Delta Reporting Market Practice

Draft version created by the T2S Sub-group Message Standardisation (SGMS)

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Disclaimer: This document describes the current functionality of T2S with regards to Delta Reporting and is intended for discussion purposes at the SMPG.

Changes to previous versions			
Version 0.x Month YYYY	Type of change	Description of change	Page x
Version 0.1 August 2016	Draft	Initial draft provided by the T2S community	

I. Scope and definitions:

The scope of this document is to illustrate how ISO20022 message formats can be used for delta reporting on securities settlement.

A delta report is a report which only contains data for which the status/content has changed since the generation of the previous report or since the start of the business day. Delta reports use the same message formats as complete reports, but they do not report instances which were not changed during the reporting period.

Delta reports are an efficient way to perform interim reconciliation, in order for actors not to have to rely on large and costly complete reports every day. This is relevant in particular for actors in TARGET2-Securities (T2S) having large amounts of data, mainly positions and pending instructions.

There are two main usage types of delta reports which can be differentiated:
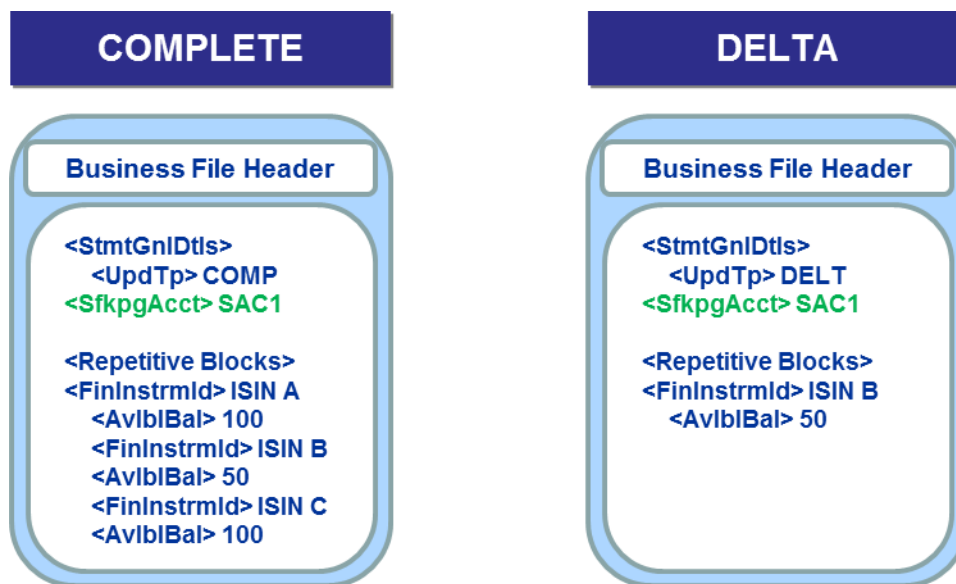
- End-of-day delta reports which replace complete reports for end-of-day reconciliation. In this case an actor configures to receive only one delta report per day and required report type (positions, pending instructions, allegements etc.). The receipt of the full version (instead of the delta version) will be requested only on a weekly, monthly or yearly basis.
  For example, in T2S there are CSDs which perform full position reconciliation only once a month. On all other days, these CSDs rely on delta reports to reconcile changes in position in their system with the changes made in T2S. This way a substantial cost reduction can be achieved, in combination with a lower amount of data which has to be processed by the reconciliation engines every day.

- Intra-day delta reports which complement complete reports for intra-day reconciliation. In this case an actor configures to receive several delta reports per day and required report type (positions, pending instructions, allegements etc.)
  For example, there might be T2S Actors which request an allegement report in delta version on an intra-day basis, in order to know which instructions against their accounts were newly submitted and require the submission of a matching leg.

Even if the usage of delta reports is highly recommended by T2S from a performance and cost perspective, it is advised not use them as the single source of input for internal reconciliation activities. At least on a yearly basis, but rather more often, complete reports should be requested for full system reconciliation.

EXAMPLE (Statement of Holdings, semt.002)

In a securities account (SAC1) a settlement party holds at day T_0 three different securities positions (ISIN A, ISIN B and ISIN C), each in quantity 100. During day T_1, a quantity of 50 ISIN B is sold and delivered to another account.

At the end of settlement day T_1, the following semt.002 reports would be created, depending on the report configuration of the settlement party in its settlement system:

COMPLETE

Business File Header

<StmtGnlDtls>
  <UpdTp> COMP
<SfkpgAcct> SAC1

<Repetitive Blocks>
<FinInstrmId> ISIN A
  <AvlblBal> 100
    <FinInstrmId> ISIN B
    <AvlblBal> 50
    <FinInstrmId> ISIN C
    <AvlblBal> 100

DELTA

Business File Header

<StmtGnlDtls>
  <UpdTp> DELT
<SfkpgAcct> SAC1

<Repetitive Blocks>
<FinInstrmId> ISIN B
  <AvlblBal> 50

A delta report only contains data for which the status/content has changed <u>since the generation of the previous report</u> or <u>since the start of the business day</u>. Delta reports use the same message formats as complete reports, but they do not report instances which were not changed during the reporting period.

In theory, delta reports could be built for every report type, but in the T2S community only the following restricted selection of report types is available in delta mode:

- PendingReport (for instructions, intra position movements and intra balance movements)
- PostingReport (for transactions, intra position movements and intra balance movements)
- CancellationReport, one for executed and another one for pending cancellations (for instructions and intra position movements and for intra balance movements)
- ModificationReport, one for executed and another one for pending modifications (for instructions and intra position movements and for intra balance movements)
- AllegementReport
- SecuritiesBalanceCustodyReport

As indicated above, there are different types of instructions to impact a securities or cash position:
1. <u>Settlement instructions</u>, which transfer securities from one account to another[1]. This can be through FoP or DvP.
2. <u>Intra-position movements</u>, which move existing positions into a different sub-position type within the same securities account. Intra-position movements are not connected to any cash movement.
3. <u>Intra-balance movements</u>, which move existing cash balances into a different sub-position type within the same cash account. Intra-balance movements are not connected to any securities movement.

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[1] Settlement instructions can also be used to move positions within the same account from an available position type to another sub-position type or vice versa. However, this concept is not applied in T2S where for such change of position type, intra-position movements should be used.

In general the concept of delta reporting is the same for all three types of instructions to impact a securities or cash position, but small differences have to be considered, as described throughout the document.

In order to allow a proper and aligned reporting of Settlement instructions, Intra-position movements and Intra-balance movements, the T2S community has defined new ISO20022 messages[2] which are not part of the general catalogue of ISO 20022 messages as provided by the International Organization for Standardization yet.

Whenever an ISO20022 message type is mentioned in this document which is not part of the current ISO20022 repository, this is a message type developed by the T2S community[2].

II. Actors and Roles:

Analogue to Market Practice Custody Holdings Reconciliation, section 1.3 Actors and Roles

Or: There are only two main actors involved in the process, the Settlement Executing Party (e.g. T2S) which generates the report and the Account Owner/Account Servicer which receives the report. For any settlement related report there might be other interested parties which subscribed to receive the report, but they are not relevant in this context.

III. Activity Diagram:

Analogue to Market Practice Custody Holdings Reconciliation, section 1.5 Activity Diagram

Or: remove section

IV. Sequence Diagrams:

Analogue to Market Practice Custody Holdings Reconciliation, section 1.4 Sequence Diagrams

V. Business data requirements:

To be added

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[2] The definition of new ISO20022 messages was done in April 2009, on the basis of the Business Justification for the Development of new UNIFI (ISO20022) Financial Repository submitted by Deutsche Bundesbank on behalf of the 4CB.

VI. Market Practice Rules – Delta vs Complete Reports:

A settlement system could be designed in such a way that all supported report types can be received not only at the end of a business day, but also intra-day, i.e. several times during the business day. This is the case for example for the T2S platform. Configuration of reports can be done based on time triggers or event triggers, throughout the whole business day. This practice might differ in various settlement systems where statements may generally be created to report the end-of-day situation only. In addition, such reports differentiate between complete statements and delta statements. Whereas complete statements provide information based on a snapshot taken at a certain point in time, delta statements report changes made during a certain time span. This time span is defined differently for

- The first delta statement received on a certain business day
  In this case the delta statement reports changes between the start-of-day and the time of creation of the delta statement
- Subsequent delta statements on the business day
  In this case the delta statement reports changes made since the generation of the last statement. This previous statement itself could have been a complete or a delta statement

Delta reports can be used to get an overview of settlement activities performed during a certain time span. This might be relevant for actors as in settlement systems where there are several specific events and cut-offs throughout the day. For example, an actor in T2S might want to receive a statement of settled transactions after each partial settlement window, or after the T2S DvP cut-off (which is prior to the T2S FoP cut-off).

The following sections provide a high level overview of the differences between delta version and complete version of the report types mentioned, and the related usage rules. For all delta versions it has to be differentiated if a report is the first one generated on a given business day, or is a subsequent one (intra-day receipt).

A. PostingReport

SecuritiesTransactionPostingReport semt.017, IntraPositionMovementPostingReport semt.016 and IntraBalanceMovementPostingReport camt.084*

For all three posting reports, delta is only relevant for intra-day receipt in case more than one report is generated throughout the business day

- o The first delta report received during the day would contain the same data as the complete report.
- o Any subsequent report would be different depending on the report type
  - Delta report only reports the transactions/movements that were posted since the generation of the previous report, if any.
  - Complete report always reports all transactions/movements that were posted since the start of the current business day.

Business need

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* This is a message type developed on the basis of the Business Justification for the Development of new UNIFI (ISO20022) Financial Repository submitted by Deutsche Bundesbank on behalf of the 4CB in April 2009 which is not part of the standard set of ISO20022 messages yet.

In general, delta reports are used to prevent duplicate reporting of postings, with each and every report generated throughout the business day decreasing reporting costs and reducing the required processing capacity.

In T2S for example, posting reports can be configured several times throughout the day. This might be relevant for T2S Actors that rely on statements rather than on real-time messages for their internal book keeping. Intra-day reporting would be relevant to inform these actors about the current status of their settlement activities throughout the business day. Several points in time or business events could be considered to receive such reports, e.g. after each partial settlement window, or after the DvP cut-off.

B. Modification Report

SecuritiesSettlementConditionsModificationRequestReport semt.031* and IntraBalanceMovement ModificationReport camt.081*

Each of these reports is divided into two sub-reports, which can be generated and distributed separately, depending on the configuration; version that contains all pending requests and version that contains all executed requests.

The SecuritiesSettlementConditionsModificationRequestReport contains Amendment and Hold/Release Instructions related to Settlement instructions as well as to Intra-position movements. The IntraBalanceMovementModificationReport contains Amendment Instructions related to Intra-balance movements only.

In T2S for example, modification requests are immediately executed, which means that the version which contains all pending requests will be empty on most business days. Only in case of technical issues or special circumstances a modification request might be accepted but not immediately executed. In such cases, the request would be included in the report. Due to this, the version which contains executed modification requests is much more commonly used.

Scenario Report of pending modification requests

This scenario is only relevant for settlement systems in which modification requests can be pending in practice, which is the case only if modification requests are not executed immediately. As mentioned above, this scenario is not relevant for the T2S community where modifications are generally executed immediately.

- o For the report of pending modification requests, the delta version will in any case (end-of-day and intra-day) have a different content than the complete version.
  - ▪ The delta report contains all newly submitted modification requests which were accepted by the system since the start of the business day or since the generation of the previous report (delta or complete) but which were not yet executed, if any. In addition it would report all modification requests that were reported as pending in one of the previously received statements on that business day and which expired or were denied by the system in the meantime. Modification requests that were previously reported as pending, but were executed in the meantime, will not be included in the delta report of pending modification requests. Such executed requests will only be included in the report of executed modification requests (both delta and complete).

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- The complete report would always report all modification requests that are pending in the system

Scenario **Report of executed modification requests**

- o The first delta report received during the day would contain the same data as the complete report. It contains all modification requests which were executed since the start of the business day, if any.
- o Any subsequent report would be different depending on the report type
  - Delta report contains all modification requests that were executed since the generation of the previous report for executed modifications, if any.
  - Complete report always contains all modifications that were executed since the start of the current business day.

Business need

In general, delta reports are used to prevent duplicate reporting of modification requests, with each and every report generated throughout the business day decreasing reporting costs and reducing the required processing capacity.

In T2S for example, modification reports can be configured several times throughout the day. This might be relevant for T2S Actor in different contexts:

- For internal book keeping, some T2S Actors may rely on statements rather than on real-time messages. Intra-day reporting would be relevant to inform these actors about the current status of their settlement activities throughout the day.
- For information on the latest attribute values of a modified instruction to impact a securities or cash position

C. **Cancellation Report**

SecuritiesTransactionCancellationRequestReport semt.033* and IntraBalanceMovementCancellation Report camt.083*

Each of these reports is divided into two sub-reports, which can be generated and distributed separately, depending on the configuration; version that contains all pending requests and version that contains all executed requests. Pending cancellation requests will mainly occur in situations where bilateral cancellation is required and the counterparty has not yet accepted the cancellation request. In addition there are other reasons which could lead to a cancellation request being pending, e.g. due to the fact that an instruction to be cancelled is subject to conditional securities delivery (CoSD).

Settlement instructions and intra-position movements would be included in the same report, while Intra-balance movements would be reported separately, making use of the two new ISO20022 messages.

Scenario **Report of pending cancellation requests**

- o For the report of pending cancellation requests, the delta version will in any case (end-of-day and intra-day) have a different content than the complete version.

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- The delta report contains all newly submitted cancellation requests which were accepted by the settlement system since the start of the business day or since the generation of the previous report (delta or complete) but which were not yet executed, if any. In addition it will report all cancellation requests that were reported as pending in one of the previously received statements on that business day and which expired or were cancelled by the system in the meantime. Cancellation requests that were previously reported as pending, but were executed in the meantime, will not be included in the delta report of pending cancellation requests. Such executed requests will only be included in the report of executed cancellation requests (both delta and complete)
- The complete report would always report all cancellation requests that are pending in the settlement system

Scenario Report of executed cancellation requests

- o The first delta report received during the day would contain the same data as the complete report. It contains all cancellation requests which were executed since the start of the business day, if any.
- o Any subsequent report would be different depending on the report type
    - Delta report would contain all cancellation requests that were executed since the generation of the previous report for executed cancellations, if any.
    - Complete report would always report all cancellations that were executed since the start of the current business day.

Business need

In general, delta reports are used to prevent duplicate reporting of cancellation requests, with each and every report generated throughout the business day decreasing reporting costs and reducing the required processing capacity.

In T2S for example, cancellation reports can be configured several times throughout the day. This might be relevant for T2S Actor in different contexts:

- For internal book keeping, some T2S Actors may rely on statements rather than on real-time messages. Intra-day reporting would be relevant to inform these actors about the current status of their settlement activities throughout the day.
- For information on the latest attribute values of a cancelled instruction to impact a securities or cash position

D. Pending Report

SecuritiesTransactionPendingReport semt.018, IntraPositionMovementPendingReport semt.034* and IntraBalanceMovementPendingReport camt.085*

- o For all three posting reports, delta version will in any case (end-of-day and intra-day) have a different content than the complete version
    - The delta report will contain all pending instructions/movement requests that were new, modified, cancelled or changed their status since the generation of the last report

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or since the start of the business day, if any. It will not show instructions/movement requests which have settled since the last report or SoD (no delta between 'pending' and 'not pending anymore') and will neither show pending instructions/movement requests for which no modification or status change has happened.

  ▪ The complete report will contain all instructions/movement requests that are pending on the time of the report generation.

Business need

In general, delta reports are used to prevent duplicate reporting of pending instructions and movement requests, decreasing reporting costs and reducing the required processing capacity.

In T2S for example, pending reports can be configured several times throughout the day. This might be relevant for T2S Actor in different contexts:

- For internal book keeping, some T2S Actors may rely on statements rather than on real-time messages. Intra-day reporting would be relevant to inform these actors about the current status of their settlement activities throughout the day. Several times or business events could be considered to receive such reports, e.g. after each partial settlement window, or after the T2S DvP cut-off.

E. **Allegement Report**

SecuritiesSettlementTransactionAllegementReport semt.019

For the allegement report, delta version will <u>in any case</u> (end-of-day and intra-day) <u>have a different content</u> than the complete version

  o The delta report will contain alleged settlement instructions, if one of the following conditions applied since the generation of the last report or since the start of the business day (the reporting period):
    ▪ Newly alleged settlement instructions, if any
    ▪ Settlement instructions for which an allegement was removed or cancelled, if any.
    The delta report will not show alleged settlement instructions for which there was no change in the allegement status since the generation of the last report or the start of the business day.
  o The complete report will contain all alleged settlement instructions. It will not report settlement instructions for which allegement was removed or cancelled.

Business need

In general, the delta report for allegements is used to prevent duplicate reporting of alleged instructions and increase level of information (removal and cancelled allegements), allowing more quality of information.

In T2S for example, the allegement report can be configured several times throughout the day. This might be relevant for T2S Actor in different contexts:

- For internal book keeping, some T2S Actors may rely on statements rather than on real-time messages. Intra-day reporting would be relevant to inform these actors about the current status of their settlement activities throughout the day. Several times or business events could be considered to receive such reports, e.g. after each partial settlement window, or after the DvP cut-off.
- Some T2S Actors may also use the delta report of allegements to get information about alleged settlement instructions for which the partial settlement indicator was changed (the updated value will be reported).

F. SecuritiesBalanceCustodyReport

Statement of Holdings, semt.002

For the statement of holdings, delta version will <u>in any case</u> (end-of-day and intra-day) <u>have a different content</u> than the complete version

- o The delta report will contain all securities positions and sub-positions in a given account which have changed or became zero since the generation of the last report or since the start of the business day. Positions will be shown on aggregated level and on sub-balance level.
- o The complete report will contain all securities positions (aggregated and sub-positions) in a given account on the time of the report generation. In addition, it will report securities for which the position has changed to zero on the same business day.

Business need

In general, delta reports can be used to prevent duplicate reporting of securities positions, which decreases reporting costs and reduces the required processing capacity.

In T2S for example, the statement of holdings report can be configured several times throughout the day. This might be relevant for T2S Actors that rely on statements rather than on real-time messages for their internal book keeping. Intra-day reporting would be relevant to inform these actors about the current status of their settlement activities throughout the day. Several times or business events could be considered to receive such reports, e.g. after each partial settlement window, or after the DvP cut-off.

G. <u>General market practice rules</u>

1. For the reporting of partial settlement, the same rules apply for complete reporting as well as delta reporting. For a Market Practice on Partial Settlement refer to the related SMPG document. The market practice on partial settlement was implemented in May 2015.

2. For pagination, the same rules apply for complete reporting as well as delta reporting. A description of fields to be used to handle pagination can be found in the Market Practice on Custody Holdings Reconciliation.

3. For all delta and complete reports mentioned, the Activity Indicator <RptGnlDtls><ActvtyInd> is set to TRUE if there is at least one item to report. If there is no item to report, the Activity Indicator is set to FALSE

VII. Detailed Rules

A. Pending Report

SecuritiesTransactionPendingReport semt.018, IntraPositionMovementPendingReport semt.034* and IntraBalanceMovementPendingReport camt.085*

The delta report will contain all pending instructions, pending intra position movements or pending intra balance movements that were <u>new</u>, <u>modified</u>, <u>cancelled, partially settled or partially executed</u> or <u>changed their status</u> since the generation of the last report or since the start of the business day. It does not contain instructions or movements which were previously pending but which have settled completely during the reporting period. All four conditions which result in inclusion of an instruction to the delta report shall be defined in more detail in this section.

New instructions, intra position movements and intra-balance movements

These are instructions and movements that were accepted by a settlement system before generation of the report and which have not been reported in a previous statement. It does not contain instructions and movements which were newly submitted within the reporting period, but were already settled prior to the generation of the report.

Modified instructions, intra position movements and intra-balance movements

These are instructions and movements for which a modification of a processing indicator was executed by a settlement system before generation of the report and which have not been reported in a previous statement. Processing indicators in T2S are

- Priority Value
- Linkage
- Partial Settlement Indicator, only applicable for settlement instructions

For example, a modification request which was submitted to a settlement system but which was not yet executed would not lead to inclusion of the instruction in the Pending Report.

Cancelled instructions, intra position movements and intra-balance movements

These are instructions and movements for which a (bilateral) cancellation was executed before generation of the report and which have not been reported in a previous statement. In general, cancelled instructions and movements are not considered pending any longer and are therefore not included in Pending Reports.

The inclusion of cancelled instructions and movements in a Pending Report is a behaviour which is very specific to the T2S delta version of the Pending Report. The complete version of the T2S Pending Report follows the general rule, i.e. excludes cancelled instructions and movements, whereas the delta version explicitly includes them.

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Partially settled instruction

These are instructions which have settled partially during the reporting period. This could be the first part or any subsequent part, but not the last remaining part (this way the instruction is fully settled and not pending any longer). In case of partial settlement, situations may occur where an instruction is reported in a delta report, even if there was no visible change in any status. The entry will look exactly the same as in the previous report, as the statement of pending instructions only reports the original quantity and amount, not the remaining ones.

Note: In the specific example of T2S, partial settlement of instructions will be applied during night-time settlement, but only during specific partial settlement windows during real-time settlement. Outside these windows, T2S does not attempt for partial settlement during real-time settlement.

Partially executed intra position movements and intra-balance movements

These are movements which have been executed partially during the reporting period. This could be the first part or any subsequent part, but not the last remaining part (this way the movement is fully executed and not pending any longer). In case of partial execution, situations may occur where a movement is reported in a delta report, even if there was no visible change in any status. The entry will look exactly the same as in the previous report, as the statements of pending intra position movements and pending intra-balance movements only report the original quantity and amount, not the remaining ones.

Note: different to partial settlement on instruction level, intra position movements and intra balance movements can be executed in parts at any time during the business day, whenever the system is available for settlement.

Status change of an instruction
- Matching Status – change from unmatched to matched
- Any change that is causing a change in the pending reason code (settlement status section)
  - Change of hold status (party, CDS, CVAL or CoSD hold status of own instruction or any hold of counterparty instruction)
  - Changes in reason why settlement attempt was failing, independent from instruction parameters, e.g. lack of cash or securities, securities or cash account blocked (all for own or counterparty side), change in status of a linked instruction or a pool that hinders settlement, market deadline was missed, partial settlement execution
- Any change in the instruction processing status
  - Cancellation requested
  - Cancellation requested by counterparty

In case a status settlement or processing status code was added and removed again (or removed and added) within the reporting period, e.g. instruction was released and set on hold again (same hold status), then the instruction will be included in the delta report, even if the same code is reported as before.

In the specific case of T2S, all pending reasons which do apply are reported to the T2S Actors, which could be several ones. In order for an instruction to be included in the delta version of the report, it is sufficient if one of the codes has changed (was added or removed).

B. __Allegement Report__

SecuritiesSettlementTransactionAllegementReport Semt.019

The delta report will contain all newly alleged settlement instructions, as well as all settlement instructions for which allegement was removed or cancelled since the generation of the last report or since the start of the business day. It will also contain alleged settlement instructions modified (i.e. partial settlement indicator). It will not show alleged settlement instructions for which there was no change in the allegement status since the generation of the last report or the start of the business day.

Newly alleged settlement instructions

These are new allegements from other counterparties generated since the start of Day or since the last report of the present Business Date.

Allegement removals/cancellations

They are reported in the following cases to let the interested party know that the request for a settlement instruction to be matched with the one from the counterparty does not exist any longer.

> For alleged instructions from other counterparties:

> - o if a matching instruction has been received.
> - o if counterparty cancelled its instruction.

Modified

If previously alleged instructions have changed the partial settlement indicator before the generation of new delta report, then the updated value will be reported. On the other hand, alleged settlement instructions for which there was a change in the hold status (e.g. release of a Party Hold or CSD Validation Hold), priority or linkage section will not be shown.

C. __SecuritiesBalanceCustodyReport__

Statement of Holdings, semt.002

The detailed rules described hereafter are all specific ones which might apply to the T2S settlement system only.

In T2S a position in a given security and account can have several sub-positions. These sub-positions can be aggregated on different levels, as described below for a 'reserved' sub-position:

- • Restriction Reference: This is the most granular level. Each blocked/reserved position in T2S has a unique 16 digit Restriction Reference created technically by T2S
- • Restriction Type: 4 digit code as defined by the CSD which instructs the reservation, e.g. RES1. Under a given Restriction Type there can be several parts having a different Restriction Reference
- • Restriction Processing Type: 4 digit code which is predefined by T2S to indicate that the sub balance is related e.g. to a reservation (RESE), earmarking (EARM), etc. Under a given Restriction Processing Type there can be several different Restriction Types, depending on the Restriction Processing Type.

The following table lists the different T2S Restriction Processing Types and the possible restriction reference values, if applicable.

Restriction Processing Type name	Restriction Processing Type code	Restriction Type code	Restriction Reference
Available With No Additional Status (this position type can also become negative)	AWAS		
Earmarked for auto-collateralisation Earmarked position (both earmarking position types can also become negative)	EARM	EEUR, EXXX yyyy*	
Blocked position (this position type can only be positive)	BLCK	yyyy*	xxxx**
Reserved position (this position type can only be positive)	RESE	yyyy*	xxxx**
Collateralised position (this position type can only be positive)	COLL	COLL	
Position blocked due to conditional securities settlement (this position type can only be positive)	COSP	COSP	xxxx**

* yyyy – code is defined by CSDs in the T2S static data

** xxxx – technical identifier assigned by T2S

The T2S version of the Statement of Holdings provides information on aggregated positions as well as a detailed breakdown of sub-position. The following levels are reported:

First level of reporting

This level is reported in the section **'BalForAcct/'**

- **Aggregated Balance** (Sum of Available Balance and Not Available Balance)
  Reported in sub-section BalForAcct**/AggtBal**/
- **Available Balance** (Sum of all AWAS and EARM sub-positions)
  Reported in sub-section BalForAcct**/AvlblBal/**
- **Not Available Balance** (Sum of all BLCK, COLL, COSP and RESE sub-positions)
  Reported in sub-section BalForAcct/**NotAvlblBal/**

Second level of reporting

This level is reported in the section 'BalForAcct/**BalBrkdwn'**

- AWAS balance
  Reported with specific ISO sub-balance type: BalForAcct/BalBrkdwn/**SubBalTp/Cd/AWAS**
- **Aggregated Sub Balances** (up to 5 blocks to report the sum of positions under each Restriction Processing Type, EARM, BLCK, COLL, COSP, RESE)
  Reported with proprietary sub-balance type: BalForAcct/BalBrkdwn/**SubBalTp**/**Prtry/Id/**

Third level of reporting (level of Restriction Type)

This level is reported in the section 'BalForAcct/BalBrkdwn/**AddtlBalBrkdwnDtls'**

- **Aggregated Detailed Sub Balance** (sum of positions under each restriction type, several blocks, depending on the number of restriction types defined by the CSD, not applicable for AWAS)
  Reported with proprietary sub-balance type:
  BalForAcct/BalBrkdwn/AddtlBalBrkdwnDtls/**SubBalTp**/**Prtry**/**Id**/

Fourth level of reporting (level of Restriction Reference)

This level is reported in the section
'BalForAcct/BalBrkdwn/AddtlBalBrkdwnDtls/**QtyBrkdwn**'

- **Individual position of each Restriction Reference** (applicable only for BLCK, RESE and COSP)[8]
  Reported as different lot number:
  BalForAcct/BalBrkdwn/AddtlBalBrkdwnDtls/QtyBrkdwn/**LotNb/Prtry/Id/**

Full version of Statement of Holdings

In order to understand the T2S specific reporting logic in the delta version, first the reporting of the complete version should be outlined.

On the lowest level of granularity applicable (can be a different level depending on the Restriction Processing Type), the T2S specific <u>complete</u> version of the Statement of Holdings does report the current position of all sub-positions available, independent whether or not there was a change in the sub-position during the same business day. Zero positions are not reported. As an exception, sub-positions which have turned zero during the same business day are included in the complete report.

On the higher aggregated levels, the T2S specific <u>complete</u> version of the Statement of Holdings will be populated according to the following reporting rules:

- For the aggregated values the sum of the positions listed on the previous level will be reported
- Aggregated values (Aggregated Balance, Available Balance, Not Available Balance) will always be reported
- Aggregated sub-balances (second level of reporting) will not be reported if no related (aggregated) sub-position was listed on the lower levels
- For COSP positions only aggregated balances are reported. The individual sub-positions (Restriction References) of COSP positions are not reported (refer also to Change Request T2S-0551-SYS).
- If a sub-position has changed to zero during the same business day, the zero will also be reported on all higher levels (if the zero-position is the only position under a given aggregated value, otherwise the sum of the other positions applicable will be reported)
- In case of negative and positive sub-positions, if the sum of positive and negative is zero on an aggregated level, the zero will be reported
- For the total Aggregated Balance it is reported if the position is positive or negative (long/short). For all other aggregated (sub-) positions it is not indicated if the aggregated value is positive or negative. Pending CR 'T2S-0519-SYS - Add Short/Long Indicator for all positions/sub-positions in Statement

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[8] Pending CR 'T2S-0551-SYS - Reporting of Restriction References for COSD blocked positions in the Statement of Holdings (semt.002)' has requested to also report the Restriction Reference of COSP positions in the Statement of Holdings.

of Holdings (semt.002) report' has requested to introduce the long/short indicator for all aggregated and detailed positions reported in the Statement of Holdings.

For an ISO20022 example of the complete version of a Statement of Holding, please refer to section VIII.

Delta version of Statement of Holdings

In T2S, the lowest level of delta reporting is the Restriction Type. In case there has been a change to a position belonging to that Restriction Type, the Restriction Type will be reported with the new value, not with the amount by which it changed (For example, a sub position which decreased by 50 from 200 to 150 will be reported as 150). If the Restriction Type belongs to Restriction Processing Types BLCK or RESE, all Restriction References of that Restriction Type will be reported with their current balance (also those that did not change.)

On the higher aggregated levels, the T2S delta version will be populated according to the following reporting rules:

- For the aggregated values the sum of the positions listed on the previous level will be reported.
  This means that on higher levels, sub-positions that have not changed will not be included in the aggregated positions. Therefore, in some cases the aggregated positions will not reflect the total holdings in that (sub-) position, but only the sum of (sub-) positions for which a change applied during the reporting period. This is true for all aggregated levels starting with the Restriction Processing Type upwards. The Restriction Types and Restriction References (if applicable) will always contain the complete current position.
- The Restriction References of COSP positions are not reported. In case of a several COSP positions for which only a subset of them has changed during the reporting period, only the sum of the COSP positions that were changed will be reported (refer also to Change Request T2S-0551-SYS)
- Aggregated values (Aggregated Balance, Available Balance, Not Available Balance) will always be reported - in case no changes occurred the value will be 0. (Example: If no changes occurred to available or earmarked positions, the Available Balance will be reported as 0)
- Aggregated sub-balances (second and third level) will not be reported if no related (aggregated) sub-position was listed on the lower level
- If a sub-position has changed to zero during the same business day, the zero will also be reported on all higher levels (if the zero-position is the only position under a given aggregated value, otherwise the sum of the other positions applicable will be reported)
- In case a change has happened on negative and positive sub-positions, if the sum of positive and negative is zero on an aggregated level, the zero will be reported
- For the total Aggregated Balance of changed positions it is reported if the sum is positive or negative (long/short). For all other aggregated (sub-) positions it is not indicated if the aggregated value is positive or negative. Pending CR 'T2S-0519-SYS - Add Short/Long Indicator for all positions/sub-positions in Statement of Holdings (semt.002) report' has requested to introduce the long/short indicator for all aggregated and detailed positions reported in the Statement of Holdings.

For an ISO20022 example of the T2S specific delta version of a Statement of Holding, please refer to section VIII.

VIII. <u>ISO 20022 Illustrations:</u>

A. <u>**Pending Report - Example 1:**</u>

Instruction scenarios and related reporting as applied in the specific case of T2S

Initial situation	Change	In **complete** report*	In **delta** report*
Securities Account 1			
Matched instruction on party hold	Release of party hold	Yes	Yes
Unmatched instruction on party hold (SI1)	On another instruction a WITH link was added pointing to this instruction (SI2)**	Yes (SI1)	No (SI1)
Unmatched instruction	Matched – PEND FUTU	Yes	Yes
Unmatched instruction	Matched and settled	No	No
Unmatched instruction – priority indicator = 0004	Priority changed to 0003	Yes	Yes
Matched instruction – cancellation requested by counterpart	Instruction was cancelled due to cancellation by counterparty	No	Yes
Matched instruction – lack of securities	Counterparty cash account blocking added	Yes	Yes
Matched instruction – FUTU	Cancellation was requested	Yes	Yes
	New unmatched instruction	Yes	Yes
	New pre-matched instruction which immediately settled	No	No
	New instruction which was directly cancelled again	No	Yes
Matched instruction – lack of securities	Settlement of the first part, no full settlement	Yes	Yes
Matched instruction – FUTU	No change	Yes	No
Unmatched instruction	Cancelled	No	Yes
Matched instruction – LACK, PART	Settlement of another part, not the last one	Yes	Yes

* Reports are generated after the changes were applied

** SI2 has a different safekeeping account and is therefore not reported in any of the versions of the pending report for Securities Account 1

B. <u>Allegement Report - Example 1:</u>

Instruction scenarios and related reporting as applied in the specific case of T2S

Prior to Reporting Period	During Reporting Period	Complete report*	Delta report*
Securities Account 1			
Pending alleged instruction A on party hold	Release of party hold	Yes	No
Pending alleged instruction B	Adding of a link on pending alleged instruction B	Yes	No
Pending alleged instruction C	Matched with counterparty's SI	No	Yes
Pending alleged instruction D - priority indicator = 0003	Priority changed to 0002	Yes	No
Pending alleged instruction E	Alleged instruction E cancelled	No	Yes
	New alleged instruction D	Yes	Yes

* Reports are generated after reporting period (fixed time/ event time)

C. <u>Statement of Holdings – Example 1</u>

Instruction scenarios and related reporting as applied in the specific case of T2S

Restriction Processing Type code	Restriction Type code	Restriction Reference	Quantity
Securities Account 1			
AWAS			10,000

Restriction Processing Type code	Restriction Type code	Restriction Reference	Quantity
EARM	EEUR		2,000
EARM	EXXX		3.000
EARM	EAR1		- 2.000
BLCK	BLO1	Blo1Ref11	150
		Blo1Ref12	30
		Blo1Ref13	20
	BLO2	Blo2Ref21	90
		Blo2Ref22	10 + 50 = 60

RESE	RES1	Res1Ref11	400
COLL	COLL		1,000 - 250 = 750
COSP	COSP	T2STecID123	300
COSP	COSP	T2STecIDABC	200
Securities Account 2			
No positions			

During the current business day:

- Blo2Ref22 increased by 50 (10 + 50 = 60)
- COLL decreased by 250 (1,000 - 250 = 750)

Example 1 for complete report in ISO20022 format after change of position

Securities Account 1
ActivityIndicator = 'TRUE'

- Aggregated Balance: 13,000 + 2,000 =15,000
- Available Balance: 10,000 + 3,000 = 13,000
- Not Available Balance: 350 + 400 + 750 + 500 = 2,000

- Aggregated Sub Balance
  - AWAS balance: 10,000
  - EARM: 2,000 - 2,000 + 3,000 = 3,000
    - EEUR: 2,000
    - EXXX: 3,000
    - EAR1: 2,000 (Note: currently there is no short indicator for this position)
  - BLCK: 200 + 150 = 350
    - BLO1: 150 + 30 + 20 = 200
      - Blo1Ref11: 150
      - Blo1Ref12: 30
      - Blo1Ref13: 20
    - BLO2: 90 + 10 = 150
      - Blo2Ref21: 90
      - Blo2Ref22: 60
  - RESE: 400
    - RES1: 400
      - Res1Ref11: 400
  - COLL: 750
    - COLL: 750
  - COSP: 500
    - COSP: 500
      - (Note: currently the Restriction References of COSP positions are not reported)

Securities Account 2

ActivityIndicator = 'FALSE'

Example 1 for delta report in ISO20022 format after change of position

Securities Account 1

ActivityIndicator = 'TRUE'

- Aggregated Balance: 900
- Available Balance: 0
- Not Available Balance: 750 + 150 = 900
- Aggregated Sub Balance
  - BLCK: 150
    - BLO2: 150
      - Blo2Ref21: 90
      - Blo2Ref22: 60
  - COLL: 750
    - COLL: 750

Securities Account 2

ActvtyInd = 'FALSE'

D. Statement of Holdings – Example 2

Instruction scenarios and related reporting as applied in the specific case of T2S

Restriction Processing Type code	Restriction Type code	Restriction Reference	Quantity
Securities Account 1			
AWAS			- 1,000
EARM	EAR1		500 – 500 = 0
COLL	COLL		200 – 100 = 100
Securities Account 2			
AWAS			100 – 100 = 0
Securities Account 3			
AWAS			3000

During the current business day:

- EAR1 in account 1 decreased by 500 (500 - 500 = 0)
- COLL in account 1 decreased by 100 (200 - 100 = 100)
- AWAS in account 2 decreased by 100 (100 - 100 = 0)

Example 2 for complete report in ISO20022 format after change of position

Securities Account 1

ActivityIndicator = 'TRUE'

- Aggregated Balance: - 1,000 + 100 = - 900
- Available Balance: - 1,000 + 0 = 1,000 (Note: currently there is no short indicator for this position, but calculation is still done on the basis of the negative value)
- Not Available Balance: 100
- Aggregated Sub Balance
- AWAS balance: 1,000 (Note: currently there is no short indicator for this position)
  - EARM: 0
    - EAR1: 0

- o COLL: 100
  - ▪ COLL: 100

Securities Account 2

ActivityIndicator = 'TRUE'

- Aggregated Balance: 0
- Available Balance: 0
- Not Available Balance: 0
- Aggregated Sub Balance
  - o AWAS balance: 0

Securities Account 3

ActivityIndicator = 'TRUE'

- Aggregated Balance: 3,000
- Available Balance: 3,000
- Not Available Balance: 0
- Aggregated Sub Balance
  - o AWAS balance: 3,000

Example 2 for delta report in ISO20022 format after change of position

Securities Account 1

ActivityIndicator = 'TRUE'

- Aggregated Balance: 100
- Available Balance: 0
- Not Available Balance: 100
- Aggregated Sub Balance
  - o EARM: 0
    - ▪ EAR1: 0
  - o COLL: 100
    - ▪ COLL: 100

Securities Account 2

ActivityIndicator = 'TRUE'

- Aggregated Balance: 0
- Available Balance: 0
- Not Available Balance: 0
- Aggregated Sub Balance
  - o AWAS balance: 0

Securities Account 3

ActivityIndicator = 'FALSE'