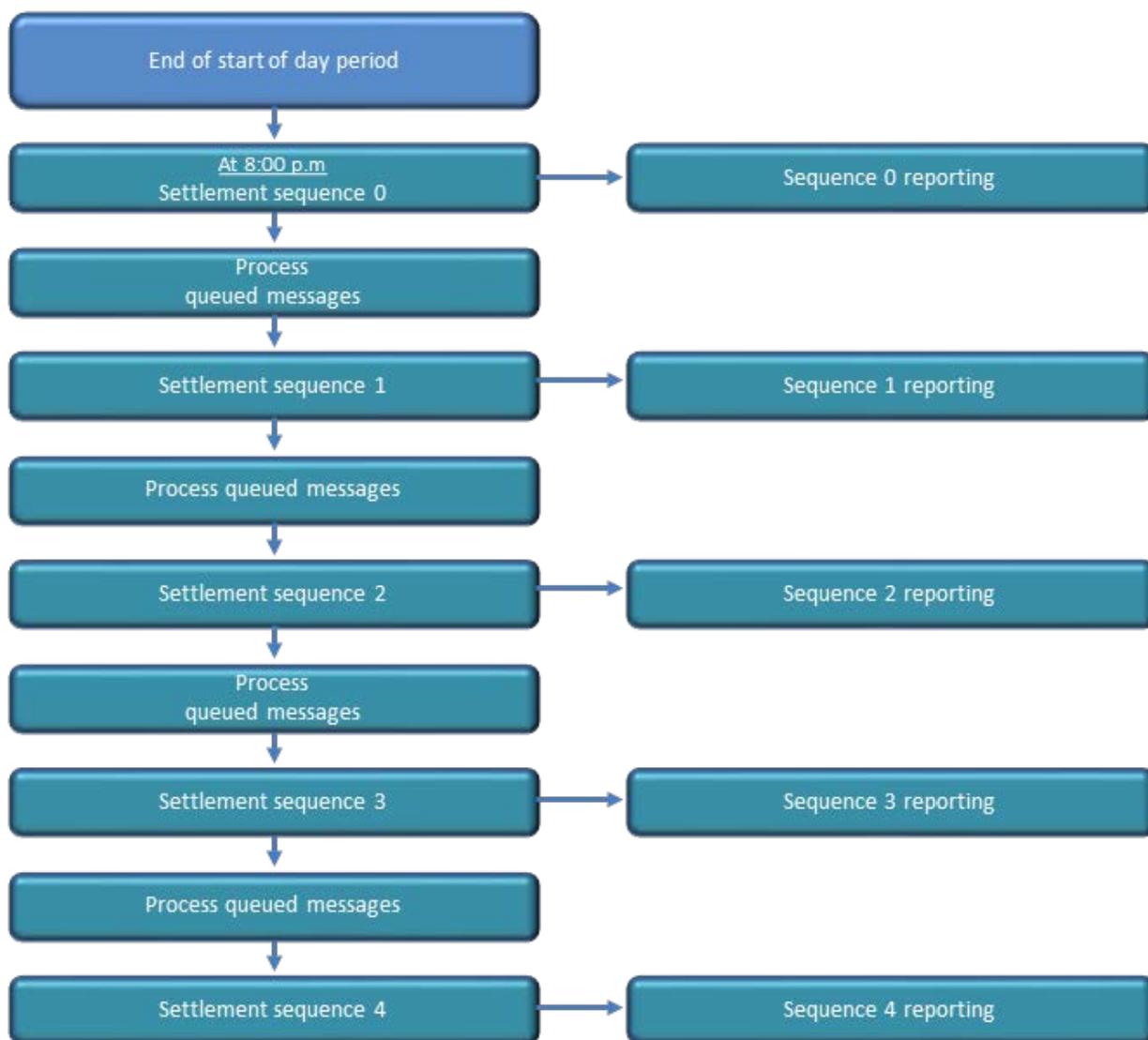
T2S sends also to the T2S Actors messages such as settlement status advices, settlement confirmation, posting notification, etc that were queued due to an execution of a settlement sequence.

The duration of the night-time settlement cycles are dependent on settlement volumes. The target objective for the first and last night-time cycles should finish by 10:20 p.m. and 00:00 a.m. respectively, as long as volumes do not exceed standard peak volumes.

Section 1.4.4.2.3 First night-time settlement cycle dependencies

Page 215, Diagram 59 and Table 91 should be amended to consider the new start of the NTS in the T2S Timeline column as follows:





T2S DETAILED PROCESSED	DEPENDENCIES	
	TYPE OF DEPENDENCY	DESCRIPTION
Settlement sequence 0	End of start of day period and Time: <del>7:30</del> 8:00 p.m.	This process starts after the completion of the start of day period. In addition this process does not start before <del>7:30</del> 8:00 p.m.
Sequence 0 reporting	After the end of Sequence 0	This process starts after the end of sequence 0 processing.
Process queued messages	After the end of Sequence 0	This process starts after the end of sequence 0 processing.
Settlement sequence 1	After the queued messages processing	This process starts after the processing of all queued messages.
Sequence 1 reporting	After the end of Sequence 1	This process starts after the end of sequence 1 processing.
Process queued messages	After the end of Sequence 1	This process starts after the end of sequence 1 processing.

T2S DETAILED PROCESSED	DEPENDENCIES	
	TYPE OF DEPENDENCY	DESCRIPTION
Settlement sequence 2	After the queued messages processing	This process starts after the processing of all queued messages.
Sequence 2 reporting	After the end of Sequence 2	This process starts after the end of sequence 2 processing.
Process queued messages	After the end of Sequence 2	This process starts after the end of sequence 2 processing.
Settlement sequence 3	After the queued messages processing	This process starts after the processing of all queued messages.
Sequence 3 reporting	After the end of Sequence 3	This process starts after the end of sequence 3 processing.
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	This process starts after the processing of all queued messages.
Sequence 4 reporting	After the end of Sequence 4	This process starts after the end of sequence 4 processing.

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**High level description of Impact:**


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**Outcome/Decisions:**

\* CRG meeting of 28 May 2014: The CRG agreed to make some minor changes in the wording of the Change Request for clarification purposes, and recommended the approval of the Change Request in principle subject to the final approval via written procedure.

\* Written procedure with the CRG from 30 May to 11 June 2014: A majority of the CRG members recommended the approval of the Change Request. One CRG member objected and indicated that the CR should be on hold until there is more visibility and certainty on other end-of-day- and start-of-day-related topics.

\* PMG meeting of 12-13 June 2014: The Project Managers Group (PMG), as requestor of the Change Request, asked the T2S Programme Office to make some wording updates on the Change Request.

\* CRG meeting of 16 July 2014: The CRG kept the Change Request on hold.

\* CRG meeting of 8 September 2014: The CRG agreed to submit the Change Request to the Steering Level for decision. The CRG vote reflected:

- 2 CRG members voted for “no decision”, based on the argument that not enough information is currently available
- All other present CRG members voted for 20:00
  - Considered the most valid assumption based on currently available information.
  - Recognition that fine-tuning could be necessary based on experience during testing and/or production.
- No CRG members abstained
- No CRG member voted for 19:30 or 20:30

\* CSG meeting of 11-12 December 2014: The CSG approved the CR in principle subject to some wording updates.

\* CRG meeting of 15 December 2014: The CRG agreed to make some changes in the 'reason for change' section of the Change Request.

\* Advisory Group's advice on 20 January 2015: Following an AG written procedure from 14 to 20 January 2015, the AG was in favour of the Change Request.

\* CSG resolution on 21 January 2015: As an outcome of the CSG written procedure from 14 to 21 January 2015, the Change Request was amended on 5 February 2015 following the comments of a CSG member. The proposals to the Change Request did not change the Change Request in substance and therefore, it can be considered that the CSG adopted the resolution to approve the updated Change Request, which was circulated on 5 February 2015.