



EUROPEAN CENTRAL BANK

EUROSYSTEM

<b>General Information (Origin of Request)</b> <input type="checkbox"/> User Requirements (URD) <input checked="" type="checkbox"/> Other User Functional or Technical Documentation (SYS)		
<b>Request raised by:</b> Eurosystem	<b>Institute:</b> Eurosystem	<b>Date raised:</b> 20/06/2018
<b>Request title:</b> T2S should allow ECMS to receive flat file statement of holdings, transactions and pending instructions at the level of securities accounts		<b>Request ref. no:</b> T2S-0680-SYS
<b>Request type:</b> Common	<b>Classification:</b> Enhancement	<b>Urgency:</b> Normal
<b>1. Legal/business importance parameter:</b> High	<b>2. Market implementation efforts parameter:</b> Low	
<b>3. Operational/Technical risk parameter:</b> Low	<b>4. Financial impact parameter:</b> Very High	
<b>Requestor Category:</b> Eurosystem	<b>Status:</b> Implemented	

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

The Eurosystem Collateral Management System (ECMS) will provide a harmonised platform for collateral operations across the Eurosystem and will replace the existing systems of the 19 National Central Banks. ECMS will allow changes to the existing collateral framework to be implemented in a harmonised way across the euro area. The launch is planned for November 2023.

Marketable assets used as collateral in ECMS are settled in T2S securities accounts held/controlled by the NCBs as a CSD participant (in case of pledge, the T2S securities accounts are under CSD participants that are not NCBs). These T2S securities accounts do not have any special attribute to be identified within T2S. These accounts are known by ECMS as they are referenced in its static data.

ECMS is required to reconcile the mobilisations and demobilisations registered in its system against the statement of transactions (semt.017) and statement of pending Instructions (semt.018) received from T2S of the above-mentioned T2S securities accounts to check the consistency of the transactions recorded internally.

Additionally, ECMS is required to reconcile the ECMS marketable asset (collateral) positions based upon the statement of holdings (semt.002) received from T2S for the accounts in which the collateral is held.

Currently, T2S report subscription can only be done at party level, subscription at account level is not possible. The current T2S configuration does neither have any attribute to identify these specific accounts of interest for ECMS, nor a feature to subscribe to single accounts (or a list of accounts) as the report configuration is done at the level of the party. Furthermore, it is not possible to send reports to parties outside the system entity of the report owning party.

Consequently, with the current behaviour, the NCBs and Monetary Policy Eligible Counterparties (in case of pledge) will have to configure reports to be sent to ECMS. Given that the report has to be subscribed at party level, T2S will inform about all the securities accounts owned by the NCBs and Monetary Policy Eligible Counterparties (in case of pledge). This implies i) an unnecessary provision of data that shall not be sent to the ECMS, which is only interested on the Eurosystem collateral operations; and ii) cost for the NCBs and Monetary Policy Eligible Counterparties for the generation and transmission of these reports.

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#### Description of requested change:

T2S should allow ECMS to receive, at the end of day (EoD), the hereunder listed reports for specific T2S securities accounts of the same or different CSD participants:

- Statement of Holdings (semt.002);
- Statement of Transactions (semt.017), and
- Statement of Pending Instructions (semt.018).

T2S existing Reporting functionality offers two options for the receipt of the reports of interest for ECMS:

1. Standard ISO Reports (semt.002, semt.017 and semt.018);
2. Flat File version of the same reports.

Option 1 was discarded by the 4CB because it would imply a complete redesign of the Queries and Reports domain and possible changes in the ISO 20022 messages that might not be in time for the go-live of ECMS.

The option based in the Flat File Reporting functionality is deemed feasible to meet this requirement. This solution would imply the design of a specific flat file configuration for ECMS to cover its needs of reporting on securities accounts belonging to different CSDs and to different CSD participants.

Securities accounts to be reported in the flat file of ECMS shall be identified via a dedicated Market Specific Attribute configured by the CSD in which the Securities account is open. Each CSD would have to create an identical MSA in their own System Entity and then apply it consistently to their ECMS participant. Provided that it is not used for defining restriction rules, this MSA will not be counted as one of the 10 MSAs which CSDs can define for their own purposes in T2S.

Once the securities accounts to be reported have been identified, current flat file functionality can be reused to take advantage of synergies of the existing interfaces and T2S architecture.

Any alternative have to consider that these securities accounts and any produced reports are under the access rights control of the CSDs in which the underlying SACs are opened.

The flat file reports will be sent to ECMS only and not to the NCBs. In order to receive ISO reports for these SACs the NCBs can set up on party level the respective message subscription.

With regard to the charging of fees it needs to be clear that the allocation of flat file fees to specific accounts applies only to report cost but not to related transmission fees. Transmission fees will be waived for the new reports semt.E02, semt.E17 and semt.E18.

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#### Submitted annexes / related documents:

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

##### **GFS:**

###### GFS v8.0, Section 2.3.1 "Interface", page 31

T2S supports the connectivity of T2S Actors as follows:

- T2S communication is available by using messages or files containing messages in Application-to-Application mode (A2A) that allows direct communication between software applications via XML messages, as well as through online-screen based activities in User-to-Application mode (U2A) for activities performed by T2S System Users. Flat files are used, as mandatory type of communication, for Securities Valuations in the inbound and for some specific reports directed towards ECMS. Additionally CSDs may decide to receive some specific reports via flat file instead of XML.

###### GFS v8.0, Section 2.3.1.1 "Communication Module", page 34

The main purpose of the Communication Module is to ensure secure and reliable communication between the T2S platform and T2S Actors. T2S System Users can use Application-to-Application (A2A) and User-to-Application (U2A) communication channels to access the T2S platform. The Outbound Processing Module for Application-to-Application mode provides a single set of standard messages to facilitate communication with multiple external RTGS systems and with multiple external collateral management systems. For Securities Valuation communication and for some specific reports directed towards ECMS, communication is mandatorily handled via flat files. Additionally CSDs may decide to receive some specific reports via flat file instead of XML.

##### **UDFS:**

###### UDFS v 5.0, Section 1.3.1.2 "Modes of connectivity"

All messages exchanged between T2S and T2S Actors are based on XML technology and comply with the ISO 20022 standards on messages and the formats and specifications defined in T2S. They can be sent to T2S either individually or in a file containing one or several messages. However, the upload of securities valuations is handled via flat files. Additionally CSDs may decide to receive some specific reports via flat file instead of XML, while ECMS necessarily receives all its reports in flat file format.

###### UDFS v 5.0, Section 1.6.4.3 Flat File Report Generation for CSDs

UDFS v 5.0, Section 1.6.4.4 Flat File Report Generation for ECMS (new chapter)

#### **1.6.4.4.1 Concept**

T2S allows ECMS to receive, exclusively in flat file format, the full version of a predefined set of critical reports for each CSD in which ECMS is defined as CSD participant. Each set of reports is generated on securities accounts relevant to ECMS<sup>1</sup> that may belong to different CSD Participants within the same CSD.

#### **1.6.4.4.2 Overview**

The flat file reporting for ECMS relies on the existing configuration parameters (necessary attributes) used by the flat file reporting functionality for CSDs. Nevertheless, both differ in the report generation process, having the ECMS reporting a reduced data scope of the concerned party and a reduced set of report types and versions.

The structure and sorting of the information contained in the reports is the same in both reporting functionalities.

#### **1.6.4.4.3 Flat File Report Generation process**

Sort of Information - Report Types

T2S provides the full version of the following subset of report types for ECMS in every CSD in which is defined as CSD Participant:

- Statement of Holdings (semt.002);
- Statement of Transactions (semt.017), and
- Statement of Pending Instructions (semt.018).

Each of these reports needs to be independently configured within every relevant System Entity.

Concerned Party

Like the flat file reporting for CSDs, the ECMS reporting is system entity wide, meaning that the reports contain information on Securities Accounts belonging to different CSD Participants within the same CSD. Nevertheless, in the ECMS reporting, the data scope of the concerned party (i.e. CSD) is limited to a specific set of securities accounts rather than to the default data scope of the CSD. These securities accounts need to have the MSA XXXX<sup>2</sup> assigned in order to be eligible for reporting. This means that each report type provides information only on flagged Securities Accounts within the default data scope each CSD.

Moment of Data Extraction

The moment of data extraction is determined by the existing business event at the End of Day while the reporting is determined by the end of Night Time Settlement.

The data extraction for the semt.017 and semt.018 reports is triggered by two dedicated events. And the same applies to the reporting. These four events are independent from the ones of the CSD reporting. On the contrary, the data extraction and reporting for the semt.002 are triggered by the same events used for CSD reporting.

Reporting Period

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<sup>1</sup> The concept of relevant securities account to ECMS is defined in section 1.2.6.5 Securities Accounts

<sup>2</sup> Please refer to 1.2.6.5 Securities Accounts for further information about the MSA.

T2S provides only the full versions of the relevant flat file reports to ECMS, which means that no delta reports are provided. The full versions can be scheduled for generation either for each T2S business day, or on a weekly or monthly basis and the time scope considered follows the same criteria defined for the CSD reporting.

Recipient of a Flat File Report

These flat file reports are exclusive to ECMS.

Parameter synthesis

The ECMS reporting uses the same configuration parameters specified for the setup of a Flat File Report for CSDs. Nevertheless, due to the specific characteristics of the ECMS reporting, some of the parameters are not applicable, while others have ad-hoc values exclusively defined for ECMS reporting.

Within the list of not applicable parameters are:

- Delta Mode: as ECMS receives only full version reports, this parameter is not taken into account for the report generation, meaning that no delta report is generated regardless of the values specified ("F","T"). For consistency reasons, it is recommended to use the parameter value "F".
- Compression: as the reports are delivered via the internal channel, no compression applies regardless of the value specified for this parameter ("ZIP","NONE"). For consistency reasons, it is recommended to use the value "NONE".
- Full Mode Frequency: the ECMS reports are delivered just on daily basis. Therefore the daily basis apply to all reports regardless of the parameter value set ("DAIL", "WEEK", "MONT", "NONE"). It is recommended to use "DAIL" for consistency reasons.
- Full Mode Day: as the frequency is daily this parameter is always "NONE" regardless of the value configured ("NONE", "LAST"). Therefore for consistency reasons it should be configured accordingly.

In the list of parameters with specific values are the following:

- Report type: the values need to be set in accordance to the format semt.EXX, where "E" (in capitals) should replace the first figure of the report type. According to this the semt.002, semt.017 and semt.018 for ECMS become semt.E02, semt.E17 and semt.E18 respectively.
- Report Name: the word "ECMS" need to be added at the beginning of the report name. The correct billing of the reports depend on the proper set up of this parameter.

The possible values of the remaining parameters are the same than the ones used in the flat file reporting for CSDs.

Each set of reports types (i.e. semt.E02, semt.E17 and semt.E18) needs to be set up for every CSD in which ECMS is defined as CSD Participant. This implies that there should be as many set of report configurations as system entities in which ECMS is configured as participant. To this purpose the System Entity parameter should be defined with the system entity of the CSD for which the set of ECMS flat file reports is being configured.

This is the extensive list of parameters that should be configured by the T2S Operator in order to configure the flat files for ECMS.

<u>PROCESS</u>	<u>PARAMETER</u>	<u>CREATED BY</u>	<u>UPDATED BY</u>	<u>MANDATORY/ OPTIONAL</u>	<u>POSSIBLE VALUES</u>	<u>STANDARD OR DEFAULT VALUE</u>
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<b>Setup of a Report</b>	Report Type	T2S Operator	T2S Operator	Mandatory	sem.t.E02, sem.t.E17, sem.t.E18	N/A
<b>Setup of a Report</b>	Report Name	T2S Operator	T2S Operator	Mandatory	"ECMS Statement of Holdings", "ECMS Statement of Transactions", "ECMS Statement of Pending Instructions"	N/A
<b>Setup of a Report</b>	System Entity	T2S Operator	T2S Operator	Mandatory	System Entity of the relevant Concerned Party (i.e.CSD)	N/A
<b>Setup of a Report</b>	Technical Address	T2S Operator	T2S Operator	Mandatory	Technical address of ECMS	N/A
<b>Setup of a Report</b>	Technical Service Identification	T2S Operator	T2S Operator	Mandatory	Network service used to send the report.	N/A
<b>Setup of a Report</b>	Compression	T2S Operator	T2S Operator	Mandatory	ZIP NONE (NONE recommended)	ZIP
<b>Setup of a Report</b>	Valid From	T2S Operator	T2S Operator	Mandatory	Format "yyyy-mm-dd"	N/A
<b>Setup of a Report</b>	Valid To	T2S Operator	T2S Operator	Mandatory	Format "yyyy-mm-dd"	N/A
<b>Setup of a Report</b>	Delta Mode	T2S Operator	T2S Operator	Mandatory	T / F (F recommended)	N/A
<b>Setup of a Report</b>	Full Mode Frequency	T2S Operator	T2S Operator	Mandatory	DAIL WEEK MONT NONE	MONT
<b>Setup of a Re-port</b>	Full Mode Day	T2S Operator	T2S Operator	Mandatory	LAST NONE	N/A

#### Preconditions for Flat File Report Creation

Like the CSD reporting, T2S does not create flat file reports for ECMS automatically. In order to initiate the creation of an ECMS Report, CSDs needs to request the T2S Operator to configure the report in advance.

This configuration is then stored as an attribute domain in static data with validity period specified in the "Valid To" date stored within the report configuration.

#### Communication channel

T2S will route the reports to the ECMS through the internal channel.

All flat file reports for ECMS are sent in push A2A mode and no compression applies to any of the messages regardless of their size.

For some of these flat file reports a message splitting at business level may occur in order to avoid exceeding the size limitation of 32 MB.

#### UDFS v 5.0, Section 1.6.5.7.6 Billing data collection process

Update of TABLE 191 - ITEMS CHARGED TO CSDS (INFORMATION SERVICES CATEGORY)

The new Service Items have to be included twice, one time for during and one time for outside the congestion period

Information Service Category					
Service Item	Charged to			Counted Events	Further Information
	Business Sending Party	Receiving Party	Securities Account owner		
Transmissions (outbound)		x		Each Transmission:  - sent by T2S during the billing period	All types of outgoing transmissions (except technical Acknowledgements) are charged, e.g. each message, file, flat file <sup>3</sup> (for bulk loading) 4, A2A Query Response or A2A Report. 5
« A2A Reports – Report Type «		X		Each reported business item during the billing period. Each report type separately (e.g. Statement of Holding, Statement of Transactions, etc.)	The charge applied is based on the 'reported number of business items' as defined in the URD. The charge applies only to one party (linked to a CSD). The charged applied is an additional surcharge. A list of A2A Reports and associated business items is shown in a separate table. Reports delivered as flat files are subject to the same pricing like ISO Reports (except ECMS flat files)
« ECMS Statement of Holdings «			X	Each reported business item during the billing period in the report type 'ECMS Statement of Holdings'.	<u>ECMS flat files are related to the Securities Account Owner</u>
« ECMS Statement of Transactions «			X	Each reported business item during the billing period in the report type 'ECMS Statement of Transactions'.	<u>ECMS flat files are related to the Securities Account Owner</u>
« ECMS Statement of Pending Instructions «			X	Each reported business item during the billing period in the report type 'ECMS Statement of Pending Instructions'.	<u>ECMS flat files are related to the Securities Account Owner</u>

UDFS v 5.0, Section 4.6 Flat file EoD reports format specifications

#### 4.6.1 Introduction

##### 4.6.1.1 Context

<sup>3</sup> Transmissions for 'ECMS Statement of Holdings', 'ECMS Statement of Transactions' and 'ECMS Statement of Pending Instructions' are not charged

The following critical EoD reports may be generated as flat files either in full and/or delta versions as flat files if opted by CSDs or mandatorily in full version for ECMS<sup>6</sup>, following a like-for-like approach to the report content of the already available XML versions:

I semt.002 - Statement of Holdings

I semt.016 - Statement of Settled Intra-position Movements

I semt.017 - Statement of Transactions

I semt.018 - Statement of Pending Instructions

I semt.034 - Statement of Pending Intra-position Movements

All the reports will contain a signature only at DEP level, except for the ECMS reporting, and will be routed to a given Party Technical Address previously determined and configured by T2S Service Desk.

#### 4.6.1.2 Purpose

This chapter provides a description of the structure of the flat file for each of the above-listed critical reports sent by T2S to the CSDs at EoD.

### 4.6.2 Files Technical Specification

The files have a simple XML format (in order to allow for the network signature). All records are included into a single "store and forward" message conveyed by the VAN provider to the CSDs. The files sent to ECMS are sent via the internal channel. No business signature is needed in both cases.

Within the message, the whole file is embedded in a single XML tag (<File> </File>).

Between these tags the file has fixed-length records, with a header and a footer. This header and footer are the ones specified within the flat file specifications below, no business header is foreseen. For delta reports where no activity has occurred the file will be empty between the header and the footer.

#### 4.6.2.1 Identification and routing

T2S triggers the generation of flat file reports based on a business event, e.g. End of Day. All CSD flat file reports are pushed in A2A mode and compressed when they exceed the minimum size of 2KB, since compression for these reports is mandatory. The compression is not applicable to ECMS flat file reports since they are sent via the internal channel.

All information about the necessary attributes in each named category is stored as static data in T2S and influences the generation of the report. The privilege to configure these static data or subscribe to a certain report is granted solely to the T2S Operator.

Each CSD flat file report type provides information on the default data scope of the concerned party (i.e. CSD). The data scope is indicated by the party for which it is configured and is limited to CSDs, e.g. a Statement of Transactions reports on all Securities Accounts of the indicated party. Whilst each ECMS flat file report type provides information on a limited set of securities accounts of the default data scope of the concerned party (i.e. CSD).

UDFS v 5.0, Section 1.6.4.5 Query management

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<sup>6</sup> The ECMS reporting encompasses only the semt.002, semt.017 and semt.018 flat files

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**High level description of Impact:**

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**Outcome/Decisions:**

- \* CRG on 16 October 2018: The CRG agrees to launch the preliminary assessment of this Change Request.
- \* CRG on 7 March 2019: The CRG agrees to recommend CR-680 (updated) for authorisation by the T2S Steering Level.
- \* AMI-SeCo on 29 March 2019: The AMI-SeCo has agreed to the recommendation of the CRG to authorise this Change Request.
- \* CSG on 3-4 April 2019: The CSG has agreed to authorise this Change Request.
- \* NECSG on 5 April 2019: The NECSG has agreed to authorise this Change Request.
- \* MIB on the 8 April 2019: The MIB has agreed to authorise this Change Request.
- \* PMG on 5 March 2020: The PMG proposed the allocation of this CR to T2S release 5.0
- \* CRG on 9 July 2020: The CRG took note of the results of the detailed assessment and recommended the implementation of the CR in R5.2, subject to a clarification of the way transmission fees for the new reports would be billed.
- \* PMG on 17 July 2020: The PMG recommended the inclusion of the CR in the STP for R5.2. for approval by the Steering Level.
- \* CSG on 7 August 2020: The CSG approved the inclusion of the CR in R5.2.
- \* NECSG on 7 August 2020: The NECSG approved the inclusion of the CR in R5.2.
- \* MIB on 27 August 2020: The MIB approved the inclusion of the CR in R5.2
- \* CSG on 15 October 2020: The CSG confirmed that transmission fees should be waived for the new reports semt.E02, semt.E17, semt.E18
- \* OMG on 27 October 2020: the OMG identified no operational impact.
- \* CSG/NECSG on 16 October 2020: the CSG/NECSG agreed with the proposal to waive transmission fees for the 3 new flat file reports introduced by the change request T2S-680-SYS (semt.E02, semt.E17, semt.E18)
- \* MIB on 21 December 2020: the MIB agreed with the proposal to waive transmission fees for the 3 new flat file reports introduced by the change request T2S-680-SYS (semt.E02, semt.E17, semt.E18)
- \* OMG on 27 January 2021: the OMG confirmed the earlier operational assessment of CR-680

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**Preliminary assessment:**

- **Findings:**

- For the extraction of data, the securities accounts flagged with the relevant MSA must be downloaded in a new specific table in Static Data Management for LCMM to access to retrieve the relevant SACs for the generation of the flat file report
- Impact on LTSI is not considered in this analysis as the implementation should be after the T2/T2S consolidation.
- Three new events, one per new report, will be required like for the other flat file reports (CR-0494), as each event triggers different process for the extraction of the respective flat file. The different events allow the processes to run in parallel. Flat file related events may have an impact on the settlement day in case of disruptions.
- It has been considered in this assessment that only the delta version of the flat file reports for ECMS is requested<sup>7</sup>. If the full version should be requested (also feasible), it should be noted that the full versions are generated outside of the EOD/SOD period, i.e. after NTS, once RTS starts.

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<sup>7</sup> On 7-8 May 2019, Central Banks represented in the ECMS Working Group requested that ECMS reconciliations be based on full reports from T2S. CR-680 should be detailed assessed accordingly.

- Open issues/ questions to be clarified by the originator:

## 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>			
	Standardisation and preparation to settlement		
X	Night-time Settlement		
	Daytime Recycling and optimisation		
	Daytime Validation, provisioning & booking		
	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)			
X	Communication		
	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>	
X	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)
X	Billing (until June 2022)		Billing (from R6.0)

		Billing business interface (from R6.0)
	Operational Monitoring	Operational and Business Monitoring
	OMEGA Templates	

Impact on major documentation		
Document	Chapter	Change
Impacted GFS chapter	Section 2.3.1 "Interface" Section 2.3.1.1 "Communication Module"	To add that ECMS is going to receive flat files
Impacted UDFS chapter	Section 1.3.1.2 "Modes of connectivity"  Section 1.6.4.3 Flat File Report Generation for CSDs  Section 1.6.4.5 Query management  Section 1.6.4.4 Flat File Report Generation for ECMS (new section)  Section 1.6.5.7.6 Billing data collection process	To provide an explanation of the ECMS flat file reporting process      Inclusion of new Service Items
Additional deliveries for Message Specification	Camt.077 ServiceItemNamesandCodes List uploaded to MyStandards	Inclusion of new Service Items
UHB		
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**

T2S should allow ECMS to receive after the NTS the daily full version of the hereunder listed reports for specific T2S securities accounts belonging either to NCBKs as CSD Participants for the case of REPO Auto-collateral procedure or to their counterparty CSD Participants as it is the case for Pledge and Pledge-sub.

- Statement of Holdings (semt.002);
- Statement of Transactions (semt.017), and
- Statement of Pending Instructions (semt.018).

ECMS should receive these three reports for every System Entity (CSD) having the proper configuration set up by the Operator. This means that the reporting should be done by System Entity regardless of the number of the ECMS CSD participants defined within a specific CSD.

As the current flat file functionality for CSD reporting provides information on the default data scope of each CSD at system entity level, an additional retrieval criteria at securities account level should be implemented for ECMS reporting. To this purpose, the securities accounts shall be identified via a dedicated Market Specific Attribute that should be the same one configured for the purposes of CR-714 ('ECMS MSA'). This MSA must be defined and applied by each CSD to the relevant Securities Accounts under its data scope and would necessarily be identical across the different CSDs. The MSA would be defined with an attribute value that would be exclusive for the use of the CR-714 developments. For the purpose of this CR just the attribute domain should be relevant (i.e. the MSA name 'ECMS MSA'). Provided that it is not used for defining restriction rules, this MSA will not be counted as one of the 10 MSAs which CSDs can define for their own purposes in T2S. Once the securities accounts relevant to ECMS have been identified through the MSA, the current flat file functionality can be reused to take advantage of synergies of the existing interfaces and T2S architecture for reporting. In this way, all the positions held in and all the settlement instructions instructed on these securities accounts would be included in the corresponding Flat File report. The structure of each report would be equivalent to the ISO 20022 reports (i.e. ordered first by party and then by securities account).

T2S should initiate the generation of the ECMS flat file reports by the start of the End of Day phase for the semt.017 and semt.018 reports and after the end of the NTS phase for the semt.002. All the securities accounts

with the MSA applied before the End of Day phase should be eligible. The reporting should take place after the NTS, together with the full flat file reports for CSDs.

The reporting period should follow the same criteria than the rest of full flat files.

The reports would be sent to ECMS via the internal channel without business or DEP signature and will not be subject to data compression.

After the reports have been sent to ECMS, they will be sent to legal archiving.

#### Sort of Information - Report Types

- T2S should adapt the current flat file functionality in order to implement a new ad-hoc generation process that would allow to retrieve and report the information for the Securities Accounts relevant to ECMS. To this purpose, a new Market Specific Attribute would be defined to flag these Securities Accounts as eligible for reporting.

This involves the creation of a new data access (stored procedure) to SDMG for LCMM to retrieve the Securities Accounts with the MSA applied for a specific system entity. There should be a data access (stored procedure) per system entity and report type to be generated by LCMM. This means two data accesses to the stored procedure per system entity for LCMM. All the updates on the MSA of the Securities Accounts received before the End of Day phase (intraday updates) should be taken into account for the generation of the report.

- T2S should report only the full version of the following flat file report types per each CSD in which ECMS has been defined as CSD Participant:
  - Statement of Transactions (semt.017)
  - Statement of Pending Instructions (semt.018)

This means one report of each type would be reported per System Entity regardless of the number of the ECMS CSD participants defined within that CSD.

- The sorting of information on the ECMS reports should be equivalent to the ISO 20022 for CSD flat file reports (i.e. ordered first by party and then by securities account).

#### Concerned party:

- T2S should adapt the generation process of the flat file reports semt.002, semt.017 and semt.018 to delimit the data scope of the concerned party (CSD) to a specific set of securities accounts. Each flat file report type would provide information on the Securities Accounts flagged with a newly defined MSA within the default data scope each CSD. To this purpose, a new data base access to check the Securities Accounts flagged for each report needs to be implemented in order to be used right after by the generation processes.

#### Moment of Data Extraction and Reporting for ECMS flat files of semt.017 and semt.018

- Like the CSD flat file reports, T2s should initiate the generation of the semt.017 and semt.018 ECMS flat file report types by the End of Day phase. To this purpose, two dedicated events to trigger the generation processes of the semt.017 and semt.018 report types would be created.
- The reporting to ECMS would be initiated after the NTS, together with the CSD Full flat file reporting. Another two new events should be created for the semt.017 and semt.018 reporting.
- A total of 4 new events will be created.
- The processes for the generation and reporting of the semt.002 will make use of the same events used for the CSD report generation. Therefore no new events need to be created for this report.

#### Reporting Period

- The ECMS flat file reports should follow the same criteria than the rest of full flat files.

Recipient of a Flat File Report

- These flat file reports are exclusive to ECMS.

Communication channel

- T2S will route the reports to the ECMS through the internal channel following the same communication specifications than the CSD flat file reporting:
  - All flat file reports are executed and sent in push A2A mode
  - No compression should apply to any of the messages
  - For some of these flat file reports a message splitting at business level may occur in order to avoid exceeding the size limitation of 32 MB.

Parameter synthesis

- The configuration parameters should be the existing ones for CSD flat file reporting. The following convention should be used for the value of the following parameter in order to trigger the generation process for the ECMS flat file reporting:

Report type: "semt.EXX", where "E" (in capitals) should replace the first figure of the report type and XX should be aligned with the last two figures of the report type, The three report types would become semt.E02, semt.E17 and semt.E18.

- These parameters should be configured by the T2S Operator as for the flat files for CSDs.

Technical specifications

- The flat files should have the hereunder technical specifications:
  - The files have a simple XML format
  - All records are included into a single "store and forward" message conveyed by T2S.
  - No business or network signature is needed.
  - Within the message, the whole file is embedded in a single XML tag (<File> </File>).

Save Billing Information (counting for billing)

As the ECMS flat files will contain information on different securities accounts, the process of counting and saving the billing information for the ECMS flat files of semt.017 and semt.018 needs to be updated to be able to disclose per securities account owner the counting of the business items for these ad-hoc flat files.

Generation of the securities positions flat file in full mode for ECMS (semt.002)

SETT must update the current flat file reports generation function by adding a new ad-hoc generation process dedicated to ECMS. This process will be in charge of extracting once daily after the NTS all EOD securities positions related to the Securities Accounts with the new MSA and generating a new flat file. The generated flat file will be sent to LCMM (as the current securities positions flat file report used for the generation of semt.002 report) with the aim of converting it in the expected format and routing it to ECMS. The securities accounts flagged with the new MSA will be identified thanks to an access to a view provided by SDMG which stores the information at the securities account level for a specific system entity. All the updates on the MSA of the Securities Accounts received by the End of Day phase (intraday updates) should be taken into account for the generation of the report. The new flat file will have the same format as the one currently produced at the end of the NTS and will be generated upon the reception of the current event (SH1F Event) triggering the generation of the report in full mode.

Therefore SETT will generate two flat files upon receipt of SH1F event: the current semt.002 flat file for CSD reporting and the new semt.002 flat file for ECMS, which will contain a sub-set of the securities positions present in the current semt.002 flat file, namely all securities positions with securities accounts flagged with the new MSA

attribute.

Furthermore, as the billing aspects are different between both files, another file will be generated by SETT which will be dedicated to the billing aspect of new semt.E02, and will contain the number of billable items (i.e. securities positions) for each securities account owner belonging to a given system entity.

In order to retrieve the Securities Accounts with the MSA for a given system entity, SETT will need a new data access to SDMG. This can be either a stored procedure or a view.

Due to the fact that this CR is planned for R5.2 implementation but will be activated only for ECMS go-live (R7.2)

The reports of flat files deviates from the standard calculation: the reports must be charged to the CSDs, with an allocation to the owner of the securities accounts. This deviating way of charging must be described and implemented. With regard to the charging of fees it needs to be clear that the allocation of flat file fees to specific accounts applies only to report cost but not to related transmission fees. Transmission fees will be waived for the new reports semt.E02, semt.E17 and semt.E18.

The following tests will be required:

- For the Settlement module
  - Tests for the new file to ECMS, tests of new file for billing items, new service item
  - SETT Day test including the new event
- For the Billing module
  - Inclusion of three new Service Items for these ECMS flat files. These reports will be charged to the CSD, with an allocation to the securities account owner. Tests for the new file to ECMS, tests of new file for billing items, new service item
  - Billing test: Testing the correct implementation of the new service items in a non regression testing campaign.

**Main Cost drivers:**

- The current flat file generation processes needs to be enhanced in order to implement a new ad-hoc generation process that allows to retrieve the ECMS relevant Securities Accounts. This involves a new data access to SDMG to check the Securities Accounts with the specific MSA applied.
- An ad-hoc process for counting and saving the billing information for the ECMS flat files needs to be developed

**Impact on other TARGET Services and projects**

CSLD: No impact for CLM/RTGS.  
 No impact on TIPS.  
 No impact so far on ECMS project.

**Summary of project risk**

**Security analysis**

No adverse effect has been identified during security assessment.



02 July 2020

## Cost assessment on Change Requests

<b>T2S-680-SYS – T2S should allow ECMS to receive flat file statement of holdings, transactions and pending instructions at the level of securities accounts</b>			
One-off	Assessment costs*		
	- Preliminary	2,000.00	Euro
	- Detailed	10,000.00	Euro
One-off	Development costs	718,041.33	Euro
Annual	Operational costs		
	- Maintenance costs	63,009.82	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).