CCP 12.0 (T2S wave 4)

Release Notes
Abstract

This document describes the functional changes of the extension to Eurex Clearing's Central Counterparty (CCP) services due to the introduction of T2S (TARGET2 Securities) wave 4 (Eurex Clearing's CCP release 12.0). Please note: First amendments regarding T2S were introduced with T2S wave 1 (Eurex Clearing's CCP Release 9.2) and have been introduced with T2S wave 2. These changes are described in the respective release notes.

On 11 January 2016 the General Terms and Conditions (GTC) to the Agreement on Technical Connection to the Clearing EDP of Eurex Clearing AG (Connection Agreement) have been amended. According to this agreement, the contractual party now has to confirm its readiness. The link to the Readiness Statement is provided in the Appendix of this document.

For further information please refer to the GTC to the Connection Agreement1, § 10 Additional obligations of the Participant.

The document is primarily addressed to functional and operational staff of the Members' middle and back offices.

For a full description of the functionality of Eurex Clearing's CCP clearing platform, please refer to previous Release Notes available at the Eurex Clearing website www.eurexclearing.com.

This is an update to the Release Notes version released in 2016. The two clarifications in chapter 3.5 and 4.2.1 are highlighted in yellow.

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1 Functional Scope and Overview

CCP 12.0 (T2S wave 4) focuses on the transformation of services provided by Eurex Clearing to T2S, the new European securities settlement engine of the Eurosystem. Eurex Clearing aims to minimize the overall T2S introduction impact for its customers. Eurex Clearing will at first migrate all T2S-relevant business activities and products cleared to T2S to ensure continued services for all of its affected clients in the new T2S environment. In addition, Eurex Clearing will adjust its systems and processes to include changes prioritized by customers based on new functionality offered by T2S.

The structure of this document is as follows:

- Chapter 2 ‘Business Day’ gives an overview over the T2S business day and the adaption of the new Eurex Clearing business day to T2S timelines.
- Chapter 3 ‘Delivery Management’ describes the new cut off-times for the different instruments, intraday aggregation runs, changes in late delivery handling, the introduction of T2S partial settlement, T2S already matched (“ALM”) functionality, the introduction of the “Gross trade identifier” as well as conditional settlement.
- Chapter 4 ‘Cash’ explains the increase in frequency of cash runs, their effect on delivery management, limitations due to timing restrictions of external systems and entities like the Swiss National Bank and the euroSIC system, and the optional deviating DCA.
- Chapter 5 ‘Gross Delivery Management’ gives an overview of the changed MSIF deadlines, Single Delivery Instruction Flag, changes due to the introduction of intraday aggregation runs and limitations during these runs.
- Chapter 6 ‘Corporate Actions’ provides a description of the envisaged changes to follow the amendments planned by the CSDs in order to support harmonization efforts in the corporate action area. Relevant topics are the introduction of an opt-out flag, fraction- and imbalance handling.
- Chapter 7 ‘Reporting’ provides an overview of the changes aimed to moving from batch reporting to continuous reporting, changes in the reporting schedule and amendments to the reports themselves.
- Chapter 8 ‘Abbreviations and Glossary of Terms’ describes the short terms used across this document.
- The ‘Appendix’ provides information about the changes to the GTCs and the introduction of a Readiness Statement for Members that needs to be delivered for every release starting with CCP release 10.0.

This document is primarily addressed to functional and operational staff of the Members’ middle and back offices.

Eurex Clearing’s CCP Release 12.0 (T2S wave 4) is scheduled to be launched on 6 February 2017. It is mandatory for Eurex Clearing Members.
2 Business day

The T2S system has a distinctive business day. Eurex Clearing will change its business day to conform to the standards and the schedule set by the T2S system.

2.1 The T2S business day

The T2S business day consists of five general phases:

- The Start of Day procedures (SoD),
- Night Time Settlement (NTS1, NTS2),
- Maintenance Window (MTW),
- Real Time Settlement (RTS), and
- End of Day procedures (EoD).

The Partial Settlement Runs (PSR) are integrated into the Night Time Processing (NTP) and RTS-windows.

2.1.1 Schedule

At 18:45 the Start of Day procedures begin, followed by the Night-Time Settlement window (phase one (NTS1) and phase two (NTS2)) which are batch driven. One Partial Settlement Run is embedded in the NTS-window. If the NTS-window is completed before 3:00, T2S will start a RTS-window until 3:00. From 3:00 to 5:00 the T2S settlement platform is offline for maintenance. After the maintenance window, the Real-Time Settlement window starts. At 10:00 the first Partial Settlement Run (PSR) starts followed by Partial Settlement Runs at 12:00, 14:00 and 15:45. The Real-Time Settlement window continues until 18:00 where the business day is concluded by the EoD-procedures.

Delivery vs. Payment (DvP) cut-off time is at 16:00, followed by the Free of Payment (FoP)-cut-off at 18:00.

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2 All timings indicated in this document are Central European Time (CET).
3 The partial settlement windows at 10:00 and 12:00 are new and were not part of the initial T2S business day.
4 Please note: There is a BATM (Bilateral Agreed Treasury Management) instructions cut-off at 17:40 which is not displayed in the graphic above as Eurex Clearing will not use BATM instructions for its GC Pooling business at this time.
Due to the bridge enhancements between Euroclear Bank (EB) and CBL, the cut-off times for equity and bond bridge settlements will be extended from 14:30 to 15:30.

2.2 Eurex Clearing business day

The new Eurex Clearing business day will be aligned to the T2S business day. The following changes will be implemented:

- Batch reporting (BRP) will mostly be replaced by Continuous Reporting (CORPT).
- Intraday aggregation (IDA1-5) runs will be introduced to replace the intraday netting runs.
- The frequency and number of cash runs will be increased.
- Member Settlement Instruction File (MSIF) deadlines will be standardized for all instruments and aligned with the IDA/cash runs DTP1 to DTP5.
- Additional cash run DTP6 for the processing of partial settlement payments established.

2.2.1 General schedule

The netting schedule on S-1 is kept as it is today. Where possible, the timing is aligned with the T2S business day.

The current batch runs SDS1 and SDS2 will be replaced by five intraday aggregation (IDA) runs (see chapter 3.1 for more information). Aligned with these aggregation runs are the cash runs (DTP1 to DTP5), and the MSIF cut-off times shortly before every aggregation run. Furthermore, the new cash run DTP6 is introduced. It is important to note that aggregation runs are only applicable for T2S-eligible equity-style products in euro and non-euro currencies.

There will be an additional CORPT run at 1:00 while the CORPT run at 22:00 will remain as is today.
2.3 Processing of T2S-eligible equity-style products in non-euro currencies

T2S will only accept the settlement of cash legs in T2S-eligible currencies (currently only euro). The securities leg of equity-style products in other currencies can be settled in T2S (via Free of Payment instructions). Eurex Clearing will use CBFs service to settle T2S-eligible equity-style products in non-T2S-eligible currencies in T2S. Please refer to “Conditional Settlement” in chapter 3, section 3.4, for further information.

2.4 Bonds, Equity-style Products, GC Pooling and Euro Repo Market (at CBF)

Due to the decommissioning of batch runs SDS1 and SDS2 and changes to the business day, settlement times for various T2S-eligible products will change. The following table shows the start and end times at which settlement for various ECAG products on the actual T2S business day is possible (Please note: Start of Day at T2S is 20:00). After these times, pending instructions will be cancelled and re-instructed on the next T2S business day (e.g. NTS or DTP at the next T2S business day):

<table>
<thead>
<tr>
<th>Product (T2S-eligible)</th>
<th>Start of settlement</th>
<th>end of settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds (euro and non-euro)</td>
<td>20:00 (NTS)</td>
<td>16:00</td>
</tr>
<tr>
<td>Equity-style products (euro)</td>
<td>20:00 (NTS)</td>
<td>16:00</td>
</tr>
<tr>
<td>Equity-style products (non-euro)</td>
<td>20:00 (NTS)</td>
<td>17:30</td>
</tr>
<tr>
<td>Special Repo (non same day all term-legs)</td>
<td>20:00 (NTS)</td>
<td>16:00</td>
</tr>
<tr>
<td>Special Repo (non-same day front leg)</td>
<td>20:00 (NTS)</td>
<td>16:00</td>
</tr>
<tr>
<td>Euro GC Pooling (same day)</td>
<td>07:30 (DTP)</td>
<td>17:40</td>
</tr>
<tr>
<td>Special Repos (same day)</td>
<td>07:30 (DTP)</td>
<td>16:00</td>
</tr>
<tr>
<td>Euro GC Pooling (non-same day)</td>
<td>10:00 (DTP)</td>
<td>17:40</td>
</tr>
<tr>
<td>USD GC Pooling</td>
<td>14:30 (DTP)</td>
<td>17:40</td>
</tr>
<tr>
<td>CHF GC Pooling</td>
<td>07:00 (DTP)</td>
<td>12:45</td>
</tr>
</tbody>
</table>

Note: Due to netting, trades can settle in the offsetting block earlier than the defined times above.

5 Like ETFs, additional- and subscription rights.
3 Delivery Management

With the planned introduction of the T2S business day, Eurex Clearing will adapt its delivery management: new functionality will be introduced namely:

- Intraday aggregation runs
- Partial settlement
- Already matched instructions
- Conditional settlement
- Gross trade identifier

Please note: The existing settlement logic of the different trading venues will not change with the introduction of CCP 12.0 (T2S wave 4).

3.1 Intraday Aggregation Runs

As the existing batch runs used for equity-style products will be discontinued, intraday aggregation (IDA) runs will be introduced with CCP 12.0 (T2S wave 4). The goal of the new intraday aggregation runs is to reduce the number of delivery instructions sent intraday to T2S.

During each aggregation run, delivery instructions for released net sell- and buy trade quantities in the surplus are created and sent to T2S via CBF. In case more than one net trade from the surplus is released, the trades are aggregated into one or more delivery instructions (depending on shaping parameters). Net sell trades which are blocked are not considered in the IDA runs. **IDA runs are only performed for T2S-eligible equity-style products (in euro and non-euro currencies).** IDA runs are not applicable for bonds in general and equity-style products settled in Clearstream Banking Luxembourg (CBL).

Please note: Instructions for T2S-eligible bonds and repos are sent out immediately without aggregation.

A total of 5 IDA runs is introduced: Three IDA runs are scheduled between 6:15 and 12:15 and two IDA runs are aligned with the intraday partial settlement windows in T2S (14:00 and 15:45). Cash runs and MSIF-file deadlines are aligned with the IDA runs (See chapters 4 and 5 for more details). The timings are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Timing (in CET)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intraday Aggregation (IDA) Run 1</td>
<td>6:15</td>
</tr>
<tr>
<td>Intraday Aggregation (IDA) Run 2</td>
<td>9:15</td>
</tr>
<tr>
<td>Intraday Aggregation (IDA) Run 3</td>
<td>12:15</td>
</tr>
<tr>
<td>Intraday Aggregation (IDA) Run 4</td>
<td>13:45</td>
</tr>
<tr>
<td>Intraday Aggregation (IDA) Run 5</td>
<td>15:30</td>
</tr>
</tbody>
</table>

*The times presented in this table are indicative for the expected points in time where the IDA runs will be concluded.*
The following examples explain the operation principle of the IDA runs.

**Example 1:**

Before IDA run 1, the surplus consists of a quantity of 100 (Sell) which is blocked. Block and release-orders are received via MSIF or Securities Clearing GUI.

1. A net sell trade is released via MSIF/ Securities Clearing GUI (quantity of 10) initially and then another trade (quantity of 40) in the same Settlement Netting Unit (SNU).
2. Instead of creating 2 delivery instructions of quantities 10 and 40, a single delivery of quantity 50 is created in IDA run 1.
3. If the first trade (quantity of 15) is blocked afterwards,
4. Cancellation for the delivery instruction is sent near real-time, because the quantity of 50 is no longer released and therefore should not be settled.
5. If the cancellation confirmation for the 1st delivery is received before the next IDA,
6. A new delivery instruction of quantity 35 is created in IDA run 2 and sent to T2S.

---

| T2S |  
| Delivery instruction 1 (quantity 50) |  
| Cancellation Delivery 1 (quantity 50) |  
| Cancellation Confirmation Delivery 1 |  
| Delivery instruction 2 (quantity 35) |  

| CCP |  
| Sell Surplus after ASDN |  
| 100 |  
| 10 |  
| 50 |  
| IDA Run 1 |  
| 50 |  
| IDA Run 2 |  
| 35 |  
| 65 |  

**Member Input**

- **Blocked quantities**
- **Released quantities**
Example 2:
In this slightly altered example compared to example 1, the cancellation confirmation is not received before the next IDA run and therefore different processing of steps 5 and 6.

(1) A net sell trade (quantity of 100) was blocked and then partially released (quantity 40).
(2) In IDA run 1 a delivery of 40 is created and sent to T2S.
(3) The trade is blocked with a quantity 15 and then released (additional quantity 10). The new released quantity is now 35 (40-15+10) and is less than the pending delivery instruction quantity.
(4) The cancellation for the pending delivery instruction is required because the released quantity is less than 40 i.e. the delivery can no longer be settled. A cancellation is sent to T2S for the first delivery.

If the cancellation confirmation is not received before the next IDA run, a new (2nd) delivery instruction of quantity 35 is constructed but set on “hold” status (and not sent to T2S).
(5) After the cancellation confirmation has been received, the first delivery is effectively cancelled and the “hold” status for the second delivery is removed.
(6) In IDA run 3, the second delivery is sent to T2S.
Example 3:
Sending cancellation for pending delivery instruction(s) might not always be required.
(1) For example, a net sell trade (quantity of 100) was partially blocked (quantity 60).
(2) So a delivery of 40 exists and is sent to T2S in IDA run 1.
(3) The trade is released with additional quantity 30 and then blocked (blocked quantity 25).
   The new released quantity is 5 larger than the pending delivery instruction quantity (40). No cancellation for the pending delivery instruction is required in this case as an obligation of 40+5 could be settled now.
(4) In IDA run 2 an additional (2nd) delivery instruction of quantity 5 is created and sent to T2S (the 1st delivery instruction of quantity 40 still exists and will not be cancelled).
3.2 Partial Settlement

T2S introduces partial settlement. In case a settlement instruction cannot be settled in the full quantity on its settlement day as there is a lack of securities or cash, T2S will try to settle the settlement instruction at least partially during the Partial Settlement Runs.

Eurex Clearing will use T2S Partial Settlement with T2S wave 4 in order to increase settlement efficiency. Partial Settlement will be mandatory for all clients i.e. Eurex Clearing will set the partial settlement flag in all instructions sent to T2S. T2S partial settlement will not impact the current shaping processing.

**Please note:** Partial Settlement is not possible for the Lending CCP and for GC Pooling.

Partial settlement will be used for T2S-eligible equity-style products and bonds in euro settled in T2S. Partial Settlement functionality will be offered by CSDs that participate in T2S\(^7\).

Please note that for conditional settlement instructions (e.g. settlement of equity-style products in non-euro; i.e. in a currency that is not T2S eligible), where the cash leg has to be settled outside of the T2S system), the partial settlement functionality is not available. Please refer to section 3.4 “Conditional Settlement” for more information.

The use of partial settlement can lead to an issue in the booking/reporting of settled trades. In collaboration with clients Eurex Clearing will implement the following solution:

There is a distinctive difference in processing between T2S booking and Eurex Clearing reporting. Eurex Clearing aggregates multiple trades into single delivery instructions. These trades might have been concluded with different security prices. While Eurex Clearing knows the details of these trades, T2S only receives the aggregated quantity and cash amount of the instruction. Therefore, T2S only knows one price. Because this price is an average of the prices by which the trades included in the instructions have been concluded, the cash amounts T2S transfers for partial settlement of the instruction will differ from the amounts a particular trade quantity has been concluded for.

In case a delivery instruction cannot be settled completely on the scheduled settlement day of the included trades, there could be a mismatch between the CCP reporting on trade level and the T2S cash booking on instruction level. Eurex Clearing will introduce internal processes (please see chapter 4, section 4.2.1 for more information) that will ensure the correct calculation, booking and reporting for partially settled deliveries on settlement day.

\(^7\) Partial settlement is only possible for internal CBF settlement.
**Example 1:**

In the following example Eurex Clearing sends a delivery instruction, composed of 2 trades (Trade 1: quantity 10, price 20, amount 200 and Trade 2: quantity 5, price 21, amount 105) to T2S. For the first partial settlement, T2S calculates a quantity of 10 and an amount of 203.33 euro. Eurex Clearing reports the trade with an amount of 200 euro as it should be (quantity 10, price 20 euro, amount 200 euro). The next partial settlement occurs and is settled for an amount 101.67 euro. Both partial settlements result in a quantity of 15 and an amount of the delivery instruction of 305 euro. The delivery instruction is settled (completely) in two partial settlements on settlement day with correct amounts for all settled trades.

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*Please note:* A processing of a partially settled Trade 2 with cash amount of 3.33 and quantity 0 was not desired by clients.
Example 2:
In the second example however, the instruction could not be settled completely on settlement day. It has settled partially and the pending partial settlement instruction was cancelled at the end of the business day. As T2S uses an average price for partial settlement, the seller received 203.33 euro while the amount should have been and will be reported as the settlement amount of 200 euro in Eurex Clearings reporting (e.g. CE270). If the second part of the settlement instruction would have settled as well on settlement day, this mismatch would have been compensated by the cheaper, second part of the settlement (101.67 euro instead of 105 euro). Due to the incomplete settlement, the seller received 3.33 euro more than he was due and the Partial Settlement Payment Adjustment run (DTP6) will initiate a cash transfer (booked on T2 RTGS or euroSIC accounts at approx. 16:45) of 3.33 euro from the seller to the buyer.

Please note: This correctional booking mechanism needs to be considered by client’s treasury to ensure sufficient funding on their T2 RTGS/ euroSIC accounts.

For those partial settlement payment adjustments a new report (CE250) will be introduced. For further information, see chapter 7 “Reporting”, section 7.4.1.

3.3 Already matched instructions

T2S offers the possibility for CSDs and T2S participants to provide already matched instructions (ALM). For already matched instructions, the actual matching will be done outside of the T2S system and it must follow the T2S matching rules. The already matched instructions will be received by T2S as one instruction, containing information about the buyer and seller of the transaction.

9 Adjustment payments that will be settled via euroSIC will be booked the next business day.
With CCP 12.0 (T2S wave 4), Eurex Clearing will use already matched instructions for intra-
CSD settlement.

For already matched instructions sent by Eurex Clearing to CBF the "20C::SEME" field
(Sender’s reference) will start with the value “ALM” instead of “POA”. For already matched
instructions sent by Eurex Clearing to ESES, the "20C::SEME" field (Sender’s reference) will
start with the value “ASL” instead of “PSL”.

This will have an effect on the contents of the settlement confirmation messages sent by the
CSDs. In case Clearing Members use CSD settlement confirmations, this might require some
amendments.

### 3.4 Conditional settlement

As mentioned in section 2.3, T2S can only settle both legs (securities and cash) of settlement
instructions if the settlement currency is euro. The settlement of the securities leg will be done
on T2S securities accounts (SAC) while the cash leg will be settled via a Dedicated Cash
Account (DCA). However, there are for example T2S-eligible securities that are not settled in
euro. For these securities only the settlement of the securities leg can be processed in T2S.

T2S offers conditional settlement, which means that a condition outside of the T2S system
needs to be fulfilled before the settlement instruction is settled in T2S. The conditional
settlement instruction in T2S will be blocked until the affected CSD releases the respective
blocked instruction.

For the settlement of T2S-eligible securities in other currencies than euro, Eurex Clearing uses
CBF’s service offering. Eurex Clearing will send DvP instructions to CBF. CBF will split the DvP
instruction. The securities leg will be settled as conditional FoP settlement in T2S and the cash
leg will be settled on the 6-series account (multi currency account).

**Please note:** This is not the case for securities deliveries in Swiss francs triggered by Eurex
Exchange contracts. The processing of these deliveries will remain unchanged.

After successful settlement, Eurex Clearing and clients will receive DvP settlement
confirmations.

### 3.5 Gross Trade Identifier

Eurex Clearing clients asked for a gross trade identifier which allows them to clearly identify the
underlying gross trade of a settlement instruction. This gives clients the opportunity to process
successful settlements internally based on the settlement confirmation received from T2S and
they do not need to wait for the settlement reporting of Eurex Clearing.

Eurex Clearing will add a “Gross Trade Identifier” for gross trades for settlement locations CBF
and SIX SIS.

For gross trades sent to CBF (DvP and FoP), the Gross Trade Identifier will be sent in the field
70E:SPRO in Sequence B.

For gross trades sent to SIX SIS (DvP and FoP), the Gross Trade Identifier will be included in
field :20C::TRRF//1234567/20140414 in Section “A: General Information - Subsequence A1:
Linkages”.
Besides trade date and external trade number, the ISIN and MIC are necessary to identify the underlying trade. Therefore, for gross trades sent to CBF or SIX SIS, the field 94B::TRAD/EXCH will contain the MIC of the trading location the trade was executed on. Possible field values are “XETR”, “XFRA” and “XEUR”. For all other cases, the field will contain the value “ECAG” instead.

The Gross Trade identifier will not be used for GC Pooling instructions.

### 3.6 Late Delivery Handling

#### 3.6.1 Fines

Today, specific late delivery fines are aligned with CBFs settlement batches (SDS1 and SDS2). Affected instruments are:

- Deliveries arising from notification & allocation of German government bonds at Eurex Exchange
- ESMA regulated instruments and other fine regimes
- GC Pooling instructions in EUR

With the introduction of CCP 12.0 (T2S wave 4), these settlement batches (SDS1/SDS2) will be decommissioned and replaced by real time settlement. As a consequence, processing of the existing fines regime will be amended.

For deliveries arising from notifications & allocations of German government bonds at Eurex Exchange, Eurex Clearing will continue to use a two fold regime of fines for late deliveries. While the timing will be changed, the fines will stay as today. The first deadline will be moved from end of SDS1 (i.e. 10:45) to 14:15 after the first intra-day partial settlement run. The second deadline will apply as today for trades which are not settled on contractual settlement date.

The fine for late deliveries on dividend record dates and the fine for non-delivery of ESMA regulated instruments are charged as today if they don’t settle on the contractual settlement day.

The deadline for late Euro GC Pooling instructions will be time triggered at 10:45. The fines regime will remain as it is today.

#### 3.6.2 Buy-in Processing

Due to the new T2S cut-off times, the Buy-in auction timings will change with the introduction of CCP 12.0 (T2S wave 4). Buy-in candidates will be determined after clean-up on Buy-in due date. The auction will be held the next day in the morning (10:00 to 10:30). After the seller has been determined, the quantity needs to be delivered within the same day RTS window of T2S (same day settlement).

For Buy-in trades, Partial Settlement is not allowed.

The processing after the Buy-in auction will change as well. The trade confirmation and the email generated to be sent to the seller of the securities will contain the T2S Party BIC of Eurex
Clearing. As mentioned above, the seller needs to deliver the securities via self sent instruction at the same business day within the RTS settlement window of T2S. For more details please refer to the updated documents “Buy-In User Guide – FSE, Eurex Bonds, Eurex Repo and Eurex Exchange”, “Buy-In Use Guide – CCP for Securities Lending” and “Buy-In Tool Guide”.
4 Cash

4.1 Cash leg settlement for DvP instructions

With the introduction of T2S, cash legs of T2S-eligible securities transactions will be settled on Dedicated Cash Accounts (DCA). These accounts can be opened at the applicable national central bank.

Cash legs of DvP instructions (T2S-eligible securities in euro) will be settled on DCA(s).

Cash legs of GC Pooling trades (T2S-eligible securities in euro) will be settled on T2 RTGS accounts as today.

4.2 Intraday cash settlement runs

Due to the new T2S business day and the revision of the Eurex Clearing’s business day, the Eurex Clearing cash runs will be amended. The timing of the existing cash runs DTP1 and DTP2 for cash only payments will be changed and four further cash runs (DTP3-6) will be introduced. The NTP-cash run will remain as today.

As mentioned in chapter 2, the first cash run is at the end of the NTP settlement (NTP-CR), the first intraday cash run (DTP1) will be at 8:15 while the other four CRs (DTP2-5) are aligned with the aggregation runs. One additional CR (DTP6) will be introduced to process partial settlement payment adjustments only.

Due to early cut-off times of the Swiss National Bank (14:30) and the even earlier cut-off time of the payment bank used for Swiss francs, DTP4 and DTP5 do not apply for equity-style products and bonds settled in Swiss francs. For harmonization reasons it has been decided, that cash run DTP3 at 12:15 will be the last cash run for Swiss francs.

Please note: The cash legs of trades in Swiss francs released after 11:50 are not considered in DTP 3 and will be booked on the next business day.

The timings of the cash settlement runs are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTP-Cash run</td>
<td>Approx. 1:00</td>
</tr>
<tr>
<td>Cash run 1 (DTP1)</td>
<td>8:15</td>
</tr>
<tr>
<td>Cash run 2 (DTP2)</td>
<td>9:15</td>
</tr>
<tr>
<td>ADD1</td>
<td>11:00</td>
</tr>
<tr>
<td>Cash run 3 (DTP3)</td>
<td>12:15</td>
</tr>
<tr>
<td>Cash run 4 (DTP4)</td>
<td>13:45</td>
</tr>
<tr>
<td>Cash run 5 (DTP5)</td>
<td>15:30</td>
</tr>
<tr>
<td>Cash run 6 (DTP6)*</td>
<td>16:30</td>
</tr>
</tbody>
</table>

* Please see 4.2.1 for more information
4.2.1 Partial settlement payment adjustments (DTP6)

As described in chapter 3.2, Eurex Clearing will instruct partial settlement payment adjustments in order to balance differences between CSD booking on the securities/cash account and Eurex Clearing reporting. Adjustment payments (partial settlements) in euro, booked on T2 accounts, will be instructed in the new cash run DTP6 at 16:30. DTP6 is specifically designed to book partial settlement payment adjustments only. Due to earlier cut-off time of the euroSIC system, partial settlement payment adjustments that need to be booked on euroSIC accounts will be booked on the next business day.

4.3 Optional Dedicated Cash Account (DCA)

For the settlement of T2S cash legs a DCA at a national central bank is necessary. While T2S accounts can be connected to multiple DCAs, one is designated as the default DCA. If the DCA is not mentioned in the instruction sent to T2S, the default DCA will be used. If a DCA is mentioned in the instruction to T2S, the cash leg of the DvP instruction is settled on the respective, deviating DCA.

As a consequence, Eurex Clearing offers Clearing Members two possibilities with the introduction of T2S:

- The Clearing Member does not provide a DCA for a particular securities account to Eurex Clearing. Eurex Clearing does not include a DCA in the delivery instruction to T2S via CBF. T2S settles the cash leg of the DvP instruction in EUR on the default DCA of the respective T2S securities account
- The Clearing Member provides an optional DCA for a particular securities account to Eurex Clearing. Eurex Clearing includes the provided DCA of the Member in the delivery instruction to T2S via CBF for this particular securities account. T2S settles the cash leg of the DvP instruction in EUR on the optional DCA provided by Eurex Clearing (included in the delivery instruction). Clearing Members can provide one DCA per T2S securities account to Eurex Clearing. Clearing Members can modify the provided DCA based on Eurex Clearing's existing procedures and service levels.

With the introduction of T2S wave 4, ECAG will offer for instructions processed by CBF the opportunity to use an optional DCA instead of the default DCA.

Please note: The cash bookings resulting out of offsetting blocks will remain as today (TARGET2 for EUR).

For further information how to set up and apply for an optional, deviating DCA at Eurex Clearing, please refer to the “Customer Roadmap CCP 12.0” available in the Member Section of Eurex Clearing.
5 Gross Delivery Management

Due to the changes in the business day of Eurex Clearing and the introduction of aggregation and cash runs there will be changes to the MSIF deadlines as well. In addition to those changes, it is now possible to change the status of a net trade after the ASDN netting run from net to gross trade to expedite settlement and vice versa.

5.1 Availability and Deadlines

5.1.1 Member Settlement Instruction File (MSIF)

The introduction of T2S has created the opportunity to establish common MSIF deadlines for all applicable instruments (equity-style products and bonds in euro and non-euro).

For equity-style products in euro, non-euro (including Swiss francs) and bonds in any currency, the following MSIF deadlines (CET) apply:

<table>
<thead>
<tr>
<th>DTP</th>
<th>MSIF deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5:50</td>
</tr>
<tr>
<td>2</td>
<td>8:50</td>
</tr>
<tr>
<td>3</td>
<td>11:50*</td>
</tr>
<tr>
<td>4</td>
<td>13:20</td>
</tr>
<tr>
<td>5</td>
<td>15:05</td>
</tr>
<tr>
<td>6 (NTS)</td>
<td>18:00</td>
</tr>
</tbody>
</table>

* Please note that this deadline (DTP3) is the last deadline for cash payments in Swiss francs. Please see section 4.2 for further information concerning this topic.

5.1.2 Single Delivery Instruction Flag

Releases of net trades received after the last MSIF deadline at 15:05 are considered for the ASDN based netting for the next settlement day. As the last MSIF deadline is almost one hour before T2S DvP cut-off, clients have asked Eurex Clearing to offer a possibility to instruct released net trades after the MSIF deadline at 15:05 for settlement on the same day.

Therefore, Eurex Clearing will introduce a new service offering for equity-style products in euro and non-euro in collective safe custody at Clearstream with settlement location Clearstream Banking Frankfurt: If a release received after 15:05 cannot be considered in the last intraday aggregation run, the released net trade will be taken and sent as a single instruction to the CSD. The trade’s attribute will remain “net”, i.e. in case “net” trades released after 15:05 and sent as single instruction to T2S do not settle before T2S cut-off, settlement instructions are cancelled and the respective net trades are considered in the ASDN based netting for the next settlement date. As the Clearing Member does not actively switch from net to gross processing, these trades are considered as net trades.
In case a Clearing Member wants to use this service offering, the Clearing Member needs to opt-in. Clearing Members can opt-in (via revised forms and the Member GUI) for this service in its master data on settlement account level.

**Please note:** It will still be possible to set net trades to gross status after 15:05. For equity style products (euro) in collective safe custody at Clearstream with settlement location Clearstream Banking Frankfurt this is possible between 15:05 until 15:50, while for equity-style products (non-euro currencies) in collective safe custody at Clearstream with settlement location Clearstream Banking Frankfurt the status change for trades from net to gross will be possible until 17:25. Net trades set to gross will still be processed on a best effort basis.

### 5.1.3 GDM limitations during Intraday Aggregation Runs

During the intraday aggregation runs, the usage of Gross Delivery Management is limited to inquiries and automatic link of trades. Requests made via the GDM-GUI will be rejected while requests received in MSIF form will be postponed until the aggregation run is finished.

### 5.2 Switch between net/gross trade status

After the contractual settlement date of a trade is reached, Members are allowed to change the gross/net setting of the trade intraday, once per settlement day which will take effect immediately. If a blocked net trade is changed to gross and subsequently released, the trade is not considered in the IDA runs for aggregation with other net trades. A new delivery instruction is created near real-time on the release action instead.

A gross trade set to net will be assigned to the corresponding Settlement Netting Unit (SNU) near real-time and considered in risk management. But this action does not impact any existing delivery instructions corresponding to the ‘previously gross’ trade. For example, if a released gross sell trade is set to net, the existing gross delivery instruction corresponding to the trade remains valid and no cancellation is sent out. Also existing net delivery instructions corresponding to the SNU, where this trade is now assigned to, are also not changed due to the switch from gross to net, i.e. no cancellation and re-instruction is performed.

When the net trade is (partially) blocked / released afterwards, the following processing is performed:

- Cancellation is sent (if required) near real-time for all pending delivery instructions corresponding to the trade.
- No new delivery instruction is created near real-time.
- The trade is considered in the next IDA run along with all other trades in the same SNU.

### 5.3 Queuing of MSIF release requests for (partially) closed trades

The MSIF release requests for (partially) closed trades will be queued from settlement date switch until Eurex Clearing’s corporate action processing is completed to ensure correct corporate action processing and reporting to clients. GDM requests via Member GUI will be rejected during this time window.
The queued MSIF release requests will be validated directly after the corporate action processing:

- In case the ISIN is not affected by a corporate action event, the queued MSIF message will be processed
- In case the ISIN is affected by a corporate action event, the queued MSIF message will be rejected. The request is rejected with the existing error message when checked during MSIF processing

MSIF release requests for (partially) closed trades will be queued during the following time windows:

<table>
<thead>
<tr>
<th>Instrument group</th>
<th>Queuing start (switch settlement date)</th>
<th>Queuing end (CA processing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Equity-style products in EUR in collective safe custody at CBF</td>
<td>approx. 16:10</td>
<td>approx. 18:30</td>
</tr>
<tr>
<td>b) Equity-style products in EUR / non-EUR in non-collective safe custody</td>
<td>approx. 15:30</td>
<td>approx. 23:00</td>
</tr>
<tr>
<td>c) Equity-style products in CHF issued by SIX SIS</td>
<td>approx. 15:30</td>
<td>approx. 23:00</td>
</tr>
<tr>
<td>d) Equity-style products in non-EUR in collective safe custody at CBF</td>
<td>approx. 17:30</td>
<td>approx. 23:00</td>
</tr>
</tbody>
</table>

For the instrument group mentioned under a), releases will be effective for NTP. Settlement of closed trades will be directly reported in CE270. MSIF feedback (rejections) will be sent to members approximately at 18:30.

For the instrument groups mentioned under b), c) and d), releases will be effective for NTP. Settlement of closed trades will be directly reported in CE270. MSIF feedback (rejections) will be sent to members next day morning.

When there are several releases for the same trade after the queuing, all MSIF releases are processed and respective releases are aggregated (processing as today).
6 Corporate Actions

With the harmonization efforts of the Corporate Action Sub Group (CASG) and the standards set for T2S by the ECB, corporate action processing will be amended concerning:

- the introduction of an opt-out flag for corporate action processing
- fractions and rounding principles of these fractions\(^\text{10}\)
- the processing of quantity imbalances

Eurex Clearing will not offer an automated/ manual Buyer Protection for the German market.

6.1 Opt-out flag

T2S will introduce the Corporate Action opt-out flag (“No Automatic Market Claim” indicator). The purpose of this flag is to inform the CSD whether corporate actions should be handled on their side or not. If the opt-out flag in the delivery instruction is set (“NOMC”), the CSD will not process any Corporate Action for the respective settlement instruction.

The following table provides an overview of the different settlement streams and whether the opt-out flag will be integrated into the messages to the respective CSDs.

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Opt-out flag included</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal CBF</td>
<td>Yes</td>
<td>&quot;NOMC&quot;</td>
</tr>
<tr>
<td>Cross Border EB-CBF</td>
<td>Yes</td>
<td>&quot;NOMC&quot;</td>
</tr>
<tr>
<td>Cross Border CBL-CBF</td>
<td>Yes</td>
<td>&quot;NOMC&quot;</td>
</tr>
<tr>
<td>Internal EB</td>
<td>Yes</td>
<td>&quot;NOMC&quot;</td>
</tr>
<tr>
<td>Cross Border SIS-CBF (Euro)</td>
<td>Yes</td>
<td>&quot;NOMC&quot;</td>
</tr>
<tr>
<td>Cross Border SIS-CBF (CHF)</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>Internal CBL</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>Bridge EB-CBL</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>Internal SIS</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>Internal ESES</td>
<td>No</td>
<td>-</td>
</tr>
</tbody>
</table>

Please note: For instructions generated by the Lending CCP the opt-out flag will only be sent to CBF.

\(^{10}\) Fractions will be rounded to three decimal places.
7 Reporting

Detailed information on the report changes will be available in the documents “Description of Reports – Formatted Layout CCP 12.0”, “Description of Reports – RAW Data CCP 12.0” and “Member File Based & SWIFT Interface CCP 12.0”.

7.1 Batch reporting (BRT) and Continuous reporting (CORPT)

As the batch driven netting and settlement runs will be replaced by real-time settlement and night time settlement the reporting schedule will also change. With introduction of CCP 12.0 (T2S wave 4), the batch oriented reporting of Eurex Clearing will mostly be replaced by the already existing continuous reporting (CORPT). The CORPT reports are provided time triggered by the CCP reflecting the continuous settlement results from the respective ICSD/ T2S. In addition, the number of CORPT runs will be increased from 8 to 9 active runs. The additional CORPT run will be executed at 1:00 and will include the reporting of the settlement feedback received between 22:00 and 0:30. End of Day reporting and the reports delivered at that time remain unchanged except the report RPTTC750 which will be delivered after 0:30.

7.2 Reporting times

The time-triggered CORPT reports follow the indicated times (CET) in the table below:

<table>
<thead>
<tr>
<th>CORPT run</th>
<th>Time</th>
<th>included reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Run 1 FROD (First Run of Day)</td>
<td>05:30</td>
<td>RPTCE260, RPTCE270, RPTTC755</td>
</tr>
<tr>
<td>Reporting Run 2</td>
<td>08:30</td>
<td>RPTCE270, RPTTC755</td>
</tr>
<tr>
<td>Reporting Run 3</td>
<td>11:00</td>
<td>RPTCE270, RPTTC755</td>
</tr>
<tr>
<td>Reporting Run 4</td>
<td>12:30</td>
<td>RPTCE270, RPTTC755</td>
</tr>
<tr>
<td>Reporting Run 5</td>
<td>14:30</td>
<td>RPTCE270, RPTTC755</td>
</tr>
<tr>
<td>Reporting Run 6</td>
<td>16:45</td>
<td>RPTCE270, RPTTC755</td>
</tr>
<tr>
<td>Reporting Run 7</td>
<td>19:00</td>
<td>RPTCE270, RPTTC755</td>
</tr>
</tbody>
</table>

11 The table only includes a report extract. For the entire report list please refer to the documents “Description of Reports – Formatted Layout” and “Description of Reports – Raw Data”.

The table only includes a report extract. For the entire report list please refer to the documents “Description of Reports – Formatted Layout” and “Description of Reports – Raw Data”.
7.3 Cash reports

7.3.1 RPTCD250 Settled Cash Transactions

In T2S wave 4, the report CD250 will also show cash compensations for fractions in euro and non-euro equity-style products which are in collective safe custody at CBF (where required by the home market). The CCP system will round fractions to three decimal places.

7.4 Settlement reports

With the introduction of T2S and the new business day, one new report will be introduced, while several settlement reports will undergo changes or are decommissioned in the process.

7.4.1 RPTCE250 Partial Delivery Cash amount deviation

The purpose of the newly introduced CE250 is to report partial settlement payment adjustments which occur, if a delivery cannot be settled in full on settlement day. Both, correctional bookings from Eurex Clearing to the Clearing Members accounts and vice versa are included in this report.

7.4.2 RPTCE260 Pending Delivery

With the introduction of CCP 12.0 (T2S wave 4), the ‘BRP’ version of the report CE260 that is currently created once a day during the end-of-day processing reflecting the status after the settlement run STD, will be decommissioned and the affected reporting for equity-style products held in collective safe custody (CSC) in EUR will then be included in the first ‘CORPT’ version of report CE260 which will be created in the first ‘CORPT’ reporting run of the day (FROD) after T2S Night Time processing.

7.4.3 RPTCE265 Pending Delivery before NTP

With the introduction of CCP 12.0 (T2S wave 4), this report is improved to reflect the reporting of equity-style products in euro as well as it does today for other instruments. In addition, the report will be enriched with a GC Pooling flag, indicating if a delivery is a GC Pooling delivery or not.
7.4.4 RPTCE270 Settled Delivery

With CCP 12.0 (T2S wave 4), the ‘BRP’ versions of the report CE270 that are currently created after each CBF mass settlement run will be decommissioned and the affected reporting for equity-style products held in collective safe custody (CSC) in EUR will be included in the ‘CORPT’ versions of report CE270. Moreover, all offsetting block settlements will be reported in ‘RPTCE270 – Settled Delivery’ as it is done today if the Member has not selected the CE275 in the past.

Due to the new T2S timelines, NTP settlement information for equity-style products in non-collective safe custody at Clearstream can be expected no earlier than in the CORPT run at 1:00.

7.4.5 RPTCE275 Settled Delivery – Offsetting Block Information

CE275 report will be decommissioned. The contents of report CE275 will be incorporated into report CE270.
## 8 Abbreviations and Glossary of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALM</td>
<td>Already Matched</td>
</tr>
<tr>
<td>ASL</td>
<td>Already Matched (Lending CCP)</td>
</tr>
<tr>
<td>ASDN</td>
<td>Actual Settlement Date Netting</td>
</tr>
<tr>
<td>BATM</td>
<td>Bilaterally Agreed Treasury Management</td>
</tr>
<tr>
<td>BRP</td>
<td>Batch Reporting</td>
</tr>
<tr>
<td>CA</td>
<td>Corporate Action</td>
</tr>
<tr>
<td>CASG</td>
<td>Corporate Action Sub Group</td>
</tr>
<tr>
<td>CBF</td>
<td>Clearstream Banking Frankfurt</td>
</tr>
<tr>
<td>CBL</td>
<td>Clearstream Banking Luxembourg</td>
</tr>
<tr>
<td>CCP</td>
<td>Central Counterparty</td>
</tr>
<tr>
<td>CET</td>
<td>Central European Time</td>
</tr>
<tr>
<td>CORPT</td>
<td>Continuous Reporting</td>
</tr>
<tr>
<td>CR</td>
<td>Cash Run</td>
</tr>
<tr>
<td>CSC</td>
<td>Collective Safe Custody</td>
</tr>
<tr>
<td>DCA</td>
<td>Dedicated Cash Account (for T2S)</td>
</tr>
<tr>
<td>DTP</td>
<td>Day Time Processing</td>
</tr>
<tr>
<td>DvP</td>
<td>Delivery vs. Payment</td>
</tr>
<tr>
<td>EB</td>
<td>Euroclear Bank</td>
</tr>
<tr>
<td>ECB</td>
<td>European Central Bank</td>
</tr>
<tr>
<td>EoD</td>
<td>End of Day</td>
</tr>
<tr>
<td>ESMA</td>
<td>European Securities and Markets Authority</td>
</tr>
<tr>
<td>EUR</td>
<td>Euro</td>
</tr>
<tr>
<td>FoP</td>
<td>Free of Payment</td>
</tr>
<tr>
<td>FROD</td>
<td>First Run of Day</td>
</tr>
<tr>
<td>GC Pooling</td>
<td>General Collateral Pooling</td>
</tr>
<tr>
<td>GDM</td>
<td>Gross Delivery Management</td>
</tr>
<tr>
<td>GTC</td>
<td>General Terms and Conditions</td>
</tr>
<tr>
<td>GUI</td>
<td>Graphical User Interface</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>IDA</td>
<td>Intraday Aggregation</td>
</tr>
<tr>
<td>ISI</td>
<td>Immediate Settlement Instruction</td>
</tr>
<tr>
<td>LROD</td>
<td>Last Run of Day</td>
</tr>
<tr>
<td>MSIF</td>
<td>Member Settlement Instruction File</td>
</tr>
<tr>
<td>MSU</td>
<td>Minimum Settlement Unit</td>
</tr>
<tr>
<td>MTW</td>
<td>Maintenance window</td>
</tr>
<tr>
<td>NCSC</td>
<td>Non-Collective Safe Custody</td>
</tr>
<tr>
<td>NTP</td>
<td>Night time processing</td>
</tr>
<tr>
<td>NTS</td>
<td>Night time settlement</td>
</tr>
<tr>
<td>PoA</td>
<td>Power of Attorney</td>
</tr>
<tr>
<td>PSR</td>
<td>Partial settlement run</td>
</tr>
<tr>
<td>RTS</td>
<td>Real Time Settlement</td>
</tr>
<tr>
<td>SAC</td>
<td>Securities Account (in T2S)</td>
</tr>
<tr>
<td>SDS1/2</td>
<td>Same Day Settlement</td>
</tr>
<tr>
<td>SNU</td>
<td>Settlement Netting Unit</td>
</tr>
<tr>
<td>SoD</td>
<td>Start of Day</td>
</tr>
<tr>
<td>STD</td>
<td>Standard Settlement</td>
</tr>
<tr>
<td>SUM</td>
<td>Settlement Unit Multiple</td>
</tr>
<tr>
<td>T2</td>
<td>TARGET2</td>
</tr>
<tr>
<td>T2S</td>
<td>TARGET2 Securities</td>
</tr>
</tbody>
</table>
Appendix

On 11 January 2016 the General Terms and Conditions (GTC) to the Agreement on Technical Connection to the Clearing EDP of Eurex Clearing AG (Connection Agreement) have been amended. According to this agreement, the contractual party now has to confirm its readiness. For further information please refer to the GTC to the Connection Agreement\textsuperscript{12}, § 10 Additional obligations of the Participant.

The Readiness Statement can be downloaded from the following path:

\url{www.eurexclearing.com > Eurex Clearing Member Section > Technology > CCP Releases > CCP 12.0 / T2S wave 4 > Manuals > Functional Manuals}

Please provide the signed Readiness Statement until the \textbf{16.01.2017}.

\textsuperscript{12} Connection Agreement