

General Information (Origin of Request)		
<input type="checkbox"/> User Requirements (URD) <input checked="" type="checkbox"/> Other User Functional or Technical Documentation (SYS)		
Request raised by: Euroclear	Institute: CSD	Date raised: 15/12/2014
Request title: Flat file solution for reports at end of day (EOD) period		Request ref. no: T2S 0494 SYS
Request type: Common		Urgency: Fast-track
1. Legal/business importance parameter: High		2. Market implementation efforts parameter: Low
3. Operational/Technical risk parameter: Low		4. Financial impact parameter: High
Requestor Category: 4CB		Status: Authorised at Steering Level

Reason for change and expected benefits/business motivation:

In the CRG meeting on 17 November 2014, an alternative solution for the provision of the critical reports at EoD via flat file was introduced and the CRG agreed to further investigate the solution. The Eurosystem provided a high-level view on technical details of the flat file solution used for T2S auto-collateralisation and first ideas regarding its use for reports at EoD in dedicated preparatory teleconference on 25 November 2014 and in the CRG on 2 December 2014. The Eurosystem provided also information about the billing aspects and performance impacts, at least from a qualitative perspective. The final 4CB high-level feasibility assessment was presented in the CSG meeting on 11-12 December 2014.

The flat file solution is expected to bring following benefits:

- Estimated performance improvement of 25 – 50 % (at expert level estimated range based on NFT outcome; underlying assumptions will be verified with Proof of Concept¹) due to:
 - Faster process of data collection due to raw data is directly extracted by the respective backend module and database design can be optimized e.g. by using specific indices
 - Faster process of flat file creation due to no XML notation used on record level but fixed structure of records and similar format of database fields and structure of fields in the flat file, so that no specific data conversion is required to fill the single records
 - Faster process to promote flat file over the network due to exclusion of no-activity records, provision of delta reports during EoD only and definition of record format allowing a very efficient data compression

In order to generate the estimated performance improvements at T2S-level, the proposed solution might impact on the processing of the payload at CSD-level, i.e. message validation, routing, authenticity and integrity (typically headers).

The CSG agreed to create a new Change Request for the flat file for reports at EoD, according to the presentation of 4CB in the CSG meeting on 11-12 December 2014.

¹ The Proof of Concept is intended to be performed by the end of October 2015.

Description of requested change:

A flat file solution is required for the following types of statements, following a like-for-like approach regarding the report content:

- semt.002 Statement of holdings
- semt.016 Statement of settled intra-position movements
- semt.017 Statement of transactions
- semt.018 Statement of pending instructions
- semt.034 Statement of pending intra-position movements

The following rules should apply:

- All five above mentioned reports can be individually received as flat file by CSDs only.
Flat files reports are provided on an optional basis. If a CSD opts for receiving a statement as flat file, the respective report cannot be received as ISO-report. A DCP can still receive the pertinent reports in ISO-format if its CSD has opted for the flat file. This will be configured by Flat File Configuration management, i.e. identification of entities requesting flat files, and for which category of statements should be controlled by the T2S Operator, i.e. T2S will send them either as *semt* message or as flat file, as per the Flat File Configuration management. In case a CSD has a report configuration already in place for a given report type in ISO mode and decide to move to the flat file for the same report type, then the CSD has to set the Valid To date in order to specify until when it intends to receive the report type in ISO mode and ask the T2S Operator to setup a flat file configuration for the same report type starting the day after the initial report configuration stops being valid.
- It is expected that changes to this flat file configuration are rare, and done only via releases on the CSD side.
- The **delta version reports** are generated at EOD and do not include records where no activity has occurred. Records showing “no activity” since the Start of Day should be excluded from the delta flat file report. It is to be received on each T2S business day.
 - For the **statement of holdings** the delta flat file report reflects the current securities positions within a security account, which were either newly created, changed or turned zero since the Start of Day. Contrary to the A2A version, the flat file delta version will not contain accounts where no activity has occurred. No activity, in this case, signifies that no change in securities positions has occurred since the end of the previous business day.
 - For the **statement of settled intra-position movements** it reflects all the intra position movements that reached the status settled or partially settled from the Start of Day for every securities account of a given CSD.
 - For the **statement of transactions** it reflects all the settlement instructions that reached the status settled or partially settled settlement instructions from the SoD for every securities account of a given CSD.
 - For the **statement of pending instructions** it reflects the changes on the unsettled or partially settled settlement instructions from the Start of Day for every securities account of a given CSD, i.e. it reports all the newly pending instructions from the SoD, all pending instructions that were amended from the SoD or instructions that were formerly pending but have been cancelled since the SoD Settlement instructions that were pending but did not suffer any modification during the reporting period are not shown in the statement.
 - For the **statement of pending intra-position movements** it reflects the changes on the unsettled or partially settled intra-position movements from the Start of Day for every securities account of a given CSD, i.e. it reports all newly pending intra position movements from the SoD, all pending intra position movements that were amended from the SoD or intra position movements that were formerly pending but have been cancelled since the SoD. Intra position movements that were pending but did not suffer any modification during the reporting period are not shown in the statement.
- The **full version reports** are generated outside of the EOD/SOD period and include no activity records.
 - For the **statement of holdings**, when generated during the next business day, it informs the CSD of the EOD securities positions from the previous business day per Securities Account. This includes positions where no activity has occurred and zero positions changed or turned zero during the previous business day. The “full” report for Statement of Holdings should provide the EoD securities positions [D] even if sent after EoD/SoD (i.e. during the next business day [D+1]).
 - For the **statement of settled intra-position movements**², as it is generated during the next business day, it informs the CSD of the intra position movements that reached the status settled or partially settled during the previous business day (until the EoD report extraction event). The values of the intra-position movements are the ones at the EoD of the previous business day).

² Please note that for the statement of transactions and settled intra - position movements, the delta and the full report have the same content but are sent with a day of difference.

- For the **statement of transactions**³, as it is generated during the next business day, it informs the CSD of the settlement instructions that reached the status settled or partially settled during the previous business day (until the EoD report extraction event). The values of the settled instructions are the ones at the EoD of the previous business day).
- For the **statement of pending instructions**, as it is generated during the next business day, it informs the CSD of the pending settlement instructions that were intended to be settled during previous business day (ISD <= previous business day) but its status is still partially settled or unsettled at the EoD of the previous business day (until the EoD report extraction event). The values of the pending instructions are the ones at the EoD of the previous business day).
- For the **statement of pending intra-position movements**, as it is generated during the next business day, it informs the CSD of the pending intra-position movements that were intended to be settled during previous business day (ISD <= previous business day) but its status is still partially settled or unsettled at the EoD of the previous business day (until the EoD report extraction event). The values of the pending intra-position movements are the ones at the EoD of the previous business day)
- The **full reports** are to be received according to the following schedule:
 - Either on each T2S business day,
 - Or once per week, on the last business day of the week;
 - Or once per month, on the last business day of the month.
- Changes to this schedule will be performed upon request only by the T2S Operator. Such requests should be submitted well in advance, at the latest one week before the business day for which the change should become active.
- The full report will be generated and sent after the end of the Night Time Settlement phase (NTS) until 3 a.m. In case of processing peak during this time window, the generation of the flat file report will continue till completion.
- Statements provided via flat file will include data on CSD level only, i.e. will reflect the default data scope of a CSD.
- On network level, re-use the established communication mechanisms, i.e. store & forward. The solution should not require any change on network level.
- Technical prioritisation of the reports provided via flat file should be possible, i.e. the semt.002 report file should be generated first and sent directly after the generation has been completed.
- A header is required. In order to avoid negative impact on performance, signature will be provided at DEP-level and signature at BAH/BFH level will not be provided within this CR but could be assessed, with a specific focus on negative performance impact and resource availability, in a new CR.
- It must be possible to send flat file reports to dedicated registered technical addresses (DN) of the relevant recipients.
- File splitting⁴ is required when exceeding the limitation of 32Mb for compressed file (cf. current BFH interpretation and processing as specified in UDFS) and reports are delivered/grouped by CSD (as opposed to accounts, parties,...).
- File splitting should be applied on record level in the file.
- In case of file splitting, T2S must enable the CSD to verify that all record for the current day has been received. This can either be achieved by providing the total number of files, and the current number with each report. Alternatively, the total number of records, and the current number can be provided on record level or as in ISO reports, where it is indicated which file is the last one.
- Reports generated as flat files cannot be viewed using the GUI functionality (Additional Services / Reports).
- The same fee items and fee amounts as for ISO-reports will apply.
- Flat files will be stored in Legal Archiving.
- The resend functionality for a flat file version of the report is also not available.

Submitted annexes / related documents:

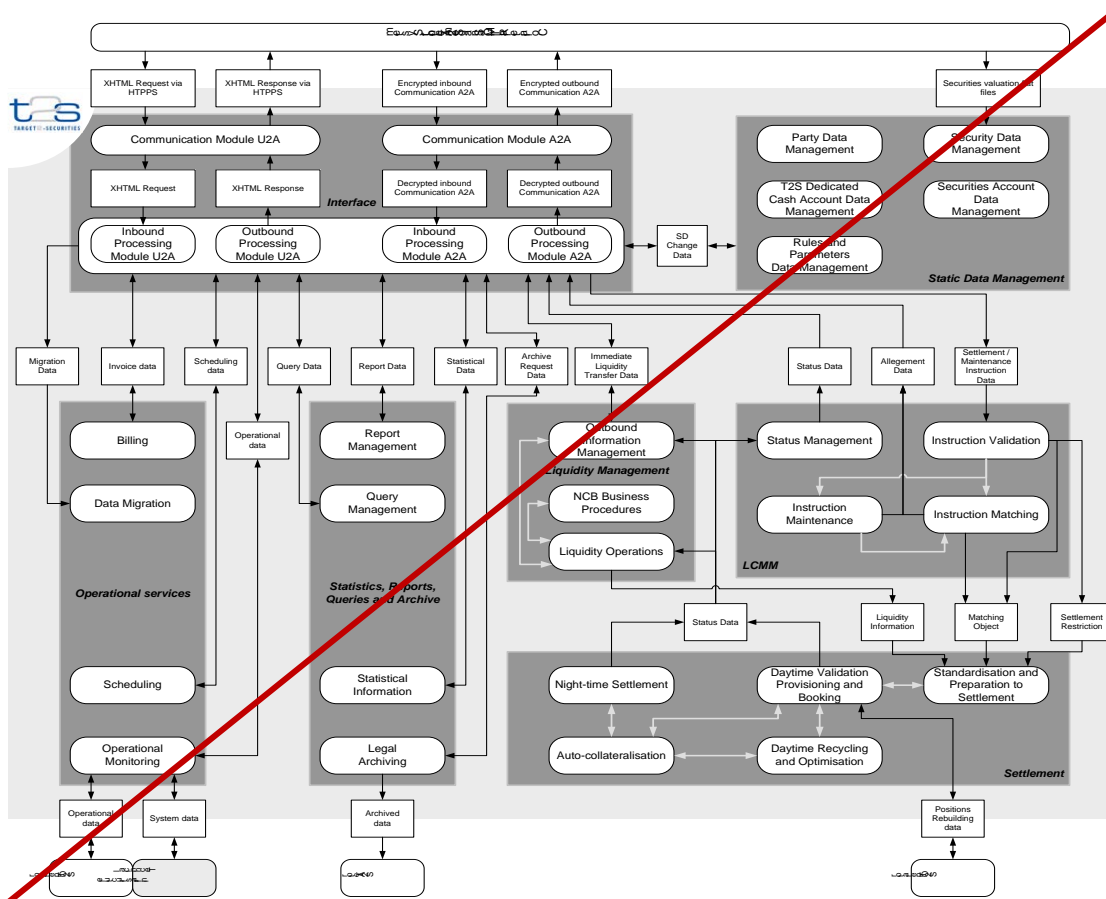
³ Please note that for the statement of transactions and settled intra - position movements, the delta and the full report have the same content but are sent with a day of difference.

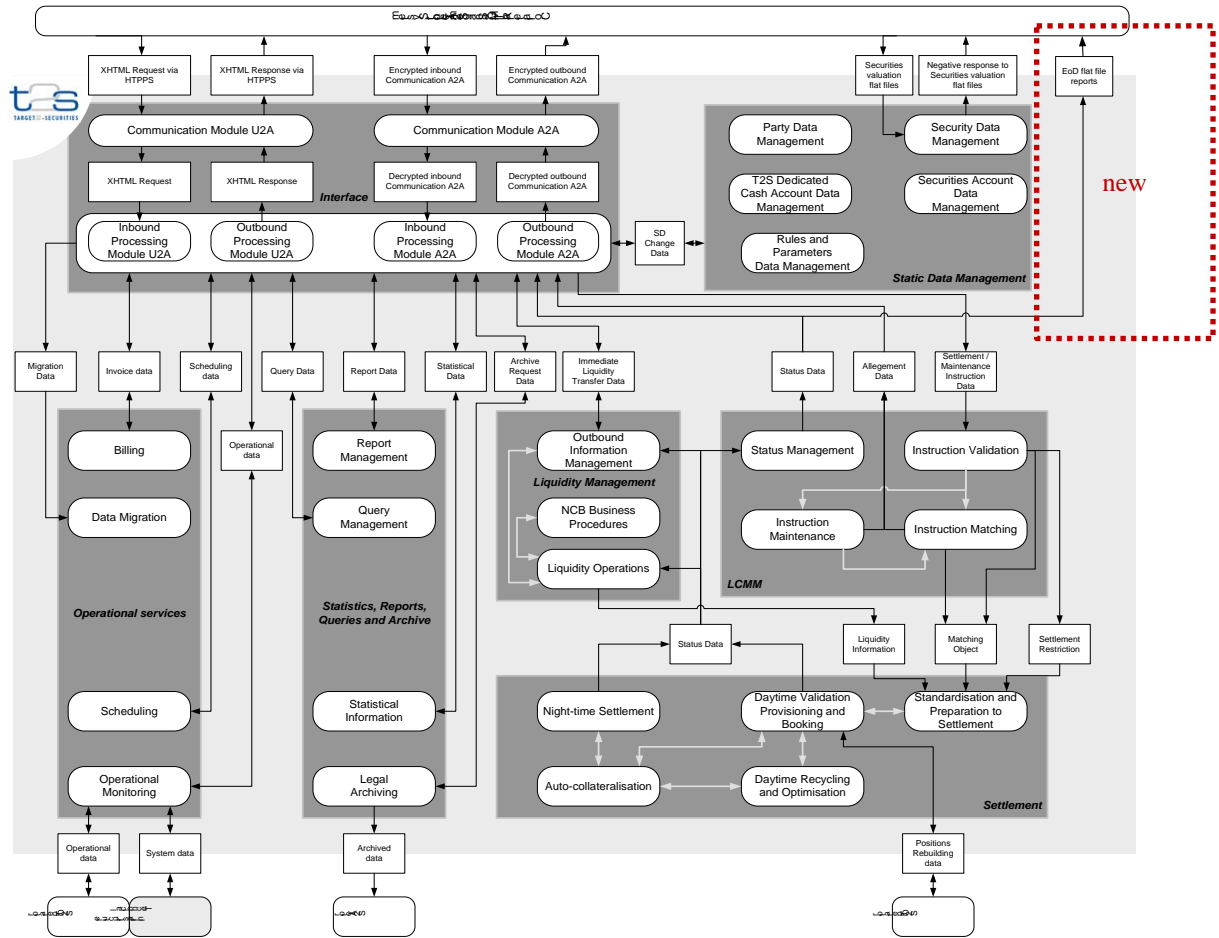
⁴ File splitting means more than one flat file per report can occur (similar to pagination in ISO20022).

Proposed wording for the SYS Change request:

GFS:

GFS v5.0, Section 2.2 "Overall high level diagram": Update of the High Level Diagram





GFS v5.0, Section 2.3.1 “Interface”, page 34

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 only. [Additionally CSDs may decide to receive some specific reports via flat file instead of XML.](#)

GFS v5.0, 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 only, communication is mandatorily handled via flat files. [Additionally CSDs may decide to receive some specific reports via flat file instead of XML.](#)

Additionally, the Communication Module ensures protection of the T2S platform against an intrusion and unauthorised access. It validates that only trusted party transmits the inbound communication through a secure channel. It provides an authentication functionality to verify the identity of the T2S System User.

GFS v5.0, Section 3.2.1 “General Introduction”, page 48

The T2S Interface domain provides access to the T2S platform for all T2S System Users.

T2S supports access via two communication modes:

The application-to-application mode (A2A), allowing direct communication between software applications via XML messages and for the specific non-standard case of securities valuation [and for specific reports](#) via flat files;

GFS v5.0, Section 3.7.5 “Legal Archiving” / 3.7.5.1 4.2 “Static functional description“, Functional Description”, page 577**1 - Data Extraction For Archiving**Data Extraction

During the settlement day, triggered by an Event (Extraction for Archiving) from the Scheduling module, the function {T2S.17.080}:

- Selects from T2S data stores all the processed inbound and outbound messages [and Flat Files for reports at end of day \(EOD\) period](#) according to archiving rules;
- Copies them into Extraction Files with indexes to facilitate its archiving¹⁸⁰;
- Sends created Extraction Files to the Data Archiving function;
- Keeps track of the Data Extraction for Archiving process by creating, for the given Business Date, the LEA Tracking data store which contains, for each Extraction File, information on its creation and content.

3.7.5 “Legal Archiving” / 3.7.5.1 “Static functional description”, page 578**2 - Data Archiving**Data archiving process

Triggered by an Extraction Files received from the Data Extraction for Archiving, the function:

- Creates archiving files, for an archiving date, and fills in them with data from Extraction Files according to archiving rules, [and also Flat Files for reports at end of day \(EOD\) period](#);
- Stores archiving files in the Archive data store for a duration defined in the archiving rules;
- Keeps track of the Data Archiving process by updating LEA Tracking data store with its process result.

[In cases where the standard does not fit T2S demands, proprietary messages are defined {T2S.13.160}.](#)

[Additionally CSDs may decide to receive some specific reports via flat file instead of XML. Description about the information services of T2S using flat files is given in more detail in the latest versions of the User Detailed Functional Specification \(UDFS\).](#)

[The reports are based on the latest data available {T2S.13.200}.](#)

UDFS:UDFS v 2.0, Section 1.3.1.2 “Modes of connectivity”

Page 106, lines 7-10 should be amended as follows:

T2S supports the connectivity of T2S Actors as follows:

- Communication between software applications via XML messages or files and for the specific non-standard case of securities valuation [or specific reports](#) via flat files (A2A mode);
- Online screen-based activities performed by CSDs (U2A mode).

Page 107, lines 16- 19 should be complemented as follows:

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.](#)

UDFS v 2.0, new section:1.6.4.x Flat File Report generation

1.6.4.x.1 Concept

CSDs can choose to receive a set of predefined critical reports as flat files as an alternative to the standard report generation as described within section 1.6.4.2. These flat file versions contain equivalent information to their counterparts delivered by A2A. These files are generated with limited formatting and additional processing in the interest of improving the performance of T2S during their creation and reducing their generation time. As for the flat file reports, they contain information which are based on the data available for a specific party.

A general description of the process of flat file report creation can be found in section 2.x.x "Receive Flat File Reports".

1.6.4.x.1.2 Overview

The flat file report types generated by T2S and the sort of information provided are described below.

In general all reports differ in and are defined by the following characteristics: the concerned party, the sort of information collected, the moment of data extraction during the business day and the reporting period.

Diagram 1 – Characteristics of a report



The moment of data extraction is determined by two existing business events – End of Day and end of Night Time Settlement, whereas all the other information about the necessary attributes in each named category is stored as an attribute domain in static data. All this information influences the generation of the flat file report. T2S Operator is responsible for configuring and maintaining this information.

The business event that triggers the generation of the full reports is the end of the Night time Settlement. In case of processing peak during this time window, the generation of the flat file report will continue till completion. The delta reports are triggered at the EoD with the same timing than the ISO reports in order to ensure the same data scope for both modes.

1.6.4.x.1.3 Flat File Report Generation process

A generated flat file report is not available for download.

Sort of Information - Report Types

T2S provides the following subset of report types as flat files:

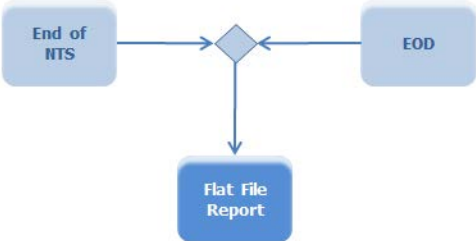
Flat File Report Types
Statement of Holdings
Statement of Transactions
Statement of Pending Instructions
Statement of pending Intra-Position Movements
Statement of settled Intra-Position Movements

Concerned Party

Each 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. For example: a Statement of Holdings reports on all Securities Accounts of the indicated party. Flat file reports can only be configured at a system entity level, i.e. reports providing the CSD with information relating its accounts and to the accounts of all its participants. The concerned party has to be specified, when the flat file report is configured for the first time. A party (e.g. CSD) configured to receive flat file reports cannot receive the equivalent reports through other channels. This does not, however, prevent other parties (e.g. CSD participants under that CSD) from receiving those reports through such channels.

Moment of Data Extraction

Diagram 2 – Moment of Data Extraction



The creation of a flat file report is always triggered by the end of the Night Time Settlement for full reports and the End of Day for delta reports in T2S.

Reporting Period

Diagram 3 – Reporting Period



T2S distinguishes between two different flat file report classifications - full reports and delta flat file reports, which are all based on the latest available data. The difference between both is the time scope which is considered:

- Full versions cover the previous business day and provide the values of all selected items at the EoD of previous business day. Full versions can be scheduled for generation either for each T2S business day, or on a weekly or monthly basis. The full version flat file reports are generated at the end of Night Time Settlement and include no activity records.
 - For the statement of holdings, when generated during the next business day, it informs the CSD of the EOD securities positions from the previous business day per Securities Account. This includes positions where no activity has occurred and zero positions changed or turned zero during the previous business day. The "full" report for Statement of Holdings should provide the EoD securities positions [D] despite being sent after NTS (i.e. during the next business day [D+1]).
 - For the statement of settled intra-position movements, as it is generated during the next business day, it informs the CSD of the intra position movements that reached the status settled or partially settled during the previous business day. The values of the intra-position movements are the ones at the EoD of the previous business day.
 - For the statement of transactions, as it is generated during the next business day, it informs the CSD of the settlement instructions that reached the status settled or partially settled during the previous business day. The values of the settlement instructions are the ones at the EoD of the previous business day.
 - For the statement of pending instructions, as it is generated during the next business day, it informs the CSD of the pending settlement instructions that were intended to be settled during previous business day (ISD <= previous business day) but its status is still partially settled or unsettled at the EoD (EoD report extraction) of the previous business day. The values of the settlement instructions are the ones at the EoD of the previous business day.
 - For the statement of pending intra-position movements, as it is generated during the next business day, it informs the CSD of the pending intra-position movements that were intended to be settled during previous business day (ISD <= previous business day) but its status is still partially settled or unsettled at the EoD (EoD report extraction) of the previous business day. The values of the intra-position movements are the ones at the EoD of the previous business day.
- Delta versions consider the current business day but provide only information on the selected items whose values changed since the Start of Day, i.e. it includes cancellations, modifications and new items.
 - For the statement of holdings the delta flat file report reflects the current securities positions within a security account, which were either newly created, changed or turned zero since the Start of Day. Contrary to the A2A version, the flat file delta version will not contain accounts where no activity has occurred. No activity, in this case, signifies that no change in securities positions has occurred since the end of the previous business day.

- For the statement of settled intra-position movements it reflects the intra position movements that reached the status settled or partially settled from the Start of Day for every securities account of a given CSD.
- For the statement of transactions it reflects the settlement instructions that reached the status settled or partially settled from the SoD for every securities account of a given CSD.
- For the statement of pending instructions it reflects the changes on the unsettled or partially settled settlement instructions from the Start of Day for every securities account of a given CSD, i.e. it reports all the newly pending instructions from the Start of Day, all pending instructions that were amended from the Start of Day or instructions that were formerly pending but have been cancelled since the Start of Day. Settlement instructions that were pending but did not suffer any modification during the reporting period are not shown in the statement (changes on reason code for unsettled are considered as variations).
- For the statement of pending intra-position movements it reflects the changes on the unsettled or partially settled intra-position movements from the Start of Day for every securities account of a given CSD, i.e., it reports all newly pending intra position movements from the Start of Day, all pending intra position movements that were amended from the Start of Day or intra position movements that were formerly pending but have been cancelled since the Start of Day. Intra position movements that were pending but did not suffer any modification during the reporting period are not shown in the statement (changes on reason code for unsettled are considered as variations).

T2S provides all flat file report types in full and delta versions.

Table 1 – Predefined Flat File reports

Report Types	Full Report	Delta Report
Statement of Holdings	x	x
Statement of Transactions	x	x
Statement of Pending Instructions	x	x
Statement of pending Intra-Position Movements	x	x
Statement of settled Intra-Position Movements	x	x

Possible Recipients of a Flat File Report

All flat file reports are available solely to CSDs.

If a CSD wishes to receive a flat file report this has to be stored by the T2S Operator in the static data configuration of the report. That means the subscription of a report is independent from the Message Subscription.

As a general principle the recipient(s) of a report can be different from the concerned party. In any case the recipient(s) of a report have to be specified by the T2S Operator in the static data configuration of the report.

Preconditions for Flat File Report Creation

In order to avoid unnecessary processing and storage T2S does not create flat file reports automatically. So, to initiate the creation of a Report, the requiring CSD has to request the T2S Operator to configure the report in advance.

This configuration is then stored as an attribute domain in static data and is valid until the “Valid To” date stored within the report configuration is reached.

Communication Channel

Diagram 4 – Communication channel



All flat file versions of reports are delivered solely as flat files. When a CSD elects to receive a report as a flat file it may not be received in any other manner by that CSD.

All flat file reports are pushed in A2A mode and when they exceed the minimum compression size of 2 kb are compressed since the compression for such reports is mandatory. Please refer to sections 1.7.4 „Compression” and 1.7.6 “Store and Forward communication (Reports, Notifications)” for additional information.

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. Please refer to section 3.2.2.3 “Outbound traffic exceeding given size limitations” for additional information.

Parameter synthesis

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

Concerned process	Parameter	Created by	Updated by	Mandatory/ Optional	Possible values	Standard or default value
Setup of a Report	Report Type	T2S Operator	T2S Operator	Mandatory	semt.002, semt.016, semt.017, semt.018, semt.034	N/A
Setup of a Report	System Entity	T2S Operator	T2S Operator	Mandatory	System Entity of the relevant Concerned Party (i.e.CSD)	N/A
Setup of a Report	Technical Address	T2S Operator	T2S Operator	Mandatory	Technical address of the receiving CSD	N/A
Setup of a Report	Technical Service Identification	T2S Operator	T2S Operator	Mandatory	Network service used to send the report.	N/A
Setup of a Report	Compression	T2S Operator	T2S Operator	Mandatory	ZIP NONE	ZIP
Setup of a Report	Valid From	T2S Operator	T2S Operator	Mandatory	Format "yyyy-mm-dd"	N/A
Setup of a Report	Valid To	T2S Operator	T2S Operator	Mandatory	Format "yyyy-mm-dd"	N/A
Setup of a Report	Delta Mode	T2S Operator	T2S Operator	Mandatory	T/F	N/A
Setup of a Report	Full Mode Frequency	T2S Operator	T2S Operator	Mandatory	DAY WEEK MONTH NON	MONTHLY
Setup of a Report	Full Mode Day	T2S Operator	T2S Operator	Mandatory	LAST NONE	N/A

Detailed information on the Sort of information - Flat File Report types

For comprehensive information for each report type which is offered by T2S as a flat file please see the section 1.6.4.2.3 “Report generation process” paragraph “Detailed information on the Sort of information - Report types”. Contrary to the normal reports, the delta versions of the flat file reports will not contain records where no activity has occurred. Also, each flat file report will be split as described in this section but sent in several files instead of several messages.

UDFS v. 2.0, section 1.6.4.2.3 Report generation process

Page 636ff following additions should be inserted:

Detailed information on the Sort of information - Report types

Statement of Holdings

(addition at the end of the paragraph)

If opted for by a CSD, this report can be delivered as flat file instead of an xml-file. Please see section 1.6.4.x Flat File Generation and 2.xx Flat File Reports for additional information.

Statement of Transactions

(addition at the end of the paragraph)

If opted for by a CSD, this report can be delivered as flat file instead of an xml-file. Please see section 1.6.4.x Flat File Generation and 2.xx flat file Reports for additional information.

Statement of pending Instructions

(addition at the end of the paragraph)

If opted for by a CSD, this report can be delivered as flat file instead of an xml-file. Please see section 1.6.4.x Flat File Generation and 2.xx Flat File Reports for additional information.

Statement of pending Intra-Position Movements

(addition at the end of the paragraph)

If opted for by a CSD, this report can be delivered as flat file instead of an xml-file. Please see section 1.6.4.x Flat File Generation and 2.xx Flat File Reports for additional information.

Statement of settled Intra-Position Movements

(addition at the end of the paragraph)

If opted for by a CSD, this report can be delivered as flat file instead of an xml-file. Please see section 1.6.4.x Flat File Generation and 2.xx Flat File Reports for additional information.

UDFS v.2.0, Section 1.6.5.7.6 Billing Data Collection Process

The UDFS section has to be updated to include additional information for some service items in table 164 “items charged to CSDs (information services category)” and 167 “items charged to CBs (information services category)” (relevant update is marked red)

Table 164				
<i>Queries and Reports <u>outside</u> congestion period:</i>				
A2A Reports - “Report Type” Each report type is a separate Service Item; see table Table 168 - A2A Reports and Business Items.		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). A list of A2A Reports and associated business items is shown in a separate table. <u>Reports delivered as flat files are subject to the same pricing like ISO Reports.</u>

<i>Queries and Reports during congestion period:</i>				
A2A Reports - "Report Type" Each report type is a separate Service Item; see table Table 168 - A2A Reports and Business Items.		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). 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.
Table 167				
<i>Queries and Reports outside congestion period:</i>				
A2A Reports - "Report Type" Each report type is a separate Service Item; see table Table 168 - A2A Reports and Business Items.		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 CB). 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.
<i>Queries and Reports during congestion period:</i>				
A2A Reports - "Report Type" Each report type is a separate Service Item; see table Table 168 - A2A Reports and Business Items.		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 CB). 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.

UDFS 2.0, section 2.19 Receive Report:

2.19.1 Introduction

Page 830, following amendment to footnote 234 in line 7 should be made:

[...For receiving a Report at a later date the T2S Actor is able to send a Report Query to get the latest available report. See section 2.18 "Send Query".] [Please note, that this is not possible for Reports delivered as flat file.](#)

2.19.3 Outbound Messages

Page 832, following text should be added directly below the table of report types and ISO-messages:

[The Statement of Holdings, Statement of Transactions, Statement of Pending Instructions, Statement of Pending Intra-Position Movements and Statement of Settled Intra-Position Movements can also be delivered as flat files if opted for by a party. Please see section 2.xx Flat File Reports for additional information.](#) Section 1.6.4.2 "Report generation" provides information about the availability of reports via Application-to- Application mode and User-to- Application mode.

UDFS v 2.0, new section:

2.xx Receive Flat File Report

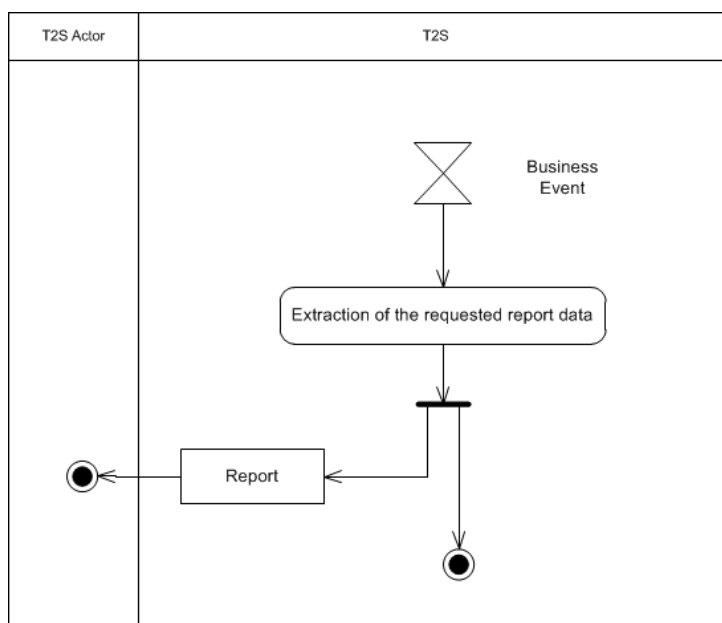
2.xx.1 Introduction

This universal use case covers those information services which are available to CSDs as flat file report. In this case CSDs are periodically provided with a set of defined flat file reports (Settlement Instructions, balances) according to their access rights (See section 1.6.4.x "Flat File Report generation").

The use case description below illustrates the general mechanism for the creation of flat file reports and their sending out from the platform to the CSD who wishes to receive this information from T2S. The logic of processing as described below applies for the different flat file reports T2S sends.

2.xx.2 Activity Diagram

The following diagram displays the processing step which is triggered by a predefined Business Event in T2S.



2.xx.2.1 Business Event

The existing Business Events End of Day and End of Night Time Settlement within T2S trigger the processing of a flat file report generation.

For the process of flat file report generation it is essential that the T2S Operator configured a report in advance in static data.

2.xx.2.2 Extraction of the requested report data

When a flat file report generation is triggered, T2S accesses the relevant data stores in order to extract all data which are necessary for the report. If necessary according to the type of the desired report, calculations on raw data are then done to obtain the defined aggregated values. Subsequently, the report data is sorted, grouped and formatted. The final report is created, stored in a data store and sent to the previously defined recipients. Empty files are sent when there is no business data to be reported.

2.xx.3 File Format Specifications

This section describes the specifications of the flat files to be provided by T2S for each of the following reports:

- Statement of holdings
- Statement of settled intra-position movements
- Statement of transactions
- Statement of pending instructions
- Statement of pending intra-position movements

The following is the XML schema used to embed the file into a “store and forward” message:

```
<?xml version="1.0" ?>
<xs:schema xmlns="urn:T2S:???" xmlns:xs="http://www.w3.org/2001/XMLSchema"
  targetNamespace="urn:T2S:???"
  elementFormDefault="qualified">
<xs:simpleType name="RestrictedFileType">
  <xs:restriction base="xs:string">
    <xs:pattern value="{183,183}+"/>
  </xs:restriction>
</xs:simpleType>
<xs:element name="File" type="File"/>
<xs:complexType name="File">
  <xs:simpleContent>
    <xs:extension base="RestrictedFileType">
      <xs:attribute name="fileId" type="xs:string" default="" />
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
</xs:schema>
```

2.xx.3.1 Statement of holdings file format

The Statement of holding File follows the format below:

- A header will contain the following data:

Flat file column	Column Name	Format	Description	Rules
1	Page number	Numeric(5)	Identifies which page of the report is being reported	
2	Last page indicator	CHAR(5)	Identifies whether file is the last file of report	Values: True False
3	Statement number	CHAR(16)	Reference common to all pages of a statement	
4	Report Timestamp	DATETIMEDateTim e	Timestamp reflecting date and time of the creation of the report	

Flat file column	Column Name	Format	Description	Rules
5	Frequency	CHAR(4)	Frequency of the statement	Values are extracted from the Attribute domain depending on the configuration performed by the T2S Operator; Proposed values: DAIL: daily WEEK: Weekly MONT: Monthly
6	Update type	CHAR(4)	Indicates whether the report is complete or contains changes only.	This information comes from report configuration Values: COMP (Complete) DELT (Delta)
7	Statement basis	CHAR(4)	Statement basis expressed as an ISO 20022 code.	Fixed value. Only code "SETT" is used in T2S
8	Activity indicator	CHAR(5)	Indicates whether there is activity or information update reported in the statement.	True or False
9	Sub account indicator	CHAR(5)	Indicates whether the statement reports holdings at sub-safekeeping account level.	T2S does not provide holdings at sub-safekeeping account level. Fixed value to "false"

The report details will contain the following information:

Flat file column	Column Name	Format	Description	Rules
1	Account owner BIC	CHAR(11)	Primary BIC of the T2S party owning the securities account.(Party code)	
2	Account servicer BIC	CHAR(11)	Party that manages the account on behalf of the account owner.(Party code)	
3	Safekeeping account	CHAR(35)	Securities account number of the T2S party	
4	ISIN	CHAR(12)	Securities code	
5	Row type	CHAR (1)	Indicates if the position displayed is detailed (D) or aggregated (A) or further gives information on the restriction type (I)	
6	Aggregation information	CHAR(4)	Indicates if the displayed position is available (AVAI), not available (NAVL) or aggregated (AGGR)	AVAI = restriction types in ('Earmarked', 'Deliverable') NAVL = restriction types in ('Blocking', 'Reservation') AGGR = AVAI+NAVL
7	Restriction processing type	CHAR(4)	Specifies a classification for the type of processing T2S shall apply for the restriction.	Ex: BLCK, RESE, EARM, AWAS, COSP, COLL
8	Restriction type	CHAR(4)	Specifies a code defined by the CSD to identify the restriction.	Ex: RES1
9	Restriction reference	CHAR(35)	Unique reference assigned by T2S when setting up a blocking or reservation restriction	Present only when row type column is not equal to 'I'.

Flat file column	Column Name	Format	Description	Rules
				Ex: RRF54321
10	Position	DECIMAL(x,n)	Quantity of securities in the restricted position ⁵	Present only when row type column is not equal to 'I'. Ex: +100000000; -20000000,12; -123456789,12345
11	Settlement type	CHAR(4)	Indicates if the securities settle in Units (UNIT) or Nominal (FAMT)	Present only when row type column is not equal to 'I'.
12	Information	CHAR (140)	Provides additional information on the sub-balance (description of the restriction type ID)	Present only when row type column is equal to 'I'. Ex: " Restriction Type 01"

For delta reports where no activity has occurred on any of the accounts the file will be empty.

- **A footer will indicate the number of records contained in the file.**

End of Document

2.xx.3.2 Statement of settled intra-position movements. Semt.016

- **A header will contain the following data:**

Flat file column	Column Name	Format	Description	Rules
1	Page Number	NUMERIC(p)	Sequence number of the concerned message within the set of divided messages recurring to pagination	
2	Last Page Indicator	CHAR(n)	Indicator for last message within the set of divided messages recurring to pagination	Values: True (meaning 'Yes') False (meaning 'No')
3	Statement Identification	CHAR(16)	Reference common to all pages of a statement.	Values: 'H': for Header
4	Statement Period From	DATETIME	Statement period start date and time.	
5	Statement Period To	CHAR(4)	Statement period end date and time.	
6	Statement Frequency	CHAR(4)	Frequency of the statement.	Values are extracted from the Attribute domain depending on the configuration performed by the T2S Operator; Proposed values: DAIL: daily WEEK: Weekly MONT: Monthly

⁵ This field can be positive or negative. This approach has been selected for performance reasons. A long/short indicator column can be added if preferred.

Flat file column	Column Name	Format	Description	Rules
7	Statement Update Type	CHAR(4)	Indicates whether the statement is complete or contains changes only.	StatementUpdateType1Code. Values: COMP: Complete - Statement is complete. DELT: Delta - Statement contains changes only.
8	Statement Activity Indicator	CHAR(5)	Indicates whether there is activity or information update reported in the statement.	Values: True (meaning 'Yes') False (meaning 'No')

The report details will contain the following information:

Flat file column	Column Name	Format	Description	Rules
1	Account owner BIC	CHAR(11)	Primary BIC of the T2S party owning the securities account.(Party code)	
2	Safekeeping account	CHAR(35)	Securities account number of the T2S party	
3	ISIN	CHAR(12)	Securities code	
4	Balance From	CHAR(4)	Sub-balance from which the securities were moved, expressed as an ISO20022 code (AWAS) or as proprietary code, ID part.	Either the restriction type AWAS (Balance of financial instruments that are freely available with no specific additional status) or a Proprietary Identification code, defined by the CSD: ex RES1
5	Issuer	CHAR(4)	Entity that assigns the identification.	Single value: 'T2S' as the constant representing the Issuer within T2S.
6	Scheme Name	CHAR(4)	Short textual description of the scheme.	Single value: 'RT' as the constant representing the Schema Name for 'Restriction Type' within T2S. This element is mandatory if a Proprietary Code is given.
7	Market Infrastructure Id	CHAR(16)	Identification of a transaction assigned by a market infrastructure other than a central securities depository, for example, Target2-Securities.	
8	Settled Quantity	NUMERIC(14)	Quantity of financial instrument effectively settled.	Integer part of the Settled Quantity
9	Number of decimal digits For Settled Quantity	NUMERIC(2)	Number of decimal digits for the Settled Quantity	
10	Previously Settled Quantity	NUMERIC(14)	Quantity of financial instrument previously settled	Integer part of the Previously Settled Quantity
11	Number of decimal digits For Previously Settled Quantity	NUMERIC(2)	Number of decimal digits for the Settled Quantity	
12	Remaining to be Settled Quantity	NUMERIC(14)	Quantity of financial instrument Remaining to be settled	Integer part of the Previously Settled Quantity
13	Number of decimal digits for remaining to be Settled Quantity	NUMERIC(2)	Number of decimal digits for remaining to settled Quantity	

Flat file column	Column Name	Format	Description	Rules
14	Securities Sub Balance Id	CHAR (30)	Restriction Reference as assigned by T2S during the setup of a restriction	
15	Balance To	CHAR(4)	Balance to which the securities were moved	Either the restriction type AWAS (Balance of financial instruments that are freely available with no specific additional status) or a Proprietary Identification code, defined by the CSD: ex RES1
16	Issuer	CHAR(4)	Entity that assigns the identification.	Single value: 'T2S' as the constant representing the Issuer within T2S.
17	Scheme Name	CHAR(4)	Short textual description of the scheme.	Single value: 'RT' as the constant representing the Schema Name for 'Restriction Type' within T2S. This element is mandatory if a Proprietary Code is given.
18	Settlement Date	DATE	Date at which the securities were moved.	

- **A footer will indicate the number of records contained in the file.**

For delta reports where no activity has occurred on any of the accounts the file will be empty.

2.xx.3.3 Statement of transactions. Semt.017

- **A header will contain the following data:**

Flat file column	Column Name	Format	Description	Rules
1	Page Number	NUMERIC(5)	Sequence number of the concerned message within the set of divided messages recurring to pagination	
2	Last Page Indicator	CHAR(5)	Indicator for last message within the set of divided messages recurring to pagination	Values: True (meaning 'Yes') False (meaning 'No')
3	Statement Identification	CHAR(16)	Reference common to all pages of a statement	
4	Statement Period from	DATETIME	Statement period start date and time.	
5	Statement Period To	DATETIME	Statement period end date and time.	
6	Statement Frequency	CHAR(4)	Statement period end date.	Values are extracted from the Attribute domain depending on the configuration performed by the T2S Operator; Proposed values: DAIL: daily WEEK: Weekly MONT: Monthly
7	Statement Update Type	CHAR(4)	Indicates whether the report is complete or contains changes only.	StatementUpdateType1Code. Values: COMP: Complete - Statement is complete. DELT: Delta - Statement contains changes only.

Flat file column	Column Name	Format	Description	Rules
8	Statement Basis	CHAR(4)	Indicates whether the statement is complete or contains changes only	SETT: Settled - The statement is based on settled date positions to the knowledge of the sender at the time of the statement preparation.
9	Statement Activity Indicator	CHAR(5)	Indicates whether there is activity or information update reported in the statement	Values: True (meaning 'Yes') False (meaning 'No')
10	Sub Account indicator	CHAR(5)	Indicates whether the statement reports holdings at sub safekeeping account level	Values: True (meaning 'Yes') False (meaning 'No') – default value

The report details will contain the following information:

Flat file column	Column Name	Format	Description	Rules
1	Account Owner BIC	CHAR(11)	Primary BIC of the T2S party owning the securities account.(Party code)	
2	Safekeeping account	CHAR(35)	Securities account number of the T2S party	
3	ISIN	CHAR(12)	Securities code	
4	Account Owner Transaction Identification	CHAR(16)	Unambiguous identification of the transaction as known by the account owner (or the instructing party managing the account).	The field is optional, depending on the information contained in the instruction
5	Account Servicer Transaction Identification	CHAR(16)	Unambiguous identification of the transaction as known by the account servicer.	The field is optional, depending on the information contained in the instruction
6	Market Infrastructure Transaction Identification	CHAR(16)	Identification of a transaction assigned by a market infrastructure other than a central securities depository, for example, Target2-Securities.	This reference is mandatory
7	Processor Transaction Identification	CHAR(16)	Identification of the transaction assigned by the processor of the instruction other than the account owner the account servicer and the market infrastructure.	The field is optional, depending on the information contained in the instruction
8	Pool Identification	CHAR(16)	Collective reference identifying a set of messages.	The field is optional, depending on the information contained in the instruction
9	Common Identification	CHAR(16)	Unique reference agreed upon by the two trade counterparties to identify	The field is optional, depending on the information contained in the instruction

Flat file column	Column Name	Format	Description	Rules
			the trade.	
10	Corporate Action Event Identification	CHAR(16)	Identification assigned by the account servicer to unambiguously identify a corporate action event.	The field is optional, depending on the information contained in the instruction
11	Transaction Activity Code	CHAR(4)	Specifies the type of activity to which this instruction relates.	In T2S, this code is always SETT.
12	ISO Transaction Code	CHAR(4)	Choice of type for the transaction reported. Identifies the type of securities transaction, as an ISO 20022 code.	This field is optional
13	Securities Movement Type	CHAR(4)	Specifies if the movement on a securities account results from a deliver or a receive instruction.	Values DELI or RECE
14	Payment	CHAR(4)	Specifies how the transaction is to be settled, for example, against payment.	Values: FREE or APMT
15	Settlement Transaction Code NOMC	CHAR(4)	Parameters applied to the settlement of a security transfer: - Conditions under which the order/trade is to be settled.	This field is optional depending on the information contained in the instruction. Only possible values is: NOMC: enables the counterparties in a transaction to opt-out from any CAs transaction management arrangements.
16	Partial Settlement Indicator	CHAR(4)	Parameters applied to the settlement of a security transfer: - Specifies whether partial settlement is allowed.	This field is optional, depending on the information contained in the instruction. Possible values: NPAR, PARC, PARQ, PART
17	Posting Quantity integer part	NUMERIC(14)	Integer part for quantity of financial instrument (to be) posted to the safekeeping account. Expressed as units or face amount.	
18	Number of decimals for Posting Quantity	NUMERIC(2)	Number of decimals for the quantity of financial instrument (to be) posted to the safekeeping account. Expressed as units or face amount.	
19	Posting Amount Currency	CHAR(3)	Currency of the amount of money that is to be/was posted to the account: (active or historic currency code)	If posting amount is present, this field must be present

Flat file column	Column Name	Format	Description	Rules
20	Posting Amount integer part	NUMERIC(14)	Integer part for Settled Settlement Amount: Settlement Instruction or Original Settlement Amount: Settlement Instruction minus Settled Settlement Amount: Settlement Instruction	
21	Number of decimals for Posting Amount	NUMERIC(2)	Decimal part for Settled Settlement Amount: Settlement Instruction or Original Settlement Amount: Settlement Instruction minus Settled Settlement Amount: Settlement Instruction	
22	Credit/Debit Indicator	CHAR(4)	Indicates whether the cash entry is credit or debit	If posting amount is present, this field must be present Values: CRDT, DBIT.
23	Trade Date	DATE	Specifies the date on which the trade was executed.	
24	Effective Settlement Date	DATETIME(23)	Actual Settlement Date	
25	Intended Settlement Date	DATE (10)	The date at which the instruction becomes eligible to be submitted to settlement	
26	Delivering Depository BIC	CHAR(11)	First party in the settlement chain of delivering settlement parties	
27	Delivering Party 1 BIC	CHAR(11)	BIC of the party that, in a settlement chain interacts with the depository	
28	Delivering Party 1 Safekeeping Account	CHAR(35)	Delivering Party 1 Securities Account Number: Securities Account	
29	Delivering Party 1 Processing Identification	CHAR(16)	Specifies the reference meaningful to the T2S party that delivers the settlement quantity	
30	Delivering Party 2 BIC	CHAR(11)	BIC of the party that, in a settlement chain interacts with the party 1.	This field is optional depending on the information contained in the instruction.
31	Delivering Party 2 Proprietary Identification	CHAR(34)	Proprietary identification of the delivering party 2	This field is optional depending on the information contained in the instruction.
32	Delivering Party 2 Issuer	CHAR(4)	Entity that assigns the identification.	If Proprietary Identification is present, then Issuer is mandatory
33	Delivering Party 2 Scheme Name	CHAR(4)	Short textual description of the scheme.	

Flat file column	Column Name	Format	Description	Rules
34	Delivering Party 2 Name and Address	CHAR(140)	Name and address of the party 2	This field is optional depending on the information contained in the instruction.
35	Receiving Depository BIC	CHAR(11)	First party in the settlement chain of receiving settlement parties	
36	Receiving Party 1 BIC	CHAR(11)	BIC of the party that, in a settlement chain interacts with the depository	
37	Receiving Party 1 Safekeeping Account	CHAR(35)	Delivering Party 1 Securities Account Number: Securities Account	
38	Receiving Party 1 Processing Identification	CHAR(16)	Specifies the reference meaningful to the T2S party that receives the settlement quantity	
39	Receiving Party 2 BIC	CHAR(11)	BIC of the party that, in a settlement chain interacts with the party 1.	This field is optional depending on the information contained in the instruction.
40	Receiving Party 2 Proprietary Identification	CHAR(34)	Proprietary identification of the Receiving party 2	This field is optional depending on the information contained in the instruction.
41	Receiving Party 2 Issuer	CHAR(4)	Entity that assigns the identification.	If Proprietary Identification is present, then Issuer is mandatory
42	Receiving Party 2 Scheme Name	CHAR(4)	Short textual description of the scheme.	
43	Receiving Party 2 Name and Address	CHAR(140)	Name and address of the party 2	This field is optional depending on the information contained in the instruction.

- **A footer will indicate the number of records contained in the file.**

For delta reports where no activity has occurred on any of the accounts the file will be empty.

2.xx.3.4 Statement of pending instructions. Semt.018

- **A header will contain the following data:**

Flat file column	Column Name	Format	Description	Rules
1	Page Number	NUMERIC(5)	Sequence number of the concerned message within the set of divided messages recurring to pagination	
2	Last Page Indicator	CHAR(5)	Indicator for last message within the set of divided messages recurring to pagination	Values: True (meaning 'Yes') False (meaning 'No')

Flat file column	Column Name	Format	Description	Rules
3	Statement Identification	CHAR(16)	Reference common to all pages of a statement	
4	Statement Date and Time	DATETIME	Timestamp reflecting date and time of the creation of the report	
5	Statement Frequency	CHAR(4)	Statement period end date.	Values are extracted from the Attribute domain depending on the configuration performed by the T2S Operator; Proposed values: DAIL: daily WEEK: Weekly MONT: Monthly
6	Statement Update Type	CHAR(4)	Indicates whether the report is complete or contains changes only.	StatementUpdateType1Code. Values: COMP: Complete - Statement is complete. DELT: Delta - Statement contains changes only.
7	Statement Activity indicator	CHAR(5)	Indicates whether there is activity or information update reported in the statement.	True or False

The report details will contain the following information:

Flat file column	Column Name	Format	Description	Rules
1	Account Owner BIC	CHAR(11)	Primary BIC of the T2S party owning the securities account.(Party code)	
2	Safekeeping account	CHAR(35)	Securities account number of the T2S party	
3	Account Owner Transaction Identification	CHAR(16)	Unambiguous identification of the transaction as known by the account owner (or the instructing party managing the account).	The field is optional, depending on the information contained in the instruction
4	Account Servicer Transaction Identification	CHAR(16)	Unambiguous identification of the transaction as known by the account servicer.	The field is optional, depending on the information contained in the instruction
5	Market Infrastructure Transaction Identification	CHAR(16)	Identification of a transaction assigned by a market infrastructure other than a central securities depository, for example, Target2-Securities.	This reference is mandatory
6	Processor Transaction Identification	CHAR(16)	Identification of the transaction assigned by the processor of the instruction other than the account owner the account servicer and the market infrastructure.	The field is optional, depending on the information contained in the instruction

Flat file column	Column Name	Format	Description	Rules
7	Pool Identification	CHAR(16)	Collective reference identifying a set of messages.	The field is optional, depending on the information contained in the instruction
8	Common Identification	CHAR(16)	Unique reference agreed upon by the two trade counterparties to identify the trade.	The field is optional, depending on the information contained in the instruction
9	Corporate Action Event Identification	CHAR(16)	Identification assigned by the account servicer to unambiguously identify a corporate action event.	The field is optional, depending on the information contained in the instruction
10	Transaction Activity Code	CHAR(4)	Specifies the type of activity to which this instruction relates.	In T2S, this code is always SETT.
11	ISO Transaction Code	CHAR(4)	Choice of type for the transaction reported. Identifies the type of securities transaction, as an ISO 20022 code.	This field is optional
12	Securities Movement Type	CHAR(4)	Specifies if the movement on a securities account results from a deliver or a receive instruction.	Values DELI or RECE
13	Payment	CHAR(4)	Specifies how the transaction is to be settled, for example, against payment.	Values: FREE or APMT
14	Hold Indicator	CHAR(1)	Hold Status	This field is optional depending on the information contained in the instruction.
15	Hold Indicator Reason Code	CHAR(4)	Reason Code of the hold Status	This field is optional depending on the information contained in the instruction.
16	Hold Indicator Additional information	CHAR(210)	Additional reason information that cannot be provided in a structured field.	This field is optional depending on the information contained in the instruction.
17	Hold Indicator Reason Code 2	CHAR(4)	Reason Code of the Hold Status	CDEL: ConditionalDelivery - Instruction is in a hold/frozen/preadvice mode as it fulfils predefined conditional delivery rules in the market infrastructure platform for conditional delivery. CSDH: CSDHold - Central securities depository sets the instruction in a hold/frozen/preadvice mode. CVAL: CSDValidation - Instruction is in a hold/frozen/preadvice mode as it fulfils predefined conditions of a restriction processing type in the market infrastructure platform. PTYH: PartyHold - You or your party set the instruction in a hold/frozen/preadvice mode.
18	Hold Indicator Additional information 2	CHAR(210)	Specifies whether the transaction is on hold/blocked/frozen: additional reason information that cannot be provided in a structured field.	

Flat file column	Column Name	Format	Description	Rules
19	Hold Indicator Reason Code 3	CHAR(4)	Reason Code of the Hold Status	Values: CDEL: ConditionalDelivery - Instruction is in a hold/frozen/preadvice mode as it fulfils predefined conditional delivery rules in the market infrastructure platform for conditional delivery. CSDH: CSDHold - Central securities depository sets the instruction in a hold/frozen/preadvice mode. CVAL: CSDValidation - Instruction is in a hold/frozen/preadvice mode as it fulfils predefined conditions of a restriction processing type in the market infrastructure platform. PTYH: PartyHold - You or your party set the instruction in a hold/frozen/preadvice mode.
20	Hold Indicator Additional information 3	CHAR(210)	Specifies whether the transaction is on hold/blocked/frozen: additional reason information that cannot be provided in a structured field.	
21	Hold Indicator Reason Code 4	CHAR(4)	Reason Code of the Hold Status	Values: CDEL: ConditionalDelivery - Instruction is in a hold/frozen/preadvice mode as it fulfils predefined conditional delivery rules in the market infrastructure platform for conditional delivery. CSDH: CSDHold - Central securities depository sets the instruction in a hold/frozen/preadvice mode. CVAL: CSDValidation - Instruction is in a hold/frozen/preadvice mode as it fulfils predefined conditions of a restriction processing type in the market infrastructure platform. PTYH: PartyHold - You or your party set the instruction in a hold/frozen/preadvice mode.
22	Hold Indicator Additional information 4	CHAR(210)	Specifies whether the transaction is on hold/blocked/frozen: additional reason information that cannot be provided in a structured field.	
23	Settlement Transaction Code ADEA	CHAR(4)	Parameters applied to the settlement of a security transfer: - Conditions under which the order/trade is to be settled.	This field is optional depending on the information contained in the instruction. Only possible values is: ADEA: enables the counterparties to identify bilaterally accepted instructions that are to be accepted beyond the regular settlement deadline.
24	Settlement Transaction Code NOMC	CHAR(4)	Parameters applied to the settlement of a security transfer: - Conditions under which the order/trade is to be settled.	This field is optional depending on the information contained in the instruction. Only possible values is: NOMC: enables the counterparties in a transaction to opt-out from any CAs transaction management arrangements.

Flat file column	Column Name	Format	Description	Rules
25	Settlement Transaction Code TRAN	CHAR(4)	Parameters applied to the settlement of a security transfer: - Conditions under which the order/trade is to be settled.	This field is optional depending on the information contained in the instruction. Only possible values is: TRAN: enables the counterparties to identify a transaction resulting from a transformation.
26	Partial Settlement Indicator	CHAR(4)	Parameters applied to the settlement of a security transfer: - Specifies whether partial settlement is allowed.	This field is optional, depending on the information contained in the instruction. Possible values: NPAR, PARC, PARQ, PART
27	ISIN	CHAR(12)	Securities code	
28	Posting Quantity integer part	NUMERIC(14)	Integer part for quantity of financial instrument (to be) posted to the safekeeping account. Expressed as units or face amount.	
29	Number of decimals for Posting Quantity	NUMERIC(2)	Number of decimals for the quantity of financial instrument (to be) posted to the safekeeping account. Expressed as units or face amount.	
30	Posting Amount Currency	CHAR(3)	Currency of the amount of money that is to be/was posted to the account: (active or historic currency code)	If posting amount is present, this field must be present
31	Posting Amount integer part	NUMERIC(14)	Integer part for Settled Settlement Amount: Settlement Instruction or Original Settlement Amount: Settlement Instruction minus Settled Settlement Amount: Settlement Instruction	
32	Number of decimals for Posting Amount	NUMERIC(2)	Decimal part for Settled Settlement Amount: Settlement Instruction or Original Settlement Amount: Settlement Instruction minus Settled Settlement Amount: Settlement Instruction	
33	Credit/Debit Indicator	CHAR(4)	Indicates whether the cash entry is credit or debit	If posting amount is present, this field must be present Values: CRDT, DBIT.
34	Trade Date	DATE	Specifies the date on which the trade was executed.	

Flat file column	Column Name	Format	Description	Rules
35	Intended Settlement Date	DATE	The date at which the instruction becomes eligible to be submitted to settlement	
36	Delivering Depository BIC	CHAR(11)	First party in the settlement chain of delivering settlement parties	
37	Delivering Party 1 BIC	CHAR(11)	BIC of the party that, in a settlement chain interacts with the depository	
38	Delivering Party 1 Safekeeping Account	CHAR(35)	Delivering Party 1 Securities Account Number: Securities Account	
39	Delivering Party 1 Processing Identification	CHAR(16)	Specifies the reference meaningful to the T2S party that delivers the settlement quantity	
40	Delivering Party 2 BIC	CHAR(11)	BIC of the party that, in a settlement chain interacts with the party 1.	This field is optional depending on the information contained in the instruction.
41	Delivering Party 2 Proprietary Identification	CHAR(34)	Proprietary identification of the delivering party 2	This field is optional depending on the information contained in the instruction.
42	Delivering Party 2 Issuer	CHAR(4)	Entity that assigns the identification.	If Proprietary Identification is present, then Issuer is mandatory.
43	Delivering Party 2 Scheme Name	CHAR(4)	Short textual description of the scheme.	
44	Delivering Party 2 Name and Address	CHAR(140)	Name and address of the party 2	This field is optional depending on the information contained in the instruction.
45	Receiving Depository BIC	CHAR(11)	First party in the settlement chain of receiving settlement parties	
46	Receiving Party 1 BIC	CHAR(11)	BIC of the party that, in a settlement chain interacts with the depository	
47	Receiving Party 1 Safekeeping Account	CHAR(35)	Delivering Party 1 Securities Account Number: Securities Account	
48	Receiving Party 1 Processing Identification	CHAR(16)	Specifies the reference meaningful to the T2S party that receives the settlement quantity	
49	Receiving Party 2 BIC	CHAR(11)	BIC of the party that, in a settlement chain interacts with the party 1.	This field is optional depending on the information contained in the instruction.
50	Receiving Party 2 Proprietary Identification	CHAR(34)	Proprietary identification of the Receiving party 2	This field is optional depending on the information contained in the instruction.
51	Receiving Party 2 Issuer	CHAR(4)	Entity that assigns the identification.	If Proprietary Identification is present, then Issuer is mandatory.
52	Receiving Party 2 Scheme Name	CHAR(4)	Short textual description of the scheme.	

Flat file column	Column Name	Format	Description	Rules
53	Receiving Party 2 Name and Address	CHAR(140)	Name and address of the party 2	This field is optional depending on the information contained in the instruction.
54	Match Status	CHAR(4)	Matching Status	MACH or NMAT
55	Settlement Status	CHAR(4)	Settlement status	Always set to USET
56	Settlement Status Reason Code	CHAR(4)	Reason code for the Unsettled Status	Values as defined in the ISO report (NORE can be one of them)
57	Settlement Status Additional Information 1	CHAR(210)	Additional Information for the Unsettled Status	
58	Settlement Status Reason Code 2	CHAR(4)	Reason code for the Unsettled Status	Values as defined in the ISO report
59	Settlement Status Additional Information 2	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
60	Settlement Status Reason Code 3	CHAR(4)	Reason code for the Unsettled Status	Values as defined in the ISO report
61	Settlement Status Additional Information 3	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
62	Settlement Status Reason Code 4	CHAR(4)	Reason code for the Unsettled Status	Values as defined in the ISO report
63	Settlement Status Additional Information 4	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
64	Settlement Status Reason Code 5	CHAR(4)	Reason code for the Unsettled Status	Values as defined in the ISO report
65	Settlement Status Additional Information 5	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
66	Instruction Processing Status	CHAR(4)	Processing Status of the Instruction	Values as defined in the ISO report
67	Instruction Processing Status Reason Code	CHAR(4)	Reason code for "Pending Cancellation" and "Cancelled" status	Values as defined in the ISO report (NORE can be one of them)
68	Additional Information for the Instruction Processing Status 1	CHAR(210)	Reason code for "Pending Cancellation" and "Cancelled" status	
69	Instruction Processing Status Reason Code 2	CHAR(4)	Reason code for "Pending Cancellation" and 'Cancelled' statuses	Values as defined in the ISO report
70	Additional Information for the Instruction Processing Status 2	CHAR(210)	Reason code for "Pending Cancellation" and "Cancelled" statuses	

- A footer will indicate the number of records contained in the file.

For delta reports where no activity has occurred on any of the accounts the file will be empty.

2.xx.3.5 Statement of pending intra-position movements. Semt.034

- **A header will contain the following data:**

Flat file column	Column Name	Format	Description	Rules
1	Page Number	NUMERIC(5)	Sequence number of the concerned message within the set of divided messages recurring to pagination	
2	Last Page Indicator	CHAR(5)	Indicator for last message within the set of divided messages recurring to pagination	Values: True (meaning 'Yes') False (meaning 'No')
3	Statement number	CHAR(16)	Reference common to all pages of a statement	
4	Statement Date and Time	DATETIME	Timestamp reflecting date and time of the creation of the report	
5	Statement Frequency	CHAR(4)	Frequency of the statement	Values are extracted from the Attribute domain depending on the configuration performed by the T2S Operator; Proposed values: DAIL: daily WEEK: Weekly MONT: Monthly
6	Statement Update type	CHAR(4)	Indicates whether the report is complete or contains changes only.	This information comes from report configuration
7	Statement Activity indicator	CHAR(5)	Indicates whether there is activity or information update reported in the statement.	True or False

The report details will contain the following information:

Flat file column	Column Name	Format	Description	Rules
1	Account owner BIC	CHAR(11)	Primary BIC of the T2S party owning the securities account.(Party code)	
2	Account owner responsible party BIC	CHAR(11)	Actual value for the parent party code, derived from the System Entity associated with the Party	
3	Safekeeping account	CHAR(35)	Securities account number of the T2S party	

Flat file column	Column Name	Format	Description	Rules
4	Processing Status	CHAR(4)	Processing Status	Values: ACKN: Acknowledge Accepted CANC: Cancelled
5	Cancelled Status reason code	CHAR(4)	Provides details on the Cancellation status of the transaction	Values as defined in the ISO report (NORE can be one of them)
6	Cancelled Status Additional Information	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
7	Settlement Status	CHAR(4)	Settlement Status	Single Values: USET: Unsettled
8	Settlement Status reason code	CHAR(4)	Provides details on the Settlement status of the transaction	Values as defined in the ISO report (NORE can be one of them)
9	Settlement Status Additional Information 1	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
10	Settlement Status reason code 2	CHAR(4)	Provides details on the Settlement status of the transaction	Values as defined in the ISO report
11	Settlement Status Additional Information 2	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
12	Settlement Status reason code 3	CHAR(4)	Provides details on the Settlement status of the transaction	Values as defined in the ISO report
13	Settlement Status Additional Information 3	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
14	Settlement Status reason code 4	CHAR(4)	Provides details on the Settlement status of the transaction	Values as defined in the ISO report
15	Settlement Status Additional Information 4	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
16	Settlement Status reason code 5	CHAR(4)	Provides details on the Settlement status of the transaction	Values as defined in the ISO report
17	Settlement Status Additional Information 5	CHAR(210)	Additional reason information that cannot be provided in a structured field.	
18	Account Owner Transaction Identification	CHAR(16)	Unambiguous identification of the transaction as known by the account owner (or the instructing party managing the account).	The field is optional, depending on the information contained in the instruction
19	Account Servicer Transaction Identification	CHAR(16)	Unambiguous identification of the transaction as known by the account servicer.	The field is optional, depending on the information contained in the instruction
20	Market Infrastructure Transaction Identification	CHAR(16)	Identification of a transaction assigned by a market infrastructure other than a central securities depository, for example, Target2-Securities.	This reference is mandatory

Flat file column	Column Name	Format	Description	Rules
21	Processor Transaction Identification	CHAR(16)	Identification of the transaction assigned by the processor of the instruction other than the account owner the account servicer and the market infrastructure.	The field is optional, depending on the information contained in the instruction
22	Pool Identification	CHAR(16)	Collective reference identifying a set of messages.	The field is optional, depending on the information contained in the instruction
23	Balance From	CHAR(4)	Sub-balance from which the securities were moved, expressed as an ISO20022 code (AWAS) or as proprietary code, ID part.	Either the restriction type AWAS (Balance of financial instruments that are freely available with no specific additional status) or a Proprietary code, defined by the CSD: ex RES1
24	Issuer	CHAR(4)	Entity that assigns the identification.	Single value: 'T2S' as the constant representing the Issuer within T2S.
25	Scheme Name	CHAR(4)	Short textual description of the scheme.	Single value: 'RT' as the constant representing the Schema Name for 'Restriction Type' within T2S. This element is mandatory if a Proprietary Code is given.
26	Balance To	CHAR(4)	Sub-balance from which the securities were moved, expressed as an ISO20022 code (AWAS) or as proprietary code, ID part.	Either the restriction type AWAS (Balance of financial instruments that are freely available with no specific additional status) or a Proprietary code, defined by the CSD: ex RES1
27	Issuer	CHAR(4)	Entity that assigns the identification.	Single value: 'T2S' as the constant representing the Issuer within T2S.
28	Scheme Name	CHAR(4)	Short textual description of the scheme.	Single value: 'RT' as the constant representing the Schema Name for 'Restriction Type' within T2S. This element is mandatory if a Proprietary Code is given.
29	ISIN	CHAR(12)	Securities code	
30	Settlement Quantity	NUMERIC(14)	Quantity of financial instrument to be settled.	Integer part of the Settlement Quantity
31	Number of decimal digits For Settlement Quantity	NUMERIC(2)	Number of decimal digits for the Settlement Quantity	
32	Intended Settlement Date	DATE	The date at which the instruction becomes eligible to be submitted to settlement	
33	Status Date	DATETIME	Date and time at which the status was assigned	
34	Securities Sub Balance Id	CHAR (30)	Number identifying a lot constituting the sub-balance.	This field is optional, depends on the value of the instruction
35	Priority	CHAR(4)	Specifies whether the transaction is to be executed with a high priority.	This field is optional, depends on the value of the instruction Possible values: '0001' – Reserved '0002' – Top '0003' – High '0004' – Normal

Flat file column	Column Name	Format	Description	Rules
36	Creation Date and Time	DATETIME	Entry Date and Time of the intra position movement	

- **A footer will indicate the number of records contained in the file.**

For delta reports where no activity has occurred on any of the accounts the file will be empty.

UHB:

UHB v.2.0 Section 2.5.7.6 Report Configurations – Search/List Screen

One new business rule to be referenced in the “Buttons” frame

DRDV100 – When performing a Report Configuration restore request for a given CSD and report type, its validity period cannot overlap with the validity period of an already existing flat file report configuration defined for the same CSD and the same report type.

UHB v.2.0 Section 2.5.7.8 Report Configuration – New/Edit Screen

Two new business rules to be referenced in the “Buttons” frame:

DRCV100 –When performing a Report Configuration creation request for a given CSD and report type, its validity period cannot overlap with the validity period of an already existing flat file report configuration defined for the same CSD and the same report type.

DRUV100 – When performing a Report Configuration update request for a given CSD and report type, its validity period cannot overlap with the validity period of an already existing flat file report configuration defined for the same CSD and the same report type.

The three new business rules will correspond to the following error text: “A flat file report configuration already exists for the same CSD, the same report type and in an overlapping validity period.”

High level description of Impact:

Outcome/Decisions:

- * CRG meeting on 6 February 2015: The CRG recommended to launch the detailed assessment of the Change Request in principle provided that (i) the ISSG supports to have the signature at DEP-level only; and (ii) the change frequency regarding the provision of the full version flat files is manageable from an operational perspective.
- * CRG meeting on 12 March 2015: The Change Request was approved for detailed assessment.
- * Advisory Group’s meeting on 23 March 2015: The AG was in favour of launching the detailed assessment on the Change Request.
- * CSG resolution on 27 March 2015: Following a written procedure, the CSG was in favour of launching the detailed assessment on the Change Request.
- * OMG on 27 March 2015: During a written procedure from 16 March 2015 to 27 March 2015, the Operations Managers Group did not identify any operational impact of the Change Request.
- * CRG Telco of 9 June 2015: The CRG put the Change Request on hold.
- * CRG meeting on 9 July 2015: The CRG recommended the approval of the Change Request in principle.

* CRG meeting on 21 July 2015: The CRG recommended the approval of the Change Request and its addition to Release 1.1.

* PMG meeting on 22 July 2015: The PMG was in favour of adding the CR 494 to Release 1.1 and did not raise any objection to the delivery date in EAC on 16 January 2016 and the delivery date in PROD on 30 January 2016 (go-live on 1 February 2016). The PMG will consider this in their planning activities.

* OMG meeting on 28-29 July 2015: The OMG was in favour of adding the CR 494 to Release 1.1 (with delivery date in EAC on 16 January 2016) and that the OMG did not yet take a decision on the deployment date of the CR 494 as they would like to receive some additional information from the PMG about their related testing plan.

* Advisory Group's advice on 7 August 2015: Following a written procedure, the AG was in favour of recommendation for the approval of the Change Request and its addition to Release 1.1.

* CSG resolution on 10 August 2015: Following a written procedure, the CSG was in favour of recommendation for the approval of the Change Request and its addition to Release 1.1.

EUROSYSTEM ANALYSIS – GENERAL INFORMATION

Impact on T2S	Static data management		Interface	
		Party data management	x	Communication
		Securities data management	x	Outbound processing
		T2S Dedicated Cash account data management		Inbound processing
		Securities account data management		
	x	Rules and parameters data management		
	Settlement		Liquidity management	
	x	Standardisation and preparation to settlement		Outbound Information Management
		Night-time Settlement		NCB Business Procedures
		Daytime Recycling and optimisation		Liquidity Operations
		Daytime Validation, provisioning & booking	LCMM	
		Auto-collateralisation		Instructions validation
			x	Status management
	Operational services			Instruction matching
		Data Migration		Instructions maintenance
		Scheduling	Statistics, queries reports and archive	
	x	Billing	x	Report management
		Operational monitoring		Query management
			x	Statistical information
			x	Legal archiving
	All modules (Infrastructure request)			
	No modules (infrastructure request)			
	Business operational activities			
	Technical operational activities			

Impact on major documentation		
Impacted GFS chapter	2.3.1. Interface 2.3.1.1 Communication Mode 3.2.1 General Introduction 3.7.4.2 Static Functional Description <ul style="list-style-type: none"> • General information • Preconditions for report creation • Availability of Reports 3.7.5 Legal Archiving 3.7.5.1 Static functional description <ul style="list-style-type: none"> • Data Extraction for Archiving • Data Archiving 	Modify sections to include Flat File report generation details. LTSI: Modify sections to include Flat File report data extraction details.
Impacted UDFS chapter	1.3.1.2 Modes of Connectivity 1.6.4.2.3 Report generation process 1.6.5.7.6 Billing Data Collection Process Table 164 and 167 2.19.1 Introduction 2.19.3 Outbound Messages 1.6.4.x Report File Generation (new section) 2.xx Flat File (new section)	Creation of new section dedicated to the generation of flat files in lieu of A2A and U2A reports as per section 1.6.4.2. Creation of new section describing the interaction between CSDs and T2S as regards the generation of flat files in view of A2A and U2A reports as per section 2.19. *Critical reports designated for flat files: <ul style="list-style-type: none"> o semt.002 Statement of holdings o semt.016 Statement of settled intra-position movements

		<ul style="list-style-type: none"> o semt.017 Statement of transactions o semt.018 Statement of pending instructions o semt.034 Statement of pending intra-position movements
Additional deliveries for Message Specification		
UHB	UHB v.2.0 Section 2.5.7.6 Report Configurations – Search/List Screen UHB v.2.0 Section 2.5.7.8 Report Configuration – New/Edit Screen	
External training materials		
Other documents		
Links with other requests		
Links	Reference	Title

OVERVIEW OF THE IMPACT OF THE REQUEST ON THE T2S SYSTEM
Summary of functional, development, infrastructure and migration impacts
<p>Update of the T2S processes and documentation to accommodate the generation of flat files, in the interest of providing performance improvements over current A2A versions. Includes the following critical reports:</p> <ul style="list-style-type: none"> o Statement of holdings o Statement of settled intra-position movements o Statement of transactions o Statement of pending instructions o Statement of pending intra-position movements <p>The generation of these flat files requires modifications to enable the configuration, scheduling and triggering of these reports as well as additional functionality within the LCMM and Settlement domains for the direct retrieval and formatting of the relevant information.</p> <p>The configuration management will allow the T2S Operator to determine whether flat files or ISO report messages are required for a particular system entity.</p> <p>The extraction of the data populating the flat file version of the reports will be done directly from the backend modules, thereby improving the performance of the generation for these critical reports. Conversion of internal IDs into external IDs will be performed when needed and is dependent on the data as defined within the data model.</p> <p>The flat file version of the reports will be created in a Like-For-Like approach ensuring that the contents are equivalent to those found in the respective ISO report messages.</p> <p>A module common to all reports will provide billing and any necessary pagination or splitting for the finalisation of the flat file reports.</p> <p>The following reports will be generated as flat file if opted by CSDs:</p> <p>Semt.002 - Statement of holdings:</p> <ul style="list-style-type: none"> • The full version is generated during the next business day, outside EOD/SOD period and informs the CSD of the EOD securities positions from the previous business day per Securities Account. This includes positions where no activity has occurred and zero positions changed or turned zero during the previous business day. •The Delta version is generated at EOD and reflects the current securities positions within a security account, which were either newly created, changed or turned zero since the SOD. Contrary to the A2A version, the flat file delta version will not contain accounts where no activity has occurred. No activity, in this case, signifies that

no change in securities positions has occurred since the generation of the full version of the previous business day.

Semt.016 – Statement of Settled Intra-position movements:

- The full version is generated during the next business day, outside of the EOD/SOD period and informs the CSD of the **settled or partially settled intra-position movements** during the previous business day per Securities Account. All securities account of a given system entity will be extracted and further broken down by Financial Instrument.
- Delta version is generated at EOD and reflects the **newly settled/partially settled intra position movements from the Start of Day** for every securities account of a given system entity.

The report, either in delta or full mode, provides information on the latest status and current attribute values at the time of the report generation.

Semt.017 – Statement of Transactions:

- The full version is generated during the next business day, outside of the EOD/SOD period and informs the CSD of the **settled or partially settled settlement instructions** during the previous business day per Securities Account. All securities account of a given system entity will be extracted and further broken down by Financial Instrument.
- The Delta version is generated at EOD and **reflects the newly settled/partially settled settlement instructions from the Start of Day** for every securities account of a given system entity.

The report, either in delta or full mode, provides information on the latest status and current attribute values at the time of the report generation.

Semt.018 Statement of pending instructions:

- The full version is generated during the next business day, outside of the EOD/SOD period and informs the CSD of the **pending settlement instructions** that were **intended to be settled during previous business day** (ISD <= previous business day) but its status is still **partially settled or unsettled**.
- The Delta version is generated at EOD and reflects **the changes on the unsettled or partially settled settlement instructions from the Start of Day** for every securities account of a given system entity.. It also provides with a view on the cancelled settlement transactions from the SoD.

The report, either in delta or full mode, provides information on the latest status and current attribute values at the time of the report generation.

Semt.034 Statement of pending intra-position movements:

- The full version is generated during the next business day, outside of the EOD/SOD period and informs the CSD of the **pending intra-position movements** that were **intended to be settled during previous business day** (ISD <= previous business day) but its status is **partially settled or unsettled**.
- The Delta version is generated at EOD and reflects the **changes on the unsettled or partially settled intra-position movements from the Start of Day** for every securities account of a given system entity. It provides with a view on the cancelled intra-position movements transactions from the SoD.

The report, either in delta or full mode, provides information on the latest status and current attribute values at the time of the report generation.

All the reports will contain a signature only at DEP level and will be routed to a given Party Technical address previously determined and configured by T2S Service Desk.

Summary of project risk

Security analysis
The preliminary security analysis did not reveal any IT security issues which may negatively impact the cost assessment and/or delivery planning.

DG - MARKET INFRASTRUCTURE & PAYMENTS
MARKET INFRASTRUCTURE MANAGEMENT

ECB-PUBLIC

3 June 2015

COST ASSESSMENT ON CHANGE REQUESTS

T2S-0494-SYS Flat file solution for reports at end of day (EoD) period		
Project phase costs (total)	645,753.35	in Euro
Running costs (annual average over cost recovery period)	65,209.75	in Euro