



EUROPEAN CENTRAL BANK

EUROSYSTEM

Information Guide for TARGET participants

Part 4 – T2S Cash

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1 Introduction

1.1 Purpose of the Information Guide for TARGET participants

The Information Guide for TARGET participants (hereinafter referred to as the Infoguide) aims to provide TARGET participants (credit institutions, ancillary systems, other entities settling in TARGET¹) with a comprehensive set of information regarding the functioning and operational procedures of TARGET settlement services during both normal and abnormal situations.

The TARGET Infoguide consists of four parts:

1. Fundamentals
2. CLM & RTGS
3. TIPS and
- 4. T2S Cash**

The Fundamentals part describes the aspects that apply similarly across TARGET settlement services, the CLM & RTGS part describes the specific procedures applicable to the operation of central liquidity management (CLM) and RTGS services, the TIPS part describes the specific procedures applicable to the TARGET Instant Payment Settlement (TIPS) service, and the **T2S Cash** part describes the specific procedures applicable to T2S dedicated cash accounts (T2S DCAs).

While TARGET was developed to offer multi-currency services, the Infoguide describes all relevant procedures for the euro currency. For other currencies, the central bank making its currency available in TARGET² is responsible for the relevant operational procedures and they are not covered in the Infoguide.

The scope of the **Infoguide part 4 T2S Cash** (hereinafter referred to as the **T2S Cash Infoguide**) excludes functional/technical descriptions of T2S.

All references throughout this document to “T2S participants” refer to participants as well as other entities authorised to access their account (i.e. parties with a technical connection to T2S). All references throughout this document to “T2S users” refer to an individual or an application that can log into a service with a login name and password.

The T2S Cash Infoguide is not a legally binding document, and its content confers no legal rights on TARGET³ participants, operations or any person or entity. All times in this document refer to the local time at the seat of the ECB, i.e. Central European Time (CET) / Central European Summer Time (CEST).

¹ Additional information may be found in Chapter 2.4 of Fundamentals Infoguide.

³ By signing a Currency Participation Agreement (CPA).

Note: the T2S Cash Infoguide complements the Fundamentals Infoguide and is not to be used as a stand-alone document.

1.2 Structure of the T2S Cash Infoguide

The T2S Cash Infoguide starts with an introductory part (**Chapter 1**) to explain to the reader the purpose and structure of the Infoguide.

Chapter 2 contains T2S Cash-specific information on participation in T2S and communication flows.

Chapters 3 and 4 describe the T2S-related operational procedures to be respectively applied under normal and abnormal situations.

Chapter 5 deals with how service continuity is assured by the use of different tools and business continuity measures.

Chapter 6 enlists and describes the testing activities for T2S.

Chapter 7 covers the receipt and payment of T2S invoices.

Chapter 8 gives a brief introduction to change, release and deployment management procedures for T2S.

1.3 T2S Cash Infoguide change management

The T2S Cash Infoguide is reviewed and updated following the change management process (see Fundamentals Infoguide – Chapter 1.5).

2 General information

2.1 Types of participation – T2S

T2S DCA holder (participant)

The access criteria for holding a T2S dedicated cash account (T2S DCA), or any other TARGET cash account, are set out in the [Guideline \(EU\) of the European Central Bank on a new-generation Trans-European Automated Real-time Gross settlement Express Transfer system \(TARGET\) and repealing Guideline ECB/2012/27](#) (hereafter referred to as “TARGET Guideline”) (Annex I, Part I, Article 4).

T2S DCAs are opened by the responsible central bank for T2S DCA holders and are used to settle cash instructions stemming from T2S, liquidity transfer orders to an RTGS DCA, a TIPS DCA or an MCA; liquidity transfer orders between T2S DCAs belonging to the same participant, and cash transfer orders between T2S DCAs and T2S CB accounts.

Central bank

Central banks are responsible for maintaining the reference data of their respective banking community and may act on behalf of their registered participants in contingency (i.e. for submission of liquidity transfers). Central banks may also open T2S DCAs for their own purposes.

2.2 Distinguished Names (DN) in CRDM

It is noted that depending on the NSP’s naming guidelines, for personal tokens and personal HSM users, it might be required for the DN to represent a human being and to follow a format like firstname-lastname, which results in personal data made visible in CRDM.

2.3 Communication flows

Note that, in general, the contact point for T2S Cash participants is the National Service Desk (NSD). The communication flows, as well as the tools used for T2S, are the same as for all TARGET settlement services and are described in detail in the Fundamentals Infoguide (Chapter 2.3).

Technical connectivity issues:

If a T2S DCA holder encounters a technical connectivity problem, it may contact the T2S Service Desk directly.

3 Operational procedures during normal operations

3.1 T2S daily operations

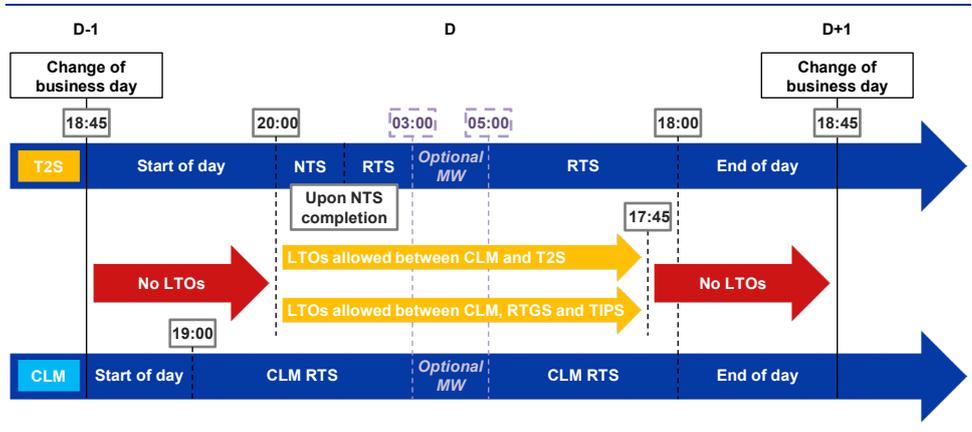
3.1.1 T2S business day overview

The schedule of a T2S business day comprises the following main periods:

- start of day (SoD)
- night-time settlement (NTS)
- maintenance window (MW)⁴
- real-time settlement (RTS)
- end of day (EoD)

The following sections describe the procedural tasks during a normal operational day.

Figure 1
T2S business day schedule with optional MW



3.1.2 Start of day (18:45-20:00)

The start-of-day (SoD) process in the T2S platform is launched at 18:45. The start-of-day period includes the change of settlement date and preparation for the night-time settlement (NTS).

⁴ Mandatory during weekends, optional on weekdays.

During the SoD period:

- Revalidation of settlement and maintenance instructions that failed to settle or to be executed as of their intended settlement date takes place;
- Data feeds from central bank collateral management systems (CMS) and payment/ settlement banks are accepted. This information contains the list of eligible securities for auto-collateralisation and the valuation of those eligible securities.
- Valuation of collateral eligible settlement instructions takes place.
- No settlement takes place.

3.1.2.1 Data feeds from collateral management systems

Each central bank offering central bank auto-collateralisation in T2S is responsible for the set-up and maintenance of the auto-collateralisation feature in T2S, including the configuration of the necessary static data. In this context, each central bank should provide, via its CMS, the following information (data feeds):

- the list of eligible securities for auto-collateralisation (after the first upload, the list should be updated when changes occur);
- the valuations of the eligible securities (to be sent to the T2S platform on a daily basis);
- the list of close links between a given payment bank and the relevant securities (after the first upload, the list should be updated when changes occur).

CMS data feeds (eligible securities and respective valuations) to be used for the settlement day starting at 18:45 should be provided throughout the day and ideally before 17:45 (although information will be accepted up until 19:00).

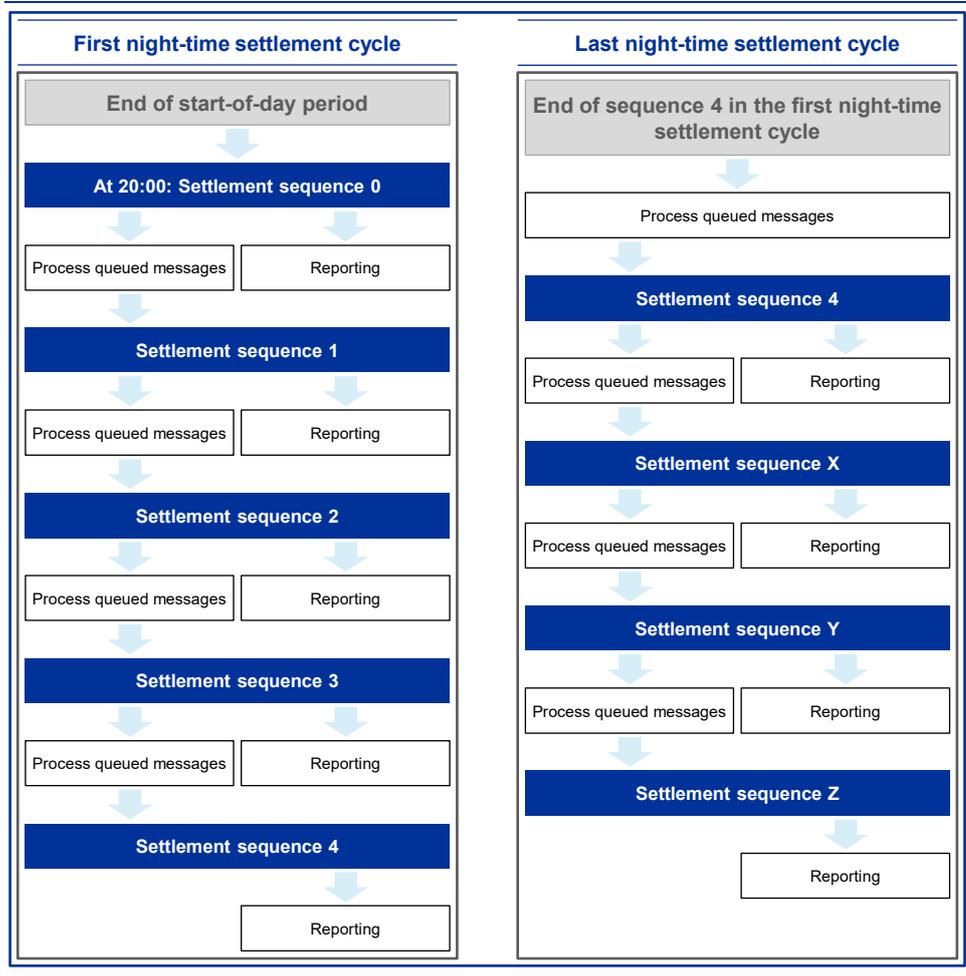
3.1.3 Night-time settlement period (20:00-23:30)

The night-time settlement (NTS) period starts after the successful completion of the SoD period and is followed by the RTS periods. During the night-time settlement period:

- T2S processes liquidity transfers in two settlement cycles, according to an automated pre-defined order known as a “sequence”. A settlement cycle consists of more than one sequence. Inbound and internal liquidity transfers are settled from sequence 0 (in the first NTS cycle) onwards, i.e. the first input of liquidity is settled right at the beginning of night-time settlement (event C1P0).

- Standing liquidity transfer orders that are executed on the CLM and RTGS and settled on the MCA/RTGS DCA accounts at 19:30 are only processed by the T2S platform and settled on the T2S DCAs at 20:00.
- Additional liquidity may also be provided via central bank auto-collateralisation (as for the real-time settlement period).
- Outbound liquidity transfers are settled from sequence 1 (in the first NTS cycle) onwards. Liquidity transfers received while sequences are running are taken into account in the following sequences.

Figure 2
T2S night-time settlement sequences



At the end of each sequence, T2S generates full or delta reports as per the report configuration setup of the relevant T2S DCA holder.

3.1.3.1 Multiple liquidity provider functionality

T2S enables a T2S DCA holder to receive liquidity from different MCAs/RTGS DCAs/TIPS DCAs, i.e. from different liquidity providers. If the T2S DCA holder uses the multiple liquidity provider functionality, the liquidity providers can initiate the necessary liquidity transfers to the T2S DCA during the night-time settlement. At the end of the night-time settlement – in sequence Y of the last night-time settlement cycle – the remaining liquidity on the T2S DCA is automatically retransferred to the MCAs/RTGS DCAs/TIPS DCAs of the liquidity providers, according to the standing liquidity transfer orders (to shift the remaining liquidity back to the MCAs/RTGS DCAs/TIPS DCAs) and the predefined order for the execution of those standing orders defined in the CRDM.

The multiple liquidity provider functionality is optional and can be used only during night-time settlement, in sequence Y of the last night-time settlement cycle.

3.1.4 Maintenance window

During the maintenance window (MW), all T2S processes are unavailable, with the exception of the T2S interface application process. The interface application process starts the queuing of all requests received in A2A store and forward mode. U2A communication and A2A real time messages are not queued during the MW.

Non-optional MW: the T2S Maintenance window (MW) runs from Saturday 02:30 to Monday 02:30.

Optional MW: on all other TARGET business days the maintenance window can be activated on an optional basis. Its scheduled timing is from 03:00 to 05:00. The relevant procedures to be followed if the **optional MW** is activated are described in the CLM and RTGS Infoguide, Chapter 4.1.2.10 “Activation of the optional maintenance window”.

3.1.5 T2S real-time settlement period (23:30-18:00)

Real-time settlement (RTS) starts after the end of the NTS and is followed by the EoD. During RTS:

- Real-time settlement is prepared.
- There are five partial settlement windows, each lasting 15 minutes, which start at 08:00, 10:00, 12:00, 14:00 and 15:30 (30 minutes prior to the start of the Delivery versus Payment (DVP) cut-off time). During the partial settlement windows, T2S partially settles new settlement instructions arriving in T2S that are eligible for partial settlement, as well as previously unprocessed or partially processed settlement instructions eligible for partial settlement.

- Real-time settlement closure takes place. Closure of the real-time settlement period is scheduled to start at 16:00 and is followed by the following cash-related processes:

Table 1
T2S real-time settlement closure

Time	T2S settlement day events/processes
16:00	DVP cut-off (consequently, no new auto-collateralisation instructions can be triggered after this cut-off time)
16:00	Cash settlement restriction cut-off
16:00	Release of unused cash settlement restriction
16:30	Automatic central bank auto-collateralisation reimbursement
16:30	Optional automated cash sweep (initiated by standing liquidity transfer orders)
17:40	Cut-off for BATM (bilaterally agreed treasury management) and CBO (central bank operations) settlement instructions
17:45	Cut-off for inbound liquidity transfers from CLM/RTGS/TIPS to T2S
17:45	Second optional automated cash sweep to transfer all remaining liquidity from T2S DCAs to the respective RTGS DCA/CLM MCA (initiated by standing liquidity transfer orders) Cut-off for outbound liquidity transfer from T2S to CLM/RTGS/TIPS

3.1.5.1 Automatic central bank auto-collateralisation reimbursement

T2S DCA holders may benefit from central bank auto-collateralisation during both the night-time settlement period and the real-time settlement period. However, it is not possible to have overnight credit in T2S. Therefore, T2S DCA holders are expected to repay the auto-collateralisation before 16:30. This should be done via the release (as CSD participant or as T2S DCA holder if the T2S DCA holder has been granted the object privilege over the relevant SAC(s)) of the relevant reverse pending instructions.⁵

If T2S DCA holders do not reimburse auto-collateralisation by 16:30, automatic reimbursement will be triggered by T2S. This process involves the following steps:

1. Release of reverse auto-collateralisation instructions still “on hold”.
2. Attempt to settle pending reverse transactions, based on the liquidity existing on the T2S DCA.
3. Attempt to settle the (remaining) pending reverse transactions, based on the liquidity existing on other T2S DCAs held by the same T2S DCA holder (identified via the party BIC11) within the books of the same central bank (known as “cash rebalancing”).
4. Collateral relocation.

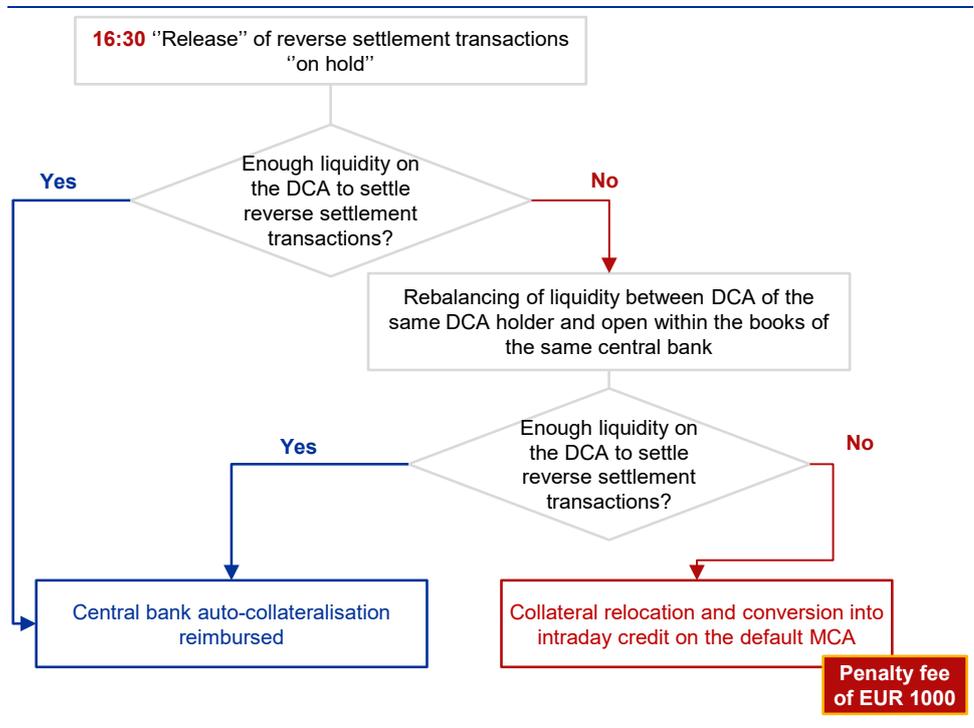
Via this step a new securities transaction is initiated in order to move the securities given as collateral by the payment bank to the regular collateral account of the respective central bank (the cash is moved from the NCB cash account to the T2S

⁵ There is no automatic reimbursement in case of client auto-collateralisation.

DCA holder account). Upon reception of the information regarding this collateral movement⁶, the central bank will transform the central bank auto-collateralisation into an intraday credit in the default MCA of the T2S DCA holder. This is usually done via a connected payment whereby the central bank increases the counterparty's credit line and simultaneously debits the default MCA.

A penalty fee of €1,000 will be applied for each business day where one or more recourse to the collateral relocation occurs. The penalty fee will be charged on the default MCA according to the national procedures defined by the relevant central bank.

Figure 3
Automatic central bank auto-collateralisation reimbursement



As the automatic reimbursement process takes place at 16:30, there is 90 minutes (until the end of day in CLM) for the central bank to process the collateral relocation and the connected payment and for the relevant counterparty to reimburse the intraday credit. This also leaves time for the counterparty to ask for the restitution, on this same value date, of the collateral (via the demobilisation procedure defined by the central bank).

⁶ The information might be received via the national CSD, if the central bank is an indirectly connected CSD participant, or via T2S, if the central bank is a directly connected CSD participant. The information provided includes the CSD participant BIC owning the collateral providing securities account, the T2S DCA from which the auto-collateralisation credit was received (i.e. the central bank's T2S DCA), the amount settled and the ISINs transferred to the regular securities account.

If, at the end of the TARGET business day, the sum of the participant MCA/RTGS/TIPS/T2S DCAs balance is negative, an automatic marginal lending facility will be triggered.

Note: the credit line registered in the Primary MCA⁷ is independent from the central bank auto-collateralisation granted during the day to the T2S DCA on T2S. The amount of the credit line is collateralised by a pool of securities. The central bank auto-collateralisation granted during the day is collateralised by securities that have not been included in the pool previously. It is only when the counterparty fails to reimburse the auto-collateralisation by 16:30 that the collateral is moved to the regular pool, resulting in an increase of the credit line in the Primary MCA. To make sure that the credit line increase is used for the reimbursement of central bank auto-collateralisation, the cash stemming from the increase of the credit line is debited immediately from the participant's Primary MCA and credited to the CLM CB account of the central bank. Using a connected payment typically ensures that this is the case (in certain situations, central banks might deviate from this procedure, such as if a fixed credit line is used).

3.1.6 End-of-day period (18:00-18:45)

The T2S settlement day closes at 18:00. The end-of-day (EoD) processing starts after successful completion of the RTS period, when settlement no longer takes place. It is followed by the SoD period of the next settlement day.

During EoD processing, T2S generates all the EoD reports and account statements on T2S DCAs, according to the report configuration setup, and sends them to the T2S DCA holders.

⁷ Primary MCA is the legal term according to the TARGET Guideline definitions. Note that Primary MCA is also referred to as Default MCA in the Functional Documentation.

4 Operational procedures during abnormal situations

4.1 Operational incidents and operational procedures to be followed

Operational issues in T2S and the related operational procedures to be followed are handled following the incident and/or crisis management flows (see Chapter 1.5 of the Fundamentals Infoguide).

Given the dependencies between T2S and CLM and RTGS, a T2S incident might require action in both CLM and RTGS. However, this is investigated and decided on a case-by-case basis.

4.2 Service continuity (failover to the second site or second region)

4.2.1 Intra-region failover

In case of a T2S failure, failover to another site in the same region might be necessary (intra-region failover). As T2S, CLM and RTGS run simultaneously on the primary site in the same region, the need exists for an intra-regional failover to switch all services to the secondary site in the same region. As a consequence, and depending on the time of day, a CLM/RTGS delay closing might be needed, which would subsequently result in a delay in the change of business day in TIPS. Given the implications at CLM and RTGS level, the Eurosystem incident and crisis management procedures will be triggered in order to assess, mitigate and address the implications.

Central banks shall inform the participants as early as possible about the situation and recommend that no new messages to debit/credit T2S DCAs be sent to T2S. Regular status updates should be provided via the communication channels available.

4.2.2 Inter-region failover

A wide-scale regional disruption that causes a severe interruption of transportation, telecommunication, power or other critical infrastructure across a metropolitan or a geographical area will require the failing over to the second region (inter-region failover). Such a disruption is expected to impact all production environments operating in the affected region (i.e. T2S, CLM and RTGS).

The procedure for handling an inter-region failover is described in Chapter 4.1.2.5.2 “Inter-region failover” of the CLM & RTGS Infoguide.

4.3 Impact of T2S failure on CLM, RTGS and TIPS

Depending on when a T2S failure occurs, the event could impact payment bank liquidity, collateral provision and/or the reimbursement of intraday credit (including auto-collateralisation). All throughout the settlement day, in the event of a T2S technical failure, banks may have difficulties to provide fresh collateral in order to increase their credit lines in CLM.

Table 2
Impact on CLM, RTGS and TIPS of T2S failure

T2S settlement day phase	Impact on CLM, RTGS and TIPS
Start of day (18:45-20:00)	<ul style="list-style-type: none"> Standing liquidity transfer orders from MCA and RTGS DCA to the T2S DCAs might need to be resent.
Night-time settlement (20:00-23:30)	<ul style="list-style-type: none"> Liquidity could not be transferred from T2S to the CLM/RTGS/TIPS, with potential liquidity impacts on the latter services.
Optional maintenance window (03:00-05:00)	<ul style="list-style-type: none"> No direct impact foreseen.
Real-time settlement (23:30-18:00)	<ul style="list-style-type: none"> If there is an impact on the processing of BATM and CBO operations, this might have repercussions on the money market or monetary policy operations. A delay in the automatic reimbursement of auto-collateralisation (16:30) due to a failure in T2S may lead to a delay in CLM until the central bank auto-collateralisation can be reimbursed. The deadline for the reimbursement of intraday credit by connected, non-Eurosystem national central banks might need to be postponed. Liquidity may not be transferred from T2S to CLM/RTGS/TIPS, with potential liquidity impacts on the latter services (such as impacts on (very) critical payments to be settled in RTGS (early) in the day trade phase (CLS, EURO1 bridge, CCPs).
End of day (18:00-18:45)	<ul style="list-style-type: none"> No direct impact foreseen.

4.4 Impact of T2S failure on collateral management systems

In the event of a failure at T2S level that prevents CMSs from receiving the necessary information about eventual collateral relocation processes (deriving from the automatic auto-collateralisation reimbursement that takes place at 16:30), three potential situations can be distinguished:

1. The T2S platform could not finalise the process and there is no communication between the T2S platform and the ‘outside world’: in this case there is nothing that can be done on the central banks side. All involved parties need to wait until T2S is up and running again and/or provides the information.
2. T2S could not finalise its processes; at end-of-day all auto-collateralisation transactions remain pending but communication between T2S and the ‘outside world’ is possible: in this situation it is necessary to wait until T2S can trigger automatic reimbursement.

3. T2S could finalise its processes and all relevant pending auto-collateralisation transactions have been closed via the automatic reimbursement/collateral relocation process, but no regular communication between T2S and the 'outside world' is possible, or the relevant central bank has not received the corresponding relocation message from its CSD: in this situation, the central banks should simulate the T2S automatic reimbursement process. Therefore, based on the information about the auto-collateralisation to be reimbursed (obtained via GUI, A2A messages or provided by the T2S Service Desk, upon request), the central banks should, at least, perform the necessary connected payments in CLM with value date D (manually or automatically, depending on how the internal systems manage the payment); information on the collateral relocation is less urgent as it is certain that the collateral is still on the receiving account of the NCB. Central banks may wait for the final movement of the collateral of the receiving account to the regular account until T2S provides the information to the CSDs.

It should be noted that the procedures to deal with the non-reimbursement of auto-collateralisation are not described, as it is assumed that T2S will not close until eventual problems with the auto-collateralisation reimbursement are solved.

4.5 Impact of T2S failure on ECONS II

In the event of a CLM/RTGS failure, ECONS II could be used for the settlement of (very) critical payments. In this case, liquidity would need to be injected by the central bank or provided by incoming payments. However, the provision of liquidity is mainly achieved through the provision of eligible assets by the payment bank, which may not be possible in case of a simultaneous T2S failure.

Liquidity movements between ECONS II and T2S, as described in Chapter 4.1.2.4. "Liquidity movements between ECONS II and T2S" of the CLM & RTGS Infoguide, cannot be executed in the event of a T2S failure.

4.6 Failure at central bank level

Even if a failure of a central bank does not prevent access to T2S for the respective community, it might prevent the central bank from effectively exercising its functions and responsibilities in support of its community (e.g. acting on its behalf for liquidity transfers). Hence, adequate measures are in place to cope with any malfunctioning at central bank level, so as to properly serve the respective community and avoid any risk of spillover of a central bank problem, especially one affecting its community (e.g. where the central bank is unable to update the static data for auto-collateralisation).

As a general rule, a problem affecting a central bank's access to T2S should not be reported following the Eurosystem internal incident and crisis management

procedures, unless the central bank assesses that the impact may be wider than only access to T2S (e.g. affecting normal operations during the settlement day).

4.6.1 Communication of failure

Depending on the problem and its potential to have a wider impact than only access to T2S, a communication might be published on the ECB's website and the NSD may inform its banking community directly via the communication channels used at national level.

4.6.2 Failure at ECB level

In the event of a failure at ECB level, all the above measures that apply in the case of central banks will apply.

4.6.3 Failure of collateral management system

In general, a local collateral management system (CMS) problem should not lead to a T2S delay.

A local CMS failure leading to a delay in the provision of reference data for auto-collateralisation (meaning that data feeds are not or will not be available by 19:00) is the responsibility of the respective central bank.

4.7 Failure at NSP level

In the event of an NSP failure, no alternative contingency network is available. However:

1. the T2S Service Desk may act on behalf of the central bank as described in the section above;
2. if there is a failure at only one of the NSPs, the other one could be used, provided that the participant has set up the connection via both NSPs.

4.8 Failure at participant level (failure of a T2S DCA holder)

4.8.1 Communication of failure

Any operational or technical failure of a T2S DCA holder lasting more than ten minutes should be reported to the respective National Service Desk.

4.8.2 Procedures for handling failure

In the event that a T2S DCA holder encounters a problem that prevents it from processing liquidity transfers to/from its T2S DCA(s), including problems with its NSP, it shall use its own business continuity and contingency means to the fullest extent possible. This includes in-house solutions (e.g. failing over activities to a secondary site) as well as the GUI functionality to process liquidity transfers via the T2S GUI.

If its own business continuity and contingency means are insufficient, the participant may rely on the support offered by its National Service Desk. The contingency means to be applied are subject to the bilateral agreement between the participant and its central bank.

4.9 Suspension and termination procedures

4.9.1 Suspension or termination of MCA designated for T2S purposes

If a central bank suspends or terminates a participant with an MCA in CLM to which a T2S DCA is linked, the central bank(s) responsible for the linked T2S DCA shall:

Change the MCA:

1. if the MCA is blocked due to the suspension/termination of the participant because of insolvency proceedings or other events of default and the T2S DCA(s) do(es) not belong to the same party as the MCA; or
2. if the participant has been suspended/terminated due to reasons other than insolvency proceedings or other events of default and there are no reasons to suspend or terminate the linked T2S DCA.

Suspend the T2S DCA(s):

1. if the participant has been suspended/terminated due to insolvency proceedings or other events of default and the T2S DCA(s) belong(s) to the same party as the participant; or
2. if the participant has been suspended/terminated due to reasons other than insolvency proceedings or other events of default and there are also reasons to suspend or terminate the linked T2S DCA.

4.9.2 Suspension or termination of T2S DCA holder

If a T2S DCA holder should be suspended or is declared insolvent by the competent authority, central banks have procedures in place to manage these situations. T2S offers several functionalities to central banks that are aimed at supporting these procedures.

4.9.3 Limitation, suspension or termination of intraday credit and/or auto-collateralisation facilities

Suspension/termination of intraday credit

A national central bank must suspend or terminate access to intraday credit if one of the following events of default occurs:

1. the primary MCA is suspended or terminated;
2. the participant concerned ceases to meet any of the requirements for the provision of intraday credit and/or auto-collateralisation facilities, as laid down in Annex I, Part II, Article 10 of the TARGET Guideline;
3. a decision is made by a competent judicial or other authority to implement a procedure for the winding-up of the participant or the appointment of a liquidator or analogous officer over the participant or any other analogous procedure;
4. the participant becomes subject to the freezing of funds and/or other measures imposed by the Union restricting the participant's ability to use its funds;
5. the participant's eligibility as a counterparty for Eurosystem monetary policy operations has been suspended or terminated.

A national central bank **may** suspend or terminate a participant's access to intraday credit if a national central bank suspends or terminates the participant's participation in TARGET as per the TARGET Guideline Part I, Article 25(2).

The national central bank **may** decide to suspend, limit, or terminate a participant's access to intraday credit if the participant is deemed to pose risks on the grounds of prudence, i.e. if a national central bank has good grounds for suspecting that allowing a participant further unrestricted access to TARGET would constitute a risk for the ESCB.

Note: in case of suspension or termination of intraday credit, the credit line of the MCA holder should be set to zero.

Suspension/termination of auto-collateralisation facilities

If a CB suspends or terminates a T2S DCA holder's access to intraday credit, the respective CB must suspend or terminate a T2S DCA holder's access to auto-collateralisation facilities.

Limitation of intraday credit

A central bank **may** decide to limit a participant's access to intraday credit if the participant is deemed to pose risks on the grounds of prudence.

Note: in case of limitation of intraday credit, the credit line of the MCA holder should be adjusted accordingly to the defined limit.

Limitation of auto-collateralisation facilities

If a central bank has limited the T2S DCA holder's access to intraday credit, the central bank must limit that T2S DCA holder's access to auto-collateralisation facilities.

Note: in case of limitation of auto-collateralisation facilities, the central bank auto-collateralisation limit defined for the T2S DCA holder should be adjusted accordingly to the defined limit. In such a case, the limit set will apply to the total of the auto-collateralisation and intraday credit facilities combined, and not to each one separately.

Note that if a counterparty's access to intraday credit or auto-collateralisation facilities is limited:

1. the national central bank shall implement that decision pursuant to the relevant provisions in the contractual or regulatory arrangements applied by the relevant national central bank;
2. such decision will not take effect until the Governing Council of the ECB has approved it. Where appropriate, the Governing Council shall decide upon uniform implementation of the measures taken in all TARGET settlement services;
3. the national central bank will also immediately notify all other central banks, which shall keep such information for their own usage and may share it only with the relevant supervisory authorities according to their regulation.

4.10 Operational procedures related to information security events (e.g. cyberattack) at the level of the participant

In the unlikely case a T2S DCA holder is impacted by an information security event (such as a cyberattack), at first instance it is the responsibility of the T2S DCA holder to implement all local measures to contain the issue internally and avoid any spillover to T2S. A key measure could be the disabling of the local connection by the T2S DCA holder.

The T2S DCA holder should inform its responsible NSD of the event without undue delay.

1. Information gathering

Upon being notified of the information security event detected by a T2S DCA holder, the decision on further actions by the responsible central bank would largely depend on the availability of relevant information. Gathering such information is primarily within the prerogatives of the home central bank of the affected participant and the process may be based on the data provided by the participant or obtained from other available sources (e.g. Datawarehouse reports). Relevant information may encompass the following aspects:

- **Impacted transactions:** the type and details of the fraudulent messages together with the total number, value, time of submission/settlement and receivers of the impacted messages.
- **Impacted connectivity channel:** information on the participant's connection type (NSP) and possible use of a service bureau, with all related details.
- **Already informed parties:** seeking confirmation that the participant's banking supervisor and relevant law enforcement authorities were notified. If this is not the case, the T2S DCA holder should be reminded/advised to perform this task.
- **Cross-border aspects:** information on whether the same infrastructure is used to connect to several TARGET component systems and other cross-border considerations (if relevant).
- **Information on liquidity transfers initiated by the participant in the period preceding the instance of fraud:** this data can be obtained via ex-post scrutiny of the liquidity transfers initiated by the participant before the information security breach occurred. The investigation could help to identify when the fraud/fraud attempt took place in comparison to when it was detected.
- **Any other relevant information,** including initial assumptions as to the source of the fraud.

2. Mitigation measures

Should the local containment measures of the T2S DCA holder prove insufficient to mitigate the event, the responsible NSD may offer to apply the following measures:

1. To safeguard the funds, the liquidity can be transferred to a T2S CB DCA of the responsible NCB.
2. The relevant case 2 restrictions may be applied to block any instructions on the DCA.
3. The NSP may exclude the participant from the T2S CGU. Following a request from the responsible central bank to the T2S Service Desk, the latter will ask the NSP to implement the exclusion from the T2S CGU.

If a T2S DCA holder is informed or suspects that the authorised BIC on one of its CMBs is affected by an information security event, the T2S DCA holder may block the CMB. Only when the T2S DCA holder encounters an issue preventing it from performing the action itself may it request its responsible NSD to act on its behalf.

4. Additional support for the affected participant

In addition to the mechanisms described above, the respective central bank may also provide further assistance to a participant affected by a fraud event. Depending on the circumstances and assessment of the fraud event, the following measures may be considered:

- **Support in recovering fraudulently processed liquidity transfers:** the support provided to the participant may include, for example, assistance in collecting the contact details and other relevant information of the recipients of the liquidity transfers (if necessary, in collaboration with other central banks);
- **Immediate investigation on the source of the fraud:** the central bank, possibly liaising with the T2S Service Desk, may provide further support in identifying the source, scope and impact of the fraudulent activity.

5 Business continuity management

For an overview of business continuity management, please see Chapter 7 of the Fundamentals Infoguide.

5.1 T2S business continuity management model

The T2S business continuity model envisages an operational model based on **service continuity arrangements** (i.e. “two regions, four sites”) and **contingency arrangements**.

The purpose of business continuity management is to ensure that the T2S Service Desk implements all necessary measures for ensuring the normal operation of T2S. This Infoguide focuses on the T2S Cash side.

More precisely, it is very important that liquidity transfers between CLM, RTGS, TIPS and T2S are protected from major failures or disruptive events and can be restored as quickly as possible. As a consequence, the service continuity plan will need to be activated.

6 Testing activities for T2S

6.1 Business continuity testing

T2S and T2S actors are subject to business continuity testing procedures.

For the tests to be effective, they are either performed in the production environment or, where this is not considered appropriate due to the additional operational risk involved, in a test environment as similar as possible to the production environment.

Details on which tests are executed, at which frequency and how they should be reported are provided in Chapter 10.4 “Service continuity testing” of the T2S Manual of Procedures.

ECONS II

To ensure that settlement in T2S is able to continue even when ECONS II is opened for more than one business day, liquidity may be transferred indirectly (including movements for the purpose of reimbursing the auto-collateralisation provided in T2S) between ECONS II and T2S. This is managed by processing transfers between the **participant’s and the central bank’s accounts in T2S and in ECONS II**.

A more detailed overview of these liquidity movements can be found in Chapter 4.1.2.4.3.3 “Liquidity movements between ECONS II and T2S” of the CLM & RTGS Infoguide.

As the processing details should be arranged between a participant and its responsible central bank, it is up to the central bank to ensure the business continuity by testing the local arrangements with its T2S DCA holders in ECONS II and T2S.

7 Financial management

The process of collecting T2S revenues takes place once a month.

Further information on the receipt and payment of T2S invoices can be found in Chapter 10 "Financial management" of the Fundamentals Infoguide.

8 Change, release and deployment management

Change and release management are processes (deployment management being part of release management) whereby functional (i.e. normal and fast-track) changes to T2S are managed and translated into functional, legal, operational, or technical specifications.

Operational processes for change and release management in the case of T2S are described in detail in Chapter 13 of the T2S Manual of Operational Procedures.

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Postal address 60640 Frankfurt am Main, Germany
Telephone +49 69 1344 0
Website www.ecb.europa.eu

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For specific terminology please refer to the [ECB glossary](#) (available in English only).