



EUROPEAN CENTRAL BANK

EUROSYSTEM

T2S CHANGE REQUEST FORM		
<b>General Information (Origin of Request)</b> <input type="checkbox"/> User Requirements (URD) or GUI Business Functionality Document (BFD) <input checked="" type="checkbox"/> Other User Functional or Technical Documentation (SYS)		
<b>Request raised by:</b> OMG	<b>Institute:</b> 4CB	<b>Date raised:</b> 10/12/2020
<b>Request title:</b> AID tool for the T2S Operator		<b>Request ref. no:</b> T2S-0750-SYS
<b>Request type:</b> Common	<b>Classification:</b> Maintenance	<b>Urgency:</b> Fast track
<b>1. Legal/business importance parameter:</b> High <sup>1</sup>	<b>2. Market implementation efforts parameter:</b> Low <sup>2</sup>	
<b>3. Operational/Technical risk parameter:</b> Medium <sup>3</sup>	<b>4. Financial impact parameter:</b> No financial impact <sup>4</sup>	
<b>Requestor Category:</b> 4CB	<b>Status:</b> Implemented	

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

In the course of the incident occurred during the NTS phase of 25th May 2020, as explained in the Post Mortem Report Incident 200525-T2SO-270812, SETT did not communicate to LCMM a number of partial settlements, causing that the related instructions were not updated to reflect such partial settlements and, consequently:

- i. The related outgoing confirmation messages (sese.025 informing about the partial settlement) were not generated.
- ii. The T2S GUI showed incorrect information for these instructions i.e. missing the partial settlement.
- iii. In case these instructions had a further settlement (either for the whole remaining part or another partial), the related outgoing confirmation message sent contained incorrect information in some fields such as the PreviouslySettledQuantity and PreviouslySettledAmount. For the same reason, the GUI also showed incorrect information after further settlements on these instructions.

To correct these issues, the Reprocessing Tool could not have been used because it was designed to cope specifically with the scenarios of the incidents occurred on 27th Nov 2018 and 17th Apr 2019, both during the RTS phase, and as such it is not applicable in the context of NTS-related notifications.

As a consequence:

- For the missing or incorrect outbound messages, the T2S Operator either extracted the data in .xlsx or generated them in .csv (XML format) with the OMEGA tool, and provided it to the requesting CSDs during the following days, allowing for a manual injection of the messages in their systems.
- The missing partial settlements were not resent to LCMM to update the instructions, and the missing information could not be manually added to the Instructions database due to the complexity and risk of the update required to reflect a partial settlement, particularly high due to the number of affected instructions and the lack of a dedicated operational tool designed for this purpose. Consequently, the information reported when the affected instructions were queried remained incorrect, i.e. showing incorrect information in the GUI as described in ii) and iii) above.

<sup>1</sup> Legal/business importance parameter was set to High because a disturbance in the message flow to the customers can cause major issues from a business point of view. The absence of this tool can lead to major operational issues, impacting CSDs reconciliation process and causing potential delays in the business day.

<sup>2</sup> Market implementation effort parameter was set to Low because it does not require relevant adaptations from T2S CSDs / NCBs and their participants.

<sup>3</sup> Operational/technical risk parameter was set to Medium because the implementation of these tools has an operational impact, and the relevant operational procedures have to be enhanced/ defined.

<sup>4</sup> Low < 100kEUR < Low-Medium < 200kEUR < Medium < 400kEUR < High < 700kEUR < Very high

As confirmed in the lessons learned, this situation revealed the need to implement solutions that will help to detect, reduce and, when possible, eliminate the previously mentioned impacts and, hence, improving the recovery capacity from a critical incident or contingency scenario. Accordingly, addressing also the Action Point #11 of the Post Mortem Report Incident 200525-T2SO-270812, while CR-0746 implements mitigation measures for missing partial settlements and the new COLGEN tool, the aim of this Change Request is to implement an additional new operational tool for the T2S Operator, AID tool (Align Instructions Database to reflect postings that are missing in the related instructions and generate the corresponding outbound messages):

This tool will be implemented in LCMM for the T2S Operator to: a) identify postings of the current business day in the SETT database whose corresponding settlement status entry in the related instruction is missing in LCMM; and, b) to apply the needed and approved operational actions to restore a coherent situation by reflecting the missing settlement entries in the instructions, as well as to generate the corresponding confirmation messages to be sent A2A via T2S Interface.

For this purpose, the new AID tool will provide the following functionalities:

- a) Check if the postings of the current business day are reflected in the instructions: Along the day, the AID tool will identify, in an automatic way, any settlement occurred during the current business day, which is not reflected in the related instruction i.e. it is missing the corresponding settlement status entry. When any missing settlement status entry is identified, an alarm will be triggered and the details of the discrepancies found will be made available to the T2S Operator, which will be able to extract/download the information.
- b) Allow the T2S Operator to execute the relevant updates that will automatically add in the instructions database the missing settlement entries previously identified (i.e. the tool will update the instruction and its status history to reflect the missing settlement status entries in the corresponding instruction according to the postings) and, for each entry included, generate the corresponding settlement confirmation outbound messages (sese.025 and camt.054 for settlement instructions, and semt.015 or camt.068 for settlement restrictions) to be sent to all interested parties via the normal A2A channel, i.e. through T2S Interface. Additionally, when the settlement instruction has to be created by the tool to reflect a settlement, the generation of the corresponding notification message (sese.032) will be also triggered.

The updates performed by the AID tool in the instruction can reflect missing settlement status entries related to a partial settlement "PSET" as well as to a full settlement "SETT" occurred at any time of the business day (i.e. during the NTS and/or RTS) as long as it was on the current business day.

The updates can be performed by the AID tool before the EoD in case the instruction cannot have any further settlement (i.e. it is fully settled after the update). However, in case the instruction can have further settlements, the updates must be performed by the tool only during the EoD, when the Settlement engine is stopped

Finally, it is worth mentioning that when the missing settlement status entry included in an instruction by AID relates to a partial settlement "PSET", also the corresponding sese.024, semt.014 or camt.067 informing about the remaining part ("PART" message reporting the unsettled part of an instruction that has been partially settled) will be generated, being this the unique case where the AID tool generates a sese.024, semt.014 or a camt.067.

Regarding the Financial impact parameter of this Change Request, it is worth mentioning that it has no financial impact as the implementation and running cost will be borne by the 4CB. Nevertheless, the implementation of this Change Request will consume 4CB capacity for evolution (according to the required implementation cost for the 4CB).

#### **Description of requested change:**

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When an instruction is successfully settled, partially or fully, SETT creates both the securities and cash movement through the postings in the securities accounts and cash accounts, and also communicates these movements to LCMM in order to update the instruction and to generate the confirmation messages to inform the interested T2S actors about this settlement status update<sup>5</sup>.

#### **New AID tool:**

This tool will identify any posting of the current business day that is not reflected in the instruction database. Additionally, upon request, the tool will apply the needed updates in LCMM to align both databases, by reflecting missing postings in the instructions as the corresponding settlement status update entries, including their status history.

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<sup>5</sup> Regarding mitigation measures for missing partial settlement and the new COLGEN tool please refer to CR-0746.

The tool will be implemented in LCMM as a new and separate operational function/module to perform the required comparison between the databases and perform the required updates in LCMM, i.e. ad-hoc update, outside the normal update flow, to include the missing settlement status entries in the corresponding instructions according to the postings. For each entry included in the database, the tool will trigger the generation of the related confirmation message to be sent by Interface.

The tool will provide the following intraday functionalities to the T2S Operator:

a) Identification of postings that are not reflected in the related instructions:

The tool checks if the postings occurred in the current business day (in SETT database) are reflected with the corresponding settlement status entry in the instructions (in LCMM database). For this purpose, two specific views of the postings (one view for securities postings and another for cash postings) and their needed attributes (e.g. transaction and Instruction id, Business Day, Cycle and Sequence, Settlement timestamp, quantity or amount of the settlement occurred...), will be made available for the tool, to allow the comparison with the instructions and their status history. AID will have to join the information provided in the two views. For doing it, the value of the following attributes have to be identical in both views for a given successful settlement attempt of a Settlement Instruction exchanging cash and securities: T2S reference of the Instruction (Instruction Id), Business Day, Cycle and Sequence and Settlement timestamp.

The check will be automatically performed along the day, taking the postings<sup>6</sup> from the ad-hoc views (after each consistency check is completed successfully).

The check may result in the following scenarios:

- No discrepancy found: All the postings have the related entry in the status history of the instructions (i.e. are reflected in the instructions), hence, no actions are required.
- Discrepancies found: not all the postings are reflected in the instructions because of any of the following:
  - A posting is not reflected in an existing instruction and its status history, so updates are required to include the missing settlement status entries to reflect the posting.
  - A posting is not reflected and the corresponding instruction has not been created in LCMM. This could be the case of internally generated collateral instructions. For this case, updates are required to create the instructions and the settlement status entries.

When any discrepancy is found, an alarm will be triggered by the tool. Additionally, the missing settlement entries identified will be available in the tool for the T2S Operator (Operational team and Last Level Support Teams), which may also download them.

b) Instruction updates and their reporting:

Triggered by the T2S Operator, the tool applies the corresponding updates in LCMM to reflect the previously identified postings of the current business day that are missing in the instructions.

The updates, which can be requested by the T2S Operator either per CSD of the instruction, for a list of instructions depending on their status update, or for all instructions, are the following:

- For instructions where there is one (or more) missing settlement entry(ies) identified, the instruction and its status history are updated to reflect it (them).
- For instructions that were not even created, both the instruction and the status history are created reflecting all the missing settlements occurred on the instruction. To create the instruction an additional ad-hoc communication/view from SETT, providing the details of the transaction needed for the creation of the instruction, will be required.

The updates in LCMM can be applied whichever was the missing settlement status entry (i.e. PSET or SETT) in the instruction and whichever was the phase of the day when it occurred (i.e. during the NTS and/or RTS).

The updates can be performed by the tool before the EoD in case the instruction cannot have any further settlement (i.e. it is fully settled after the update). However, in case the instruction can have further settlements, the updates must be performed by the tool only during the EoD when Settlement engine is stopped (note that if settlement engine would be stopped it could also be possible to do it along the day).

The updates are triggered outside the normal update flow as an ad-hoc process. Therefore, the AID tool should be used only if the existing Reprocessing Tool, which resends the standard RTS flow from SETT to LCMM, cannot be used, i.e.: for incidents occurred during the RTS, the Reprocessing Tool shall be the first resource to be used to correct the issue and/or inconsistencies caused. In the same line, also updates with the AID tool on autocollateralisation instructions should be done only if the COLGEN tool, implemented with CR-0746, could not solve the issue on these instructions.

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<sup>6</sup> The assumption for this Change Request is that the information provided regarding the postings, which feeds this new tool, is not validated by the tool. In other words, for the tool, the input from Settlement provided in the view is considered as valid and will not be questioned (taking into account that Settlement input is only accountable after the successful consistency check)

The updates will trigger the generation of the corresponding confirmation message (sese.025 and camt.054 for settlement instructions, semt.015 for settlement restrictions on securities and camt.068 for settlement restrictions on cash). Additionally, in the specific case where the settlement instruction is created by the tool, the generation of the corresponding transaction generation notification message (sese.032) will be also triggered. Finally, when the missing settlement status entry included in an instruction by the AID tool relates to a partial settlement "PSET", also the corresponding sese.024, semt.014 or camt.067 informing about the remaining part ("PART" message reporting the unsettled part of an instruction that has been partially settled) will be generated, being this the unique case where the AID tool generates a sese.024, semt.014 or a camt.067 message.

All these messages will be sent via the normal A2A channel to all interested parties, i.e. through T2S Interface. It is worth mentioning that in case the outbound message is not related to the last status update occurred on the instruction, then the T2S sequence number provided may not respect the business order of the messages sent for this instruction (aka business case). Given that the outbound message triggered by the AID tool relates to an entry for which LCMM did not receive any communication, other messages may have been sent for the same instruction without considering the corresponding missing message (because LCMM did not have any record of a missing communication). Therefore, the outbound message sent informing about the "missing" Settlement update will follow the sequence number of the previously sent outbound messages, even though for this business case it should have a previous sequence number. For instructions where the missing Settlement update being now informed is the last status update occurred on the instruction, the sequence number of the message will keep the normal sequence for the instruction or business case as it would be in normal circumstances due to the fact that no other update has occurred since then.

To improve traceability of these messages, they will be flagged by T2S. For those messages, the "BizMsgIdr" of head.001 will start with "A" followed by a unique reference (e.g. A123456789101122).

It is also worth highlighting that as of the next business day, OMEGA remains the only tool available to cover the generation of messages for these contingency situations.

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#### Submitted annexes / related documents:

- OMG\_CR74X- Mitigation measures for missing partial settlements & COLGEN & AID tools (ppt)

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#### High level description of Impact:

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#### Outcome/Decisions:

- \* OMG on 10 December 2020: the OMG agreed to split CR-746 in two Change Requests and formally raised CR-750 (AID tool for the T2S Operator)
- \* CRG on 10 December 2020: the CRG agreed to recommend CR-750 for authorization by the T2S Steering Level.
- \* AMI-SeCo on 18 November 2020: the AMI-SeCo advised to authorise the requirements of CR-750 when they were included in CR-746.
- \* CSG on 15 December 2020: the CSG agreed to authorise CR-750.
- \* NECSG on 15 December 2020: the NECSG agreed to authorise CR-750.
- \* PMG on 16 December 2020: The PMG proposed to the PMG proposed to allocate the CR to R5.0, and launched its detailed assessment.
- \* CRG on 17 December 2020: the CRG recommended to the PMG the implementation of CR-750 in R6.0.
- \* OMG on 22 December 2020: the OMG identified on operational impact for CR-750.
- \* PMG on 23 December 2020: The PMG recommended the inclusion of CR-750 in STP for R6.0 for approval by the Steering Level.
- \* CSG on 7 January 2021: the CSG approved the inclusion of CR-750 in STP for R6.0.
- \* NECSG on 7 January 2021: the NECSG approved the inclusion of CR-750 in STP for R6.0.
- \* MIB on 27 January 2021: the MIB authorized CR-750 (the requirements of which were previously included in change request T2S-0746-SYS, authorised by the MIB on 24 November 2020) and approved the inclusion of CR-750 in STP for R6.0.
- \* OMG on 3 June 2021: the OMG confirmed the earlier operational assessment of CR-750.

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#### Documentation to be updated:

New AID tool:

- New ad-hoc Functional Specifications Document for the T2S Operator describing the new AID operational tool.
- UDFS: Impact on message documentation on MyStandards / schema:  
head.001.001.01
  - AppHdr/BizMsgldr: Update of the T2S-Use: "Point to point reference, as assigned by the sender to unambiguously identify the message. In case of a T2S outbound message created by the AID operational tool, the content of the field will start with "AID" followed by a unique reference."

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**Preliminary assessment:**

- **Not performed**
- **Fast Track. Earliest release possible**

## Detailed assessment:

EUROSYSTEM ANALYSIS – GENERAL INFORMATION			
T2S Specific Components		Common Components	
<b>LCMM</b>			
	Instructions validation		
X	Status management		
	Instruction matching		
	Instructions maintenance		
	Penalty Mechanism		
<b>Settlement</b>			
X	Standardisation and preparation to settlement		
X	Night-time Settlement		
	Daytime Recycling and optimisation		
X	Daytime Validation, provisioning & booking		
X	Auto-collateralisation		
<b>Liquidity Management</b>			
	Outbound Information Management		
	NCB Business Procedures		
	Liquidity Operations		
<b>T2S Interface</b> (as of June 2022 without Static Data Management, Communication for SDMG, Scheduler, Billing)			
	Communication		
X	Outbound Processing		
	Inbound Processing		
<b>Static Data Management</b> (until June 2022)		<b>Common Reference Data Management</b> (from R6.0 June 2022)	
	Party data management		Party data management
	Securities data management		Securities data management
	Cash account data management		Cash account data management
	Securities account data management		Securities account data management
	Rules and parameters data management		Rules and parameters data management
<b>Statistics and archive</b>		<b>Statistics and archive</b>	
	Statistical information (until June 2022)		Short term statistical information
	Legal archiving (until June 2022)		Legal archiving (from R6.0)
			Data Warehouse (from R6.0)
<b>Information</b> (until June 2022 containing reference data)		<b>CRDM business interface</b> (from R6.0 June 2022)	
	Report management		Report management
	Query management		Query management
			Communication
			Outbound Processing
			Inbound Processing
<b>Operational Services</b>			
	Data Migration (T2S DMT)		Data Migration (CRDM DMT, from R6.0)
	Scheduling (until June 2022)		Business Day Management (from R6.0)
			Business Day Management business interface (from R6.0)
	Billing (until June 2022)		Billing (from R6.0)
			Billing business interface (from R6.0)

	Operational Monitoring		Operational and Business Monitoring
	MOP Contingency Templates		
X	T2S Operator AID tool		

**Impact on major documentation**  
 \*\*\* The wording proposal of the new Ad-hoc Functional Specifications Document for the Operator to describe the AID tool will be delivered 16 weeks after the start of the implementation phase of the Change Request \*\*\*

Document	Chapter	Change
Impacted GFS chapter		
Impacted UDFS chapter		
Additional deliveries for Message Specification (UDFS, MyStandards, MOP contingency templates)	<u>For New AID Tool:</u> Message documentation for head.001	Update of the schema (editorial) Upload to MyStandards
UHB		
Other documentations		

Links with other requests T2S-0746-SYS Mitigation measures for missing partial settlements and new COLGEN tool

Links	Reference	Title
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**OVERVIEW OF THE IMPACT OF THE REQUEST ON THE T2S SYSTEM AND ON THE PROJECT**

**Summary of functional, development, infrastructure and migration impacts**

**LCMM**

This new operational tool will allow the T2S Operator to identify settlement entries existing on the SETT database that are not present in LCMM. For those missing settlements in LCMM database and even when the corresponding internally generated instructions on which the settlement occurred is also missing, the tool will allow the T2S Operator the update of already existing instructions and the creation of missing settled internally generated instructions either per CSD of the instruction, for a list of instructions depending on their status update, or for all instructions. These updates will trigger the communication to the users with the corresponding outbound messages.

This tool will be developed as a new and separate operational function/module in LCMM, providing the above services thanks to two main functionalities:

- a) Identification of postings that are not reflected in the related instructions:
  - It consists on a cross-check performed by the AID tool on the current business day postings in SETT with the Status History information of Settlement Instructions and Settlement Restrictions. This check will verify if all the postings are reflected in the instructions database. Only the settlements of today (partials or full settlements) can be checked.
  - AID will check in small batches that the postings on SETT have the corresponding entry in the status history of the instructions. For this purpose, a consistency check on the postings is needed to ensure they are verified before taking them for the check of the AID tool. More precisely:
    - There will be SETT consistency checks after each sequence of the NTS and several along the RTS. AID check will be triggered once SETT confirms the successful completion of each of the consistency checks executed along the day.
    - The information on the postings (verified by the SETT consistency checks) is provided by SETT in two ad-hoc views (one for securities postings and another for cash postings) that are not validated by the AID tool (the input from SETT is considered as valid and will not be questioned by AID).
      - o To check postings of Settlement Instructions: AID will have to join the information provided in the two views. For doing it, the value of the following attributes has to be identical in both views (securities postings and cash postings) for a given successful settlement attempt of a Settlement Instruction

exchanging cash and securities: T2S reference of the Instruction (Instruction Id), Business Day, Cycle and Sequence and Settlement timestamp.

- o To check postings of Settlement Restrictions: Upon settlement of a Settlement Restriction, a single settlement status entry is communicated to LCMM to generate a single confirmation message whereas there are two postings of the same type (i.e. either cash or securities depending on the type of the Settlement Restriction). I.e.: One posting for the debit (for the balance from of the SR) and a second one for the credit (for the balance to of the SR). Consequently, in order to verify that all postings are reflected in the relevant Settlement Restriction, the AID tool will group all the postings occurred for a given Settlement Restriction and settlement timestamp in order to compare them with the settlement status entry in LCMM (that has a single entry – as it is communicated by SETT).

The AID tool checks postings occurred in the current business day, so it does not matter if the instruction settled partially in several days. The check is as follows:

Let's imagine that at the SOD we have a Settlement Instruction with total quantity = 100 and partially settled for 20 (80 remaining).

During the day, it further settles partially, one time for 30 and a second time for 10. The AID tool will check that the two postings (i.e. 30 and 10) of this business day have the corresponding settlement status entry in the status history of the instruction for a partial settlement (i.e. one entry for 30 and another for 10).

During the NTS, SETT confirmed that in the C2SX sequence, it is possible to have several postings with different time stamps for a given instruction, but a single settlement status entry is communicated to LCMM to generate a single confirmation message (i.e. with a single timestamp and for the sum of all settlements performed in the sequence on the instruction).

- The AID tool, will mirror this behaviour, and will group all the postings occurred for an instruction (SI or SR) within a sequence (i.e. C2SX) as if they will be a single posting in order to compare them with the settlement status entry in LCMM (that has a single entry – as it is communicated by SETT).

Finally, the check performed by the AID tool may result in the following scenarios:

- No discrepancy found: All the postings have an entry in the status history of the instructions (i.e. are reflected in the instructions), hence, no actions are required.
- Discrepancy(ies) found: not all the postings are reflected in the instructions because of any of the following:
  - o A posting is not reflected in an existing instruction and its status history, so updates are required to include the missing settlement status entries to reflect the posting.
  - o A posting is not reflected and the corresponding instruction has not been created in LCMM. This could be the case of internally generated collateral instructions. For this case, updates are required to create the instructions and the settlement status entries.

If any discrepancy is detected, an alarm will be triggered by AID, which will also store the information on the missing settlement entry(ies) and related instruction(s) so: i) the information is available for the T2S Operator who can download/extract it; and ii) AID can perform the required update in the instruction to include the settlement entry with the information taken from the two ad-hoc views of the postings (updates are described in the next function).

b) Instruction updates and their reporting:

After a discrepancy is detected and stored, T2S Operator can trigger the update in LCMM database per CSD of the instruction, for a list of instructions depending on their status update, or for all instructions to:

- reflect the missing postings (i.e. include the missing settlement entry in the instruction) and,
- if necessary, to create the associated internally generated instruction (if it is also missing).

These updates will trigger the communication to the users of the corresponding confirmation and generation notification messages. Additionally, when the missing settlement status entry included by AID in the instruction relates to a partial settlement "PSET", also the corresponding sese.024, semt.014 or camt.067 informing about the remaining part ("PART" message reporting the unsettled part of an instruction that has been partially settled) will be generated, being this the unique case where the AID tool generates a sese.024, semt.014 or a camt.067 message.

Note on confirmation messages: In line with the clarification made in the previous function, a confirmation message, which is generated because of an AID update to reflect postings of an instruction occurred during the NTS C2SX sequence, will inform all the postings of that instruction occurred within that sequence i.e. grouping in a single message the sum of the amounts and quantities settled during this sequence. E.g. if during the sequence C2SX of the NTS a Settlement Instruction settled 2 times, first with a securities posting of 10, and second with a securities posting of 5, then a single confirmation message will report a quantity of 15 and the time stamp of the latest posting.

Note on settlement timestamps: When an instruction is updated to include a missing settlement status



entry, the AID tool will include the information taken from the ad-hoc views of the postings. In this line, the settlement timestamp stored will be the related posting(s); this timestamp will be consequently reported in the confirmation message and in the reports of instructions as settlement timestamp. The timestamp of the moment when the tool processes the update in LCMM will be the time stamp for the data base entry.

All these outbound messages will be sent via normal A2A channel to all interested parties. In case the outbound message is not related to the last status update occurred on the instruction the T2S sequence number could not respect the business order. These messages will be flagged by T2S (as described in INTF section).

### **SETT**

If the COLGEN tool, implemented with CR-0746, is not able to reprocess the missing data with LCMM, an ad hoc view will be made available (by the Cross Queries tool) for LCMM in order to generate following data on the LCMM side, using the LCMM AID tool.

- Settled settlement instructions related to the auto-collateralisation transactions generated by SETT (including possible realignment instructions),
- Settled settlement restrictions related to the "Use of Restrictions" transactions generated by SETT.

### **INTF**

INTF will check on messages created by AID tool. In case of these messages the "BizMsgldr" of head.001 will start with "A" followed by a unique reference (e.g. A123456789101122).

### **Volumes:**

The objective of the AID tool is not to cope with massive volumes of inconsistencies, as it is designed to cope with issues such as the one in May. It is built under the assumption that the issue is identified before reaching a high volume. This being said, the tool is prepared to cope with higher volumes, the issue being the time required. For further information, the performance will be confirmed in the NFTs campaign of the CR.

In any case, independently on the results of the NFTs, it has to be considered the very extreme scenario where the tool needs to be used. This tool will run under a contingency situation and its performance will depend not only on the resources available, but also on other possible issues that can arise or reduce the time for AID during the contingency scenario.

For example, before the updates are performed by AID, the confirmation of the postings is needed to identify the updates to be made (i.e. AID needs the green light from the relevant SETT consistency check), which, in the contingency scenario, could be delayed until the errors and origin of the issue is detected and solved, hence delaying the use of AID. On top of that, the updates require information from SETT to be complete i.e. not only the ad-hoc views of the postings are needed, but also on the transactions when the underlying T2SgSI has to be created by AID, which has to be provided by SETT together with the green light that might require more time in the contingency scenario.

Additionally, the closer to the EoD, the lower the volumes AID can process without delaying further the end of the EoD.

For all these reasons, the volume of instructions that AID can process before the end of the EoD, depends not only on the performance of the tool, but also on the resources available under the circumstances and other factors that have to be very carefully considered.

### **Main cost drivers :**

- A new operational tool will be implemented to identify settlement entries existing on the SETT database that are not present in LCMM
- This tool will allow the update of the missing settlements in LCMM of already existing instructions, and the creation of missing settled internally generated instructions. The updates will trigger the communication to the users with the corresponding outbound messages.

### **Impact on other TARGET Services and projects**

No impact on CSLD project.

No impact on ECMS.

No impact on TIPS.

### **Summary of project risk**

<b>Security analysis</b>
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No potentially adverse effect was identified during the security assessment.
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08 December 2020

## Cost assessment on Change Requests

T2S-0750-SYS – AID tool for the T2S Operator			
One-off	Assessment costs*		
	- Preliminary	2,000.00	Euro
	- Detailed	10,000.00	Euro
One-off	Development costs	921,581.83	Euro
Annual	Operational costs		
	- Maintenance costs	0.00	Euro
	- Running costs	0.00	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).